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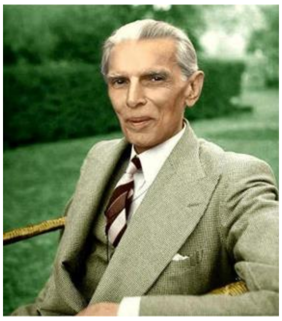
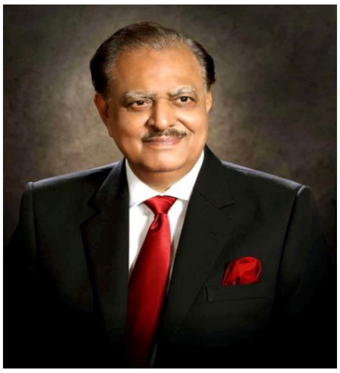
VISION OF THE QUAID

"… the first duty of a government is to maintain law and order, so that the life, property, and religious beliefs of its subjects are fully protected by the State ... if we want to make this great State of Pakistan happy and prosperous we should wholly and solely concentrate on the well-being of the people, and especially of the masses and the poor."



Muhammad Ali Jinnah (August 11, 1947)

PRESIDENT MAMNOON HUSSAIN



Pakistan has constantly been in the throes of surmountable but sporadically attended divergent challenges. Today Pakistan is in dire need of a pragmatic and viable framework for resolving all the problems holistically and sprearheading the country to be in the league of the developed nations. This has been meticulously worked out in the 11th Five Year Plan, which is a practical extension of the Pakistan Vision 2025. The Plan has devised strategies for an equitable socio-economic progress across all regions of Pakistan, which is thoroughly supported by operational documents in the form of the annual plans.

Being far more comprehensive and farsighted, this Plan promises sustainable and inclusive growth to elevate the economic status of Pakistan through the actualisation of various goals and objectives outlined in the seven pillars of the Vision. This will not only correct any socio-economic imbalances, but will also enable the people of Pakistan to shape their own future since they, especially the youth, have been deliberated conscientiously to be our greatest asset. Hence, to harness their potential, the government will make substantial investments in human and social capital. Marginalised segments, minorities and low income groups will be mainstreamed through a comprehensive social protection framework, provision of quality education and skill-based training, which will increase employment opportunities and improve labour efficiency. Furthermore, this government plans to develop competitive knowledge economy through value-addition in the higher education, and information and communication technologies by implementing various plans. The government is also encouraging the private sector-led growth and enhance public-private partnerships for accelerating business generation in the country. Certainly, this will serve as a catalyst for the economic expansion across the board.

The incumbent democratic dispensation has marked out comprehensive and effective approaches for strengthening the hard-earned momentum of economic growth, which will hinge on an equitable development and progress of all the sectors and regions of Pakistan. Similarly, investments in the regional connectivity, especially through the China-Pakistan Economic Corridor, will be immensely beneficial for all areas. Moreover, through an integrated approach, all-encompassing reforms have been devised to strengthen institutions and modernise the public sector for improving governance, and developing responsive and resilient economic structure.

I would like to felicitate the contributors of this Plan for devising a workable roadmap for a successful and sustainable tomorrow. I believe that the potential of the Plan will be fully realised, and pray to the Almighty Allah for successful implementation.

PRIME MINISTER MUHAMMAD NAWAZ SHARIF

I have always observed with concern that the development drive of Pakistan is impeded by multiplicity of factors that negatively affect the nation's prosperity potential. I often point out lack of political stability coupled with arbitrary suspension of laid down plans as primarily responsible for causing downturn in socio-economic development of Pakistan.

Being a firm believer in the resilience of the Pakistani nation, I feel confident that given the right playing field Pakistan can surely overcome shortcomings experienced in the road to development. With this objective in mind, my government is pursuing steady and consistent policies aimed at improving and enhancing national output levels. I am sure that with steadfast resolution, we will soon achieve high standards of development.

With this goal in view, I have repeatedly expressed the resolve to bring Pakistan in the top 25 economies of the world. For this purpose, my government has formulated the 11^{th} Five Year Plan, which encompasses operational details of the Pakistan Vision 2025. Being mindful of challenges to be encountered during the course of our development journey, my government has laid down ambitious yet achievable targets that are unprecedented in content. I am positive that the high levels of intended achievement will surely spur our policy makers and implementers to do their utmost in fulfilling them.

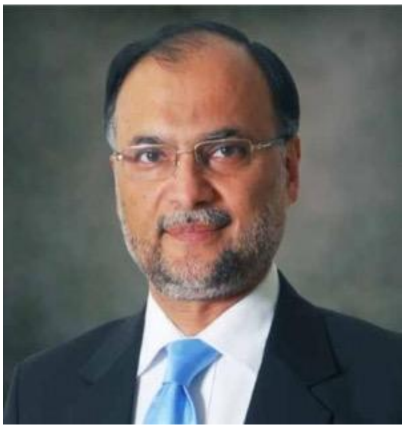
The Plan outlines human resource development, universal access to health and education, poverty alleviation, women empowerment, sustainable and inclusive socio-economic growth, water, food, and energy security, infrastructural expansion, and institutional reforms as key areas. No doubt, these are highly-demanding objectives but are surely within the range of sustained manoeuvrability. Viewed in the backdrop of substantial economic growth and significant improvement of infrastructure achieved over the last two years the targets earmarked in the plan are very well within the reach.

I consider it imperative to keep up momentum of sustained growth for a longer duration for which the Plan strategises major initiatives in employment promotion, steady progress towards democratic and transparent governance, incentivising the private sector, optimal reliance on the regional connectivity, sustained investment in knowledge resources, reduction in income and regional inequalities, and sustainable socio-economic progress.

I exhort the people of Pakistan to work enthusiastically for achieving the desired goals laid down in the Plan because they are central to our prosperity. I appreciate Minister for Planning, Development and Reform Prof Ahsan Iqbal and his team of experts for carrying out the enormous task of preparing this document.

May Allah bless us always and grant us success! Amen

FOREWORD



After years of excruciating instability, Pakistan is now on the road to stable democracy. However, it needs to renew its tradition of perspective planning in order to elevate itself to the league of developed nations.

The current democratic government first presented Vision 2025 to set a direction to achieve sustained and inclusive economic growth. To translate the Vision into implementable strategies, the 11th Five Year Plan (2013-18) has been formulated. It defines a comprehensive roadmap and sets timelines for achieving high growth rate.

It is the first operational plan for implementation that covers targets and performance indicators for the first five years. The Plan provides the operational details to achieve Upper Middle Income Country status for Pakistan by 2025. Given the change in administrative setup due to the 18th Constitutional Amendment, it has become a very challenging exercise to set the national level strategic goals and targets, and even more difficult to ensure their implementation and monitoring. Such difficulties revealed themselves during the Plan formulation exercise.

The Plan is geared towards developing human and social capital of the country by enabling universal access to education and health facilities, empowering women and eradicating poverty; thereby increasing the total factor productivity. Strategies have been devised to encourage public-private partnerships in the development process. Moreover, energy reforms have been proposed and special emphasis has been laid on improving performance of the large scale manufacturing sector. Transport, communications, financial, industrial, external and services sectors have been identified as important areas with high growth potential. Consequently, comprehensive action plans have been proposed in the document to improve growth rates of these sectors and increase their respective contributions to the GDP.

Action plans are being recommended to implement a shift towards knowledge economy with an entrepreneurial culture in an effort to increase the industrial competitiveness and utilisation of our natural resources. In addition, plans for developing an enabling investment environment by crowding-in foreign investment have also been formed to reduce the country’s reliance on foreign assistance for economic growth. Improvement in the governance system is envisioned to be a major driver of the economic progress. In this regard, civil service reforms have been initiated to modernise the public sector and improve its service delivery.

I firmly believe that implementation of this Plan will be a step forward for putting Pakistan on the path to prosperity, which we all aspire. The nation will have to work with utmost commitment to achieve these goals. The dream of a better and prosperous Pakistan can only be realised with collective efforts.

I am grateful to Prime Minister Muhammad Nawaz Sharif for inspiring us all at the Planning Commission and guiding us for the Pakistan Vision 2025 first, and then for the 11th Five Year

Plan. I thank the Chief Ministers, my cabinet colleagues, provincial governments, federal administrative secretaries and all others concerned. Finally, I am thankful to the officers of the Commission, diligently supported by the staff, members of the Review Committee and their team leader Chief Economist Dr Muhammad Nadeem Javaid for preparing this all-inclusive document encompassing a comprehensive and inclusive growth strategy, which will enable Pakistan to emerge as an economically, politically and socially sound nation.

May Allah grant us strength to achieve the envisaged targets! Amen

PROF AHSAN IQBAL
Minister for Planning, Development and Reform
Deputy Chairman Planning Commission
Islamabad

OVERVIEW

CHAPTERS

Chapter 1

BACKGROUND AND VISION

The 11th Five Year Plan (2013-2018) is being issued at a time when Pakistan is facing multiple challenges on the economic, security, and development fronts. These provide compelling reasons to make fundamental changes in the growth and development paths treaded in the past.

The previous strategies have delivered spurts of high economic growth. Unfortunately, these were unsustained, and only led to boom and bust cycles. In most cases, these surges were ignited by fortuitous international developments, which caused increases in foreign resource inflows. Once these flows slowed down, so did the momentum of the economic growth. This is because of the reasons that growth has been consumption-led and import-dependent, and did not generate desirable levels of investment and exports.

More importantly, this growth has not met people's expectations, and there is an ever-increasing disillusionment with the development process, while progress in human and social indicators has been disappointing as well. Poverty levels have remained high, while income and regional inequalities have widened in the recent years. Serious infrastructural lacunae and shortages have emerged, especially in energy, water and communication sectors, which have raised the cost of doing business, impeded growth and added to people's hardships. This situation is compounded by a lack of job opportunities that meet the citizens' aspirations.

Reasons of demography, equity, and the necessity to maintain a cohesive society require that this situation be urgently and vigorously rectified. A strategy to address these issues will be that of a rapid and sustainable economic growth, which provides equal opportunities for everyone to work as per his potential; in other words, it will be a strategy of 'inclusive growth'.

Why is it urgent for Pakistan's economy to grow rapidly? The short answer is: to respond to the pressures of demography. Time seems to be not on Pakistan's side. Every year Pakistan adds a New Zealand to its population; every two years, a Switzerland; every three, a Greece; every four, a Netherlands; and every five, an Australia. Regrettably, when these figures are being added to the existing population, a little is supplementing the capital assets or the institutional capacity equivalent of these countries[1].

The population of Pakistan is expected to be about 227 million by 2025. The age-distribution is another substantial factor for acting quickly since about 50 per cent of the population is below the age of 20 years, while about 65 per cent is below 30. The demographic projections show that the youth bulge will continue to dominate the population for another 30 to 35 years. It has been estimated that Pakistan will need to create about 1.5 million new jobs every year only to keep the unemployment constant at the existing rate.

[1] Framework for Economic Growth 2011

Providing employment is not only important for increasing the country's production, it is also necessary in order to raise family incomes, and thus providing the wherewithal to acquire food security and adequate nutrition. Unless Pakistan can generate the required number of jobs through sustained high GDP growth, its streets will be crowded with young men and women seeking jobs, justice, education and medical care for themselves and their families. Eclipsing their hopes will mean abandoning them to become vulnerable to the blandishments of extremist philosophies; thus ultimately posing a serious threat to Pakistan's stability.

Ensuring food security and adequate nutrition to the population constitutes one of the major challenges the country will face in the coming years. The National Nutrition Survey of 2011 found two-thirds of Pakistan's children falling into the malnourished category along with a substantial increase in stunting rates. The nutritional inadequacies are also likely to hinder development of intellectual faculties of the school-going children and young adults, who are consigned to such diets, and could thus perpetuate intergenerational inequalities of opportunity and income. It is totally unacceptable that the land of Pakistan, which was considered to be the bread basket of the subcontinent, should be home to such findings.

The Plan will play a pivotal role in bringing about fundamental changes in the development paradigm followed so far. In the new concept, ordinary people, especially of the less developed regions, will have ownership in the development, and be at the centre of the process. The government will redefine itself in order to play an effective part in steering the economy towards achieving these goals.

The present situation resulted from a combination of external events, such as security situation in the region, and internal shortcomings, especially weak and dilatory policymaking, poor implementation, and weakened institutions because of an ineffective governance. Given that these deficiencies have accumulated over a period of decades, it will require a sustained and focussed effort over the next several years to fully overcome their adverse effects. Such a medium-term framework has been developed in the form of the Vision for Pakistan in 2025, together with a number of strategies, which will help in realising the Vision. The 11th Five Year Plan is a major step to actualise the Pakistan Vision 2025.

Vision 2025

An important reason for Pakistan's inability to achieve sustained and rapid economic growth is the lack of a national vision charting the shared and aspirational destination. Leading growth-makers of the world, such as China and Malaysia, were inspired by visions of their great leaders. Pakistan was founded on the Quaid-e-Azam's vision – spelled out in his address to the Constituent Assembly on August 11, 1947. It was, however, never followed through. The Vision 2010 was an effort to restore the tradition of perspective planning in Pakistan, but unfortunately the then democratic dispensation was overthrown in October 1999, and thus the process was discarded. There was another aborted attempt in the 2000s in the form of the Vision 2030.

Without a vision and in the absence of medium-term planning, the economy has been on a downhill path since 2006. Serious internal and external problems made their own contribution, but their impact would have been far less if a systematic framework had been in place. The issues of energy, water, human capital, institutional decay, and security of life and property cannot be resolved through short-term measures. The Vision 2025 is intended to end this myopia. It is being seen as the first stage of a greater and long-term vision leading up to the first centenary of the country.

The Vision aims to serve as an aspirational document visualising the destination of balanced human, social, and economic progress throughout Pakistan. It emphasises revival of growth, strengthening of the country's development foundation and enabling it to reach the status of an upper middle income country. It is not a static vision. In a dynamic setting, the period beyond 2025 will continue the momentum and mount a big push towards attaining the status of a developed economy by 2047, the first centenary of Pakistan.

The government has already undertaken measures to fulfil short-term prerequisites to stabilise the economy. Inflation is decelerating, the fiscal deficit has come down, increase in foreign reserves has made exchange rate movements more predictable for investors and exporters, the stock market is buoyant, the international capital market received Pakistan with oversubscription of the Eurobond issue, an Islamic bond is in the offing, the successful auction of 3G and 4G licences established credibility with investors, and remittances from overseas Pakistanis continue to rise. In the real sector, the Large Scale Manufacturing (LSM) has grown at an unprecedented rate in the last eight years, while the agricultural growth remains respectable. The decks have thus been cleared for the launch of a long-term vision, implemented through five-year plans.

In a multi-party democratic set up, the ownership of a national vision is as important as its technical soundness. The Vision was drawn up after extensive consultations with a very wide range of stakeholders, which comprised political parties, federal ministries, provincial governments, national and international private sector entrepreneurs, international development and financial institutions, academia, think-tanks, independent experts, Non-Governmental Organisations (NGOs), parliamentarians and the civil society. A major national consultative conference, which included over 1,000 invitees, was held in November 2013, which was chaired by the Prime Minister of Pakistan, and attended by the PM of the Azad Jammu and Kashmir (AJ&K), Chief Ministers of the four provinces, and leaders from all walks of life.

The Vision divides its challenges and goals into a set of seven pillars, identified as the key drivers of growth, which will transform Pakistan into a vibrant and prosperous nation by 2025. In addition to these seven pillars, the government is also working towards the restitution of key enablers, such as political stability and continuity of policies, peace and security, rule of law, and social justice. The seven pillars are explained below:

Pillar-I: Putting people first: Developing human and social capital

The Vision seeks to provide every citizen with opportunities to improve his or her choices and quality of life. This requires capitalising upon the existing social capital, strengthening it and improving the human skill-base of the population to optimally contribute to and effectively benefit from the economic growth. Pakistan has to make significant leap forward in areas, like education, health and social development to catch-up with its peers. The Vision presents a comprehensive approach to addressing human and social development gaps with an emphasis on developing human and social capital to take full advantage of Pakistan's youth bulge. In addition, the Vision recognises the rising power of a socially aware population and seeks to move towards a knowledge-based society. It aims at substantial expansion in levels of education as well as improvements in the quality of education. A larger share of the GDP, at least four per cent to education and at least three per cent to health, will be allocated.

The key goals under this pillar are to

- achieve universal primary education with 100 per cent net primary enrolment,
- increase higher education coverage from seven per cent to 12 per cent, and
- enhance proportion of population from 48 per cent to 90 per cent with an access to improved sanitation.

Pillar-II: Achieving sustained, indigenous, and inclusive growth

An objective of the Vision is to provide better living standards to every Pakistani irrespective of caste, creed, area, religious or political affiliation by mobilising indigenous resources. All efforts will be made to make every Pakistani better off by 2025. Pakistan has many horizontal and vertical, intra and interprovincial, as well as rural and urban inequalities. The Vision envisages a strategic direction for developing a united and equitable society through a balanced development approach, social uplift, and rapid broad-based growth. This will ensure provision of opportunities and fruits of the economic development to all segments of the society. The thrust of the macroeconomic framework will be to support inclusive growth based on harnessing full potential of the economic factors, adequate resource availability, private sector as an engine of growth, sustainable fiscal and current account deficits, modern infrastructure to support growth process, provision of affordable energy, knowledge-driven economic value-addition, modernising agriculture and the SME sector and, not the least, an effective system of social protection.

The key objectives are to

- become one of the 20 largest economies in the world, leading to Upper Middle Income country status, and
- increase annual exports from $25 billion to $150 billon

Pillar-III: Democratic governance, institutional reform and modernisation of the public sector

A responsive, inclusive, transparent and accountable system of governance is envisaged through adoption of a holistic approach, from policy to strategy to implementation and delivery, encompassing all administrative levels — federal, provincial, regional, district and local — in a rule-based, result-oriented perspective. The Vision seeks an efficient and transparent government, which operates under the rule of law and provides security of life and property to its people. The goal is to strengthen and streamline institutions in order to enable consistent excellence in the management of the political, economic and administrative infrastructure. The Vision strives to develop a skilled, motivated and result-focused civil service, an effective regulatory framework, and an infrastructure that leverages supporting technology and best global practices. Further, it is designed to take advantage of the immense strength inherent in the 18th Constitutional Amendment, and the consequential focus on tailoring and deploying reforms, specifically suited to each federating unit and the local bodies.

The key goal is to

- attain a place in the top 50th percentile in the following measures of the World Bank's Worldwide Governance Indicators, that is, political stability, no violence and terrorism, and control of corruption.

Pillar-IV: Energy, water and food security

Sufficient, reliable, clean and cost-effective availability of energy, water and food is indispensable for ensuring sustainable economic growth and development. These key sectors have suffered historically from severe failings of policy and execution. Meeting this challenge has been further complicated by severe impact of the climate change. A renewed national consensus exists to commit new major investment through unprecedented public and private sector collaboration to bridge very large gaps threatening the well-being and progress of Pakistan. While investments to ensure the much-needed additional supply are being made, the country is equally committed to creating and encouraging a culture of conservation and efficiency in the usage of energy and water. Two major water and energy related projects — Diamer-Bhasha Dam (4500 MW) and Dasu Hydro Power Project (2160 MW) — have already been included in the Public Sector Development Programme.

The key goals under this pillar are:

- *Energy:* Double power generation to 45,000 MW and provide uninterrupted, affordable and clean energy for all, and electricity access from 67 per cent to 100 per cent of the population
- *Water:* Increase storage capacity to 180 days and improve efficiency of usage in agriculture by 20 per cent
- *Food:* Reduce the food-insecure population from 60 per cent to 30 per cent

Pillar-V: Private sector and entrepreneurship-led growth

The Vision aims to make Pakistan a highly attractive destination for the private sector investment by contouring conducive conditions, which allow private investors to successfully participate in its development. In the past, the private sector has been inhibited from playing an active role in the country's development owing to a variety of factors, such as energy deficit, strained security situation and lack of an enabling environment. Moreover, low-skilled labour, slow and costly judicial procedures (contract enforcement), factor market (land, labour and capital) rigidities, intrusive regulations and inadequacies in the system of land purchase and registration have reduced private sector effectiveness. The Vision seeks to achieve sustained engagement of the private sector, where the resources and skills, available across all sectors, are fully deployed to achieve defined targets.

The key goals are to

- rank Pakistan in the top 50 countries on the World Bank's Ease of Doing Business Rankings, and
- increase Diaspora investment (via remittances) in the private sector to the tune of $40 billion.

Pillar-VI: Developing a competitive knowledge economy through value-addition

The national competitiveness refers to the ability to produce and deliver products and services effectively and profitably relative to the competing countries. Competitiveness is also about achieving efficiency and productivity to enable self-sustaining enterprises; thereby boosting their share in the international market. Improving the national competitiveness is, therefore, critical to the nation's ability to utilise resources in a productive manner, based on merit, quality and innovation instead of rent-seeking behaviours. The Vision envisages fundamental improvements in competitiveness across the industrial, manufacturing, services and agricultural sectors.

The key goals of this pillar are to

- quadruple contribution of the Total Factor Productivity to growth, and
- improve Pakistan's score on the World Bank Institute's Knowledge Economy Index from 2.2 to four.

Pillar-VII Modernising transportation infrastructure and greater regional connectivity

The Vision aims at establishing an efficient and integrated transportation system, which facilitates the development of a competitive economy. A strategic programme of regional connectivity is envisaged to connect Pakistan with regional partners through enhanced physical infrastructure development (physical connectivity), effective institutional arrangements (institutional connectivity) and empowered people (people-to-people connectivity). Building enhanced regional connectivity requires not only the development of new strategies and institutions, but also investment in more effective implementation of the existing and future initiatives. The China-Pak Economic Corridor (CPEC) offers a unique opportunity for Pakistan to integrate regional developments and become a hub for trade and manufacturing with the Gwadar Port being developed as an international free port.

The key goals under this pillar are to

- increase road density from 32 Km/100 Km^2 to 64 km/100 Km^2,
- share of the Pakistan Railways from four per cent to 20 per cent, and
- ensure reduction in transportation costs, safety in mobility, effective connectivity between rural areas and markets and urban centres, interprovincial high-speed connectivity, integrated road and rail networks between economic hubs (including air, sea and dry ports), and high-capacity transportation corridors connecting major regional partners.

Realising the Vision 2025 will require a well-defined coordination mechanism among the federating units, including four provinces and Special Areas, which comprises Federally Administered Tribal Areas (FATA), Gilgit-Baltistan (G-B) and AJ&K. Moreover, steps towards providing an enabling environment for the realisation of this Vision have been taken. The Zarb-e-Azb Operation, dialogue process with political parties for stabilisation of the democratic process and reforms are a few initiatives in the right direction.

Chapter 3

PUBLIC SECTOR DEVELOPMENT PROGRAMME

The PSDP is an important part of public sector investment, which channels domestic and foreign resources to implement the development programmes and projects prepared by the federal, provincial and local agencies. The public sector corporations – such as PIA, CAA, OGDCL, etc. – generate their own resources for implementing development programmes. The development programmes and projects of these corporations are not financed through the PSDP.

Objectives and strategy

The Plan seeks to increase the PSDP from 3.9 per cent of the GDP in 2012-13 to 4.6 per cent in the terminal year 2017-18. The PSDP has been designed to achieve targets within the context of the Vision 2025. Keeping in view the resource constraints and importance of the private sector as an engine of economic growth, the government through public sector investment will also provide an enabling environment to crowding in the private sector and fostering public-private partnerships and joint ventures to reduce the burden on the PSDP.

Overall national development programme

The Plan envisages an investment of Rs7,019 billion under the PSDP with an average annual growth of 17 per cent. The annual phasing of the PSDP is given in table 1.

Table 1: Annual phasing of the national outlay 2013-18

(Rs billion)

Fiscal year	Proposed Allocations
2013-14	1,040
2014-15	1,175
2015-16	1,414
2016-17	1,580
2017-18	1,810
Total	**7,019**

The enhanced-level of the PSDP will provide required resources to development programmes and initiatives for achieving objectives of the Vision 2025, which provides country's long-term development agenda, which aims to make Pakistan a globally competitive and prosperous country. It aspires to transform Pakistan into an industrialised and knowledge-based upper middle income country by 2025 to provide a high quality of life to all its citizens equitably.

The agency-wise allocations of the PSDP 2013-18 are given in table 2 below, and its detailed sectoral breakup is placed at Annexure-I.

Table 2: National outlay by executing agencies

(Rs billion)

Agency	Allocation	Share (per cent)
Federal	3,040	43
Ministries and divisions	2,824	93
Special Areas	216	7
Provinces	3,979	57
Total	7,019	100

As a result of the enhanced-level of resources made available to the provinces under the new NFC Award and 18th Constitutional amendment, size of the provincial ADPs has increased from the FY 2010-11 onwards, while the ratio between the federal PSDP and provincial ADPs has reduced correspondingly. Owing to the financial autonomy, the provinces will finance projects of the devolved sectors. The projected federal and provincial share in overall development programme, during the Plan period, is in the ratio of 43:57 respectively against 70:30 during the Medium Term Development Framework (2005-2010).

To realise sectoral targets of the Plan, new initiatives have also been planned by the government in various sectors of the economy. Substantial finances will be required for important projects, such as the Karachi-Lahore Motorway (959 kilometres), Lahore-Abdul Hakeem-Khanewal Section (276 kms), Raikot-Havelian-Islamabad Section (460 kms), construction of Breakwaters, Gwadar, etc., to be undertaken under the China-Pakistan Economic Corridor (CPEC) initiative, particularly for connecting Gwadar to other parts of the country. To overcome energy shortage, projects such as the Diamer-Basha Dam, Karachi Coastal Power Project (K-2 and K-3), Chashma Nuclear Power Projects (C3 and C4) and other CPEC projects, will either become operational or substantially completed during the Plan period.

The federal programme will be implemented through three-pronged strategy. Firstly, the federal executing agencies will complete ongoing projects and will initiate new projects in the priority sectors as per assigned functions under the Rules of Business. The programmes and projects mainly cover power sector, multi-purpose large scale water storage dams, higher education, science, research and information technology as well as governance, institutional reforms, motorways, highways, railways, etc. Secondly, funds under the federal PSDP will be transferred to the provinces for execution of the federal schemes. Finally, the federal government will provide resources to the Special Areas falling under the federal responsibility, that is, Azad Jammu and Kashmir, Gilgit-Baltistan and FATA to prepare and execute development programmes (ADPs) according to their local needs and priorities. However, these areas (AJ&K, FATA and G-B) will integrate the local priorities into the overall national development agenda under the Plan and Vision 2025 to achieve set targets.

The provincial programme will be implemented by the provincial governments concerned through the resources transferred under the NFC Awards as per sectoral priorities determined by them. However, overall focus of the programme will be on achievement of objectives set under the Plan. Through the 18th Constitutional amendment, a number of subjects, relating to the social sector, have been transferred to the provinces by the federal government. Therefore, the provinces are expected to undertake development projects of the devolved sectors, like education, health, social and population welfare, local roads, drainage, sewerage, clean drinking water supply, improvement and beautification of cities, security and governance, etc. The federal government, however, will continue to provide technical and financial support wherever needed and found feasible, as special initiatives. The sectoral position of planned allocations is summarised in table 3 below.

Table-3: Overall national outlay as per sectoral objectives

(Rs billion)

Sectoral objectives	Allocation	Share (per cent)
a. Infrastructure	3,374	48
i. Energy	1,128	16
ii. Transport and communication	1,581	23
iii. Water resource development	592	8
iv. Physical planning and housing (Federal)	65	1
v. Fuel	8	-
b. Social	2,475	35
i. Education and higher education	637	9
ii. Health	427	6
iii. Physical planning and housing (Provincial)	478	7
iii. Other sectors, district and local programmes	933	13
c. Governance	265	4
d. Science and information technology	86	1
e. Balanced regional development(Federal)	447	6
f. Productivity enhancement	254	4
g. Miscellaneous	118	2
Total	7,019	100

The sectoral programme at the national level indicates that the infrastructure sector will get 48 per cent share of the overall programme, followed by the social sector (35 per cent), balanced regional development (6 per cent), governance (4 per cent), productivity enhancement (4 per cent), science and information technology and other sectors (3 per cent).

Within infrastructure, priority has been attached to the transport and communication and energy sectors with 23 per cent and 16 per cent share respectively of the total outlay over the Plan period. In addition, the WAPDA and PEPCO will also mobilise own generated resources in the power sector. Priority within the energy sector will be given to the completion of the ongoing mega projects (as mentioned above) and initiation of new projects, including the CPEC initiatives. The share of the water resources sector will be eight per cent. The physical planning and housing sector, at the federal level, will receive almost one per cent share of the total outlay. Within the social sectors, priority has been assigned to education, including higher education (9 per cent share), healthcare (6 per cent), provincial physical and planning sector (7 per cent), other social sectors including districts and local programmes (13 per cent). The governance and institutional reforms will get four per cent of the overall programme.

To ensure balanced regional development and bring the backward areas at par with other developed areas of the country, six per cent of the overall programme has been proposed for ensuring balanced regional development programme in the AJ&K, G-B, FATA and other under-developed districts of the country.

For productivity enhancement and promotion of the value-added goods, about four per cent of the programme has been earmarked in the areas of food and agriculture (2.3 per cent), industry, commerce and minerals (1.4 per cent). For research and development in the field of science and information technology, Rs86 billion have been proposed during the Plan period. These sectors are considered to be a responsibility of the private sector. However, the federal government will continue to invest in research, development and in those areas where the private sector is shying to invest.

Federal programme

An outlay of Rs3,040 billion has been projected for the federal programme for the Plan, and about 20 per cent of which is expected to be funded through foreign project assistance by the development partners. While making projections for the Plan, the federal programme has been enhanced by an annual average increase of 18 per cent to meet the requirements of the ongoing projects for an early completion, particularly mega projects of energy, water resources, transport and communication and other important social and governance sector projects, including new early harvest high impact projects initiated under the CPEC. A summary of the federal programme by sectoral objectives is given in table 4 below. Details are placed at Annexure-II.

Table-4: Federal programme

(Rs billion)

Sectoral objectives	Allocation	Share (per cent)
a. Infrastructure	2,116	70
i. Energy	839	28
ii. Transport and communication	996	33
iii. Water resource development	208	7
iv. Physical planning and housing	65	2
v. Fuel	8	-
b. Social	275	9
i. Education and higher education	137	5
ii. Health	90	3
iii. Other social sectors	48	1
c. Governance	36	1
d. Science and information technology	42	1
e. Balanced regional development	447	15
f. Productivity enhancement	23	1
g. Miscellaneous	101	3
Total	3,040	100

The federal programme has been devised keeping in view the parameters of the national development agenda, depicted in the Vision 2025. The main thrust of the programme is on completion of the ongoing projects and initiation of mega projects in the infrastructure sector with a proposed share of 70 per cent of the programme, being primary responsibility of the federal government. Within the infrastructure sector, about 33 per cent will be invested in the transport and communications sector, 28 per cent in power sector, seven per cent in the water resources sector, two per cent in the physical planning and housing sector and balance marked to fuel-related projects.

The transport and communication sector has been attached priority for better connectivity and economic integration on modern lines. To realise benefits of the CPEC, the projects of both the western and eastern alignments have been appropriately planned for completion.

A substantial increase of investment in the energy sector, both through budget and self-finance, will cater to the financial requirements of the strategic projects of the WAPDA, PEPCO and other energy projects, being executed by the Pakistan Atomic Energy Commission. In addition, projects in the energy sector will also be launched under the CPEC. To supplement efforts of the government, investment by the private sector in the energy projects will be encouraged by providing an appropriate legal, financial and regulatory framework. In addition to whatever assistance is provided to the WAPDA and PEPCO through the PSDP budget, these organisations will invest in the energy sector from their own generated resources. The current investment (2014-15) in the power sector through budget (PSDP) and self-financed by the WAPDA and PEPCO is at the ratio of 31:69 respectively.

For Railways projects, adequate funding will be provided for track rehabilitation and doubling, procurement and manufacturing of diesel locomotives, improvement and installation of the signalling system on the Lodhran-Khanpur-Kotri section, provision of the Centralised Traffic Control (CTC) on the Shahdra-Lodhran Section and procurement of the Hopper Wagons, laying of the dedicated track for coal transportation to Jamshoro and Sahiwal power plants, etc. In the water sector, priority will be given to the ongoing projects for an early completion. The provincial governments will assume the responsibility to undertake small and medium dams, lining of irrigation and improving distributary channels for economical use of water. However, the federal government will continue to finance large multi-purpose dams and ongoing mega projects, such as Kachhi Canal, Greater Thal Canal, Kurrum Tangi Dam, etc., for completion during the Plan period.

The social sector will receive nine per cent of the federal programme. Within the social sector, education, including higher education and skill development, has been given the highest priority with five per cent of the total federal PSDP, followed by health (3 per cent) and other social sectors (1 per cent).

Though the agriculture sector has been devolved to the provinces, yet it needs federal attention for innovation and research to achieve food security. To promote agriculture, industry and commerce on modern lines for attract the private investment, an amount of Rs23 billion has been proposed during the Plan period. This amount will mainly be spent on research and development to boost productivity and promote value-addition in the domestically produced products so that these become competitive, and earn more foreign exchange through export of the agro-based industrial products.

For the balanced regional development and to bring less developed areas at par with other developed areas of the country, 15 per cent of the federal programme has been proposed during the Plan period. This will make available the required resources to the special areas (AJ&K, FATA and G-B) and other special programmes for the federal developmental interventions as required for the balanced development.

In addition to the above, the public sector corporations such as the WAPDA, PTCL, PIA, CAA, OGDCL, oil and gas companies, etc., normally mobilise their own-generated revenues for implementing their development programmes. These corporations will have to play a key role in achieving the targets set in the area of energy, regional connectivity, Information and Communication technologies (ICT) and innovations in the field of science and technology.

Under the federal PSDP, the following new development programmes, will be implemented during the Plan period.

- National Endowment Scholarships for Talent (NEST)
- Pakistan MDGs and Community Development Programme

- National Health Insurance Programme
- Cancer Hospital, Islamabad
- Value-Addition in Agriculture – Cluster Development Approach
- Value-Addition in Industry – Cluster Value-Addition in Industry
- Science Farming Scheme for Top Science Talent in School
- Establishment of the Seerat Chairs in the Public Sector Universities
- Technology Development Fund for the HEC Scholars returning after completion of PhDs to introduce new technologies in industry and development sectors
- Promotion of Olive Cultivation on Commercial Scale in Pakistan
- Establishment of Model Police Stations in the ICT
- Rural Economy Centre
- Social Entrepreneur Centre
- National Curriculum Council
- Modernisation and Standardisation of Examination System
- Mainstreaming of Medrasahs

Provincial programme

The Provincial Development Programme (2013-2018) is envisaged at Rs3,979 billion with an average annual growth of 15 per cent. It is about 57 per cent of overall national development programme. These resources will be utilised by the provinces through their Annual Development Programmes as per their sectoral and regional priorities. The provinces will have to play an important role for achieving the objectives of health, population welfare, basic education, and other amenities provided by the local governments, particularly in the post-18th Constitutional amendment scenario. The overall sectoral programme of the provinces is summarised below, and sectoral details are placed at Annexure-III.

Table-5: Provincial programme

(Rs billion)

Sectoral objectives	Allocation	Share (per cent)
a. Infrastructure	1,257	32
i. Energy	289	7
ii. Transport and communication	584	15
iii. Water resource development	384	10
b. Social	2,200	55
i. Education	500	13
ii. Health	337	8
iii. Physical planning and housing	478	12
iv. Other sectors, district and local programmes	885	22
c. Governance	229	6
d. Science and information technology	43	1
e. Productivity enhancement	232	6
f. Miscellaneous	17	-
Total	**3,979**	**100**

As indicated in table 5, the provincial governments will invest 55 per cent of their allocations in the social sector projects, which include education, health, population welfare, rural development, culture, sports, tourism, youth, clean water supply, drainage, local farm to market roads, etc. The infrastructure sector accounts for 32 per cent of the provincial programme.

Within the social sector, education will receive 13 per cent of the programme, physical planning, housing and urban development 12 per cent, followed by health sector eight per cent and 22 per cent of the programme has been proposed for district, local programmes and other special programmes. Within infrastructure, local roads network will receive 15 per cent of the programme followed by the energy sector at seven per cent and water resources 10 per cent. For the promotion of agriculture, industry and minerals, an amount of Rs246 billion (6 per cent) has been proposed for the Plan period. For ensuring good governance, institutional reforms, law and order, etc. six per cent of the total outlay has been proposed for the governance sector. For promoting the science and information technology sector, Rs43 billion have been proposed for the Plan period.

Special Areas programme

For the Special Areas (FATA, G-B and AJ&K), an amount of Rs216 billion has been allocated for the Plan period. Resources will be provided to these areas through the federal programme according to the standing financial arrangements made from time-to-time between the federal government and these Areas. In turn, these Areas will have to formulate their annual development programmes by incorporating regional as well as overall national priorities. The break-up is indicated in table 6 below.

Table-6: Special Areas programme

(Rs billion)

Area and Agency	Allocation	Share (per cent)
Azad Jammu and Kashmir	68	31
Federally Administered Tribal Areas (FATA)	101	47
Gilgit-Baltistan	47	22
Total	216	100

In addition to the above, straight transfer of funds to the Special Areas from the federal PSDP for their respective ADPs, and some important projects of these areas are also financed and implemented by the federal ministries and divisions as per the Rules of Business.

Annexure-I

National Development Programme

(Rs million)

S. No.	Sectors and sub-sectors	Projections					
		2013-14	2014-15	2015-16	2016-17	2017-18	Total
I. Infrastructure		**467,217**	**529,552**	**674,084**	**790,485**	**912,275**	**3,373,613**
1	Power and energy	153,210	164,390	197,907	267,095	345,620	1,128,222
2	Water	106,130	104,194	114,760	125,900	140,803	591,787
3	Transport and communication	195,081	250,931	346,112	381,410	407,200	1,580,734
4	Physical planning and housing (Federal)	11,656	8,425	12,851	14,580	17,000	64,512
5	Fuel	1,140	1,612	2,454	1,500	1,652	8,358
II. Social		**409,483**	**426,465**	**497,923**	**538,396**	**603,135**	**2,475,402**
6	Higher education	18,520	20,146	20,500	25,000	30,000	114,166
7	Education and trainings	86,860	86,642	105,508	116,960	127,146	523,116
8	Health	76,550	77,320	83,289	86,190	103,998	427,347
9	Population welfare	9,662	9,016	6,344	6,000	6,000	37,022
10	Environment and climate change	833	761	866	1,115	1,400	4,975
11	Physical planning and housing (Provincial)	76,800	78,900	102,000	104,314	116,243	478,257
12	Rural development	2,299	1,672	2,067	2,600	2,800	11,438
13	Social welfare	7,699	6,234	6,568	9,460	10,663	40,624
14	Women development	479	448	470	593	705	2,695
15	Culture, sports, tourism and youth	8,050	11,772	13,067	15,459	16,690	65,038
16	Mass media	1,165	765	840	1,415	1,620	5,805
17	Labour and manpower	1,766	2,810	6,904	8,390	9,020	28,890
18	District and local programmes	77,800	84,869	94,500	100,900	106,500	464,569
19	Special programmes and initiatives	41,000	45,110	55,000	60,000	70,350	271,460
III. Governance		**45,735**	**42,733**	**46,849**	**60,744**	**69,332**	**265,393**
IV. Science and IT		**16,030**	**14,001**	**14,837**	**18,307**	**22,295**	**85,470**
20	Science and technology	5,320	3,658	3,494	4,338	5,657	22,467
21	Information Technology	10,710	10,343	11,343	13,969	16,638	63,003
V. Balanced regional development		**48,200**	**86,200**	**106,700**	**99,000**	**107,000**	**447,100**
22	Special Areas (AJ&K, FATA and G-B)	43,200	37,700	38,700	44,000	52,000	215,600
23	Special programmes	5,000	48,500	68,000	55,000	55,000	231,500
VI. Productivity enhancement		**39,655**	**38,155**	**52,204**	**57,618**	**66,784**	**254,416**
24	Food and agriculture	18,150	20,857	33,876	37,362	43,300	153,545
25	Industry and commerce	18,985	14,759	15,292	16,660	19,400	85,096
26	Minerals	2,520	2,539	3,036	3,596	4,084	15,775
VII. Miscellaneous		**13,680**	**37,894**	**21,403**	**15,450**	**29,179**	**117,606**
27	ERRA	10,000	5,000	7,000	5,000	5,000	32,000
28	Miscellaneous and blocks	3,680	32,894	14,403	10,450	24,179	85,606
	Total (National)	**1,040,000**	**1,175,000**	**1,414,000**	**1,580,000**	**1,810,000**	**7,019,000**

Annexure-II

Federal development programme

(Rs million)

S. No.	Sectors and sub-sectors	Projections 2013-14	2014-15	2015-16	2016-17	2017-18	Total
I. Infrastructure		**289,717**	**331,582**	**407,966**	**496,310**	**590,652**	**2,116,227**
1	Power and energy	106,110	115,600	142,227	205,020	270,000	838,957
2	Water	58,530	43,914	30,622	35,000	40,000	208,066
3	Transport & communication	112,281	162,031	219,812	240,210	262,000	996,334
4	Physical planning and housing	11,656	8,425	12,851	14,580	17,000	64,512
5	Fuel	1,140	1,612	2,454	1,500	1,652	8,358
II. Social		**56,509**	**57,214**	**50,607**	**51,690**	**59,060**	**275,080**
6	Higher education	18,520	20,146	20,500	25,000	30,000	114,166
7	Education and trainings	6,160	4,252	3,694	4,000	5,000	23,106
8	Health	21,050	20,430	17,509	15,200	16,300	90,489
9	Population welfare	8,362	8,316	5,644	3,000	3,000	28,322
10	Environment and climate change	233	61	169	300	400	1,163
11	Rural development	1,099	492	567	1,000	1,000	4,158
12	Social welfare	99	15	48	140	160	462
13	Women development	79	10	5	50	100	244
14	Culture, sports, tourism and youth	350	2,572	817	1,000	1,000	5,739
15	Mass media	491	300	320	500	600	2,211
16	Labour and manpower	66	620	1,334	1,500	1,500	5,020
III. Governance		**6,535**	**5,320**	**6,549**	**7,500**	**10,000**	**35,904**
IV. Science and information technology		**9,030**	**6,216**	**6,737**	**8,800**	**11,700**	**42,483**
17	Science and technology	5,220	3,458	3,194	4,200	5,500	21,572
18	Information technology	3,810	2,758	3,543	4,600	6,200	20,911
V. Balanced regional development		**48,200**	**86,200**	**106,700**	**99,000**	**107,000**	**447,100**
19	AJ&K	16,500	10,500	11,500	13,000	16,000	67,500
20	FATA	18,500	19,000	19,000	21,000	24,000	101,500
21	Gilgit-Baltistan	8,200	8,200	8,200	10,000	12,000	46,600
22	Special programmes	5,000	48,500	68,000	55,000	55,000	231,500
VI. Productivity enhancement		**3,955**	**3,468**	**4,228**	**4,700**	**6,300**	**22,651**
23	Food and agriculture	950	1,257	1,706	2,000	3,000	8,913
24	Industry and commerce	2,985	2,191	2,392	2,500	3,000	13,068
25	Minerals	20	20	130	200	300	670
VII. Miscellaneous		**11,054**	**35,000**	**17,213**	**12,000**	**25,288**	**100,555**
26	ERRA	10,000	5,000	7,000	5,000	5,000	32,000
27	Miscellaneous and blocks	1,054	30,000	10,213	7,000	20,288	68,555
	Total (Federal)	**425,000**	**525,000**	**600,000**	**680,000**	**810,000**	**3,040,000**

Notes:

The power sector includes only financing from the PSDP (budget). The Energy Wing may separately indicate self-financing programme of the WAPDA, PEPCO and NTDC.

Annexure-III

Provincial Development Programme

(Rs million)

S. No.	Sectors and sub-sectors	Projections					
		2013-14	2014-15	2015-16	2016-17	2017-18	Total
I.	**Infrastructure**	**177,500**	**197,970**	**266,118**	**294,175**	**321,623**	**1,257,386**
1	Power and energy	47,100	48,790	55,680	62,075	75,620	289,265
2	Water	47,600	60,280	84,138	90,900	100,803	383,721
3	Transport and communication	82,800	88,900	126,300	141,200	145,200	584,400
II.	**Social**	**352,974**	**369,251**	**447,316**	**486,706**	**544,075**	**2,200,322**
4	Education and trainings	80,700	82,390	101,814	112,960	122,146	500,010
5	Health	55,500	56,890	65,780	70,990	87,698	336,858
6	Population welfare	1,300	700	700	3,000	3,000	8,700
7	Environment and climate change	600	700	697	815	1,000	3,812
8	Physical Planning and Housing	76,800	78,900	102,000	104,314	116,243	478,257
9	Rural development	1,200	1,180	1,500	1,600	1,800	7,280
10	Social welfare	7,600	6,219	6,520	9,320	10,503	40,162
11	Women development	400	438	465	543	605	2,451
12	Culture, sports, tourism and youth	7,700	9,200	12,250	14,459	15,690	59,299
13	Mass media	674	465	520	915	1,020	3,594
14	Labour and manpower	1,700	2,190	5,570	6,890	7,520	23,870
15	Special programmes and initiatives	41,000	45,110	55,000	60,000	70,350	271,460
16	Local and district programmes	77,800	84,869	94,500	100,900	106,500	464,569
III.	**Governance**	**39,200**	**37,413**	**40,300**	**53,244**	**59,332**	**229,489**
IV.	**Science and information technology**	**7,000**	**7,785**	**8,100**	**9,507**	**10,595**	**42,987**
17	Science and technology	100	200	300	138	157	895
18	Information technology	6,900	7,585	7,800	9,369	10,438	42,092
V.	**Productivity enhancement**	**35,700**	**34,687**	**47,976**	**52,918**	**60,484**	**231,765**
19	Agriculture research	17,200	19,600	32,170	35,362	40,300	144,632
20	Industry	16,000	12,568	12,900	14,160	16,400	72,028
21	Minerals	2,500	2,519	2,906	3,396	3,784	15,105
VI.	**Others and miscellaneous**	**2,626**	**2,894**	**4,190**	**3,450**	**3,891**	**17,051**
22	Miscellaneous	2,626	2,894	4,190	3,450	3,891	17,051
	Total (Provincial)	**615,000**	**650,000**	**814,000**	**900,000**	**1,000,000**	**3,979,000**

Chapter 2

MACROECONOMIC FRAMEWORK AND STRATEGY

The Plan is the first step towards attaining the long-term goals articulated in the Vision 2025, and the thrust is to achieve growth, while maintaining macroeconomic stability and distributional equity.

Growth with macro stability

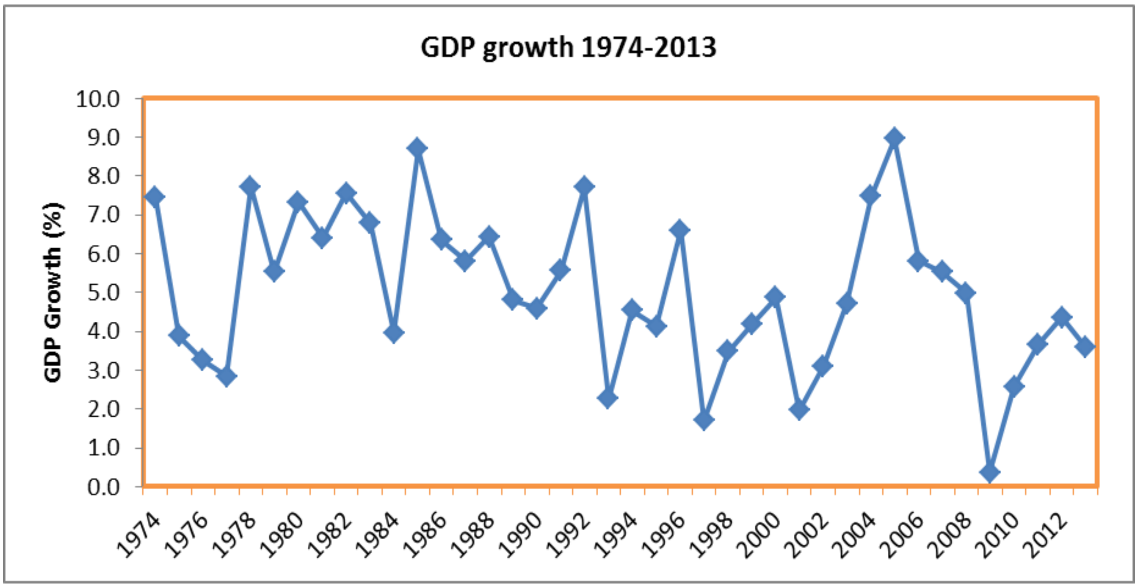
The macroeconomic stability is a fundamental prerequisite for sustained economic growth. The macroeconomic framework for the Plan has been designed to put Pakistan's economy on a robust growth trajectory through prudent macroeconomic management, which will ensure a stable macroeconomic environment with low inflation and sound internal and external balances. In the recent years, Pakistan has witnessed significant macroeconomic imbalances due to a combination of multiple factors like rising international commodity prices, global financial crisis and domestic supply constraints, such as acute energy outages and intensification of the War on Terror. The immediate aim, therefore, is to consolidate the emerging macroeconomic stability through appropriate monetary and fiscal measures, aimed at crowding-in the private investment, mobilising domestic savings and reviving the economic growth process.

Growth, investment and savings

Considering the period of 1974-2013 as a whole, Pakistan's average annual growth rate of 5.3 per cent would be regarded as reasonably satisfactory (Figure 1). However, three elements in the experience give cause for concern. First, in the most recent five-year period (2008-2013), the average growth dropped to 2.8 per cent. Second, too much of the growth has resulted from adding more units of capital and labour, and too little from increases in productivity. Thus, during the period of 1970-2005, increases in productivity provided about 20 per cent of the raise in the GDP; however, during 1998 to 2008, contribution of the Total Factor Productivity (TFP) accounted for only 11 per cent of the increase in the country's GDP. Third, Pakistan has consistently mobilised insufficient domestic savings, leaving much of the investment (and the resulting growth) to be financed by the external inflows, chiefly in the shape of foreign assistance. This reliance on the external resources, and the inevitable variability associated with these politically-determined resources, created several stop-go growth episodes in which high-growth periods were often quickly succeeded by bouts of low growth.

The Plan seeks to break this boom and bust cycle, and put the economy on the path of sustained long-term economic growth. In this context, the key areas of focus include: public-private partnership in the development process, improved productivity in agriculture and livestock sectors, enhanced industrial competitiveness, better service delivery systems, and upgraded human capital formation.

Figure 1: Annual GDP growth (1974–2013)



Source: *Economic Survey of Pakistan*

Evaluation of the economic performance (2002-13)

The growth experience of the last four decades is characterised by falling growth potential and occasional episodes of higher growth. Pakistan has become the only country in the region with a falling potential growth rate. All other countries have improved their potential growth during the last one decade or so. Output per worker has almost stagnated since 2005 (grew by just 0.6 per cent during 2005-2012), whereas it has increased almost among all peers[1] in this period. It is clear that critical structural reforms are needed in many sectors and activities if the economy is to attain the dynamism required by the country's demography and the need to prosper in an increasingly competitive global environment.

An overview of the sectoral performance, during the last five years, shows that the services sector was the major driver of growth, providing 63 per cent of the aggregate growth. Half of the growth of this sector comes from security-related services or public spending. It is worth noting that the growth of the services sector might have been higher than recorded in the national accounts since much of this sector remains undocumented.

Agriculture: During 2008-13, average annual growth was 2.4 per cent despite several price incentives and subsidies. The contribution towards growth was just 19 per cent, with the major part (15.2 per cent) coming from the livestock sector alone. The contribution of the crop sector to the economic growth was about 3.6 per cent. If the agriculture sector was to grow significantly higher than three per cent or so in the medium-term, it is likely to require extensive interventions in order to bridge the yield gap. This reinforces the need to support non-farm activity in the rural areas to make growth more inclusive and improve quality of life in the rural areas, where two-thirds of the population is estimated to live.

[1] Growth in output per worker during 2005-12: China (9.5%), India (6.9%), Sri Lanka (5.4%), Bangladesh (2.9%), Thailand (2.2%) and Nepal (1.3%) – **Source:** *Asian Productivity Database 2014*

Large Scale Manufacturing: The average contribution to the GDP growth was 11 per cent during 2008-13 (excluding negative contribution in 2008-09). The sector has been plagued by energy shortages and high-level of rent-seeking behaviour. The sector also suffers from a number of restrictive practices and other regulatory hurdles, which increase the cost of doing business, and raise barriers for investment and growth.

Consumption: For many years, the GDP growth was driven mainly by consumption, whereas investment growth has shown a declining trend. Investment as percentage of the GDP declined from 22 per cent in 2007-08 to 15 per cent in 2012-13; thereby showing a contraction of about two per cent of the GDP every year. For four out of five years, real fixed capital formation declined by 9.3 per cent per annum. Other outcomes related to the decline in investment were:

- During 2008-13, two major job-creating sectors, Large-Scale Manufacturing, and transport and communications, witnessed substantial erosion of their share in the total investment.
- Community services – mainly security-related investments – are growing largely because of the current law and order predicament.
- Investment is declining in all other sectors. As noted in the Framework for Economic Growth (FEG), construction and retail investment have remained very low throughout the period largely due to the adverse regulatory environment and inadequate moves to modify city-zoning.

Financial sector deepening: It is an important gauge of intermediation in an economy. The ratio of M2-to-GDP, a measurement of financial deepening, stood at 36 per cent of the GDP in 2012-13 (compared to 77 per cent of India). Access to finance and financial inclusion have become critical issues of Pakistan. The non-availability of competing instruments causes burdens on consumers, who are compelled to borrow from banks. The underdeveloped insurance sector and pension funds also impede financial intermediation and result in lower level of the domestic savings.

External sector: While both exports and imports grew between 1998-99 and 2007-08, the sluggish economy, structural and policy issues have kept the ratios of exports, imports and trade short of the GDP from any significant growth. These ratios show that the economy remains relatively closed, which is a factor constraining the economic growth. These factors will continue to affect economic activity in the medium-term; thus warranting policy reforms in the area for boosting the trading sector of the economy.

Proposed Plan

Macroeconomic targets

The objective is to increase real per capita income by about 20 per cent, based on an average GDP growth rate of 5.4 per cent and population growth rate of 1.9 per cent per annum during the Plan period. The following are some of the major projected outcomes:

- Opening of new avenues of economic growth in new sectors and harnessing potential of deprived regions of the country
- Keeping inflation rates in single digits during the Plan period

- Overcoming energy shortages and ensuring smooth and affordable energy supplies by the end of the Plan period
- Building modern infrastructure and extending the outreach of physical infrastructure to the remotest areas of Pakistan (for example, motorways, mass transit system, Gwadar Port, CPEC-related rail and road networks)
- Improving Pakistan's standing in international comparison of the cost of doing business and in the business environment for the private and foreign investors[2]
- Reducing the debt burden to a sustained level[3]
- Enhancing delivery, cost effectiveness and quality of output of the public sector investment programme through adoption of new development vehicles, like the public-private partnerships
- Active involvement of the private sector and civil society in formulation, monitoring and evaluation of the public sector projects

Drivers of the economic growth

The government will redefine its role as a facilitator and regulator rather than directly managing the production and distribution. However, it will continue to perform its decisive functions of the macroeconomic management, policy formulation and implementation of various laws. The private sector will be the main engine of economic growth and development. This will require a substantial revamping of the country's governance system, its incentive structure and the functioning of institutions. The industrial competitiveness will be increased, and cost of doing business reduced by major improvements in infrastructure, institutional reforms and policy paradigm.

New sectors will be identified and developed, while the existing sectors will be provided with information and support to modernise their production and distribution systems. Improved technology and information regarding best international practices will be disseminated throughout the agriculture sector in order to increase its value-addition. Agriculture and agro-business sector will be developed through vertical integration to reach high-end international markets.

The industrial development will be stimulated by making the Pakistani firms part of the global value chain through an enhanced competitiveness and reduction in the cost of doing business. Particular attention will be given to the Small and Medium Enterprise (SME) sector, which also generates sizeable proportion of employment. Measures, such as increasing number of the Common Facility Centres (CFCs), will be actualised to enable the SMEs improve quality and value-addition, and provide incentives to get formalised.

The services sector contributes more than 58 per cent to the GDP, and has emerged as major driver of the economic growth in the recent past. There is still unexplored potential in key services such as domestic commerce, transport, finance and insurance, communication,

[2] GCR rank among top 100 countries (Vision target: Top 75), Ease of Doing Business Rank (among Top 75), Double labour and capital productivity (Vision target: Triple), Knowledge Economy Index score from 2.2 to 3 (Vision target: 2.2 to 4)
[3] 60% of the GDP according to Fiscal Responsibility and Debt Limitation Act

housing, tourism, and social and community services. Appropriate measures will be designed to effectively harness the potential of this sector.

Sectoral growth projections

The projections are based on a reform programme and policy interventions to be undertaken during the next five years. The industrial sector has to play a crucial role, and it will benefit from an enhanced energy supply, administrative reforms, re-engineering of the business processes, opening up of the export market, and additional demand as a result of the rising incomes. The agriculture sector will receive major policy support in terms of quality inputs, better water management, enhanced credit lines and better-linked markets. The natural disasters and negative fallout of the climate change are major risks to the agriculture. The services sector will remain the mainstay of the economy and significantly contribute to the growth momentum. Important contributions are expected from the financial services, transport, communication and trade services. Table 1 shows projections of three sectors.

Table 1: Sectoral growth projections

(Per cent)

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2013-18
	Final	Revised	Provisional		Projections		Averages
Agriculture	**2.7**	**2.7**	**2.9**	**3.9**	**4**	**4**	**3.5**
Important crops	0.2	8	0.3	3.2	3.3	3.3	3.6
Livestock	3.4	2.8	4.1	4.1	4.1	4.1	3.8
Industry	**0.6**	**4.5**	**3.6**	**6.4**	**8.2**	**9**	**6.3**
Large Scale Manufacturing	4.2	4	2.4	6	8.5	9.2	6
Services sector	**5.1**	**4.4**	**5**	**5.7**	**6.8**	**7.3**	**5.8**
GDP (bp)	**3.7**	**4**	**4.2**	**5.5**	**6.5**	**7**	**5.4**

Savings and investment

The macroeconomic policies, including monetary, fiscal and exchange rate, will be designed to reinforce each other and create incentives for saving mobilisation. The taxation policies will be redesigned to enhance allocative efficiency in the economy, and will also be a great deal of attention to an equitable sharing of the tax burden by all income earners. The entire list of the Statutory Regulatory Orders (SROs) will be examined with a view to reducing distortions since the current SROs are mainly person or company-specific, and to levelling the playing field for the economic agents.

Attaining and maintaining high growth trajectory, as projected in the Plan, will require substantial investments. These flows will primarily be financed by mobilising higher levels of the domestic savings. In order to channelise investment to priority sub-sectors, the entire public investment programme will be scrutinised with a view to lay emphasis on those projects and activities, which will be effective for crowding-in the private investment.

The public spending has to play an important role in boosting investment. The development expenditure – for improving the infrastructure, institutions, social capital and also to promote greater equity – is likely to average at about five per cent of the GDP during the Plan period.

The public-private partnerships will be encouraged to lessen the burden on the Public Sector Development Programme (PSDP).

Growth, investment and savings strategies

The Plan recognises the importance of not only steering the economic growth to a higher growth trajectory, but also of sustaining it for longer periods. The growth strategy is based on the underlying assumptions of effective measures to enhance economic growth, a private sector-led investment drive complemented by the public investment, and incentives for more saving mobilisation. The framework has also taken cognizance of risks to the projections from challenges posed by the domestic security environment, resistance to changing the status quo and difficult global situation. The following table 2 depicts the envisaged framework.

Table 2 Macroeconomic framework
(Current prices)

(Rs billion)

Items	2012-13 Actual	2017-18 Targets	AACGR (per cent) 2017-18/ 2012-13
GDP (bp)	21,497	37,129	11.5
Indirect taxes (Net)	882	2,390	22.1
GDP (mp)	22,379	39,518	12
Net Factor Income from abroad	1,162	2,198	13.6
GNP (mp)	23,541	41,717	12.1
External Resources Inflow (net)	241	612	20.4
Total resources and uses	23,782	42,328	12.2
Total consumption	20,434	33,318	10.3
Total investment	**3,348**	**9,010**	**21.9**
Fixed investment	**2,990**	**8,378**	**22.9**
Public including General Government	**788**	**1,792**	**17.9**
Private	2,202	6,586	24.5
Changes in stocks	358	632	12
National savings	3,107	8,398	22
	As per cent of the GDP (mp)		
Total investment	**15**	**22.8**	
Fixed investment	13.4	21.2	
Public including General Government	3.5	4.5	
Private	9.8	16.7	
National savings	13.9	21.3	
External Resources Inflow (net)	1.1	1.5	
Memo items			
GDP (bp) growth	3.7	7	
Inflation	7.1	6	
GNP (mp) per capita (Rs)	**128,968**	**207,650**	**10**

In order to achieve these targets, two crucial steps are: formalisation of the economy and proper quantification of the economic aggregates with credible data. The share of Pakistan's informal economy is estimated to be more than 50 per cent[4] and employment trends also show that the informal sector is the largest employer of the workforce, which provided employment to 73.6 per cent of the non-agricultural workforce[5] in 2012-13, and is trending upwards.

Accurate and timely quantification of the economic activity is also of utmost importance because it guides the policy formulation and enables devising of appropriate strategies. Timely-revision of base of the national accounts and other economic indicators will facilitate the realisation of the Plan objectives.

Some sector-specific initiatives are given below.

Agriculture

To enhance productivity and efficiency of the sector, the government will

- overhaul marketing, advisory and extension services infrastructure with explicit targets for productivity and yield
- rationalise and monitor the mechanisms for setting the support price and procurement of wheat so as to maintain farming incentives
- increase the supply of quality seeds, including hybrid and high-yielding varieties
- ensure timely availability of the agriculture inputs by reforming the subsidies, imports policies, and marketing network
- improve water management through focus on increasing water reservoirs, for both irrigation and power generation, and
- eliminate subsidies largely benefitting interest groups rather than the poor farmers to align incentives and liberate resources from the federal and provincial budgets, and reallocate these resources for urgent public interventions, such as constructing farm-to-market roads, irrigation channels, refrigeration facilities and research centres.

Livestock

The livestock accounts for more than half of the value-addition of the agriculture sector, and imbalances between the supply and demand of the livestock products remained a major driver of inflation during the last five years.

During the Plan period, the strategy for the livestock sub-sector, among others, will consider the following initiatives:

- Formulate a milk augmentation programme by facilitating import of high milk-producing cows and buffalos from Australia and the Netherlands
- Incentivise corporate farming in order to expand meat supplies

[4] Planning Commission (2011)
[5] Labour force survey 2012-13

- Provide incentives to the poultry sector for production and exports, and enable it to exploit the potential of a large market in the Middle East

Industrial sector

Strengthening the industrial sector is a major plank in the framework of the Plan. The strategy for achieving the sectoral aims will include the following components:

- Improving the business environment by reviewing the regulatory framework governing the sector with a focus on the ease of doing business
- Provision of uninterrupted and affordable energy
- Promoting integrated supply chains and higher value-addition in the production sector
- Improving market information dissemination mechanism
- Revamping the vocational and technical education network to provide more skilled labour to the industry
- Encouraging small and medium industries through targeted loans, providing technical and extension facilities, and access to foreign markets with allowances for quality
- Establishing Special Economic Zones (SEZs) – where normal investment and trade restrictions do not apply – to help leverage further reforms

Services sector

The following steps will be taken.

- Technology upgradation
- Human resource development
- Skill development through technical and vocational trainings to enhance services exports
- Introducing export credit insurance
- Better financial regulations for improved and innovative financial instruments
- Rapid transit network in all major cities
- Improve and extend internet connectivity for penetration across Pakistan

Investment and savings

The following steps will be some of the major initiatives adopted to facilitate investment and savings.

Investment

- Making the Board of Investment (BOI) as a one-stop window for investors
- Simplifying procedures for licensing, approvals and land titles
- Creating a long-term and predictable investment and tax policy environment
- Modernisation of physical infrastructure and social networks

- Reducing entry and exit barriers for increasing competition and reducing the cost of doing business
- Forming clusters for priority industries
- Shifting of major commercial projects to the public-private partnership mode with adequate guarantees
- Designing strategies to increase venture capital

Savings

- Allowing government pension and benevolent funds to invest in stocks
- Improving and deepening corporate and government debt markets
- Increasing surveillance by the State Bank of Pakistan (SBP) to check malpractices in the financial sector
- Intensifying competition between commercial and foreign banks in the financial sector
- Limiting the spread between lending and deposit rates through an effective regulation by the SBP
- Deepening financial markets by providing incentives to increase availability of the competing financial products

PILLAR-I

PUTTING PEOPLE FIRST: DEVELOPING HUMAN AND SOCIAL CAPITAL

Chapter 4

POPULATION

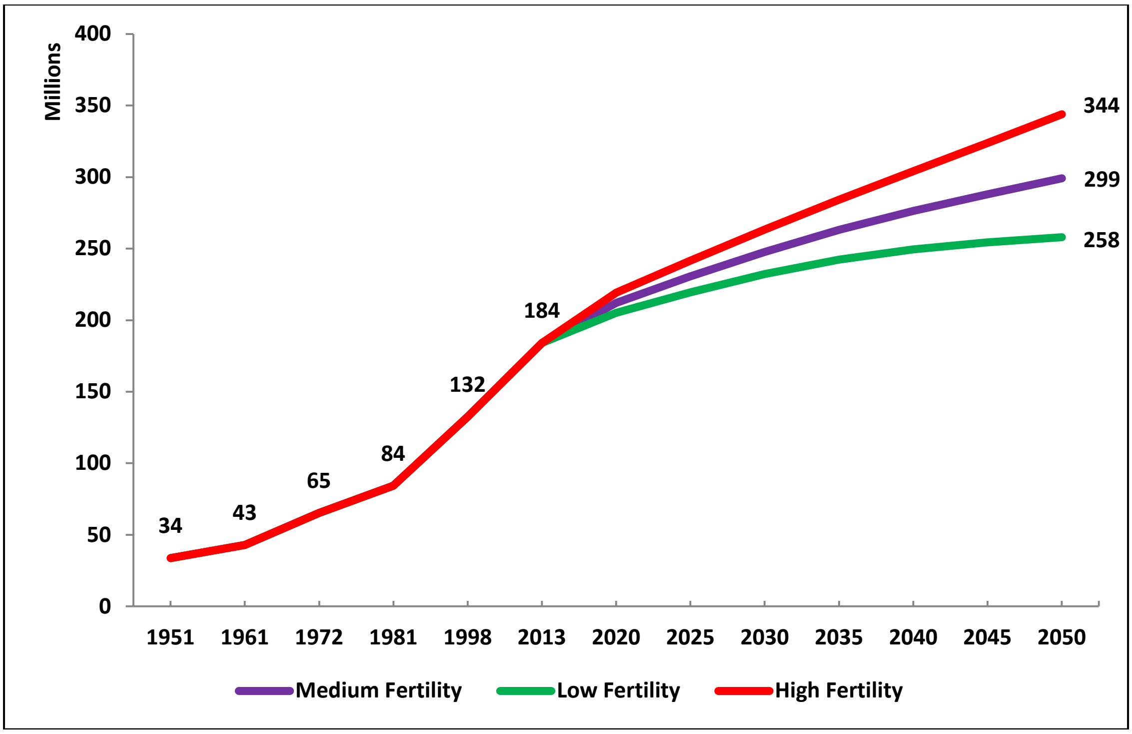
Pakistan is confronted with multiple internal and external challenges, including, financial and fiscal constraints, low literacy rates especially of women, poor quality of health and education services, high unemployment rates especially among the youth, energy crisis, water scarcity and food insecurity, terrorism and low status of women. While other countries are confronting some of the same challenges too, what segregates Pakistan from the rest is its continuing high-level of population growth rate. Almost all other countries of the region and other Muslim countries have been successful in curbing their high population growth rates through concerted efforts and by taking a position about population policy, which emphasised human development, particularly investment in education and health. These countries have come up with clear strategies to balance their population with resources. Consequently, their growth rates are closer to one per cent, while Pakistan continues to have a growth rate of about 1.9 per cent. The Plan will face a serious issue of matching resources with an almost unmanageable burgeoning population.

Pakistan has a chequered history regarding investments and priority accorded to population issues, and is far behind in its fertility transition. Resultantly, rapid population growth rate has eroded development gains and compounded the challenges of endemic poverty, social injustice, economic slowdown and environmental degradation. One of the most serious impediments to achieving success in school enrolment rates and in lowering maternal and child mortality, is high fertility, which directly increases the challenge of an ever-increasing schooling population of high parity and closely spaced births leading to high maternal and child mortality risks. As a result, neglect of this sector has contributed to Pakistan's failure in achieving its MDGs 3, 4 and 5.

In this Plan, Pakistan is effectively calling for greater investments in human development and clearly enunciated support for the population sector – both have lagged behind. Population is the hub of human development, while the spokes of the wheel are health, education, employment, gender, and youth sectors.

Given the lack of a population and housing census since 1998, future population-driven scenarios are based on projections. According to these projections, by 2050 the population can reach as high as 344 million if no further fertility decline occurs, and as low as 258 million if the fertility decline is more rapid (Figure 1). In this regard, a strong family planning programme is essential for achieving a more fast fertility decline and capturing benefits of the demographic dividend. At the London Family Planning Summit in July 2012, Pakistan set a target for raising its current Contraceptive Prevalence Rate (CPR) of about 35 per cent to 55 per cent by 2020, and reducing its total fertility rate from 3.8 per cent to 2.6 per cent by the same, and achieving replacement fertility by 2045.

Figure 1: Different kinds of fertility rates till 2050



While clearly ambitious in view of stagnation in impact of the family planning programmes in the last decade, where the CPR has barely changed from around 30 per cent in 2001 to 35 per cent in 2013, this is an achievable objective, as based on comparisons with other countries of the region. Furthermore, initiatives within Pakistan have succeeded in raising prevalence in a short period provided the intent to implement is there and resources are available. No obstacles will prevent Pakistan from accelerating an increase in its CPR, even in the rural areas, and among the poor and uneducated. New national population and development policy has to be framed in terms of meeting unmet needs, and encouraging birth spacing for the purpose of improving the health of mothers and children rather than for achieving demographic targets. This approach is consistent with the rights framework and the International Conference on Population and Development (ICPD) Programme of Action.

Developing population policies at the provincial level will be all the more challenging because each province must now highlight its own priorities. Two sectors, population and health, will have to contribute most immediately. In the post-18th Constitutional amendment scenario, these two sectors fall entirely within the ambit of the provinces. The provincial programmes will, therefore, have to revise their objectives and increase their efforts for achieving the desired results. The provinces will also have primary responsibility for ensuring coordination and monitoring of trends to track progress on policy implementation.

Changes in population size and growth rate in Pakistan from 1951 to 2015 are shown in Table 1 below.

Table 1: Population growth 1951-2015

Census year	Population (Million)	Average annual intercensal growth rate (%)	Percentage intercensal increase
1951	33.82	1.8	-
1961	42.98	2.5	27.09
1972	65.32	3.6	52.31
1981	84.25	3.1	29.01
1998	133.32	2.6	57.09
2003	147.69	2.03	-
2010	172.57	2.08	-
2011	176.20	2.06	-
2012	179.86	2*	-
2013	184.35	1.97*	-
2014	188	1.95*	-
2015	191.71	1.95 (P)*	

Source: *Population of Pakistan: An Analysis of Population and Housing Census, 1998, and Planning Commission Sub-Group-2 on Population Projections 2010-15.*
**Economic Survey of Pakistan 2013-14*

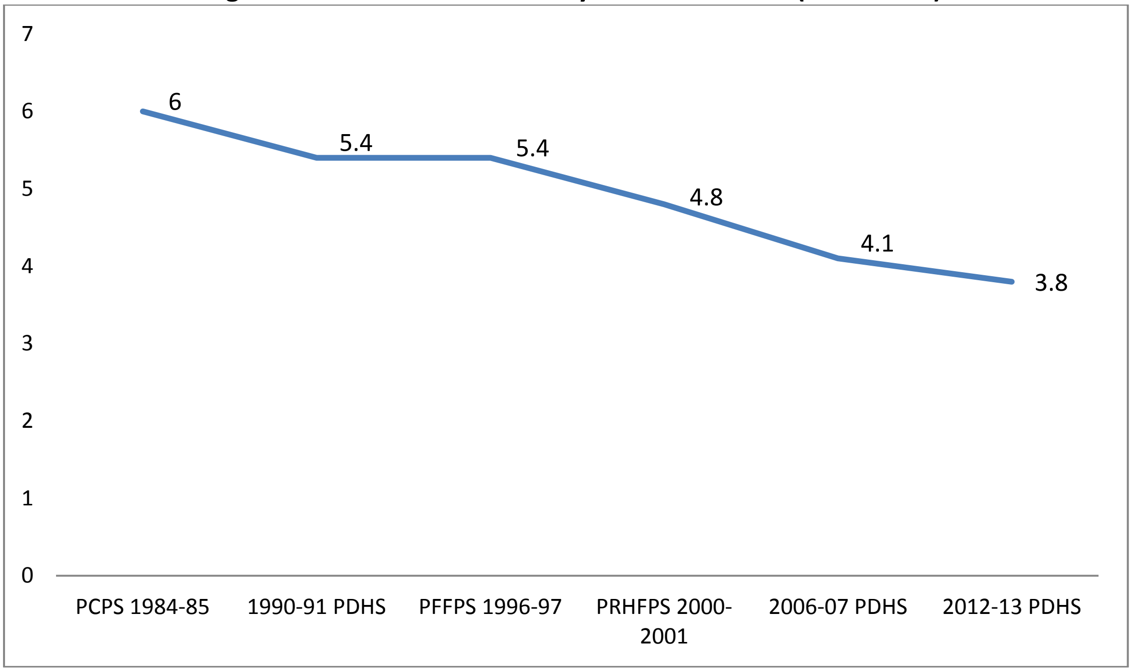
Thus far, the population growth has been eroding a part of the development gains. A decline in the fertility rate and lowering of the population growth rate can provide a major boost to development. It can be a key impetus for the economic growth, most importantly free resources for catering to the needs of growing numbers, and can be diverted to develop and mobilise human resources; thereby improving investments in human development. A strategy has been outlined for refocusing on population as a priority sector with a view to its important implications on population trends for every aspect of the Plan.

Current population estimates

As there has been no Census since 1998, the population is estimated to be at 188 million in 2014. Today, Pakistan is the sixth most populous country of the world. It has the highest population growth rate of 1.9 per cent and the lowest CPR of 35.4 per cent amongst the South Asian Association for Regional Cooperation (SAARC) countries. The crude birth rate (per 1000) in 2013-14 is at 26.4 (per 1000), and the crude death rate at 6.9 (per 1000), which are unacceptably high. This results in an annual addition of over 3.7 million people in its population size, which is projected to reach 219 million by 2020, and 344 million by 2050, when it is likely to attain the fifth position on the population table. It continues to lag behind with respect to other demographic indicators as well. An estimated 14,000 maternal and 400,000 infant deaths occur annually, a large proportion of which is linked to high fertility.

The total fertility rate, which is the average birth per woman, has declined sharply in the 1990s from about six to four children in 2001 (Figure 2). However, since then progress has slowed down and fertility is estimated at 3.8 children in 2012-13, according to the Pakistan Demographic and Health Survey with a CPR of 35 per cent, which is about half the level of other SAARC and Muslim countries. Goals, set earlier in the 2002 policy for Pakistan, were to achieve a Total Fertility Rate (TFR) of 2.1 by 2015, which has now been deferred to 2020. Pakistan has also committed internationally to a CPR goal of 55 per cent by 2020. This requires an acceleration of efforts for reducing fertility rates and increasing contraceptive prevalence.

Figure 2: Trends in total fertility rate of Pakistan (1984-2013)

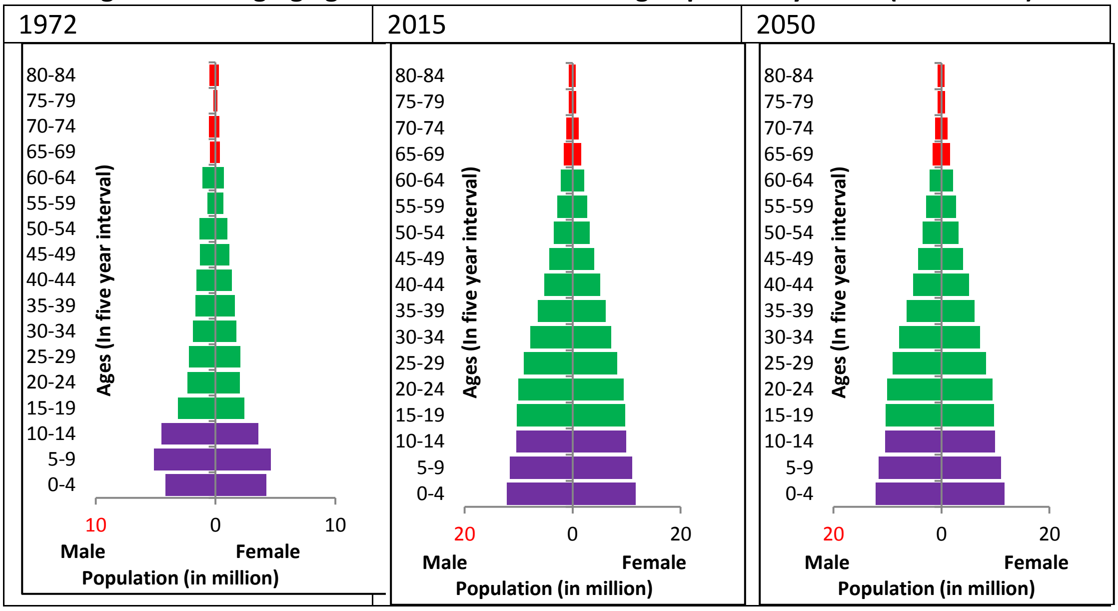


Some important demographic changes

A major change in the demographic profile as a result of the demographic transition, which began in the 1990s, is the changing age structure. In the past, population was much younger due to high fertility rate with the proportion of children under 15 outnumbering the working age population. This has begun to change in the last decade, and now the working-age population dominates and dependency ratios have begun to decline. Our working-age population of 117 million (62 per cent) and the youth (15 to 24 years) population of 41 million (22 per cent) present an opportunity for greater savings and economic growth provided they are skilled and employed. Translating this surge of the youth into the working-age population can translate into a 'demographic dividend' if the economy is able to create new jobs and productive opportunities. Historically, a demographic transition, like that of Pakistan, has provided unique opportunities elsewhere, particularly in the East Asia, for reaping dividend and progressing economically. Pakistan's economic prospects hinges on how it captures the demographic dividend through investments in education, health and skill development, and employment creation for its youth.

The population and development policy dialogue must make clear that the potential effects of the demographic dividend, even once fertility begins to falls more rapidly, are not automatic. The fact that countries in the East Asia and elsewhere experienced that the dividend does not guarantee that other countries will follow the suit (*Bloom and Canning 2004*).

Figure 3: Changing age structures and lowering dependency ratios (1972-2050)



Another major change of the past is that efforts were devoted to increasing demands for smaller families and family planning, but now the demand for family planning outstrips supply. Preferences of both women and men have changed and the majority want no more children or to space their next child. The latest evidence shows that there are about four million unwanted pregnancies in Pakistan, and half of them end in unwanted births. There is undoubtedly a considerable drive for lower fertility across the country and that is what couples want. This is the perfect opportunity for capturing the low-hanging fruit by providing quality affordance, and accessible services can raise the CPR from 35 per cent to 55 per cent by enlisting 20 per cent additional couples with unmet need. This will reduce fertility levels by at least one child to 2.8 children, closer to the wanted fertility levels.

PLAN

In the 1990s,a robust Family Planning and Reproductive Health (FP&RH) achieved lowering of the increased rate of population growth. With a very high unmet need for the FP&RH at 20 per cent, several barriers need to be overcome, including: misgivings regarding family planning methods, difficulties in accessing facilities and services, absence of client-focused quality services, as well as a disrupted flow of information and availability of contraceptive methods. In this regard, strict monitoring and evaluation, accountability and assurance of quality services at the individual level, have a critical role to play. The quality of services, which include provision of adequate information to the clients about the FP&RH, etc., technical competence of the service providers, and uninterrupted availability of medicines and contraceptives, need to be reviewed and accordingly addressed.

The broader objectives of the Plan include:

- Raising level of the current CPR from 35 per cent in 2012-13 to 49 per cent by 2017-2018, and to 55 per cent in 2020
- Increase the number of users from 11.9 million in 2013-14 to 16.1 million in 2017-2018
- Reducing the Crude Birth Rate (CBR) from 24.2 per thousand population in 2013-14 to 20.5 per 1,000 population by 2017-2018

- Bringing down the population growth rate from about 1.9 per cent per annum in 2013-14 to 1.87 per cent per annum by 2017-2018

For achieving the long-term objective of attaining the CPR of 55 per cent by 2020, the population programme will focus on new initiatives and priority programmes through the following focused interventions:

Firstly, population challenges need to be addressed through a coordinated and integrated approach, which requires involvement of all other sectors, cross cutting with the population issues. Since rapid growth of population affects all efforts being made in the sectors of health, education, women development and poverty reduction, etc., its objectives are virtually intertwined with all aspects of the Plan. Particularly, it emphasises the need to make a link with the health sector to increase access to services and with women empowerment for recognising females' role. Furthermore, there is an inadequate public-private partnership, and also non-existent mechanism for strengthening this partnership, while the private sector and NGOs are not fully involved in sharing the responsibility. At the moment, there is no mechanism of supporting and enlisting participation of the NGOs in service delivery and other programmes. This will be rectified as these organisations can contribute greatly, especially in non-serviced areas to meet unmet demand. A strong coordination will be established to rein in all potential synergies among all related sectors, and provide a mechanism of supporting the NGOs.

Secondly**,** since there has been little or no ownership and accountability of this sector, consequently attention and resources have dwindled. This will be reversed for a central development priority. Through the Vision 2025, the Plan will secure strong commitment and political will at the federal and provincial levels to make concerted efforts for improving results. While the provinces have full responsibility for implementation of programmes, and delivery of health and population services, there are some federal responsibilities, such as international coordination, provision of support to the provincial programmes, research and overall policy directives, including internal commitments. Strong oversight mechanisms will be enforced more stringently.

Thirdly, during the Plan period, the Ministry of National Health Services, Regulations and Coordination (NHSR&C) and the provincial health and population departments will address unmet need for the family planning with a renewed commitment. These will put the planning squarely as part of its priorities with population welfare, and extend maximum support. Since the health departments and Provincial Line Departments (PLDs) service outlets cover a wider outreach and are more numerous as compared to the service outlets of the Population Welfare Programmes (PWP), effective measures will be taken at the highest level to involve all the existing service outlets of the provincial health and line departments (Basic Health Units, Rural Health Centres and Tehsil Hospitals) and Special Areas (AJ&K, G-Band FATA) for provision of the FP&RH services. This is the only way to minimise the high unmet need for the FP&RH.

Fourthly, the population welfare departments will train doctors, paramedics and Lady Health Visitors (LHVs) of the health and PLDs in the FP&RH, clinical and traditional methods, and contraceptive technology at the Population Welfare Regional Training Institutes (PWRTIs), while taking proper remedial measures to increase their attendance and availability at the outlets. An adequate and regular supply of contraceptives will be made to the health and PLD service outlets through the public health contraceptive logistic system.

Fifthly, a well-directed and well-designed multi-channelled communication and media strategy will be developed by the PWP to convey the message that birth spacing saves lives. This approach has wide appeal across the board and full religious approval. More focused Interpersonal Communication (IPC) strategies will be pursued, where men will be as much focussed as women.

Sixthly, the progress will be monitored regularly. This will require improved population data on fertility and contraceptive prevalence trends, including urban and rural breakdowns. Household surveys will be conducted to measure changes in essential demographic behaviours. The newly-formed provincial branches of the Pakistan Bureau of Statistics (PBS) will coordinate this effort alongside the development of vital statistics systems.

It is important to collect fertility and contraceptive prevalence rates at the district and provincial levels as well as nationally through the Pakistan Social and Living Standard Measurement Survey (PSLMS). At the moment, there is no way of regularly monitoring annual progress in neither contraceptive prevalence rates nor fertility rates. Pakistan relies on the five-yearly evaluations of the demographic and health surveys, which are too late and infrequent to correct the course. The census, earlier postponed several times, is now scheduled to take place in March 2016, and will produce critical data for the entire planning process.

Financial review

An amount of Rs24.7 billion was allocated to the PWP in the Medium-Term Development Framework (MTDF). However, the utilisation was Rs16.5 billion due to delays in releases.

Physical review

The service delivery achievements remained satisfactory. The component-wise accomplishments made during the MTDF period (2005-10) are as follows:

(Cumulative)

S#	Service delivery outlets	Target	Achievement
1	Family Welfare Centres (FWC)	2,040	2,846
2	Mobile Service Units (MSU)	175	292
3	RHS-A	120	176
	Total	**2,335**	**3,314**

Key issues and challenges

Some of the major weaknesses, specific to the PWPs, are:

- For the last couple of decades, the PWPs are dependent on the development budget and funded through the federal Public Sector Development Programme (PSDP).
- The PWPs are being executed by the provincial governments, which have not picked up their recurrent financial liabilities to reduce the burden of the federal exchequer. There seems to be a lack of ownership of the Programmes by the provinces.

- Insufficient service delivery infrastructure, low coverage, and services are incompatible with demand. There is low quality of care and services, unreliable contraceptives methods and their detrimental side-effects and low turnout of clients at the Family Welfare Centres (FWCs).
- Lack of trained service providers, little emphasis on the need-base refresher trainings, lack of incentives to them and non-existence of their career planning
- Rampant absenteeism amongst the field functionaries
- Lack of commitment on their part and their lethargic attitude towards clients
- Weak, inadequate, irregular and inefficient monitoring and evaluation system for the health and PWP activities

Interventions to achieve desired goals

Financial Plan

For five years, a projected amount of Rs37 billion will be earmarked for the population welfare, and there is no foreign assistance for the programmes. The first six PWPs, in the Table 2 below, have been approved by the Executive Committee of the National Economic Council (ECNEC), while the remaining three have been done by the CDWP.

Table 2: Year-wise projected PSDP 2013-14 to 2017-18 for the population welfare sector

(Rs million)

Names of programmes	Allocations			Proposed		Total
	2013-14***	2014-15	2015-16	2016-17	2017-18	
PWP Punjab (2010-15)	4,060	3,789	2,715	2,663	2,692	15,919
PWP Sindh (2010-15)	2,327	2,171	1,629	1,526	1,543	9,196
PWP KPK (2010-15)	1,434	1,338	760	940	951	5,423
PWP Balochistan (2010-15)	900	840	326	590	597	3,253
Sub-total (provincial)	**8,721**	**8,138**	**5,430**	**5,719**	**5,782**	**33,790**
PWP AJ&K (2010-15)	250	233	243	74	58	858
PWP G-B (2010-15)	133	124	129	40	31	457
PWP FATA (2010-15)	88	82	86	26	20	302
**PWP, Islamabad	470	439	457	140	109	1,615
Sub-total (Special Areas)	**941**	**878**	**914**	**281**	**218**	**3,232**
Grand total:	**9,662**	**9,016**	**6,344**	**6,000**	**6,000**	**37,022**

Sources: *PSDP 2015, Year Book 2013-14, PIP Section*

* In the post-devolution period, the Federal PC-I stands abolished
** Transferred to the non-development budget
*** Funds were capped in FY 2010-11 after a decision of the CCI.

Physical targets and goals

The PWP envisages establishing service delivery outlets during the Plan period, which are enlisted in Table 3 below.

Table 3: Physical and contraceptive user targets and goals

(Cumulative number)

	2013-14 (Target)	2013-14 (Achievement)	2014-15 (Target)	2015-16 (Target)	2017-18 (Target)
Family Welfare Centres	3,427	2,891	3,000	3,200	3,427
Reproductive Health-A Centres	269	207	230	250	270
Mobile Service Units (MSUs)	300	292	325	350	380
Contraceptive users (Million)	10	8	12	13	14
RHS-B Centres	184	133	200	225	250
Registered Medical Practitioners(RMPs)	27,576	9,297	25,000	27,000	29,000
Hakeems and Homeopaths	14,009	8,071	15,000	16,000	17,000

Chapter 5

SCHOOL AND COLLEGE EDUCATION

The growth of economy, world becoming a global village and strengthening of democratic dispensations have added to the importance of education, and now it must be ensured that every citizen has access to high quality and effective education.

The quality education shapes human lives in accordance with the changing times by providing employable, efficient and suitably transformed skills, while it also makes the students tolerant and productive simultaneously. All the previous educational plans have aimed at providing universal primary education and proportional increases in the enrolment at the secondary and higher education levels in the shortest possible time with gender and regional equity. The curricula, provision of technical-cum-vocational and higher education also remained salient features. However, due to lack of political will, inadequate capacity for planning and implementation and underperformance in utilisation of the development provisions, the targets have remained unrealised.

Under these circumstances, the Plan proposes new initiatives for achieving universal primary education, enlarging access to all levels, ensuring quality, actualising regional and gender parity (particularly at the primary level), providing latest skills, and an increase in the share of education resources, both in public and private sectors.

The new policy initiatives are meant for improving quality and delivery of education services. These include: developing a standardised curriculum, development of national standards for education, emphasis on training of teachers and the use of better teaching-learning methods and establishing independent monitoring system.

Role of the federal government

After the 18th Constitutional amendment, education has been devolved to the provincial governments, except for the federal territories. The responsibility of the centre is enshrined in Article 25A of the Constitution, which states:

Right to education: The State shall provide free and compulsory education to all children of the age of five to sixteen years in such manner as may be determined by law.

Situational analysis – Millennium Development Goals

Goal 2: Achieve universal primary education

Target: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of the primary schooling.

Table 1: Achievement of Goal 2 at the national level

Indicators	2001-02	2004-05	2006-07	2008-09	2010-11	2011-12	2012-13	MDG target
Net primary enrolment rate (%)	42	52	56	57	56	57	57	100
Completion/survival rate Grade 1 to 5 (%)	57.3	67.1	54.7	54.6	49	50	51	100
Male	53.3	61.8	56.2	54.8	59	60	60	
Female	64.3	75.8	52.9	54.6	39	40	42	
Literacy rate (%) 10 years and old	45	53	55	57	58	58	60	88
Male	55	65	66	69	69	70	71	89
Female	35	40	43	45	46	47	48	87

Source: *Pakistan Social and Living Standard Measurement Surveys (PSLM)*

Table 2: Achievement of Goal 2 at the provincial level (2012-13)

Indicators	Punjab	Sindh	KPK	Balochistan
Net primary enrolment rate (%)	62	52	54	45
Completion/survival rate Grade 1 to 5 (%)	54	52	44	34
Male	61	62	59	49
Female	47	41	29	18
Literacy rate (%) 10 years and above	62	60	52	44
Male	71	72	70	62
Female	54	47	35	23

Source: *PSLM*

Goal 3: Promoting gender equality and women empowerment

Target: Eliminating gender disparity at the primary and secondary education by 2005 and to all levels of education not later than 2015

Table 3: Progress of Goal 3 at the national level – Gender Parity Index (GPI)

Indicators	2001-02	2005-06	2008-09	2010-11	2011-12	2012-13	MDG target
GPI Primary Education (Age 5-9 years)	0.82	0.85	0.84	0.88	0.90	0.89	1
GPI Secondary Education (Age 13-14 years)	0.75	0.84	0.80	0.85	0.81	0.82	0.94
GPI Youth Literacy (Age 15-24 years)	0.64	0.74	0.78	0.79	0.81	0.65	1

Table 4: Progress of Goal 3 at the provincial level by 2012-13 – Gender Parity Index (GPI)

Indicators	Punjab	Sindh	KPK	Balochistan
GPI Primary Education (Age 5-9 years)	0.94	0.86	0.81	0.65
GPI Secondary Education (Age 14-15 years)	0.96	0.75	0.58	0.37
GPI Youth Literacy (Age 15-24 years)	0.72	0.62	0.45	0.31

Plan

Challenges and issues

The public sector education institutions are currently under-resourced, whereas the quality of education is even much more important to increase enrolments and reduce drop outs. The capacity issues in terms of utilisation of allocations made for education is another challenge. Non-availability of the required number of schools, quality infrastructure, insufficient and properly trained teachers, well-equipped laboratories and libraries, basic facilities like electricity, water, sanitation and boundary walls in a number of schools are a few serious challenges for quality assurance, reducing drop outs and increasing access to education.

There is also deficient achievement of the MDGs, Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER) at the primary, middle and secondary levels, and removing regional and gender imbalances and under-providing appropriate skills at the schools and purposeful higher education. The existing curriculum lacks relevance and pedagogical skills for enhancing scale and quality of education in general, and scientific and technical education in particular.

There is a need for an enhanced management and administrative capacities at all levels, encouraging public-private participation and enhanced private sector investment. It also calls for governance reforms, and adoption of regulatory and structural improvements in the system.

Objectives

The objectives of the Plan are to

- provide equal access and opportunities for all and at each level
- improve quality of education at all levels, that is, primary, secondary, college and university
- improve physical facilities and increase the output of professional and technical institutions
- achieve the MDGs targets by increasing resources and supporting policies
- reduce regional and gender disparity in human development and social indicators
- provide a large pool of highly skilled human resources for reducing skill gaps in key sectors and for employment abroad
- set up measurable targets and performance indicators for monitoring of improvement in governance and delivery of good quality education services, and
- promote cultural harmony, mutual understanding, tolerance, social integration and brotherhood.

Strategies

These will be formulated to make the education system consonant with the ideological, social, economic and national needs, which include:

- Declaration of the national education emergency to eradicate illiteracy on war footing basis

- Achieving 100 per cent enrolment at the primary level and 75 per cent universal literacy, strive to meet the EFA and MDGs
- Launching a national literacy movement fully supported and participated by volunteers from all the segments of the society
- Generating an educational environment encouraging the thinking process ('learning how to learn')
- Establishing the National Curriculum Council to review curricula for bringing these at par with the international standards
- Developing standardised, transparent and reliable examination system
- Providing research-based education having institutional linkages with industry, while ensuring relevance of curricula and educational practices aimed at meeting market needs
- Enhancing teachers' salaries, status, and pedagogical skills to be the centre of educational reforms, while eliminating their shortages
- Monitoring by autonomous evaluation authorities and using modern technology to check performance
- Creating a set of skills and aptitudes enabling employability and productivity simultaneously with character building
- Seeking greater investment in skill generation during and after 10 years of schooling and social reforms to include women
- Providing career-counselling services in educational institutions
- Increasing public expenditure on education to four per cent of the GDP by 2015, and five per cent by 2018 with simultaneous enhancement in planning, management and delivery capacity of the education administrators
- Setting up education endowment funds in all provinces for awarding scholarships to poor and needy students for higher education
- Providing financial assistance to Medrassahs for bringing their standards of education in conformity with the mainstream education
- Developing libraries, art, culture and sports, and introducing competitions in extracurricular activities
- Capacity-building of the provinces for effective handling of additional responsibilities entrusted to them after the 18th Constitutional amendment
- Establishing autonomous District Education Authorities (DEAs)
- Introducing inclusive education institutions to streamline the special children for enabling them to attend schools
- Strengthening schools for overseas Pakistani children

Targets

Targets of the Plan are enlisted in Table 5 below.

Table 5: Benchmark[1] and targets (%) for 2013-18

Level	Benchmark 2012-13				Target 2013-18				Vision 2025
	Male	Female	Total	GPI	Male	Female	Total	GPI	%
Literacy 10+	71	48	60	0.67	86	65	75	0.75	90
Youth literacy 15+	69	45	57	0.63	72	50	61	0.69	-
GER Primary	98	83	91	0.85	105	95	100	0.90	100
Primary completion rate	60	42	51	0.70			70		100
GER Matric	65	48	57	0.73	75	60	67	0.80	GPI: 1

Programmes

Literacy

All efforts will be to achieve 100 per cent literacy rate and universal primary education by 2018 ensuring zero drop-out rates at the primary level. The National Commission for Human Development (NCHD) and community schools will ensure educating the drop outs of the formal system to achieve targeted literacy rate. The existing school infrastructure, wherever possible, will be used for non-formal education. A portion of the district and provincial budgets will be allocated for literacy and non-formal education. The literacy departments will start adult literacy programmes, whereas the NGOs and Allama Iqbal Open University (AIOU), with the help of tutors and retired teachers, will be encouraged to run on-need-basis literacy programmes for adults. Mosques and religious institutions will also be utilised for the promotion of literacy. The post-literacy and job-relevant materials and newspapers will be developed for the new-literates to save them from relapsing into state of illiteracy.

Elementary education

The primary education provides a pro-poor intervention. All children of age-group 6-10 years will be brought to school by 2018 by providing free and accessible primary education facilities. Attendance, participation, completion and preparation of students for the next stage of education will be ensured through provision of additional facilities and strengthening the existing facilities. The National Education Policy (NEP, 2009) has proposed to initiate Student ID system. Arrangements will be made to provide one-year Early Childhood Education (ECE) to children below the newly-proposed primary school age-group. The provincial education departments will keep data of all 'will be' students and motivate parents to enrol their children into schools and complete primary education.

Gender and regional balances will be ensured. No child will dropout from primary education because of poverty only since financial, food and health supports will be provided to stop it. Necessary audio-visual aids and equipment will be provided for teaching science and mathematics. Enrolment will increase due to provision of new and missing facilities as well as consolidation of the existing facilities.

[1] Based on PSLM Survey 2012-13, Pakistan Bureau of Statistics, Government of Pakistan

Secondary Education

The secondary education will be restructured to consist of classes VIII to XII. Additional facilities concomitant to the output of the elementary education will be provided. Classes XI and XII will be gradually detached from colleges and made part of the secondary education. In the process, it will be ensured that quality of education does not suffer and necessary human and physical resources are made available. Attendance, participation, completion and preparation of students for the higher education and for place of work will be ensured through strengthening of the existing facilities and provision of additional facilities.

The secondary education will be made relevant to the needs of the labour market or prepare students for higher studies. Those being prepared to join labour market will be provided job shadowing opportunities and assignments with local entrepreneurs and institutions. At this level, students will be provided career guidance and counselling.

College education

The NEP 2009 proposes to detach classes XI-XII from the colleges and include these in the secondary schools. The Higher Secondary Education will be gradually transferred to the secondary schools, and the intermediate colleges will be converted into degree colleges. The present inter, degree and post-graduate colleges will be converted into colleges offering undergraduate and post-graduate courses at par with those of universities. Necessary human and physical resources will be ensured, while intake will be increased to make it concomitant with the higher secondary level.

Scholarships

Provinces and other areas will ensure universal and free primary education, which will keep in view the comprehensive definition of 'Free'. The term encompasses provision of all education-related costs, which include: expenditure on stationery, school bags, transport and meals, which are, in general, not covered at present, and will be applied as a basis of allocating funds on need-basis for poor children[2]. This will make primary education a means for social protection of the vulnerable children and affordable to the parents. Financial and food support will be provided to all the vulnerable to risks and shocks segment of the children to bring them into school and stop their dropout at primary level. Other social protection programmes will also help provide education to the needy children. This support will also be provided to similar students of the secondary education. The national, provincial and district merit programmes for students and institutions of various levels will continue, and their coverage be enhanced. The scholarship programmes at the university level will be further improved to ensure quality educational outcomes.

Quality education

Concerted efforts will be made to improve the quality of education at all levels, which encompass:

- Provision of missing facilities, establishment of *Apna Ghar* residential schools, healthy competitions among schools on the basis of curricular and co-curricular activities, filling vacancies by recruiting highly-qualified and trained teachers, reviving confidence in the public sector education system by developing national standards for education,

[2] National Education Policy 2009, Ministry of Education, Government of Pakistan, (chapter 2, Para 57:7)

strengthening science laboratories by providing equipment, strengthening and establishing libraries, upgrading primary schools to elementary where needed, adding classes XI-XII to the secondary schools and converting intermediate colleges to degree will be done on need basis.

- Curriculum will be made student-centred and focus on outcomes rather than contents. Use of the Information and Communication Technologies (ICT) will be promoted in education. Life skills-based education will be included in the curriculum. The Matric Tech Scheme will be introduced with a larger scope. The assessment system will be reviewed and improved. Co-curricular activities will be organised in all institutions, whereas the curricula will include themes of community services, social protection strategies, emergencies, natural disasters and trauma management. Guidance and counselling will be provided to students for further education or adoption of a career after their passing out.
- Pay-scales of the teachers will be enhanced and linked to their qualifications and training levels. Teachers will be provided opportunities for professional development and undergo relevant training before awarding promotions. Specialised training will be provided to the ECE and literacy teachers. Programmes of capacity-building of teachers' training institutions and training of teachers initiated during the Medium-Term Development Framework (MTDF) 2005-10 will continue.
- Educational institutions will provide time table for smooth holding of the co-curricular and extracurricular activities. Through these activities, a concept of service to the society will be introduced. Different societies, forums and clubs in the educational institutions will provide opportunities to students for expressing their outlook and put across their performances.

Skill development

The Matric Tech Scheme will be introduced. Curriculum will be modified to introduce this Scheme up to the higher Secondary level. Output of the SSC will be encouraged to join higher level technical and vocational education. Vocational training facilities, polytechnic institutes and colleges of technology will be established on need basis. The existing vocational and technical institutions will be strengthened. All agencies working for the promotion of technical education require collaboration at the national level.

Libraries

Investment in school and college libraries will be enhanced for proper maintenance, and equipping these with modern facilities. More public libraries will be established and their usage will be ensured. Also, libraries will be provided in the rural areas.

Private sector

The District Education Departments will develop coordination with the private sector, and evolve regulations for running schools and for improving quality of education so as to establish equivalence of certificates below the SSC level. The private sector is expected to adopt the structural changes. Incentives will be provided for accommodating poor children in quality private schools in the form of public financing for provision of qualified and trained teachers as a part of public-private partnership. The private sector will add to the government efforts for improving provision of education through inputs such as school construction, transportation, food and healthcare, literacy programme, etc. It is expected that the private sector will continue to share the provision of educational facilities at least at the present level (0.5 per cent of the GDP, 36 per cent share in total enrolment, and more than 50 per cent at technical and vocational level[3]). The National Education Census (2005) indicated that the private sector contributed about Rs40 billion in 2004-05. It is expected that during 2013-18, the sector would add Rs400 billion for recurring and development activities for the basic and college education.

Governance: Efficiency, supervision, monitoring and research

Training will be provided to educational planners and decision-makers in the use and analysis of educational statistics. In view of restructuring of the education system, managerial and administrative arrangements will be reformed. The Personal and Financial Management Information Systems, linked with the existing Educational Management and Information System, will be developed. Decentralisation will be pursued at each level to move decision-making closer to the point of implementation, and will eventually move to the school level, which will become the basic unit for planning, including school-based budgeting. Trained professional educational planners will be in charge of the education departments and directorates. The School Management Committees will assist in carrying out school activities. The Monitoring and Evaluation (M&E) of the programmes, projects and systems will be a regular feature with research-based character for future guidance. Activities like that of the National Education Assessment System (NEAS) can produce research-based reports pinpointing deficiencies of the education system and making recommendations.

Financial allocation and resource generation

The federal and provincial governments will increase both development and recurring financial allocations for all levels of education during the Plan period. Allocation for the development programmes in the public sector is estimated to be of Rs523 billion, which will be shared between the federal (Rs23.1 billion) and provincial governments (Rs500 billion). The governments will commit to provide the resources so that the MDGs targets for education and training are achieved by 2018. The governments will prepare their own action plans in the light of the present deficiencies and achieving proposed national targets. A summary of the sub-sectoral details of the development allocation, required for activities to be undertaken during the Plan period, is as follows:

Table 6: Sector-wise resources at the federal and provincial levels

(Rs billion)

Sub-sector	Federal	Provincial	Total	Sub-sector share %
Literacy	1.6	35	36.6	7
Elementary	6	130	136	26
Secondary	6	130	136	26
College	3.2	70	73.2	14
Technical	1.8	40	41.8	8
Teacher	0.9	20	20.9	4
Scholarship	3.5	75	78.5	15
Total	**23.1**	**500**	**523.1**	**100**

[3] National Education Policy 2009, Ministry of Education, Government of Pakistan, (Annexure: I, Para 30)

Table 7: Sub-sector wise allocation at the national and provincial levels

(Rs billion)

Sub-sector	Federal	Punjab	Sindh	KPK	Balochistan	Total
Literacy	1.6	18.1	8.6	5.1	3.2	36.6
Elementary	6.0	67.3	31.9	19.0	11.8	136
Secondary	6.0	67.3	31.9	19.0	11.8	136.0
College	3.2	36.2	17.2	10.2	6.4	73.2
Technical	1.8	20.7	9.8	5.9	3.6	41.9
Teacher	0.9	10.4	4.9	2.9	1.8	20.9
Scholarship	3.5	38.8	18.4	11.0	6.8	78.5
Total	**23.1**	**258.7**	**122.7**	**73.1**	**45.4**	**523.1**

Vision 2025

The Vision 2025 seeks a Pakistan in which every citizen has the opportunity to improve his choices and quality of life. The Vision aims at substantial expansion of access to education as well as making significant improvements in the quality of education.

Educational benchmarks and targets 2025 (per cent)

Year/Level	Benchmarks 2012				Targets 2025			
	Male	Female	Total	GPI	Male	Female	Total	GPI
Literacy 10+	70	47	58	0.67	100	90	95	0.90
GER Primary	97	83	91	0.85	110	100	105	0.90
GER Matric	**70**	**51**	**60**	**0.73**	**82**	**68**	**75**	**0.83**

Source: *Pakistan Social and Living Standards Measurement (PSLM) Survey 2011-12*

Action plan

The following actions have been envisaged.

- Implement Article 25-A; increase access to all levels of education, such as pre-primary and primary, middle, secondary and higher secondary education by necessary legislation; resource mobilisation and investments in educational institutions in close proximity; free schooling, encouraging public-private partnership, provision of missing facilities, and presence of good teachers
- Enhance quality of all levels and types of education through provision of qualified and trained teachers appointed on merit, timely provision of relevant teaching and learning materials, effective governance, and strong community participation
- Build capacity, through training of education planners and managers to design and implement education services effectively
- Expand the non-formal basic education network to reach the ‘unreached’, that is, the out of school children in far and remote areas, especially girls
- The M&E system be initiated in each education unit and division to review progress of programmes and assess the impact as targeted in the education policy, plan and programmes

Chapter 6

HEALTH

The nexus among malnutrition, population, ill-health and poverty is recognised by all. Poor health contributes to poverty due to huge costs incurred on treating illnesses, and reduces learning and earning capacities in childhood and adulthood respectively. Hence, health holds key position to reduction of poverty, and contributes to the national economic growth.

In Pakistan, the health sector investments are viewed as part of the government’s poverty alleviation endeavour. Pakistan suffers from an unacceptably high infant and maternal mortality, a double burden of diseases, and inadequate facilities apace with the population growth. Slow progress in the indicators of maternal and child health, their morbidity and mortality are major concerns in the progress towards achieving the Millennium Development Goals (MDGs).

The 18th Constitutional amendment has devolved the health service delivery to the provinces. However, funding to the national programmes has been continued by the federal government through the Public Sector Development Programme (PSDP). The Plan aims at provision of health services to the people by fostering sound and sustained advances in the fields of medicine and public health services as envisaged in the Vision 2025.

Situational analysis

Pakistan’s public healthcare delivery system has three tiers: (i) First level care facilities, that is, Basic Health Units (BHUs) and Rural health Centres (RHCs), (ii) Tehsil or *Taluka* Headquarters Hospitals (THQ) and District Headquarters Hospitals (DHQs), and (iii) Teaching Hospitals, attached to medical colleges and equipped with all kinds of health services. The present healthcare system is inadequate since basic medical facilities are non-existent, especially in the rural areas. All tiers lack a proper referral system. The first level is underutilised, while the secondary and tertiary are over burdened. There are Mother and Child Health Centres (MCHC) and Civil Dispensaries (CDs), which provide maternal and child healthcare along with the family planning services. These facilities are under staffed and improperly equipped.

Allocations to the health sector as percentage of the Gross Domestic Product (GDP) have stagnated for most of the last two decades and account for only 0.4 per cent of the GDP during 2013-14. This is significantly lower than other countries at the same level of economic development.

The health system can broadly be divided into public and private healthcare delivery systems, whereas the private sector is unregulated by the state, but it caters to a major chunk of the population at their ‘Out of Pocket Expenditure’, while charity organisations and philanthropists have their share too. Although care provided by the private sector is expensive, its quality is far better than the public sector.

Critical issues

The following are important issues of the health sector.

- Inadequacies in the healthcare services provision due to weak institutionalised referral system and paucity of end user and community participation
- Unattended integration of the decentralised vertical programmes by the provinces after the devolution
- Professional and managerial deficiencies in the district health system
- Improperly located health facilities, particularly in the rural areas
- Absence of proper career structure for the healthcare practitioners
- An ever-increasing burden of communicable and non-communicable diseases, and widely prevalent malnutrition – especially among the vulnerable segments of the society – as a consequence of an inefficient healthcare delivery system and preference for curative instead of preventive healthcare
- Ineffective Monitoring and Evaluation (M&E) of various healthcare programmes
- Poorly regulated private health sector
- Weak national Health Management Information System (HMIS)
- Lack of institutionalised trauma, accident and emergency services across the country

Performance review

Substantial financial resources (Rs102 billion, including Rs20 billion through the PSDP) were earmarked for the health sector during 2013-14. The overall utilisation of the federal health budget against the PSDP allocation was 87 per cent. During 2008-13, hundred new BHUs and 25 new RHCs were added, and 166 BHUs and 30 RHCs were upgraded. In addition, 1200 BHUs and 200 RHCs were strengthened through provision of medicine, staff and equipment under the People's Primary Healthcare Initiative (PPHI). Other additions during the last five years were: 25,000 additional hospital beds, 61,000 doctors, 12,000 dentists, 25,000 nurses and 10,000 community midwives. At present, about 98,000 Lady Health Workers (LHWs) are working, who cover more than 70 per cent of the total population and 85 per cent of the targeted population.

The Expanded Program for Immunization (EPI) provided immunisation against nine vaccine-preventable diseases, that is, childhood tuberculosis, poliomyelitis, diphtheria, pertussis, neonatal tetanus, measles, hepatitis B, influenza and meningitis. The national and sub-national immunisation campaigns were carried out and in every round, more than 25 million children aged five years and below were given polio drops. However, the Polio programme needs more focus to achieve targets.

Under-5 mortality rate in 2013-14 was 89 per 1,000 live births as compared to 117 in 1990. The current Maternal Mortality Ratio (MMR) of 276 deaths per 100,000 births is still high. The proportion of births attended by the skilled birth attendants (Medical Officers (MOs), Midwives and LHWs) has increased from 23 per cent in 2001 to 55 per cent in 2013. The Infant Mortality Rate (IMR) was 74 per 1,000 live births in 2013. (*Annexure-A carries detailed overview.*)

Objectives

The Plan will introduce a comprehensive National Health Service Package as a public-private partnership initiative through participation of the private sector and community to address new initiatives, such as vaccine production, social health protection and health insurance as a part of the more general poverty reduction endeavour of social safety nets, accreditation and standardisation of all health facilities, medical ethics, including patient safety and school health services. The Plan aims at attaining the following objectives:

- Save additional 700,000 lives of infants and children under five years
- Save additional 24,000 lives of pregnant mothers before, during and after delivery
- Eradicate polio – 27,179,400 doses of the OPV for a target of 6,039,867 children under five years
- Eliminate measles – 2.1 million children are infected annually resulting in 21,000 deaths due to its complications – a target of 6,039,867 children to be vaccinated through 18,155,840 doses, while for tetanus, 14,018,372 doses are targeted for 7,009,186 children.
- Prevent additional five million children from becoming malnourished
- Provide skilled birth attendance to more than 4.3 million pregnant women
- Ensure provision of family planning services to additional five million couples
- Avert 13 million new TB cases
- Immunise more than 22 million children against Hepatitis B and other vaccine preventable diseases, and
- Reach 40 million poorest people to ensure provision of essential package of service delivery

Annexure-A enlists baseline and targets to be achieved by 2017-18.

Strategic priorities

The priorities for the health sector are:

- Strengthening of the primary healthcare with necessary backup support in the rural areas where all health outlets will function as the focal point for the family planning services. The BHUs and RHCs will be made integral part of the healthcare system through the LHWs.
- Communicable disease control – eradication of poliomyelitis, improving immunisation, control of tuberculosis, hepatitis and Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS), improvement of surveillance and diseases early warning system will be addressed through different national health programmes.
- Measures for water safety and proper disposal of the sewage will be adopted on priority to minimise chances of the communicable diseases, like diarrhoea, hepatitis, etc.

- Improvement of mother and child health through capacity-building at the local and referral levels, training and placement of the skilled staff including Women Medical Officers (WMOs) in the BHUs and RHCs for family planning, reducing neonatal and prenatal mortality and provision of emergency and obstetric care will be ensured.
- Non communicable diseases – cardiac, diabetic and other degenerative diseases will be prevented and treated through investment in the hospital infrastructure, health education and awareness. Particular focus will be on the national nutrition priorities, including control of diet related to non-communicable diseases, and tobacco use and tobacco-prevention interventions.
- For functional integration of the population and health sectors, and the national programmes, establishment of an efficient Health Information and Disease Surveillance System will be worked out.
- Enhanced mobilisation of the financial resources, that is, two per cent of the GDP by 2018 in the public sector, will be ensured.
- Provision of the health insurance cover to the vulnerable segments of the society against all kinds of diseases will be given importance.
- Enhancement and acceleration of the Civil Registration and Vital Statistics (CRVS), and timely and accurate generation of vital statistics for evidence-based policy, planning, monitoring and evaluation will be prioritised.

Action plan

The following measures will be taken for ensuring improvement in the healthcare system at all levels.

1. Primary healthcare

- Integration of the devolved vertical programmes with the primary healthcare, and turning the BHUs and RHCs into hubs of all programmes will be done, while simultaneously strengthening and upgrading of the devolved programmes through the provincial and district governments will be carried out. Moreover, functional integration of the health and population sectors at the BHUs and RHCs levels through improved involvement of the LHWs is also on the agenda.
- The District Healthcare Authority (DHA) will be established to manage improvement of the district healthcare system's capacity for absorbing load from the first-level care facilities.
- Nutritional intervention, food safety and availability of micro-nutrients to the poor segment will be ensured.

2. Human resource development

- The HR planning and career management of the healthcare practitioners will be improved to increase efficiency of the system.
- The DHQ Hospitals will be attached and affiliated with the medical colleges as training centres for both public and private sectors.
- More nursing schools will be established to improve patient-nurses ratio.

- Tibb or homoeopathy councils will be made independent administratively and financially with their separate set-up for smooth functioning.

3. Non-communicable diseases

- Each district will have at least one hospital with complete diagnostic facilities and specialist of the required fields. The Critical Care Units (CCUs) will be established in each THQ hospitals. Effective hospital hygiene and waste disposal programmes will be introduced.
- Non-communicable diseases like cardiac, diabetic and other degenerative diseases will be prevented and treated through investment in the hospital infrastructure, health education and awareness. More cancer treatment centres and hospitals will be established. Prevention and control of non-communicable diseases will be incorporated clearly in the strategies at all levels. The establishment of the Non Communicable Diseases and Health Promotion Unit at the federal and provincial levels will be ensured. Aggressive educational campaigns will be launched to control diabetes, hepatitis, HIV and cardiac disorders, etc. A national plan of action will be developed on food and nutrition with an emphasis on national nutrition, priorities including control of diet-related to non-communicable diseases.
- Accreditation standards (physical infrastructure, machinery and equipment, different specialties with number of beds required, capacity of outpatient care, human resource and logistics requirements) will be established through the Pakistan Medical and Dental Council (PMDC). Strengthening of authorities for regulating private sector involved in healthcare delivery will be ensured. Medical colleges and teaching hospitals will also become fully autonomous bodies, managed by their respective Boards of Governors (BoGs) for professional and administrative autonomy. The provincial governments will be encouraged to provide an efficient medico-legal service. For this purpose, facilities for legal and forensic studies will be expanded to the medical colleges.
- Tobacco use and tobacco-prevention interventions will be monitored at all levels in order to protect people from tobacco smoke in public and work places, and help people stop using tobacco, while advising and warning them against its use.

4. Health information system

- Reliable and timely health information and evidence are essential for health management, public health decision-making, resource allocation and monitoring and evaluation.
- A country health information system involves all relevant data sources, including population-based surveys, household surveys, census, civil registration, and institutional data sources as well as health facility reporting and administrative data of the health systems. It provides information on the prevalence of exposure to risk factors, and social determinants' outcomes (mortality and morbidity), including integrated disease surveillance of outbreaks, communicable and non-communicable diseases, and health system performance including coverage of health interventions, service delivery, health financing and workforce. A health information system also includes core indicators and targets, regular establishment of data quality standards, data analysis measures, synthesis of data from multiple sources and effective dissemination and use of data to inform decision-making processes.

- The Eastern Mediterranean Region countries have resolved to adopt and strengthen national health information system by improving reporting of births, deaths and causes of deaths by improved monitoring of exposure to risk factor and social determinants of health, morbidity, mortality and performance of the health system and by institutionalising population-based surveys. The Plan envisages to:
    - reach a common understanding on the design and core components of the HMIS and its alignment and linkage with the CRVS, and
    - conduct an overall assessment of the HMIS, particularly in the post-devolution scenario, and then analyse and discuss gaps in the HMIS components and identify best strategies to strengthen the national HMIS, based on the current evidence and lessons learnt.

5. Mental health

- A mental health coordination unit and a technical advisory committee with representation from all provinces and federal areas will be formed to implement, monitor and evaluate the Plan. The committee will have experts on community care, substance abuse, adolescent mental health, mental health of people residing and in disaster hit-areas and terror-inflicted regions and societies of the country. It will also include people and journalists reporting from those areas.
- During the Plan period, the existing mental health law will be reviewed, and enhanced to protect rights of persons with mental disorders.
- A training programme for medical staff at the first level care facilities and community psychiatric nurses and other allied mental health workers will be implemented. Special emphasis will be laid on health promotion and disease prevention with respect to mental health. Two MOs and three psychiatric nurses per 100,000 persons per year will be trained.

6. Occupational health and safety

The National Occupational Health and Safety Council will be established to devise and ensure health and safety of the people concerned with the healthcare delivery, including the labour force.

7. Public health laboratories

Establishment and upgradation of the Public Health Laboratory Network (PHLN) at the national and regional levels will be ensured.

8. Vaccine production and pharmaceuticals

- Vaccines will be produced in the country, either by shared manufacture, ready to fill material, concentrated or from raw material using seed vaccine and seed viruses (basic manufacture).
- The private sector will be encouraged to expand manufacturing of pharmaceutics and diagnostic equipment so that cheap and effective treatment could be made available.

9. Alternative system of medicine

- Improving regulatory framework for alternative therapies (Tibb, ayurvedic, homeopathic and the Chinese herbal)
- Promoting and incentivising cultivation of medicinal plants

10. Behaviour change communication

Health promotion and behaviour change communication techniques for societies, communities and individuals, especially the vulnerable population of the society, about their health-related matters, such as promoting healthy lifestyles through encouragement of exercise, good eating habits and encouraging smoking cessation by cutting down on it and having safe sex by using all channels of communication, that is, print, electronic, community awareness programmes and self-help groups, etc. will be one of the major considerations.

11. Health research

The health research system will be strengthened to facilitate policy planning and management through the Pakistan Medical Research Council (PMRC).

12. Trauma and burn centres

- Setting up of the trauma and burn centres with communication links to paramedic services, security agencies and all major hospitals for better macro-management and appropriate distribution of casualties
- Accreditation of trauma centres and the CCUs

13. Healthcare financing

The healthcare financing will be improved during the Plan period through the following measures.

- The National Health Service System, financed through general tax revenues, will cover the whole population, particularly the poor.
- The Social Health Protection and Insurance System, with publicly-mandated coverage for the designated groups, while the care will be provided through the public or private facilities.
- Community-Based Health Financing – There will be not-for-profit prepayment plans for the healthcare, financed through private voluntary contributions with community control and voluntary membership.
- Social entrepreneurship and Public-Private Partnership will be promoted.

14. Monitoring and evaluation

The M&E are effective tools to measure the performance of individuals and institutions. For this purpose, the following strategies will be undertaken:

- Strengthening of the M&E system at the federal and provincial levels
- Conducting performance audit for assessing outcome and impact of policy and programmes

Annexure-A

Health Indicators

S/No	Goals	Units	Baseline 2013-14	Targets 2017-18
1	Infant Mortality Rate (IMR)	Per 1,000	74	40
2	Child Mortality Rate (CMR)	Per 1,000	89	52
3	Immunisation (i) Infants (12-23 months)	%	54	>90
	(ii) Measles coverage	%	81	>90
4	Polio eradication	Nos.	280	0
5	National Programme for Family Planning and Primary Healthcare			
	Lady Health Workers	Nos.	98,000	130,000
	Coverage of population	%	83	100
6	Control of HIV/AIDS			
	HIV prevalence among pregnant women	%	0.041	To be reduced by 50%
	HIV prevalence among vulnerable group		0.2	
7	TB and Malaria Control Programme			
	Population in malaria high-risk areas using effective treatment & bed nets	%	40	75
	Incidence of tuberculosis	Per 100,000	230	45
	Proportion of TB cases detected and cured under DOTS	%	Detected=69% Cured= 90 %	Detect=76% Cure=95 %
8	Maternal Mortality Ratio (MMR)	Per 100,000	260	140
9	Trained Birth Attendants (TBAs)	%	52	>90
10	Pregnant women having at least 3 antenatal consultations	%	62	100

Population per bed	=	1,647
Population per doctor	=	1,099
Total number of doctors	=	167,759
Total number of nurses	=	86,183

Reference: *Economic Survey 2014, UNDP MDGs 2013*

Chapter 7

LABOUR, EMPLOYMENT AND SKILL DEVELOPMENT

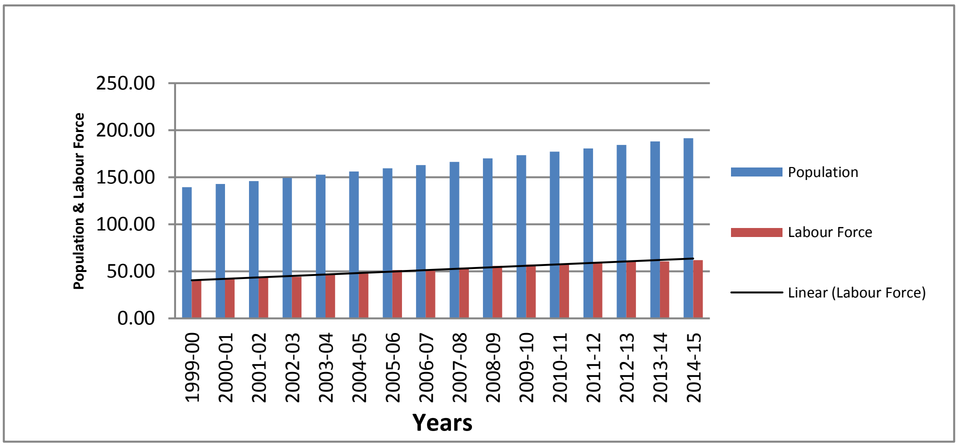
The creation of job opportunities shows strength and steadiness of the overall economic performance. For this reason, a sound understanding of the critical relationship between employment and economic growth helps in formulating well-connected policies of all sectors with a common objective. A country's capacity to generate employment depends upon its available resources, technological base and advancement, and institutional strategies. Similarly, human resource, skills, and technical competence determine the type of employment, which contributes towards achieving sustained economic growth in which women and men participate directly, as both agents and beneficiaries, while playing a vital role in the employment generation.

Employment is the outcome of the growth process. Providing maximum employment is important not only for increasing production levels, but also to raise family incomes and consumption, ensure self-esteem of individuals, reduce income disparities, and thus protect the social fabric. Among many other drivers, entrepreneurship plays an important role for job creation in any economy. Development of the Small and Medium Enterprises (SMEs) and microenterprises are widely regarded as a solution to reduce unemployment level in the developing countries.

Situational analysis

The labour force of Pakistan is ranked at number nine in the world. As per the Labour Force Survey 2013-14, total labour force was 60.74 million, and out of this, 57.1 million (94 per cent) were employed showing an unemployment rate of six per cent in 2013-14. The unemployment rate for males has decreased from 5.4 per cent in 2010-11 to 5.1 per cent 2013-14, and for females from nine per cent to 8.7 per cent during the same period (Figure 1). The unemployment rate in the rural areas has increased from 5.1 per cent to five per cent, whereas in the urban areas, it decreased from 8.9 per cent to eight per cent during the same period.

Figure 1: Comparison of population and labour force



Source:
Labour Force Survey

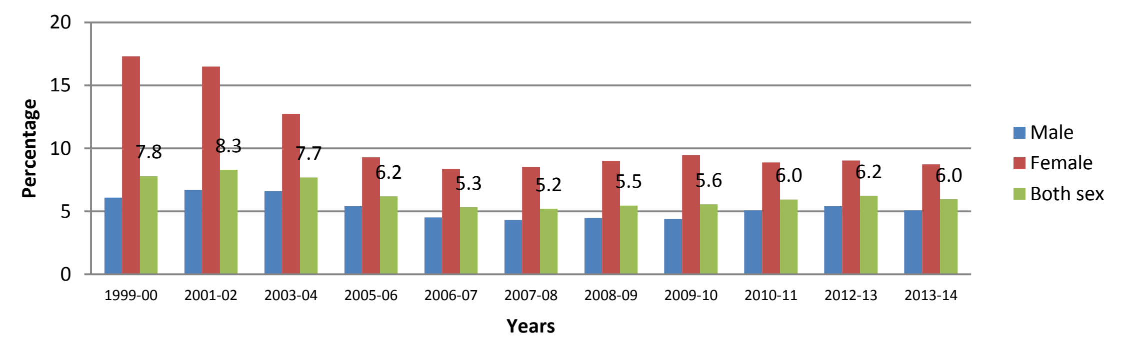
The above figure depicts a rising trend in the labour force along with an increase in total population from 1999-2000 to 2012-13. Pakistan, being the sixth most populous country of the world with population growth rate of about 1.9 per cent per annum, is adding a large number of people to the labour force. However, population, especially of the working age, can become an asset for the country and help Pakistan prosper at a greater pace provided the same is effectively utilised.

The main cause of unemployment is the rapid increase in population and the low GDP growth rate. The poor law and order situation further hinders GDP growth by restraining both the Foreign Direct Investment (FDI) and domestic investment, which are required to achieve the maximum employment level. As a result, new jobs are not being created as per the requisite level, while the number of job seekers is increasing continuously.

Unemployment rate

The unemployment rate was recorded at 7.8 per cent in 1999-2000, which reduced to six per cent in 2013-14 (Figure 2 below). A fluctuating trend in the rate has been recorded during the last decade due to variations in the economic growth. The unemployment rate, among females, has also declined from 17.3 per cent in 1999-2000 to 8.7 per cent in 2013-14, which is a very encouraging aspect of female participation in the economic development.

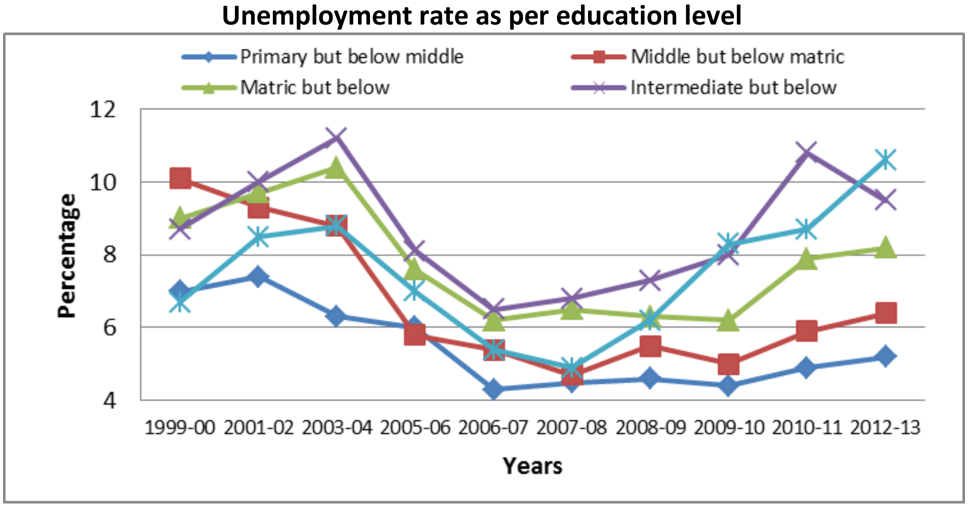
Figure 2: Unemployment rates



Source: *Labour Force Survey*

Unemployment rate as per education

In case of the labour force with primary education, the data presents a declining trend in the unemployment rate from seven per cent in 1999-2000 to 5.2 per cent in 2012-13. Similarly, a decline has been recorded in the unemployment rate among the individuals educated up to middle class and Grade 10. However, the unemployment rate of the degree holders has increased from 6.7 per cent in 1999-2000 to 10.6 per cent in 2012-13, which is also because of higher number of degree holders being produced by the universities. The unemployment rate, among male graduates and post-graduates, was recorded higher than that of the low-educated youth. This relationship between the levels of education and unemployment rates has been consistent since 1999-2000 as seen in the above figure. The statistics clearly indicate that employment opportunities in the public and private sectors were not enough to fully absorb fresh graduates. The following graph shows unemployment as per education level.



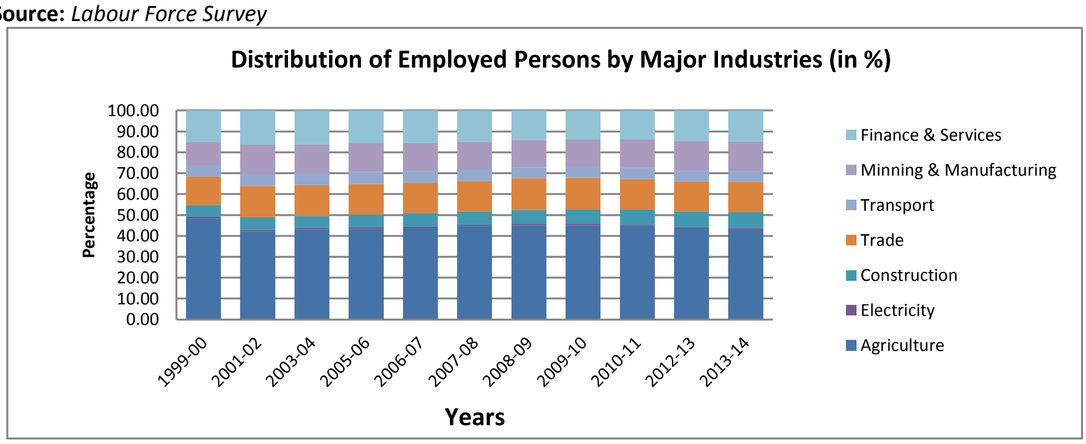
Source: *Labour Force Survey 2012-13, Pakistan Employment Trends 2013*

Employment structure

Keeping in view the sectoral contribution, it has been observed that the share of agriculture-related employment has declined from more than 48 per cent in 1990 to 43.5 per cent by 2012-13. The services sector activities, including transport and communications and construction sectors, were major contributors, which show increasing trends of employment during the last decade. Due to increasing share of the manufacturing and services sectors, and declining share of agriculture in employment, the labour market of Pakistan is experiencing structural changes in its composition. Figure 3 shows this.

Figure 3: Pakistan employment structure

Source: *Labour Force Survey*



The contribution of the services sector to employment structure has been increasing rapidly than the industrial sector. Spectrum of the services sector has become very broad and complex, which entails transport services, wholesale and retail trade, storage, communications, financial institutions, hotels and restaurants, entertainment, property ownership and dwelling, public administration, health, education and several other social services. The highly-paid jobs relate to the services sector being innovative sector. The Medium-Term Development Framework (2005-10) states that employment elasticity's of different sectors varies between 0.3 to 0.9 (services sector 0.9, trade 0.6 and manufacturing 0.3).

Skill Development

Technical and Vocational Education and Training

The skill development is an important area to be focused on in order to train the youth for meeting needs of the emerging market dynamics. Only 64 out of every 1,000 citizens in Pakistan have acquired some vocational skill formally or informally. It has been realised that the TVET sector has the most fragmented structure in the country. There are numerous key players at all levels, and the requirement is to weave them all in one uniform strategy. The National Vocational and Technical Training Commission (NAVTTC) and National Training Bureau (NTB) are making efforts to promote skills for employability, spirit of entrepreneurship and innovation among the youth.

National Vocational and Technical Training Commission

The government has accorded high priority to skill development, acknowledging supply of the skilled labour force as a mandatory input in the growth process. Therefore, through an Act of the Parliament, the NAVTTC was created as an apex body and a national regulatory authority to address challenges of the TVET. It is responsible for policy-making, strategy formation, and regulation of the TVET institutions. The systematic linkages, among various stakeholders, are being established and promoted at the national and international levels. The NAVTTC is currently finalising the work-plan for imparting training to 100,000 youth under the TVET Reforms Support Programme in collaboration with the GIZ (German Society for International Cooperation) during the next five years. Similarly about 12,500 youth will be trained annually under the President Fanni Maharat Programme and Prime Minister’s Hunarmand Pakistan Programme in priority areas, that is, construction, agriculture (livestock and dairy), Information Technology and telecommunications, hospitals, paramedics, services, light engineering, and traditional trades (cottage craft).

National Training Bureau

The NTB is implementing some important interventions to expand the TVET sector through active participation of the Skill Development Councils (SDCs), affiliated institutes, NGOs, expanding the base of the Trade Testing and Certification and informal training through the public-private partnership.

National Talent Pool

The NTP has started the President’s Programme for the Care of Highly Qualified Overseas Pakistanis to accommodate high-level Pakistani professionals living abroad to be placed in the deficient and demanding fields, relevant to their areas of specialisation, in order to fulfil the sectoral needs through various short and long-term assignments. This strategy has contributed towards economic development of the country.

Registration of about 6500 high-level professional Pakistani expatriates has been made, which comprises doctors, engineers, scientists, social scientists, educationists, chartered and cost accountants, agriculture experts, computer scientists, management experts and other disciplines. The office has developed a virtual interface to disseminate such data online through official web-portal http://www.ppqp.gov.pk.

Issues and challenges

The major issues are:

- The labour force is increasing at a higher pace with the growing population. About 110 million are below the age of 30 years[1]. There is a need to create enough employment opportunities to absorb the growing labour force, especially the educated youth, both male and female.
- Law and order situation of the country and political unrest have slowed down the economic activity.
- Investors are reluctant to invest due to lack of infrastructure facilities, especially the energy shortage.
- There is a lack of a comprehensive national policy and coherent provincial policies for skill development.
- One sees inadequate focus on market-driven skills, particularly required for the international market.
- Limited access of women to the labour market, both formal and informal
- Lack of entrepreneurial culture
- Lack of skill enhancement opportunities during the job
- Ineffective linkages between industry and training institutions

Objectives

The Plan aims to

- promote and expand skill development institutes
- outline skill development action plan based on the public-private partnership to get benefit of the demographic dividend and increase productivity for economic growth
- promote entrepreneurial activities and self-employment opportunities on individual and cooperative basis
- bridge up technological, skill and knowledge gaps
- create a national employment fund in order to assist qualified and skilled youth in setting their own business
- emphasise rural enterprise to provide gainful opportunities for income and employment within the rural areas
- provide microfinance at a large scale to promote small enterprises and self-employment
- establish an employment bureau, and
- introduce entrepreneurship education in curriculum in general as well as in professional education.

[1] Vision 2025

Employment generation strategies

These strategies are based on two pillars, that is, expanding the existing base, and activating the available resources. The first focuses on smooth growth and development by increasing factor productivity, promoting entrepreneurship, private sector promotion, equal gender opportunities, smooth energy supply to meet demand, establishing cities as engine of growth, promoting Small Medium Enterprises (SMEs) and cooperatives, etc.

The second pillar involves the labour skills development, and giving specific attention to identify required skill gaps and taking effective measures to fill the gaps. The employment expansion policies are helpful in generating demand for labour, while the employment activation policies are a main source of improving supply of the labour force.

Promoting entrepreneurship

The SMEs are the key representatives of entrepreneurial activities due to their unique economic and organisational characteristics. Lack of entrepreneurship, limited access to capital, poorly skilled work force and an outdated technology are a few main causes of the economic backwardness. The SMEs can play important social and economic roles in creating employment opportunities, effective resource utilisation and income generation. This sector is also known for having higher employment elasticity, smaller Incremental Capital Output Ratio (ICOR) and shorter-gestation period. An increased share of investment in this sector can augment the GDP ratio and employment. Approximately, the labour force of ten million individuals will enter the market by the end of 2018, whose capacities and skills will be enhanced and utilised effectively by creating an entrepreneurial ecosystem.

Improvement of skill development and technical education

Under a three-step strategy, an action plan for the improvement of skill development and technical education has been adopted.

First, the human resource capital, with regard to education and talent development, will be under focus from childhood, primary to tertiary education and skill development of the young lot. Aptitude identification and its encouragement will take place at the primary level and will be further guided until the tertiary level. A special programme will be devised to mainstream the school dropouts.

The second step is related to technical and vocational education. The capacity of the TVET institutes will be enhanced to parallel the matriculation, and finally, at an advanced level, equivalent to the status of regular universities. These institutes will be linked with industries.

The third step will be the establishment of market-linkages and labour market information system to monitor the supply and demand of workforce.

National Skills Strategy

The NAVTTC's National Skills Strategy focuses on the paradigm shift from the time-bound and curricula-based education to the competency-based training, and from the supply-driven trainings to the demand-driven skills. The strategy will focus on the following areas:

The competency-based training will be introduced through establishment of the industry-specific centres of excellence with enhanced role of the private sector, reforming the apprenticeship system, and encouraging entrepreneurship for the industrial and economic development.

This strategy involves expansion of the geographical provision, and making training flexible by focusing the disadvantaged groups, especially women. It also encompasses provision of career guidance and offering vocational education in schools to increase employability.

Quality will be ensured through establishment of the National Qualifications Framework and registration and accreditation of institutes with emphasis on reforming management of training institutes.

Overseas employment

The government is making every effort to harness overseas employment opportunities. In this regard, a few Memoranda of Understanding (MoUs) have been signed with a number of labour-importing countries. Special attention will be paid to get international accreditations and certifications for the skilled force. The government has planned to send at least 600,000 skilled workers abroad annually.

Youth employment

The Plan envisages long-term investment in human capital through formal and informal education as well as strategically strengthening the links between education and the labour market. Furthermore, entrepreneurial activities among the youth will be increased by providing business acumen, inspiration and motivation by stressing on the importance of business opportunities.

Employment projections

These projections have been made to know the employment situation and develop appropriate policy and strategy to overcome the mismatch, if any, between demand and supply of the labour force during the Plan period**.** Based on the projected population[2] and some increase in the labour force participation rate[3], labour supply will increase from 60.7 million in 2013-14 to 68.1 million in 2017-18, which shows a net increase of 7.4 million. Further, based on the projected GDP growth rate and employment elasticity of 0.46, it is estimated that the employment level in the terminal year (2017-18) will reach 63.4 million as compared to 57.1 million in 2013-14, a net increase of 6.3 million. During the Plan period, the employment growth is estimated at 2.7 per cent, while the labour force is increasing by three per cent, resulting in increase in the unemployment rate from six per cent in 2013-14 to 6.9 per cent in 2014-15, 7.3 per cent for 2015-16, 7.2 per cent for 2016-17, and 6.9 per cent for 2017-18. Table 1 depicts the scenario.

[2] Average population growth is 1.9 per cent.
[3] Taking into account the past trend, it is assumed that on average increase in participation rate will be one per cent annually. However, if there were no increase in the participation rate, the growth process itself will absorb the growing labour force during the Plan period.

Table 1: Employment projections

(Million)

Year	Population	Labour force	Employed labour force	Unemployed labour force	Unemployment rate (%) without policy intervention	Unemployment rate (%) with policy intervention
2013-14[4i]	188.02	60.7	57.9	3.6	6	6
2014-15	191.71	62.5	58.2	4.3	6.9	6.6
2015-16	195.40	64.3	59.7	4.7	7.3	6.4
2016-17	199.11	66.2	61.4	4.8	7.2	6.2
2017-18	202.81	68.1	63.4	4.7	6.9	5.7

It can be seen that the unemployment rate will increase from six per cent in 2013-14 to between 6.7 to 7.3 per cent during the remaining Plan period. Every effort will be directed towards reducing this level of unemployment. With the prevailing employment elasticity of 0.46, it will require a growth rate of roughly seven to eight per cent every year to absorb the new entrants and some backlog of the labour market. Alternatively, with the projected average GDP growth rate of 5.4 per cent, a drastic change in the employment strategy and interventions is needed to augment the employment opportunities and bring down the unemployment rate to socially acceptable level. For this purpose, a strategy to exploit the employment potential of the labour-intensive sectors and enhancing self-employment prospects has been developed for the Plan, which will reduce the unemployment pressure of the labour market during the Plan period. It is expected that 2.3 million additional jobs will be created through labour intensive employment strategy of the Plan.

Table 2: Employment generation through intervention

(Million)

1. Employment generation associated with 5.5 per cent average growth in the GDP	**6.34**
2. Additional employment generation with the Plan strategy and intervention	
- Development of livestock	0.35
- Development of SME	0.35
- Self-employment promotion schemes	0.7
- Skill generation programmes	0.2
- Rural employment policies	0.4
- Others including employment generation in construction and other sectors	0.3
Total	**8.64**

Additional job creation of 2.3 million will be helpful in reducing the unemployment rate. Overall job generation during the Plan period is estimated at about 8.6 million (Table 2); hence reducing the unemployment rate from 6.9 per cent to 5.7 per cent in the terminal year of the Plan.

[i] 4. As per Labour Force Survey 2013-14

Chapter 8

POVERTY ALLEVIATION –

Human resource development and achieving MDGs

Poverty, defined as the inability to attain bare minimal living standards, is a multidimensional phenomenon as reflected in the form of low income, lack of access to resources, few opportunities for participation in the economic activities or political process, high vulnerability to risks and shocks, etc. Therefore, tackling poverty requires a holistic approach that promotes such economic growth, which creates opportunities for the poor, preparing them to be able to participate in the economic growth process, providing them the access to essential services such as education, health, clean drinking water and proper sanitation, etc. Maintaining macroeconomic stability, improving governance, consolidating devolution to the grass-roots level and protecting vulnerable segments of the society are the essential elements of any poverty alleviation programme.

A research has established that the welfare outcomes are determined by a number of factors, including cultural, political and institutional, apart from economic and social factors. Some developing countries have started to develop multi-dimensional poverty indicators in the latest discussions and researches on poverty. Even in the concept of the social service, delivery aspect that leads to short and long-term variations in public welfare and hence poverty perceptions, a number of indicators have been discussed with reference to their relevance to a particular economy, cultural and social setting.

The Household Integrated Economic Surveys (HIES) data is used to estimate consumption-based absolute poverty after converting the household level consumption to adult equivalent based on recommended nutritional requirements of 2350 calories per person per day, and providing almost equivalent amount for other basic needs. The debate in Pakistan on assessment of the consumption-based poverty at the household level is being reviewed in the Ministry of Planning, Development and Reform from various angles. Reforms in the poverty estimation methodology are being explored with the help of experts.

Characteristics of poverty

The characteristics of the poor include their low education and literacy level, larger than average household size, few physical assets, and a disproportionate reliance on informal sector employment opportunities. There is a strong correlation between illiteracy or the level of education, and the incidence of poverty. Large households are more likely to be poorer than small ones. The poor usually lack both income and assets. There is a significant variance in the amount of land per capita owned by the poor and non-poor households. Similar differences exist in the ownership of livestock, housing, and other assets. In terms employment, construction, transport and storage are the sectors in which the proportion of workers belonging to poor households is significantly high, especially in the urban areas. With regard to employment status, incidence of poverty is high among the self-employed, which includes street vendors in urban areas, and sharecroppers in the rural areas. Similarly, female-headed households are more prone to poverty for a host of reasons.

Situational analysis

The Pakistan Social and Living Standard Measurement (PSLM) data, using consistent consumption-based poverty estimation methodology, shows that poverty declined from 34.4 per cent in 2000-01 to 22.3 per cent in 2005-06. From 2006 onwards, poverty has further declined despite slow growth, high food and energy prices, power shortages adversely affecting employment and War on Terror. The analysis of household consumption behaviour demonstrates an improvement in the well-being of households. However, further in-depth analysis shows that though average consumption might have improved, the causes will be cultural and political rather than economic. This has created an enigma for the researchers to ponder on and come up with valid explanations, supported by the empirical evidence.

Apparently, overall poverty situation in 2010-11 appears to have improved. Poverty headcount, based on consistent consumption-based estimates, comes to around 12.4 per cent; 7.1 per cent in urban areas and 15.1 per cent in rural areas[1] in 2010-11, down from 17.2 per cent; 10 per cent in urban areas and 20.6 per cent in rural areas in 2007-08. This has also been reflected in the poverty statistics, as shown in Table 1. The decline was the highest, that is, 5.1 percentage points during 2005-06 to 2007-08, while the magnitude of decline is estimated to be 4.8 percentage points during 2007-08 to 2010-11. The decline, during the later period, can be associated with a number of factors including better output prices of the agri products, which helped improve the poverty situation in the rural areas, better varieties of crop seed resulting in better agri output and improvement in the inflow of remittances. Targeted interventions, including the Benazir Income Support Programme (BISP) cash disbursements, subsidies, increase in individual and corporate philanthropy, and increase in the female labour force participation rate in the rural areas, are other factors, which have contributed to the decline in consumption-based poverty headcount.

Table – 1: Poverty indices by region

(% of population living below national poverty line)

Year	2000-01	2004-05	2005-06	2007-08	2010-11
Poverty line	Rs723.40	Rs878.64	Rs944.47	Rs1,141.53	1745
Overall	34.4	23.9	22.3	17.2	12.4
Urban	22.6	14.9	13.1	10	7.1
Rural	39.2	28.1	27	20.6	15.1

Source: *Planning Commission estimates using PSLM data of the respective years*

During 2007-08, inequality in consumption expenditure between the rich and poor, measured in terms of the consumption-based Gini coefficient, reduced in the country, more dominantly in the rural areas. The Gini reduced in all provinces, with more prominent improvement in the urban areas of Balochistan. Other social indicators also support this as these show improvement. Annexure-I shows some of the selected human development indicators representing the improvement.

The scepticism over the Planning Commission methodology for estimating poverty headcount increased since 2008 as some experts regard poverty estimates inappropriate in giving a representative picture of the incidence of poverty in the country. Important questions were

[1] The poverty headcount figures for 2007-08 and 2010-11 represent interim indication of poverty situation in the country. A Technical Group on Poverty is reviewing official methodology in order to find out possible causes of variance in poverty numbers and recommend final official estimates.

raised about the adjustment procedure, the choice of deflators to represent price changes in the poverty line, and use of a fixed consumption basket over time. A committee of independent experts is working on improving the official methodology of poverty estimation in the Planning Commission.

According to the PSLM representative survey at the national level, overall literacy rate of the population (having age of 10 years and above) has slightly improved from 57 per cent in 2008-09 to 58 per cent in 2010-11, and gross enrolment rate at the primary level moved from 91 per cent in 2008-09 to 92 per cent in 2010-11. The health indicators also show improvement, like the infant mortality decreased from 75 per 1,000 live births in 2006-07 to 72 per 1,000 live births in 2010-11. Immunisation of children of age 12-23 months increased from 78 per cent in 2008-09 to 81 per cent in 2010-11, and the maternal mortality rate (per 100,000 live births) remained stagnant at 276 during the same period.

Safe drinking water supply and sanitation play an important role in preventing the poor from illness since the sick persons not only become unemployed, but have to incur expenditure on treatment as well. The sustainable access to safe water appears to have slightly declined from 89 per cent in 2008-09 to 87 per cent in 2010-11. However, access to sanitation has also increased from 63 per cent in 2008-09 to 66 per cent in 2010-11. In spite of some improvement in the social indicators, serious gaps still exist, which impede departure from the poverty trap.

The BISP emerged as one of the largest social safety nets, which gave cash grants to the female heads of vulnerable households, qualified on the basis of asset-based poverty scorecard. The Programme is being implemented all over the country with a specified and successfully piloted exit strategy. The Waseela-e-Haq provides interest free loans up to Rs 300,000 as seed money for self-employment for an eligible beneficiary family member to start a business, and then exit the Programme. Other conditional cash transfer initiatives include health insurance, skill development and education stipends for the eligible families.

Other social protection initiatives include Pakistan Poverty Alleviation (PPAF), Small and Medium-sized Enterprises (SMEs), micro-finance programmes and various initiatives of the Pakistan Bait-ul-Mal (PBM). In addition to the above, the provincial governments launched a number of programmes including food stamps, tractor subsidy, Ashiyana Housing for the low income families, ensuring medical facilities to the masses through health insurance, rehabilitation of the people affected by 2010 and 2014 floods, steps for women empowerment, providing short-term interest free loans to the youth, and establishing sasta bazaars in all districts to provide affordable shopping facilities. The government has increased pro-poor budgetary expenditures from Rs427 billion (4.9 per cent of the GDP) in 2007-08 to Rs1,911 billion (8.5 per cent of the GDP) in 2012-13.

Vision and objective

The Plan outlines a new direction as it attempts to move towards sustained and inclusive growth, which will enable equal opportunity for all. Inclusive growth caters to the needs of the poor, marginalised, vulnerable and minorities to integrate them in the society. Adequate access to basic and essential public services is critical for the survival and welfare of majority of population. The human resource development also supports the growth process itself in the long-run by enhancing potential of the income generating people. It also attempts to remove inter and intra provincial, and regional disparities.

Strategy of the Plan

The poverty alleviation strategy of the Plan has been prepared around the lessons learnt from the implementation of the MTDF (2005-10), PRSP-I & II (2003-09), Framework for Economic Growth (FEG), global financial crisis and structural imbalances lingering on since 2006-07. The strategy has been devised in the backdrop of strong commitment of the government to the human resource development by investing in people and social safety net programmes to provide relief to the poor segment of the society against rising inflation, unemployment, ill-health, illiteracy, poor housing, sanitation and lack of drinking water facilities.

The pro-poor policies cannot be effective without creating strong outreach mechanisms in each village through which people can interact with the government. Building social capital through a sustained process of social mobilisation is essential for any poverty reduction programme. The development strategy of the Plan envisages poverty reduction through supporting social mobilisation programmes. Also, the Plan offers poverty alleviation strategies, shaped around the MDGs, while keeping in view the upcoming new development agenda, that is, Sustainable Development Goals (SDGs), for sustainability and inclusivity of all disadvantaged classes.

The poverty alleviation and sustained growth can be achieved by developing an institutional framework for providing productive assets, both physical and human, to the poor. By engaging in investment, innovation and productivity increase, the poor can become active subjects of the economic growth rather than being mere recipients of the trickledown effect. The design to achieve the objective of poverty reduction includes:

- Provision of productive assets inclusive of micro-finance
- Capacity enhancement of the people through human development programmes, such as education, health, population welfare and skills development
- Organising communities in order to enable them pool their capacities and resources
- Providing enabling environment such as clean water and sanitation and gender mainstreaming for contribution to the society and economy
- National cohesive social protection policy to protect the vulnerable, including those suffering from natural or manmade disasters
- Provision of adequate resources for financing the poverty reduction programmes
- Reforming and strengthening institutions for better delivery of the public services

Provision of productive assets

The agriculture land distribution in Pakistan is highly skewed as only five per cent of the agricultural households own 64 per cent of farmland. On the other side, over 80 per cent of farmers own less than five acres of land and women's share of ownership of land is less than two per cent. For accelerated agri growth and to improve yield, the government plans to provide state land to landless peasants. Provision of funds to the needy to enable them buy land is also envisaged for which institutional changes in the land market are also imperative.

An institutional framework will be established to provide productive assets to the poor. Small corporations**,** owned by the poor and managed by professionals under the public-private partnership will be established by the provincial governments in collaboration with the district and local governments with a view to facilitate the small landowners to increase agricultural productivity. All farmers, owner-cum-tenant and tenant operating on less than 25 acres of land, will be offered equity stakes in the institution. Potential areas for stimulating the GDP growth and reducing poverty are: milk and its products, livestock, production of meat and its products and marine fisheries. Concerted efforts will be made to boost these activities by provision of the needed infrastructure and credit.

The SME potential for generating employment and producing commodities to meet local demand needs to be exploited. The industrial parks, both for large and small industries, will be developed and expanded, particularly in the under-developed areas of the country. To restore the confidence of the business community, the government intends to engage the business community in decision-making. Allied issues for the SME development include steady supply of energy, improved credit availability, and reducing cost of doing business. The SME have the potential to support local economy, particularly of the rural and backward areas. This sector can absorb about one million persons a year. The SME clusters in each district will facilitate the government in achieving the poverty reduction targets.

Through participatory development process involving the poor at the village and mohalla levels, human, natural and economic resource base needs to be built to alleviate poverty. Through social mobilisation, institutions of the poor will also be constituted to organise communities making demands upon the system for improved service delivery and accountability. Provision of workfare, through small public works and development schemes under a social mobilisation programme, will have a positive impact on poverty situation. Financial and administrative powers have been devolved to the districts in order to empower the poor at the grassroots, and to associate them with the process of growth.

Microfinance

To specifically target the landless of the rural areas and the poor of all areas generally, microfinance has proven to be a powerful empowering instrument and works well if combined with education and skill development. The microfinance helps the poor to engage in productive activities or start their small businesses. Over time, the microfinance has come to include a broader range of services like credit, savings, insurance, etc. The poor have limited or little access to traditional formal financial institutions, while the former require different financial products for increasing their income, develop workable businesses, and hence reduce their vulnerability to the external shocks.

The current penetration of the microfinance outreach in Pakistan is approximately 2.4 million active borrowers, whereas there is still considerable potential to expand the market for microfinance services. The market can become vibrant and provide access to the poor if an enabling environment is created. The PPAF, Rural Support Programmes (RSPs) and several other institutions and civil society organisations are actively involved in different areas including enterprise development, water, infrastructure, health and education, livelihood, social mobilisation, social protection and empowerment as well as capacity-building through training and skill development.

The existing micro-credit institutions will be strengthened to enhance women's access to credit. First, the Microfinance Bank Limited, Khushhali Bank, Finca Microfinance Bank, Pak Oman Microfinance Bank, Tameer Bank, Apna Microfinance Bank, NRSP Bank and others will resurrect their microfinance facility for women. The microfinance coverage will be expanded both vertically and horizontally to strengthen the legal framework of financial services and to reduce the leakage of collateral benefits and transaction costs. The interest rate in the sector also needs to be rationalised by devising mechanisms for reducing cost of transactions; thereby making the whole operation potentially profitable.

The microfinance providers need to recognise that growth in outreach can be achieved in parallel with institutional strengthening aimed at the financial sustainability, improved productivity and efficiency, establishment of strong governance practices, designing internal control systems, and putting in place a human resource management structure that recruits competent individuals. The government will help in measuring and tracking poverty levels through some transparent yardstick and ensure sustainability to meet non-agriculture demand for financial services. Priorities will be established for an effective extension of rural credit. The following priority areas are seen as the most relevant:

- Emphasis on the establishment of agro-based industries in order to create jobs in rural areas, reduce post-harvest losses of agricultural products so that possibilities of export expansion increase
- Efficiency-based extension of the rural credit to non-traditional crops (both field and tree crops) be given due emphasis to improve land productivity and technical efficiency
- Focus on the neglected fisheries, horticulture and livestock sectors, capacity-building of service providers in the rural non-farm sectors
- Capacity-building of the educated unemployed youth of the rural areas in livestock, fisheries and horticulture sectors so as to fill gap of the public sector service providers
- Microcredit linked with entrepreneurial skills training

Rapid increase in population and lack of employment lead to increased poverty of non-agricultural population in the rural areas. An increase in labour productivity in agriculture releases surplus labour, which aggravates the situation. An extension of the rural credit through non-agricultural investment enterprises to encourage and promote self-employment outside agriculture in the rural areas will help in redressing rural income disparities and poverty.

In urban areas, majority of the poor in slums lack education and skills. They are left with little options to work except in the informal sector, and thus they remain under constant uncertainty of employment. There is a need to promote microfinance facilities for small businesses and home improvements for urban slums.

Human resource development

Demographic transition and dividend

Reaping benefits of the demographic dividend depends on a number of coordinated efforts, including market-led education, employable skill development and sound socio-economic policies that boost markets. The current phase of demographic transition offers an incredible opportunity to lift the economy and move towards improved productivity and greater economic growth. There is a need to address the future employment and training requirements of the youth bulge.

Millennium Development Goals and beyond

Pakistan's commitment to the MDGs is reflected in the development strategy of the Plan. Goals and indicators, under the MDGs for 2015, are presented in Annexure-1. Efforts are underway to achieve the targets through appropriate development allocations and relevant human development policies, which will be reflected in the MDG Acceleration Framework. In order to achieve education targets, the Framework has been prepared in consultation with the provincial governments, whereas similar framework for health sector is being prepared, which will identify areas to focus and take measures to accelerate efforts in order to achieve maximum attainable targets during the remaining period of 2015.

The 2012 UN Conference on Sustainable Development came up with the Sustainable Development Goals (SDGs) for the post-MDGs, while discussions at the global and national levels have already been initiated with all stakeholders with a focus on achieving the SDGs. Consultations with the stakeholders, including federal and provincial governments, academia, researchers, development partners and development practitioners, will be initiated in order to develop consensus and generate the input required in the post-MDG scenario. The proposed consultations with the federal ministries, departments and provincial governments are part of efforts of the Planning Commission for developing a forward-looking strategy for achieving the MDGs and moving forward beyond 2015. The consultation will seek to:

- examine the relevance and goals to Pakistan's economic, environmental and social priorities, jobs and livelihoods and exports, and the urgent imperatives of food, water and energy security.
- review the ongoing efforts of the provincial governments to achieve the MDGs, sustainable development and poverty reduction targets. A discussion on the post-MDG agenda with an aim to arrive at some consensus on the future of social and environmental issues, and the paradigm shaped by the national circumstances; the challenges, priorities and lessons for Pakistan from the MDGs experience.
- achieve an informed understanding of the role and contribution of the key stakeholders, including the government at the federal, provincial, and local levels, and non-state actors, private sector, civil society and scientific community to promote green economy with a view to achieve sustainable development and poverty reduction.

Human Development Indicators

The poverty reduction has backward and forward linkages with the performance of human and social development indicators. The HDIs for 2010-11, the MDG targets (2014-15) and the Plan targets for 2018 are presented in Annexure-I.

Education

After the 18th Constitutional amendment, control and management of the education sector has been devolved to the provinces. In the recent years, though the net enrolment rate at the primary level has increased, it still lags significantly below the average of other South Asian countries. The gender gap in the literacy rate is high though it has narrowed down in the recent years. Achieving 100 per cent literacy rate over the next five years will mean not only achieving full coverage of the school age children, but also adult literacy programmes.

The government intends to achieve the target of universal primary education on war footings. In order to bring all children of age between 5-9 years to school by 2018, access to primary education, especially for the girls will be expanded. Girls' schooling requires a much greater stimulus with the challenge of mobility and lack of female teachers. This will entail targeted interventions for the poor children.

Attaining gender and regional parities in terms of opportunities for education and employment are major challenges due to large regional variations and low female enrolment and retention. The instruments for a change will be dissemination of wide-ranging education, skills upgradation and training of the workforce to enhance its employability, productivity and competitiveness. Interventions with an emphasis on increased enrolment will help in achieving universal primary education by 2018, if not by 2015. The issue of access and affordability will be addressed by not only providing more female schools and increasing facilities in the existing schools, but also enhancing coverage through the education foundations. Further, greater thrust of the education to its relevance and quality in both rural and urban areas will be a major aim of the Plan. This will reduce dropout rates.

Health

Pakistan needs to align its health sector goals with the MDGs. Challenges in the health sector include low coverage, affordability, providing safe drinking water and sanitation facilities and reducing burden of the communicable diseases. Inadequate coverage and poor quality of healthcare in Pakistan are attributed to insufficient public sector expenditure. Poor health indicators reflect long standing health problems.

Thrust of the health strategy of the Plan is to pursue 'health for all' goal. The Health Policy 2009 delineates nine objectives to be achieved by 2018. These are:

- Strengthening primary healthcare, especially the in rural areas at the BHU level
- Improvement of mother and child health through capacity-building at the local and referral levels
- Functional integration of population and health programmes at all levels – from facility to the national programmes
- Focus on mobile health units for enhancing access to the remotest areas
- Provide health insurance, especially to the poor, exempt the poorest families from premiums, and complement the health insurance system with tax-based funding
- Provide basic health services to rural areas and urban slums on priority
- Control communicable and non-communicable diseases
- Public-private partnership to ensure health delivery
- Increasing public expenditure on health to two per cent by 2018

Drinking water and sanitation

Availability of the safe drinking water and sanitation facilities is beset with a large number of problems emerging due to the population growth, contamination of the water bodies, extensive system losses due to weak operation and maintenance, and unhygienic disposal of the solid waste. The development of water supply and sanitation has direct bearings on the quality of life. Measures for achieving this are:

- Adopt differentiated and targeted approach to accelerate access to sanitation and safe drinking water for the disadvantaged and excluded groups of people and geographical regions
- Invest in the development of technology, practices and delivery mechanism in the areas prone to natural disaster
- Involve non-state players, private sector and Non-Governmental Organisations (NGOs) in provision of management for the execution of water projects in urban and rural areas
- Link and integrate sanitation programme with city and regional planning policy, health, environment, housing and education
- Increase mass awareness and community mobilisation to bring behavioural change, and institutional development on use of clean drinking water and sanitation facilities
- National Drinking Water Policy 2009 and National Sanitation Policy 2010 to be implemented by the provincial governments

Gender mainstreaming

The Plan will take steps to resolve gender-related issues and enable women to become more productive members of the society. In the post-devolution arrangement, the provincial governments need to take concerted efforts for improving the situation of women.

Majority of women are informally employed as home-based workers in agriculture, livestock, forestry and fishing. Efforts will be made to enhance access to assets and resources for women. Similarly, women ownership of officially distributed land through the landless distribution schemes and provision of jointly-owned homestead land to the landless will also be ensured.

The Plan includes strategies for building capacity, impart skills and create opportunities to make women more productive. In order to address the issues of women health and education, quality of the primary health will be improved to provide them health services and save them from long travels to avail such services.

The Plan will strategise strengthening of the social protection institutions and mechanisms to counter the increasing feminisation of poverty. The targeted interventions of social protection for the female-headed families will further improve the situation.

The Plan will accord high priority to empowerment of women in social, economic, political and legal fields to move towards a gender balanced society. Participation of women in the national development by recognising their role as the agents of change will be promoted. Accordingly, the gender mainstreaming will provide guidance for taking into account gender specific approach to all policy planning, decision-making and monitoring processes.

Since larger proportion of the non-domestic functions and economic activities of women is not accounted for, the issue of women empowerment will be addressed through greater and effective access to capital and microfinance, and assisting women through skills development schemes. Further, all informal workers, including home-based workers, will be registered at the local level, which will enable them to access social security and health facilities from the existing duly strengthened state labour welfare mechanism. Old-age benefits have already been universalised in terms of old age pensions granted through the Employees Old-Age Benefits Institution (EOBI).

Skill development

At present, the quality and coverage of vocational training provide only limited skill base, which is not sufficient for sustainable high growth in the country. The Plan intends to move the country out of the low skill and low productivity traps, which permeates mostly in all spheres of the national activity.

A new initiative of the Plan is to prepare national workforce for a large scale district-based national skills development, which will produce technically-trained and employable manpower. This HRD programme envisages a social transformation through new skills provision, and upgradation of skills of the existing trained work force with an aim to enhance the employability, productivity and competitiveness of the middle class and poor. The initiative is expected to provide a trained human resource base for placing the economy on the path of a diversified, broad-based and sustainable economic growth.

The district-level organisational structure for this initiative will be quickly established with a small, but highly professional, motivated and appropriately incentivised team to implement this programme, which is also designed to reap the demographic dividend, as 60 million additional people enter the productive age group over the next two decades.

There is a need to move for a more comprehensive national strategy for skill-based uniform curriculum in order to meet the challenges outlined in the Plan and build on the existing strengths and opportunities. Also, it is required to reform the skill development human resource development system, which includes providing relevant need-based skills for industrial and economic development, and improving access, equity and employability.

The informal sector is an important provider of employment for the bulk of Pakistan's labour force. However, the crucial role of this sector has largely been overlooked in the policy-making. There is a need to undertake effective interventions in the informal training system to enhance the quality of skills and incomes of all such workers. Initiatives for appropriate skill-based training and certification of the informal workers are necessary for this purpose.

Social welfare

The social welfare initiatives have positive impact on underlying poverty and inequality for providing access to equitable economic and social opportunities to the vulnerable segments of the society. Relevant policies have been made to guide and facilitate fulfilment of the national responsibilities and international commitments, including constitutional and legal provisions, which include National Policy for Persons with Disabilities, United Nations Convention on the Rights of the Child (CRC) and Convention on the Rights of Persons with Disabilities (CRPD). The Plan recognises the expansion and strengthening of the social welfare infrastructure to fulfil these obligations, which are aimed at mitigating and managing the socio-economic risks of the vulnerable.

Approach and strategy

The Plan's social welfare approach envisages socio-economic empowerment of the poor and marginalised population through programmes for human resource development and community development. The strategic interventions focus on new initiatives and expansion of the existing institutional welfare services for care and rehabilitation of the target population. These initiatives provide access to basic necessities of education, health, income generation, training and skills, technology, etc. and resource mobilisation through public-private partnerships and NGOs. The existing social welfare programmes, services and funds are limited, and need to be augmented in order to cater to the needs of the target population. The Plan puts forward the following strategy to improve the social welfare services, management and infrastructure:

- Secure livelihood and income opportunities for children, women, youth, PWDs, patients, senior citizen, etc. through expanding quality social welfare institutions
- Review existing social welfare policies, strategies and action plans in order to revise these for an effective need-based social services delivery
- Update and complete information and data of:
  - target population of the vulnerable, marginalised and excluded children, women, youth and senior citizens
  - mapping of the community services available and required to address the emerging social issues of disability, special and inclusive education, child rights and protection, birth registration, vocational training and skill development, etc. And
  - information of the registered NGOs and their fields of operation in order to assess the volume of their contribution
- Need-based services to the underprivileged strata of population by promoting voluntary work, mobilising local resources and community participation
- Evaluation and promotion of programmes of voluntary social welfare agencies and NGOs through technical and financial assistance with a view to enhance their capacity in achieving the targets set to address social welfare issues
- Effective implementation of the national and provincial action plans for children regarding their survival, protection, development and participation including the issues of child labour and abuse, trafficking and violence against children and compulsory birth registration
- Promotion of the inclusive education system and vocational training for special children and PWDs
- Appropriate and judicious utilisation of indigenous philanthropy, PBM and Zakat funds for social welfare and rehabilitation programmes
- Welfare and protection of the senior citizens to ensure their rights to health, participation, care, livelihood and protection to make them socially productive
- The capacity-building and institutional strengthening will require: i) availability of the relevant professionals of the social welfare fields, ii) professional training of personnel, and iii) strengthening of the social welfare organisations including:
  - National Council of Social Welfare (NCSW)

- National Council for Rehabilitation of Disabled Persons (NCRDP)
- Directorate General of Special Education (DGSE)
- Social Welfare Wing (Ministry of Capital Administration and Development), and the Islamabad Capital Territory (ICT)
- Pakistan Bait-ul-Mal (PSM)
- Staff Welfare Organisation (Establishment Division)
- National Commission for Child Welfare and Development (NCCW&D)
- Ministry of Human Rights
- Provincial and Special Areas social welfare departments

Social protection for poverty alleviation

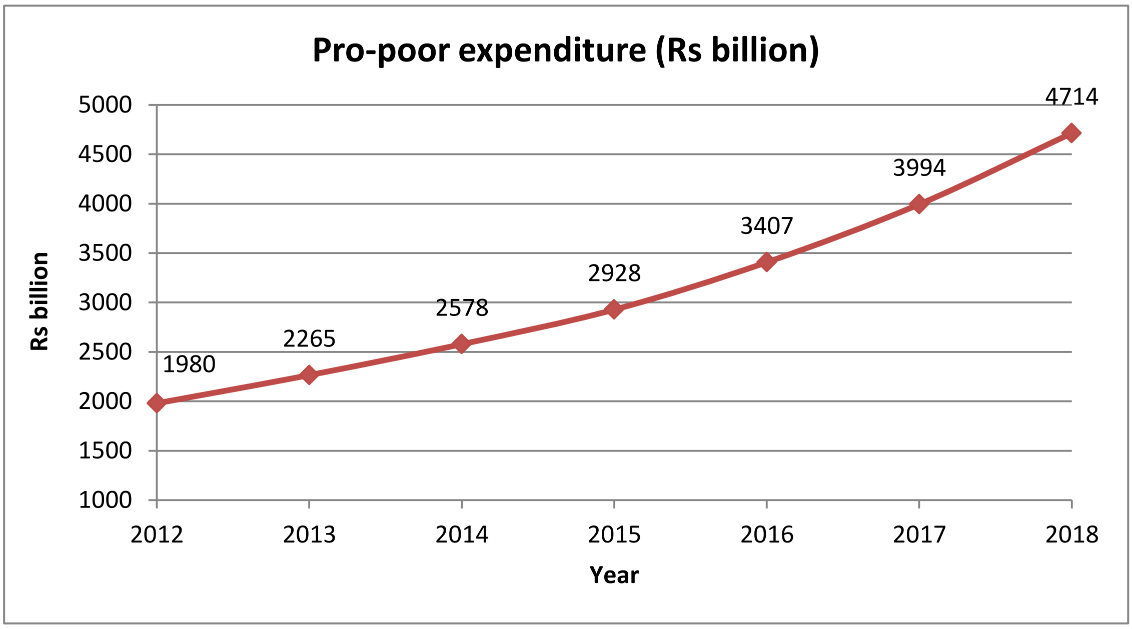
The Plan recognises social protection as means to mitigate and manage risk and vulnerability through transfers and social insurance for risk mitigation regardless of prior or future contribution. The targeted groups for social protection include: casual and informal workers, low-capital self-employed, low-rank formal sector workers, women and children without family or community support, etc. The Plan envisages targeted interventions to support such segments and bringing them under coverage. In the post-devolution situation, technical assistance is being provided to the provincial governments on their demand for preparing sustainable, comprehensive and integrated provincial social protection policies, which contain transparent, improved and easily manageable targeting system. A national framework for social protection will encompass all provincial policies and bring up national features of the national social protection system. It is planned to bring all existing social protection programmes under one umbrella with a unified and transparent inclusion criteria, better targeting system and efficient monitoring mechanism. The salient features of the policy are:

- Interventions to protect women and children – introduction of comprehensive child-centred nutritional programmes, and public health interventions
- Employment schemes and income generation opportunities targeted to casual labourers and informal workers
- Simplifying and achieving full coverage of the existing social security system so as to make social transfers to the poor, both guaranteed and predictable
- Strengthening existing social protection institutional structures including Zakat, PBM, EOBI, rehabilitation centres for the PWDs
- Provision of microfinance to the poor and marginalised with adequate coverage of the target population
- Health insurance for the poor and vulnerable for preventive and curative healthcare
- Improved access and coverage of education and training for the poor and the vulnerable sections of society
- Eradication of forced and bonded labour
- Area development schemes to provide sustainable livelihoods, health, education and transportation infrastructure in the backward areas having high poverty concentration

- Higher level of preparedness and necessary arrangements for relief and rehabilitation of disaster-stricken people, particularly children and women
- Gradual shift from untargeted cash transfers to targeted cash transfers, and establishing dynamic system for making targeting transparent and verifiable
- Integration of all fragmented safety net initiatives
- Advocacy campaigns through media for community organisation and social mobilisation for social protection

Financing poverty reduction

Poverty reduction efforts are financed through both current and development expenditures and wide range of sectors, which have impact on the lives of the poor. The pro-poor expenditures cover 17 areas of expenditure[^] (analysed in respective chapters). Poverty-related expenditures are budgeted at Rs2,928 billion in 2014-15 (9.96 per cent of the GDP**)**, up from Rs1,934 billion in 2013-14. It is expected to rise further to Rs3,865 billion by 2017-18. Expenditure allocations for the pro-poor sectors, such as education, health and social safety net during the Plan is presented in the following chart.



Sources: *The Finance Division and Planning Commission*

The 7th National Finance Commission (NFC) award offers much larger flow of funds from the federal to the provincial governments, which will provide more fiscal space to the federating units for playing their role in addressing intra-provincial disparities. After the 18th Constitutional Amendment, the provinces have been given more responsibilities. Most of the projects, related to social sectors, are planned and implemented by the provinces, while the federal government

[^] Including roads, highways and bridges, water supply and sanitation, education, health, population planning, agriculture, land reclamation, rural development, subsidies, social security and welfare (including BISP), food support programme, PBM, peoples' works programme, natural calamities, low cost housing, administration of justice, and law and order is able to allocate larger chunk of the budget to projects related to development of infrastructure and quality improvement of the social sector.

Improving governance for efficient public service delivery

The focus will be on improving economic governance to achieve the MDGs, reduce poverty and enhance coverage of the social safety nets. The promotion of good governance requires strengthening of the institutions, administrative and service reforms, and improving monitoring and evaluation system. The Plan lays emphasis on the following areas:

- Quality control in delivering public services aiming at reduction of poverty; also involve reforms in the public sector.
- Consolidating devolution to ensure effective decentralisation of the administrative and the financial powers, and functions of the government for strengthening local communities to improve the delivery of critical public services
- Participatory governance in the design and implementation of policies, programmes and projects
- Strengthening the Pakistan Bureau of Statistics – a data-providing government institution – for enabling it to provide quality data, needed for analysis and effective monitoring of the MDGs
- Capacity-building of the Ministry of Planning, Development and Reform in the use of quality data for policy-oriented analysis and strategy formulation
- Addressing problematic areas of the public sector management to promote institutional transparency, open and accountable financial and administrative mechanisms

The macroeconomic stability and higher economic growth will help in creating an enabling environment for poverty alleviation during the Plan period. Greater emphasis on investing in people will not only enhance capacity of the economy for sustained high growth, but will also support government's efforts of reducing poverty. Success of the poverty reduction programmes largely depends on efficiency and effectiveness of the institutions delivering public services and efficiently managing social protection programmes. Efforts will be made to improve overall economic governance, devise social protection policy and strengthen pro-poor institutions, which will result in better implementation of the poverty reduction strategies and improving the HRD indicators.

Annexure-1

Millennium Development Goals and Plan targets 2017-18

Sr. No	Indicators	1990-91	2012-13 Benchmark	2015 MDG targets	2017-18 Plan targets
Eradicate extreme poverty and hunger					
1	Proportion of population below the calorie-based food plus non-food poverty line	26.1	12.4 (2010-11)	13	10
2	Prevalence of underweight children under 5 years	40	31.5 (2011-12)	< 20	< 20
3	Proportion of population below the minimum level of dietary energy consumption	25	30 (2001-02)	13	13
Achieving universal primary education					
4	Net primary enrolment ratio	46	57	100	100
5	Completion and survival rate to Grade 5	50	57	100	100
6	Literacy rate (age 10+ in %)	35 (M:48, F:21)	58 (M: 69, F:46)	88 (M:89, F:87)	88
Promoting gender equality and women empowerment					
7	Gender Parity Index (GPI) for primary and secondary	0.73	Primary: 0.90 Secondary: 0.81	Primary: 1 Secondary: 0.94	Primary: 1 Secondary: 0.94
8	Youth literacy GPI	0.51	0.81	1.00	
9	Share of women in wage employment in the non-agricultural sector	8.07	10.45 (2010-11)	14	14
10	Proportion of seats held by women in the Parliament	National Assembly: 2/217 (0.9%) Senate: 1/100 (1%)	National Assembly: 60/342 (22.2%) Senate: 17/100 (17%)		
Reduce child mortality					
11	Under-five mortality rate	117	89	52	52
12	Infant mortality rate	102	74	40	40
13	Proportion of the fully immunised children (12-23 months)	75	80	>90	>90
14	Proportion of under one year children immunised against measles	80	81	>90	>90
15	Proportion of children under five years, who suffered from diarrhoea and received ORT	26	9	<10	<10
16	Lady Health Workers' coverage of target population	Not applicable	83 (2008-09)	100	100
Improve maternal health					
17	Maternal Mortality Ratio (MMR)	533	276 (2006-07)	140	140

18	Proportion of births attended by skilled birth attendants	18	52	>90	>90
19	Contraceptive Prevalence Rate	12	35	55	55
20	Total fertility rate	5.4	3.8	2.1	2.1
21	Proportion of women (15-49 years) who had given birth during the last three years and made at least one antenatal care consultation	15	68	100	100
Combating HIV, AIDS, malaria and other diseases sources					
22	HIV prevalence among 15-24 year old pregnant women (%)	Not applicable	0.041 (2011-12)	Baseline to be reduced by 50%	Baseline to be reduced by 50%
23	HIV prevalence among vulnerable group (e.g., active sexual workers) (%)	Not applicable	IDU=37.4 FSW=0.8 MSW=3.1 HSW=7.3 (2011-12)	Baseline to be reduced by 50%	Baseline to be reduced by 50%
24	Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures	Not applicable	40 (2011-12)	75	75
25	Incidence of tuberculosis per 100,000 population	171	230 (2011-12)	45	45
26	Proportion of TB cases detected and cured under the DOTS	Not applicable	Detected=65% Cured=91% (2009-10)	85	85
Ensure environment sustainability					
27	Forest cover, including state-owned and private forests and farmlands	4.8	5.2 (2011-12)	6	6
28	Land area protected for the conservation of wildlife	9.1	11.5 (2011-12)	12	12
29	GDP (at constant factor cost) per unit of energy use as a proxy for energy efficiency	26,471	26,543 (2008-09)	28,000	28,000
30	Sulphur content in high speed diesel (as a proxy for ambient air quality)	1	0.6 (2010-11)	0.5-0.25	0.5-0.25
31	Proportion of population (urban and rural) with access to a improved drinking water source	53	89	93	93
32	Proportion of population (urban and rural) with access to improved sanitation facility	30	72	90	90

Sources: *Pakistan Millennium Development Goals Report 2013 and Pakistan Social and Living Standards Measurement Survey 2012-13*

Chapter 9

SOCIAL WELFARE –
Inclusion of vulnerable groups

Inclusion and equity, across the social welfare system, have proven to be crucial in poverty reduction, and upward economic and social mobility. The economic benefits need to be distributed equitably for improving living standards of the poor, vulnerable and marginalised segments of the population. However, the excluded population is more likely to be denied opportunities for economic, social and human development, and people remain caught in the vicious cycle of poverty. Inclusion of these people in policy frameworks and catering to their needs, at every level, are required to break this cycle.

The social welfare is concerned with the institutional care and rehabilitation of the poor, vulnerable, marginalised and excluded segments of population, including children, women, Persons with Disabilities (PWDs) and senior citizens to enhance their capabilities for mainstream socio-economic life. It also provides access to the poor and vulnerable for their basic necessities, like education, health, nutrition, skill development, water and sanitation, etc. The welfare initiatives have positive impact on underlying poverty and inequality for providing access to equitable economic and social opportunities to susceptible segments of the society.

Situational analysis

The hitherto policy interventions are one of the main areas of concern for non-implementation of rights and obligations enshrined in the Constitution [Article 38(d), which states: 'The State shall provide basic necessities of life, such as food, clothing, housing, education and medical relief, for all such citizens, irrespective of sex, caste, creed or race, as are permanently or temporarily unable to earn their livelihood on account of infirmity, sickness or unemployment.'] Furthermore, weak interventions have prevented the discharge of national responsibilities and international commitments flowing from various obligations, such as the National Policy for Persons with Disabilities, United Nations Convention on the Rights of the Child (UNCRC), and UN Convention on the Rights of Persons with Disabilities (UNCRPD). The Plan recognises need to:(a) bring awareness about the constitutional, legal and international obligations to protect and promote human rights based approach to development, (b) establish mechanisms designed to bring those objectives within reach of the disadvantaged groups, and (c) make adequate financial provision for expansion and strengthening of the social welfare services infrastructure to fulfil these obligations through mitigating and managing the socio-economic risk and vulnerability of the target population.

Approach and strategy of the Plan

The Plan envisages socio-economic empowerment of the poor and marginalised in support programmes of interventions for human resource and community developments. The strategic interventions for social mitigation, therefore, focus on new initiatives and expansion of the existing institutional welfare services for care and rehabilitation of the target population. These initiatives provide them access to the basic necessities of education, health, income generation,

training and skills, technology and other public services, and resource mobilisation through government, public-private partnerships and Non-Governmental Organisations (NGOs).
The existing social welfare programmes, services and funding are considered insufficient and inadequate for catering to the needs and requirements of the target population; thereby the Plan recognises the following strategy to improve social welfare services, management and infrastructure:

- *Mainstream target population* including children, women, youth, PWDs, patients, senior citizen, etc. through establishing and expanding quality social welfare institutions to secure their livelihood and income opportunities. Also, mainstreaming of the target population is based on the human rights approach to social justice and development.
- *Review and revision of the existing social welfare policies*, the National Policy for Persons with Disabilities, National Plan of Action for Persons with Disabilities, Social Protection Strategy, other sectoral strategies and action plans are immediate concerns of the sector for an effective need-based social services delivery, which entail establishment of an efficient information management system to address major issues of lack of the latest information and data on:
    - target population of the vulnerable, marginalised and excluded children, women, youth and senior citizen, and available services of each target group
    - mapping of community services to address the emerging social issues of disability, special and inclusive education, child rights and protection, birth registration, vocational training and skill development, etc.
    - registered NGOs and their fields of operation
- *Sustainable community development and organisation* to provide need-oriented services to the underprivileged strata of population by promoting voluntary work, mobilising local resources and effective community participation
- *Evaluation and promotion of programmes and activities of voluntary social welfare agencies and NGOs* through technical and financial assistance and other appropriate measures, like their capacity-building in achieving the targets set to address social welfare issues
- *Effective implementation of the national and provincial action plans for children* for their survival, protection, development and participation, including the issues of child labour, child abuse, trafficking and violence against children and compulsory birth registration
- *Promotion of inclusive education system for special children*, skill development, enforcement of special quota for education and employment and encouraging sports activities for the PWDs
- *Philanthropy reform and judicious utilisation of the indigenous philanthropy*, Pakistan Bait-ul-Mal and Zakat funds for social welfare, protection, development and rehabilitation programmes – The institutional setup for philanthropic contribution is envisaged through administrative and legislative reforms, which will be helpful in eradication of social evils, including beggary.
- *Welfare and protection of the senior citizens* to ensure their rights of health, participation, care, livelihood and protection to make them socially and economically productive

- *Revamping of the social welfare institutional machinery* through capacity-building and institutional strengthening for an effective implementation of the social welfare strategy during the Plan period, which require: i) availability of the relevant professionals of the social welfare fields, ii) professional training of personnel, and iii) strengthening – in terms of their manpower and office automation – of the following federal and provincial social welfare organisations:
  - National Council of Social Welfare (NCSW)
  - National Commission for Child Welfare and Development (NCCW&D)
  - National Council for Rehabilitation of Disabled Persons (NCRDP)
  - Directorate General of Special Education(DGSE)
  - Social Welfare Wing (Capital Administration and Development Division)
  - Human Rights Wing (Ministry of Law, Justice and Human Rights)
  - Pakistan Bait-ul-Mal (PBM)
  - Staff Welfare Organisation (Establishment Division)
  - Provincial and regional social welfare and special education departments

Programme rationale for the Plan

Empowerment of the PWDs

Disability in the nexus of poverty brings misery to the PWDs and their families. According to the WHO estimates, 10 per cent of the population of the developing countries, like Pakistan, suffers from disabilities of various sorts. The National Census 1998, however, indicates much lower percentage, that is, 2.49 per cent of the total population suffer from disabilities. Further distribution of disabilities into various types reveals that 19 per cent of 2.49 per cent of the disabled are physically impaired, 14 per cent mentally deranged and insane, 8.6 per cent visually impaired, 7.40 per cent hearing impaired, 8.21 per cent have multiple disabilities and 42.79 per cent are others. The analyses of the disabilities data, according to the required facilities and services for various age-groups of the PWDs is given in Table 1.

Table 1: Distribution of age-wise disabilities and required services

Age-groups(Years)	Percentage(1998 census)	Activities and facilities required
0-4	10.34	Assessment, early intervention, medical treatment and other support services
5-14	23.09	Provision of educational facilities (inclusive and integrated education)
15-29	23.98	Higher education, vocational, technical training and employment facilities and arrangements
30-59	25.15	Other welfare services
60+	16.56	Welfare services for the disabled senior citizens

In 2011, the government has ratified the UNCRDP, which adopts a broad-based care, education, rehabilitation of the PWDs ensuring that they enjoy all human rights with accessible environment and fundamental freedom. The Plan, therefore, recognises ensuring of the legal and administrative framework, policies and programme-level interventions for providing equal opportunities to mainstream the PWDs by:

- increasing employability after imparting vocational training and skill development
- providing accessible physical infrastructure
- ensuring the Disability Impact Assessment in formulation of the public policies, programmes and projects
- guaranteeing legal employment rights against two per cent quota in all establishments
- benefiting and supporting PWDs in all fiscal packages, development initiatives and programmes of the line ministries and provincial departments, including PBM, NCSW and fiscal incentives and income support programmes, etc.

Inclusive education system

The vertical approach of special education is not addressing probable needs of the special children and PWDs. Out of approximately 4.5 million PWDs, more than 1.5 million are children falling in the age bracket of zero to 15 years. This indicates an imminent demand of education for these children, which is to be catered through the existing network of regular schools. The enrolment position at the special education schools and institutions depicted a huge gap between available and required educational facilities. The table below portrays the present situation.

Provinces	Number of institutions	Enrolment
Federal	7	527
Punjab	206	19,024
Sindh	45	1,719
Khyber Pakhtunkhwa	32	1,879
Balochistan	9	1,188
AJ&K and G-B	3	460
Total	**302**	**24,797**

Only about 1.6 per cent of the total special children are being catered through special education schools and institutions spread across the country, which leads to the inference that the establishment of separate infrastructure for the disabled children not only perpetuates their social exclusion, but also proves to be costly. The Plan is, therefore, emphasising the inclusive education as a way to reduce the gap of 98.4 per cent unattended special children.

Child protection and rights

Children are about 48 per cent of the total population, which need to be brought up as effective contributors to the future working force of the country. Planning for children is, therefore, of utmost importance for addressing their issues of survival, protection, development and participation, including childhood poverty. The NCCW&D has prepared a comprehensive draft ‘National Child Protection Policy’ in consultation with all stakeholders, which awaits its approval and later enforcement. The Plan recognises the need of a Child Protection Policy and its effective implementation to address the issues.

The Plan also identifies lack of institutional framework and monitoring system for comprehensive child protection and promotion of their rights as envisaged in the UNCRC. During the Plan period, a series of programmatic interventions are considered to be of huge import keeping the following situation in view:

- Child abuse and exploitation exist at seven per cent with primary care givers, while more than half of the children are being abused outside their houses, that is, at work places, medressahs and schools, which is two-and-a-half times higher.
- There are approximately 3.6 million child labourers under the age of 14, including children in bonded labour, especially in the rural areas.
- The Internally Displaced Children (IDC) are more vulnerable to abuse, neglect and exploitation.
- The national average for birth registration is 29.5 per cent only due to the absence of awareness about the bylaws concerning this registration.
- There are no exclusive juvenile courts in the country.
- There is a high rate of drug use, whereas very few rehabilitation services are in place.
- Only few systematic life skills education programmes are available for children and the adolescent, while there are less recreational facilities, especially for girls.

Welfare and protection of senior citizens

Older persons are facing a number of challenges mainly due to their poor status, discrimination, lack of healthcare, food and nutrition, and exclusion. Pakistan is one of those 15 countries where over 10 million persons are above 60 years, and currently, the country has 11.3 million people above this age, which will be 43.3 million in 2050, making 15.8 per cent of the total population. Pakistan is yet to formulate tangible plan and policy for ensuring their rights to health, participation, care, livelihood and protection to make them socially and economically productive.

Realising equal rights of the senior citizens, the Plan encompasses formulation of a policy for older persons and compilation of data on nature and extent of ageing issues to analyse the current situation for undertaking social, economic and other welfare activities in collaboration with the public and private sectors organisations. A comprehensive programme for the welfare and protection of the senior citizen is, therefore, envisaged through establishing centres in each district. The main objective of such homes will be to provide institutional care and facilities for older citizens, who are shelterless and without family support for their mainstream productive life.

Patients welfare services

The hospital-based medico-social services have been beneficial for rehabilitation of the patients. The patient welfare is a highly useful service in extending financial and social assistance to patients and their families during and after illness, seeking to cut returns to hospitals through counselling and saving doctors' time and efforts in medical treatment or surgery by providing follow-up guidance and assistance. Considering its importance for the deserving patients, hospital-based social services will be extended in all districts, tehsils and towns emphasising on the prevention and rehabilitation of patients, including their stigmatised diseases, that is, Sexually Transmitted Diseases (HIV, AIDS), drug addiction, etc. Zakat, philanthropy and the PBM assistance will be effectively utilised through systematic channels for optimum coverage of the deserving and eligible patients by formation of the Patients' Welfare Associations under the auspices of the Medico-Social Units in each hospital.

Achieving sustainable community development

The traditional community development initiatives have been launched in thinly spread urban and rural areas to provide need-oriented services for the underprivileged strata of the population by promoting voluntary work, mobilising local resources and effective community participation to capacitate the poor, marginalised and socially-excluded population. The Plan encompasses evaluation and strengthening of the existing social welfare services for sustainable community development through participatory approach to enhance socio-economic status of the poor communities and people by the following major interventions:

- *Enhancing NGOs services* at community level in the fields of child protection, women empowerment, skill development, welfare and rehabilitation of the PWDs, special and inclusive education, elderly welfare
- *Small grant programmes to the NGOs* by the government, corporate sector and international organisations to support and promote grassroots initiatives of the NGOs
- *Linking of the public and private sector organisations* and their services for community mobilisation in providing access to basic education, health, skill development and water and sanitation to poor and marginalised segment of population
- *Strengthening of the existing mechanism* for registration, regulation and capacity-building of the NGOs for an effective public-private partnership

Indigenous philanthropy reform

A healthy private philanthropic sector is extensive, which will be used to strengthen the socio-economic development of the poor and marginalised through various reforms. The government is constantly hard-pressed to meet basic needs and resources to fully address issues of the disadvantaged population. During the last 20 years, there has been substantial increase in private voluntary initiatives in the social welfare fields of Pakistan. A well-developed network of organisations, supported by the local community, will address broad spectrum of the social needs, including health, education, community development and shelter. The aggregate individual and corporate sector – giving more than Rs70 billion over the years– is substantially higher as compared to the government expenditure for the social protection programmes. Recognising importance of the current individual and corporate sector philanthropy, the Plan focuses on the paradigm shift from consumption support to social investment to rehabilitate and empower the poor, disabled and marginalised for their sustained livelihood.

The highly useful role of the corporate sector in advising charitable organisations is essential for their integrity and success. Only a long-term sustained effort to address the causes and consequences of poverty is likely to be a success through indigenous philanthropic reform. Therefore, the eradication of social evils, including beggary, is prioritised through philanthropy institutional setup. The Plan stresses on institutionalisation of philanthropy through the PBM as a paradigm shift for which the existing legislative, administrative and services delivery mechanisms need to be reformed.

Staff welfare services

The provision of the welfare services and facilities to employees in any organisation plays a vital role in enhancing efficiency and effectiveness of their job performance. The government, being the largest employer, has to provide a model by providing adequate and sufficient staff welfare services to its employees. Keeping in view the lack of existing employee's welfare service, the Plan recognises the following:

- Vocational training, skill development and income generating opportunities for the family members of the low-paid
- Recreation, rest and leisure-time activities, including the retired senior citizens
- Community welfare activities through mobilisation of the local resources, initiatives and leadership in the residential areas
- Residential facilities and hostels for employees, particularly females
- Day-care centres for infants and children of working spouses to keep them comfortable productive workers
- Initiate low-cost housing schemes for the low-paid
- Provide stipends and scholarships to school, college, and university-going children

Financial outlay

An amount of Rs40.6 billion has been proposed for implementation of the social welfare strategies and programmes during the Plan period.

(Rs million)

Ministry/Division	Projections					
	2013-14	2014-15	2015-16	2016-17	2017-18	Total
Federal	99	15	48	140	160	462
Provincial	7,600	6,219	6,520	9,320	10,503	40,162
National	7,699	6,234	6,568	9,460	10,663	40,624

Expected physical achievements and targets

The programme-wise physical targets of each sub-sector of the social welfare, and expected outcome are given at Annexure-I:

Annexure-I

Implementation strategy with targets for the Plan

Policy and programme interventions	Output and outcome	Indicators	Major institutions responsible	Baseline 2012-2013	Target 2013-18
Child protection and rights	Ensured survival, protection, development and participation of all under 18 years Effective contribution in the future labour force National Child Protection Policy Amend laws and regulations to enforce UN conventions	Number of children registered at birth Implementation of child rights-related articles of the UNCRC Reduced number of children in labour, street, beggary, abuse and exploitation	National and provincial Commissions for Child Welfare and Development Ministry of Law, Justice and Human Rights (MoLJ&HR) Ministry of Education &Training (MoE&T) Provincial social welfare, labour, home and local government departments	Less than 30% child birth registration Overwhelming prevalence of child abuse, exploitation, street children, child beggary 3.6 million children, bonded labour under 14	Up to 70% child birth registration 225 child protection bureaus and centres with 24-hour helpline at district, tehsil, and town levels 300 non-formal community education centres for working and begging children National Child Protection Policy and legal framework in place and enforced
Education and research on human rights issues	Improved manpower, professionals, researchers on protection and rights available	Number of institutions, departments, research centres established	MOE&T Higher Education Commission (HEC) Provincial education departments	Only about 5% universities offer it as an optional subject	80 Social Work, Sociology departments, centres of excellence to introduce human rights a core subject in all public-private sector HEC recognised universities, institutions
Care, rehabilitation and empowerment of the PWDs	Social and economic inclusion of PWDs for their mainstreaming Improved livelihood, employability for PWDs Mainstreamed PWDs through education,	Inclusion of disability status in the national census Number of skill training and job centres for PWDs Number of PWDs against 2% quota Number of	(NCRDP Social Welfare Wing (CADD) Planning Commission Provincial P&D departments PBM DGSE Provincial Social Welfare and Special	10% population categorised as disabled Vocational training centres available for 20-25% PWDs About 5% PWDs employability	Vocational Training Centres for 40-50% PWDs Up to 30% PWDs employability against 2% quota Early detection facilities available at 60 DHQs, area hospitals

	training and rehabilitation Availability of accessible environment in physical infrastructure for PWDs	youth, social clubs, associations accessible to PWDs Number of buildings, roads, schools accessible to PWDs	Education Departments	against 2% quota	About 25% health, education facilities and cities, public places to be disabled friendly 25% PWDs will participate in DPOs, Associations National central repository on nature and extent of disability to be established
Inclusive education system for special children	Achieved 'Education for All' special children including hearing and visually impaired, physically disabled, mentally retarded Increased enrolment and accessibility to regular schools	GER and NER at Primary and secondary levels Gender parity at primary level Accessibility and inclusive schools Improved gender parity Enact laws and regulation for inclusion	NCRDP CADD DGSE MoLJ&HR National and Provincial Commission for Child Welfare and Development MoE&T, provincial education, special education departments	Less than 2% special children enrolled in special schools	Up to 30% enrolment at primary level and 20% at secondary level Equal gender parity All schools, colleges will be inclusive for special children at least up to THQs level.
Sustainable community development and organisation	Empowered communities fostering socio-economic development Improved partnership with NGOs, philanthropists, private, and corporate sector	Community initiatives in urban and rural areas for the poor and vulnerable Public-private partnerships and NGOs' programmes for the poor and vulnerable	Ministry of Planning, Development & Reform (MoPD&R) National Council of Social Welfare, SW Wing-CADD Registration authorities of all NGOs and CSOs Provincial SW departments	Thinly spread community development projects mostly in the Punjab Scattered public-private partnership programmes	225 tehsil level Urban, Rural Community Development Centres About 2,000 UC-Citizen Info Units on SW services More than 4,000 registered NGOs participation Capacity-building of NGOs for CD programme
Welfare and protection of older persons	Improved institutional care, treatment and rehabilitation	Formulation and enforcement of policy, action plan for care,	National Council of Social Welfare CADD Provincial SW,	11.3 million older people over 60 years No plan and policy for	Formulation, enforcement of a National Policy on Older Persons 225 district,

	of older people Improved and productive ageing	treatment and participation of older people in mainstream socio-economic activities	health departments NGOs/CSOs MoPD&R	older persons Acute inadequacy of Institutional care and facilities	tehsil and town level centres for the aged
Patients' welfare services	Improved hospital based medico-social service to cut returns to hospitals	Number of social service medical centres, projects Number of patients to whom medico-social services provided	CADD PBM, Zakat Administration Ministry of Health Services and Regulation. Provincial SW, health depts. Patients Welfare Associations	Inadequate existing facilities except in big cities, districts Non-functional Patient Welfare Associations	225 SSMPs at DHQs, THQs, town hospitals 225 Patients Welfare Associations in each centre
Indigenous philanthropy reform and resource mobilisation	Institutionalised philanthropy through PBM Paradigm shift from consumption support to social investment Elimination of social evils including beggary Development oriented philanthropy initiatives	Number of poor, excluded and vulnerable children, women, youth, older persons, families rehabilitated and mainstreamed in their socio-economic life	PBM National Council of Social Welfare CADD Federation of Chambers of Commerce and Industries Provincial SW departments	Unorganised NGOs and CSOs-based philanthropy	225 Urban, Rural Community Development Centres linked with the PBM, corporate sector organisations elimination of social evils up to 50 per cent Sensitisation of all stakeholders, NGOs, CSOs, industrialists, traders, philanthropist through awareness campaign

Chapter 10

GENDER AND WOMEN EMPOWERMENT

The planning for gender equality, women rights and empowerment has evolved gradually considering its significant contribution to sustainable economic development. Women constitute about 51 per cent of the total population, and about 22.7 per cent of labour force. Despite recognised constitutional, legal and religious rights of women, their status remained dormant. To enable them to contribute in the socio-economic development as an equal partner, their protection, well-being, empowerment and participation will have to be ensured.

Pakistan has committed to meet the MDGs and Convention for Elimination of all forms of Discrimination Against Women (UNCEDAW). For reducing gender inequality, discrimination against women and their disempowerment, Pakistan has been implementing the Convention for the last 15 years. In addition, Pakistan’s National Policy for Development and Empowerment of Women 2002 aims at ‘removing inequities and imbalances in all sectors of socio-economic development and to ensure women's equal access to all development benefits and social services’. The Plan will address the women issues, specifically violence, neglect and injustice.

Situational analysis

Pakistan's ranking as per the GDP is higher in comparison to the Human Development Index (HDI); thus implying that the economic growth has not resulted into the human resource development. Moreover, the Gender Development Index (GDI) is even lower than the HDI; thus showing that the gains of the economic growth are comparatively in favour of men.

The HDI, in terms of the Gender Inequality Index (GII), reflects gender-based inequalities in three dimensions – reproductive health, empowerment, and economic activity. Pakistan has the GII value of 0.567, ranking it 123 out of 148 countries in the 2012 index (United Nations Human Development Report 2012). In Pakistan, 21.1 per cent of the parliamentary seats are held by women, and 18.3 per cent of women have reached a secondary or higher level of education as compared to 43.1 per cent of their male counterparts. For every 100,000 live births, 260 women die from pregnancy-related complications, and the adolescent fertility rate is 28.1 births per 1,000 live births. A comparison in the regional contexts is given in the following table:

Pakistan’s GII for 2012 relative to selected countries

	GII Value	GII Rank	Maternal Mortality Ratio	Adolescent Fertility Rate	Seats in Parliament (%)	Population with at least secondary education (%)		Labour force participation rate (%)	
						Female	Male	Female	Male
Pakistan	0.567	123	260	28.1	21.1	18.3	43.1	22.7	83.3
India	0.61	132	200	74.7	10.9	26.6	50.4	29	80.7
Bangladesh	0.518	111	240	68.2	18.7	30.8	39.3	57.2	84.3
South Asia	0.568	-	203	66.9	18.5	28.3	49.7	31.3	81
Low HDI	0.578	-	405	86	19.2	18	32	56.4	79.9

Source: *UNDP (Human Development Report 2012)*

There is a dearth of data regarding women indices and most of the information remains unreported or under-reported. Given these shortcomings, the available information still indicates high maternal mortality, malnutrition, low literacy and education, unemployment and access to economic opportunities.

The Constitution of Pakistan stipulates equality before law, equal protection by law, equality of employment, maternity benefits during employment, but it requires affective implementation.

Women empowerment

Education, employment and access to information are key parameters, which reflect an overall status of women in the social context. The empowerment of a woman is dependent on her participation in household decision-making, mobility, ownership of property and freedom to spend and her role as a decision-maker in the society.

The female labour participation rate is about 22.7 per cent against male's 83.3. The prevalence of gender inequality in labour force participation leads to economic disempowerment of women in their families and at the national level. In the public sphere, majority of women work as unpaid family labour in agriculture and hold low paid, low skill jobs, at the lowest tier of the industrial labour force in the urban areas. Occupational segregation characterises that women are concentrated in certain sectors (agriculture, services) and within the sector hold lower positions. Women, who are counted as employed include employees, self-employed, unpaid family helpers and generally engaged in low-skilled and low-wage economic activities. More than half of women earn less than 60 per cent income as compared to men. Bulk of female labour force is engaged in informal sector and still requires legal protection and effective implementation of the labour welfare policies. In the urban informal sector, 67.5 per cent women work in diverse manufacturing sector mostly as home-based or casual workers on exploitative wages or employed as domestic workers on extremely low remuneration. The percentage of the unpaid female family workers rose from 53 per cent in 2003-04 to 59.8 per cent in 2011-12.

Challenges and issues

The major challenges are:

- Weak law enforcement impeding realisation of equal rights for women
- Non-recognition of women's work in the rural setup and informal sector in the GDP
- Lack of access to resources, facilities and entitlements – economic, social and political
- Ineffective representation of the women issues and concerns in the policy-formulation and implementation processes
- Exclusion of the gender consciousness in hard sectors
- Dimensions of gender gap in education, health and restriction on mobility
- Inadequate health and reproductive outcomes
- Lack of awareness among women regarding the Disaster Risk Reduction

Objectives

The key aims of the Plan are:

- Ensuring women right to ownership of movable and immovable assets
- Provide unimpeded access to legal, religious and social rights and resources to women
- Protect women's mobility and livelihood, especially in conflict-ridden, insecure and backward areas
- Urgent redressal against the unjust and illegal patriarchal customs and traditions, such as honour killing and domestic violence
- Redressal of the disproportionate access to health, education, opportunities and other services
- Recognition of women's contribution in the socio-economic development, and reproductive role– deserve additional benefits in term of flexible working hours, leaves, day-care facilities, equal entitlements to manage her responsibilities with peace of mind
- Effective coordination among the federal and provincial stakeholders
- Provision of speedy justice to survivors of violence

Strategy

The intersectional approach to gender and security, and the transformative approaches to gender training and mainstreaming are to be formulated and implemented at the national level through a set of policies and affirmative actions. A multidimensional strategy has been envisaged to empower women to have a say in the decision-making. It will comprise capacity-building programmes at various levels and institutions, review and assessment of the public programmes and institutions, which are supported with corrective policy measures in the judiciary, politics and executive, affirmative actions, and evolving a pragmatic research agenda for policy decisions. The overall policy framework comprises: (i) improvement of legislation where required, (ii) legislation's enforcement to improve women's access to family resources and inheritance, (iii) eradication of anti-women cultural traditions and norms, for example, karokari, (iv) dismantling of the parallel informal judicial systems, and (v) speedy justice to survivors of violence.

To achieve the above-mentioned objectives, the following strategic measures will be taken:

- Adoption of a holistic approach to formulate, implement and disseminate policies, plans and laws to improve lives of women
- Enforcement machinery to be made gender sensitive to improve implementation
- Practices based on illegal cultural, family and customary norms to be analysed visa-a-vis the legislative package and its impact on individual, community, country and humanity highlighted
- Capacity of organisations and institutions to be enhanced for integrating gender prospects in the development process to ensure women participation in the decision-making
- Conduct research to design future policy-making in areas, which include:
  - Identifying barriers to women participation in development

  - Benefits of quota at all levels and its expansion to all fields
  - Undertaking research by the R&D organisations, universities, institutions bridge the theory and practice gaps
  - Evaluation of programme and institutions
- Interlinking of the legislative formulation with effective enforcement through strengthening of the state apparatus and capacity-building of women workers through skill training
- Legal empowerment of women to be enhanced through a set of policies and measures encompassing
  - Enforcement of the protective laws and amendments where needed
  - Providing free legal assistance and access
  - Full participation of women in the democratic process at all levels
  - Awareness raising
  - Monitoring women specific crimes

Programmes

Important interventions to be considered are:

- The existing support institutions for the survivors of violence will be strengthened and more effective support mechanisms (shelters, crisis centres, free legal aid, counselling, rehabilitation support, etc.) will be established.
- The Information Management System (MIS) will be developed to collect national data about violence against women.
- A section on gender responsiveness is to be inserted in the national budget and gender responsive budgeting in all sectors to be initiated.
- Capacity of the institutions (public and private sectors, and civil society) will be enhanced to integrate the gender prospects in the development process for strengthening women performance in the decision-making.
- Gender awareness and equality will be included in curricula of schools, universities and other educational institutions.
- Day-care facilities will be provided to infants and children of the working spouses to make them comfortable productive workers, and create women-friendly workplace.
- Leadership development programmes for women will be carried out to promote confidence in them.
- Campaigns will be launched to promote awareness about the existing legislation and measures, which promote women rights as well as support systems, and remedial measures that enable access to legal redress.
- Free legal aid cells will be established in all the High Courts and District and Sessions Courts to provide free legal aid to women, waiting rooms and toilet facilities for women in the court premises. Legal aid will be made available within women's prisons as well.

- Skill up-gradation centres in female-dominated economic sectors (agriculture, livestock, aqua-culture, textile and garments, light manufacturing, food processing) will be established in identified rural and urban centres, where women will be enrolled.
- Inclusion of gender-segregated data (including third gender) in all sectors and categories of economic activities is enumerated, defined and included in the Pakistan Labour Survey, Pakistan Economic Survey, Household Integrated Economic Survey and Agricultural Census.
- Institutionalisation of the transformative gender training in all public and private sector institutions, including codes of conduct of behaviour to ensure promotion of the women rights will be carried out.
- Guidelines, materials and trainings, and lobbying for women rights will be ensured.
- Gender sensitisation workshops will be held, and implemented across all sectors.
- Media awareness campaigns about the rights of women and their protection will be launched.
- The Gender Impact Assessment (GIA) in all PC-Is will be introduced.
- Gender responsive budgeting at the federal and provincial levels for all sectors will be ensured.

Plan provision

An amount of Rs2.7 billion has been proposed for women empowerment, and their socio-economic development during the Plan period.

(Rs million)

Sl. No.	Ministry/ Division	Projections					
		2013-14	2014-15	2015-16	2016-17	2017-18	Total
1	Federal	79	10	5	50	100	244
2	Provincial	400	438	465	543	605	2,451
3	National	479	448	470	593	705	2,695

Expected physical achievements and targets

The programme-wise physical targets for gender and women development, and expected outcome during the Plan period are given in the Annexure-I.

Annexure-I

Implementation strategy with targets for the Plan

Policy/programme intervention	Output/outcome	Indicators	Major institutions responsible	Target 2013-18
Education for all girls	Reduced gender gap in enrolment of boy and girls in primary and secondary education	Number of boys and girls enrolled in primary and secondary schools	Ministry of Education and Training (MoE&T) provincial education, women development departments Ministry of Law, Justice and Human Rights (MoLJ&HR)	Gender Parity Index Primary : 1.00 Secondary : 0.95
Behavioural Change Communication (BCC) and awareness about elimination of discrimination against women	Improved level of awareness and sensitisation at family, community and national level on gender issues Improved number of NGOs and CSOs participated	Number of incidence of violence, abuse and discrimination against women at family, community and institutional level	MoLJ&HR, provincial social welfare, women dev. deptts., education depts. National Commission on Status of Women (NCSW) MoPD&R	More than 70% population (urban and rural) sensitised on gender-based discriminatory and violence issues
Education and research on gender studies and issues	Improved manpower and professional available	Number of institutions and research centres established	MoE&T Higher Education Commission MoPD&R provincial education, women development departments universities and institutions	80 Gender and Women Studies Departments and centres to be established in the public and private sector HEC recognised universities and institutions
Centres and institutions for survivors of violence, and women in distress (with 24-hour helpline)	Improved care and rehabilitation of women victims of abuse, violence, etc.	Number of centres and institutions established Number of survivors rehabilitated	MoLJ&HR, Provincial social welfare and women development departments	225 centres to be established at district and tehsil levels with NGOs and CSOs participation
Information Management System on gender-based data on education, health,	Established disaggregated data system	GDI on primary and secondary education, MMR, participation of women in labour	MoLJ&HR Provincial social welfare and women development	MIS to be established and fully functional

employment, sectoral budgeting and violence against women		force, national and provincial budget tracking and incidences of violence	Departments NCSW	
Gender Impact Assessment (GIA) of all public policies, plans, programmes and projects	Gender sensitised public policies, plans, programmes and projects	Availability of the GIA tools Incorporated GIA in the PC-Is of all development sectors	Planning Commission, Provincial P&D, women development department MoLJ&HR	Gender sensitised public policies, plans, programmes and projects be made available in practice
Skill Development Programmes	Improved level of vocational and skill development facilities	Number of women trained in market oriented skills and vocations	MoE&T Provincial social welfare, women development department and TEVTAs	More than 2500 Ladies Industrial Homes-cum-Work Order Centres to be established up to the Union Council level involving about 400 NGOs
Day-care centres	Enhanced work productivity of women in jobs and care of their children	Number of centres established	CADD Provincial social welfare and women development departments and federal ministries	225 day-care centres to be established at the levels of districts, tehsil and towns level and in educational, health, and industrial institutions for women workers
Removal of discriminatory laws, enactment of pending legislation and abolition of the parallel judicial system	Realised equal citizenship to women in entitlements Removal of cultural and institutional discriminatory patterns, if any	Number of discriminatory laws in economic, social and cultural scenario Number of pending laws and non-availability of parallel judicial system	MoLJ&HR NCSW Provincial law and women developments departments	Existing discriminatory laws to be reviewed Pending legislation to be enacted in accordance with the Constitution Parallel judicial system to be abolished in accordance with the legal framework

Chapter 11

YOUTH EMPOWERMENT, SPORTS AND TOURISM

The subjects of youth, sports and tourism have now become responsibilities of the provinces after devolution of the social sector under the 18th Constitutional Amendment. The individual provincial plans, policies and programmes have to converge at one point to reflect a broader national charter. These sectors are now financed, promoted and protected by the provinces, but the federal government is still responsible for signing the conventions, agreements and treaties with international bodies and organisations. The need for a national sports and tourism policy is imperative in this scenario. As such, the sports have always been a top priority on the national agenda and so is the tourism. Similarly, the Prime Minister has announced a package of far-reaching consequences for the youth empowerment through a number of financial incentives.

Youth empowerment

Pakistan is currently facing an unprecedented youth bulge, which comprises 53 million youth falling in the age bracket of 15-29 years making around 29 per cent of population. This window of demographic dividend if not utilised and harnessed will close down by 2045 – the year when the population will be more aged. There is enough evidence to prove that lack of investment and an indifference to the needs of youth incur a high cost in terms of lost development opportunities and ill-health with serious social, physical and mental disruptions. In such a situation, there is no option but to invest more in the youth in short and long-term periods to ensure that the generation has better economic and social development prospects. However, if this unprecedented opportunity were missed like it has already happened in several developing economies and in Pakistan too in the past, it will lead to more turmoil and dissatisfaction. It is a tangible policy of the government of Pakistan that by initiating right mix of development policy measures, right choices will be provided to youth for ensuring economic and social development.

A snapshot of youth population in Pakistan (Age 15-29 years)

Total youth population:	*53 (million)*
% of total population:	*29*
Male (million):	*27.30*
Female (million):	*25.70*
Rural area (%):	*64*
Urban area (%):	*36*
Youth literacy rate (%):	*55 (overall 58)*

Source: *Pakistan Social Living Standards Measurement Survey (PSLM) 2012-13*

There has been adequate investments and right mix of policies to address needs of the youth. Despite this, there is large scale unemployment of the youth. A large number of them still continue to be out of schools. Pakistan has an average of 40 per cent children in schools, which is the lowest in South Asia. Millions dropout even before completing primary level schooling and there are millions who never attend any school in their lives, particularly girls and boys from poor communities. Unemployment of the youth has remained a serious issue and despite some measures taken in the past, the unemployment rate has not improved. The youth, particularly dropouts of schools and colleges, get into vicious poverty circle.

Women unemployment is at its peak, as they have only 14 per cent share of the job market. A large number of young women continue to be out of job market, and their contribution to the economic development has not been properly exploited. Also, there is a shortage of skilled labour in the local as well as neighbourhood markets. Secondary and college education is focused on academic achievements and virtually there is hardly any attention paid to skill development, which creates a gap between education and the required job skills. The disparity between demand and supply of skilled workers creates hurdles for economic growth and productivity enhancements. Scope of the government jobs for the youth is very limited. Due to restructuring and reforms, automation of work, computerisation of processes, smart-work policies and job opportunities in the public sector will further reduce in the coming days. Therefore, such policies are required to be adopted, which can be helpful to equip the youth with right job skills for their absorption in the private sector, particularly industry, agriculture and services sectors.

The entrepreneurship remained a neglected area in the past. Self-employment of the youth, by providing adequate training skills and access to business start-up finances, is the need of the day. Important policy actions are required to promote capacity of the youth by supporting transitions, which include continuing education, education to work transition, including life-skill training, jobs and entrepreneur development.

Issues

The following are important issues.

- A large segment of the youth has no access to quality education, skill development, vocational training, soft loans and employment, which result in high illiteracy and unemployment.
- The basic infrastructure for sports, social volunteerism and recreational activities for youth is not available.
- There are no regular incentives or scholarships for the talented and high performing youth.
- No guidance and reach-out programme for the disengaged youth so that they can become fully active and responsible members of the society.
- There is no policy for mainstreaming of the youth studying in medressahs.
- No priority is given to the disadvantaged youth, that is, women, rural and disabled youth.
- There is non-existence of research and development in the field of youth.
- The educational syllabi do not prepare youth for the job market.

Current initiatives for the youth

Prime Minister's Youth Programme

The incumbent PM has announced a package with broad canvas of programmes enabling the youth and the poor segments of population in general to get good opportunities of employment, economic empowerment, acquiring skills needed for gainful employment, spreading use of computers and imparting on-the-job training for the young graduates to improve the probability of getting a productive job.

PM's Youth Business Loan Programme

This Loan is for young entrepreneurs falling within the age bracket of 21-45 years to start their own businesses. Under this programme, loans from Rs100,000 to Rs20,00,000 are provided to applicants through computer balloting. The loans are given for eight years at low mark-up. The programme is being carried out through designated financial institutions.

The first computerised balloting of the Programme was held on February 28, 2014. Around 38,000 applications (28,000 from Punjab, 600 from the Islamabad Capital Territory, 3,500 from the Khyber Pakhtunkhwa, 100 from Gilgit-Baltistan, 1,000 from Balochistan, 500 from the Azad Jammu and Kashmir and 3,000 from Sindh) were received. Out of these applications 6,127 were approved for balloting, and 5,399 applicants have been given loans in the first phase. Most of the participants have expressed their interest in livestock, agriculture, education and cottage industry.

PM's Qarz-e-Hasana Programme

The Qarz-e-Hasana or microfinance loan facility is aimed at providing interest-free financing for 2.5 million to five million people in a period of five years. The vulnerable rural and urban poor, with a poverty score of up to 40, are eligible to apply for this loan. The national outreach of the programme will not be limited to the geographical limits. However, preference will be given to limited and unserved areas. A total of 250,000 loans of an average amount of Rs25,000 will be disbursed. An amount of Rs3.5 billion has been allocated for the Programme by the federal government. The Pakistan Poverty Alleviation Fund (PPAF) will be the central executing agency of the Programme. Registered partner organisations and community entities, with necessary expertise and experience, will also be engaged in the process.

PM's Youth Training Programme

Under this Programme, young individuals with 16 years of education from recognised institutions will be provided on-job-training and internships at the private and public sector offices. Professional trainings will equip them with abilities to secure job opportunities in the country or abroad. A total number of 50,000 interns will be hired under the Programme and a monthly stipend of Rs12,000 will be paid to each selected applicant for a year.

Graduates of age not more than 25 years (26 for less-developed areas) are eligible to apply. A budget of Rs four billion has been allocated for the Programme for the financial year 2013-2014. A top class management consulting firm and university from the private sector, in collaboration with the government, will be responsible for the design, placement of internees and their periodic evaluation. Partnership with the private sector will increase financial transparency, ensure selection on merit and produce more efficient outcomes and results.

PM’s Youth Skills Development Programme

This Programme is aimed at providing vocational training to the unemployed youth for acquiring productive skills important for gainful employment. Young men and women, who have received middle-level education (8^{th} Grade), and are maximum 25 years of age, are eligible beneficiaries of the Programme. The government is refunding fee equivalent to or less than

Rs3,000 per month for a half-a-year, while also paying a monthly stipend of Rs2000 for the same duration to each beneficiary.

An estimated 25,000 individuals will benefit from the Programme. The break-up of 25,000 youth to be trained is: 200 from Islamabad, 500 AJ&K, 300 Gilgit-Baltistan, 400 FATA, 3000 KPK, 2000 Balochistan, 5850 Sindh and 12,750 from the Punjab. Out of a total of 25,000 youth, 8524 females will be given technical and vocational training. Rs800 million have been allocated for the Programme in the financial year 2013-2014. The Ministry of Education and Trainings and NAVTTC are the main executing agencies of the Programme. The provincial TEVTAs and Federal Government Skills Training Institutes will work in collaboration with the main executing agencies, which are responsible for designing the Programme and its final evaluation.

The Programme was approved at a cost of Rs800 million by the Central Development Working Party (CDWP) on October 28, 2013. About 350 well-reputed technical education and vocational training institutes from the public and private sectors have been selected through the provincial Technical Education and Vocational Training Authorities (TEVTAs) and NAVTTC's regional offices in Islamabad, Lahore, Multan, Karachi, Larkana, Quetta, Gwadar, Peshawar and Gilgit-Baltistan.

PM'S Programme for Provision of Laptops

This Programme is an attempt to enhance the scope of research and quality education, and increase access to information technology. A total of 100,000 students from across Pakistan will be awarded a laptop each. Students, both male and female, registered with the Higher Education Commission (HEC) approved educational institutions, are eligible for the Programme. All masters, doctoral students and 50 per cent under-graduate students will get the laptops. The HEC and Ministry of Education and Trainings are the executing agencies of the Programme, launched with an initial budget Rs4,000 million. The HEC is in negotiations with manufacturers for local assembling of the laptops.

PM's Programme for Fee Reimbursement

With the aim to encourage pursuit of the higher education, this Programme will provide scholarships to the post-graduate (MA, MSc or higher level) students, belonging to remote and under-privileged areas. The tuition fee of the student selected will be financed under this Programme, and paid directly to the relevant universities. An annual budget of Rs1.2 billion has been allocated for the Programme for the financial year 2013-14. The HEC is the executing agency, while the Ministry of Education and Trainings will be responsible for implementation.

Plan

The following steps will be taken during the Plan period.

- Establishment of the National Youth Council under chairmanship of the PM having representatives from all provinces, AJ&K and Gilgit-Baltistan in order to have a better collaboration among different federal and provincial departments working for the betterment of the youth
- Establishment of the National Youth Hostels in different parts of country to promote youth travel and bring national integration and brotherhood among the youth of Pakistan
- Special attention on free education in the FATA and Balochistan

- Increase in incentive for interns keeping in view impacts of inflation and wage rate of market
- Establishment of career-counselling centres in every college and university
- Adopting transparent system for selection, and avoiding red-tapism
- Educational institutes to consult private sector, industries, and all job providers about the demand of particular degrees or skills for further distribution of demand of required skills and degrees in different study programmes
- Expansion of skill development institutions through divergent measures
- Regularising Medressah education by issuing licences to qualified religious people in order to avoid distraction of the youth
- Medressah reforms with an aim to the mainstreaming of their students
- Government to support organisations like Girl Guide and Scouts, etc.
- Establishment of the Youth Development Councils at the Tehsil level across Pakistan with a representation of the local elders and businessmen, while encouraging and facilitating the private sector to involve the youth in community development programmes and projects
- Provide training to the youth for running small businesses in collaboration with the private sector, while the financial institutions to provide micro-credits, and the government to incentivise the private sector and banks to help the youth in entrepreneurship
- Targeting adolescent youth (10-19 years) through specific intervention strategies with focus on empowerment, gender justice, health and responsible living
- Thrust on involving the youth in the national planning and development and making them focal point of development strategy by providing them proper education, training, and employment opportunities, including entrepreneurial training and access to credit
- Provincial youth departments to play a pro-active and catalytic role in exploring and identifying employment opportunities for the youth in coordination with other ministries and departments
- Youth activities to focus on providing quality health services and ensure that the youth have access to information relating to health issues, drug addiction, etc., while addressing problems of the youth with special needs
- Provincial youth departments to coordinate, monitor and ensure various facilities and services for the youth with physical and mental disabilities
- Sports competitions to involve the excluded youth (out of schools and poor) to begin from the Tehsil level, and extended to the provincial and then national levels
- Through legislation, municipal corporations, housing societies and educational institutions bound to build sport and recreational infrastructure for the youth
- Expansion of vocational training and employment promotion programmes to cover all districts, while the provincial youth departments to establish effective linkages with all departments and agencies involved in youth development work at the Centre and in the provinces

- Continuation of all programmes launched and announced by the government to encourage entrepreneurship, skill development and internship

Sports

Sports play instrumental role in nation-building as it breaks down all barriers to unite the nation. However, sports have never been viewed as a human intensive industry with unbelievable magnitude and influence of distinctive social, political and economic activity in Pakistan. Inadequate youth, education and sports policies have deprived the youth of healthy and meaningful activity of sports. The policies and lack of interest has not only resulted in retardation of sports activities at the national and international levels, but have also greatly affected the education institutions where new classrooms have been constructed on sports grounds. The separation of sports from education has dried up the basic source of sports input and the role of education institutions as incubators of producing good citizens, talented leaders, effective team players, co-workers and companions have also been adversely affected. Hence, sports, as a life skill component, are missing from the education system. Carefully planned and well-organised sports can bind the nation together – a factor alone is enough for according a much higher priority to sports in the national plans.

The most important element of sports is the value it teaches to the individual as well as developing the individual's roles and relationships with others. Participation in sports is an opportunity for self-expression and personal development individually and socially with others. Sports are an all-pervasive entity that influences almost every aspect of daily life, where tolerance, cooperation, discipline and self-confidence are the desired outcomes. Youth sports generate acceptance and respect among genders, races and nationalities. The people of the country will be provided with opportunities to participate in sports, to promote better understanding, discipline, tolerance, sense of sacrifice and above all mutual respect. Pakistan's future generation stands at a critical tipping point and the solution lies in a simple and safe avenue, that is, sports.

Issues

The following are the major issues.

- There is a lack of sports infrastructure. The existing facilities of sports are not up to the mark and do not match the international standards. There is a shortage of trained coaches and trainers as well.
- Poor economy, unstable political and law and order situation and ever-deteriorating social values contributed immensely to the decline of the amateur sports culture. However, the responsibility for this can also be laid on the educational institutions, students, and parents. Internet clubs, satellite and cable television have also played a major role in providing alternative to sports.
- The national sports bodies attribute dearth of sports facilities to their poor performance. However, influential sports office bearers and their vested interests, and lack of coordination among these organisations, at the federal and provincial levels, are major causes for the poor state of affairs.
- The contribution of district governments in promotion and support of sports is negligible. Due to financial constraints, sports activities at the tehsil and district levels are not held most of the times.

- There is a lack of financial assistance to sportsmen, especially retired. Employment ratio for sport persons in the United Kingdom and Germany is 30 per cent and 13 per cent respectively, while it is less than one per cent in Pakistan.
- The educational institutions are supposed to be sports nurseries at the grassroots level, but have almost ceased to produce any talented sportsmen. Pakistan is short of talented sports persons in various games, like cricket, hockey, football and volleyball, etc.
- Due to lack of research, obsolete techniques are being used in sports. Modern techniques, instruments and infrastructure are not available.
- The mass participation is very low and people of Pakistan have almost lost interest in games, organised at the provincial and national levels.
- Women participation in sports is very low.

Strategy

The following are key steps of the sports group constituted for formulation of policy for improving sports.

- A Sports Council of Pakistan, comprising all stakeholders, will be constituted and it must be based on public and private members having expertise in respective sports and games. The Council will be merit-based consisting of sport technocrats and competent administrators involved in active sports having sports management knowledge and experience. The Council will outline an overall sports policy, which will implemented in letter and spirit. The Council will be given due mandate to create a roadmap, which will help combat unemployment. The slogan of the Council will be 'Passion to Profession'.
- The Council will create a fund to help the deserving sportsmen and women, especially for those national heroes who bring laurels for the country. Employment opportunities will also be provided to the retired sports persons.
- The Council will develop a sports policy for national sports, and will also have provincial chapters.
- There will be no interference from any corner in the selection of teams and players' squads for participating in the national and international events.
- A plan will be outlined for building sports infrastructure at the national level with an active involvement of the private sector.
- The district governments will ensure that housing societies have sports facilities. This will be enforced through government legislation regarding housing societies. These facilities will associate themselves with the community living in that housing society and become their 'club'. These clubs will register with their district governments through the articles of association and memorandum and run their club facility under the rules of this memorandum.
- NGOs will be encouraged to include sports as part of their plans to develop local communities and to liaise with the local government for the development of sports infrastructure at the grassroots level.
- All education institutions will have well-equipped sports facilities.

- There will be sports training academies, stadia, complexes, swimming pools and synthetic hockey turfs in all districts.
- All major cities will have boxing and indoor gymnasiums.
- A sports fund will be created to help the deserving sportsmen and women, especially national heroes, who had won laurels for the country. Employment opportunities will also be provided to the retired sports persons.
- A talent hunt programme will be conducted out all over the country for tracing the best players in all fields.
- There will be sports training academies, stadia, complexes, swimming pools and synthetic hockey turfs in all districts of the country.
- The Pakistan Sports Board will be strengthened and the scope of its operation will be extended to the provinces as well.

Tourism

Tourism, as an economic activity, has not gained recognition in Pakistan. The country has a potential for special categories of tourism, such as domestic, cultural, historical, rural, pilgrim or religious, adventure and eco-tourism. The mutual dependence of tourism and culture has to be understood and absorbed by those agencies, which are involved in tourism development in Pakistan. The cultural heritage creates a foundation for tourism growth, which has the power to generate income for making these sites and monuments survive. The cultural sites lose their importance and meaning without audience. This is only possible through tourism, and Pakistan possesses enormous possibility for attracting people to its grand historical places from both inside and outside the country.

The major thrust will be on generating a revived spirit in the private sector assuring a definite monetary payback. The estimates for the private sector investment are highly fluctuating because of an uncertain economic, and law and order situation. However, Pakistan having a population of over 180 million, investment in hotel, travel, restaurant and recreational business will continue. According to rough estimates, the private sector investment in direct tourism and its related activities will be more than Rs 50 billion in the next five years.

The tourism sector will assume a greater role in the economic growth during the Plan period. According to earlier-recorded stats of the defunct federal Ministry of Tourism, tourists' arrival is estimated to grow at an average rate of 10.8 per cent per annum to reach 2.136 million, while tourism receipts are targeted to reach $690 million in 2018. These estimates, though ambitious, but yet attainable if right policies are planned. Details are in the table given below.

Targets 2013-2018

S.No.	Type/item	Unit (000)	Benchmark 2013	2014	2018	2016	2017	2018
1.	Foreign arrivals	Million	1.1	1.407	1.562	1.734	1.924	2.136
2.	Domestic travel	Million	43.4	49	51	52	53	55
3.	Income	$ Million	408	452	502	557	619	690
4.	Hotels	Nos	2,000	2,533	2,748	2,987	3,252	3,546
5.	Rooms	Nos	40,519	59,485	64,579	70,233	76,509	83,475

Issues

The following issues are adversely affecting tourism.

- There is no national tourism policy, while the sector has been devolved to provinces without having any coordination mechanism at the national level.
- There seems to be little dedication and commitment at the national and provincial levels towards promotion and projection of tourism opportunities and touristic products.
- The country has no tourism educational and training centres.
- The regulatory framework for tourism activities is not tourists-friendly and market-oriented.
- There is an absence of concessional financing facilities for the hotel industry at par with other industries.
- There is little information and guidance about tourism opportunities.
- Administrative hurdles, unfriendly regulations and lack of communication infrastructure in the AJ&K and Gilgit-Baltistan are yet to be considered for correction and improvement.
- There is a lack of authentic statistics and data on the tourism sector renders any policy-making exercise weak.
- Lack of skilled manpower in the hospitality industry has its negative effects.
- There are various security constraints, which do not allow free movement of tourists in all parts of Pakistan, and registration with the Police is required.
- The visa process is cumbersome and visa fee is very high.
- Policies are not supported by legislation; hence not implemented properly.
- For international and domestic tourism investors, there is no one window facility.
- Number of taxes is very high, like the GST, Excise Duty, Bed Tax, etc.
- The land lease policy for setting up tourism sector projects is very stringent.
- There is no marketing and projection strategy, both nationally and internationally.

Plan

The Plan will take the following steps.

- A national tourism policy will be formulated in consultation with provinces, Gilgit-Baltistan and the AJ&K.
- The role of financial institutions in the sector will be enhanced in consultation with the State Bank of Pakistan.
- A National Tourism Board will be established with representation from private sector, provinces and the federal government.
- Tourism and cultural activities will be dealt together for a successful policy outcome.

- Institutional capacity will be developed for proper implementation of the tourism policy.
- The public-private partnerships will be promoted.
- Sports and cultural shows will be arranged in different parts of the country to promote domestic tourism.
- Tourism product development will be taken-up on modern lines through a comprehensive tourism marketing plan.
- Cultural sites will be promoting as touristic attractions.
- Development of a mechanism for accurate data collection and analysis are needed for the sector. This will require undertaking capacity-building and related activities.
- Encouraging women participation in tourism activities! Women can significantly be better partners in marketing of tourism products by way of participation in packaging, tourism operations, service industry and hotel management. The concept of the Women Tourist Police has gained a great success in Egypt and can be replicated in Pakistan as well, owing to the fact that most of the tourism in Pakistan is family-oriented.
- The private sector will be backed by the state in terms of relaxation in taxation, surcharges and creation of infrastructure and promotion.

Chapter 12

RELIGIOUS PLURALISM AND INTERFAITH HARMONY

Interfaith harmony embodies the notion of live and let live. In a world of increasing political and economic dissonance, peaceful coexistence among practitioners of various religious beliefs can prove to be the way forward for peace and prosperity. Strengthening interfaith harmony and religious diversity can be instrumental in the development and progress of Pakistan. Unfortunately, due to the baggage of communalism, traced back to 1947 when India and Pakistan won their respective freedoms from the British, there is a dire need to spread the message of acceptance and sharing, especially among the Hindus, Christians and Muslims. This is a must for a peaceful and developed Pakistan where there is an interfaith harmony among various religious entities and sects, which are presently inharmonious due to unhealed wounds of the Partition and other factors, both external and internal.

The human rights situation, particularly of the minorities, is precarious though the present scenario is in sharp contrast to the history of this land replete with exemplary stories of religious pluralism. Thus, the interfaith harmony is part of a neglected history of Pakistan, which is of huge import to remember again today, and claim for any envisioning of a harmonious future of the South Asian region, and for the world as well. For a peaceful Pakistan, it is important to tap into the deeper layers of the indigenous history of our region.

The Plan envisages fostering religious and social harmony, and helping develop a pluralistic society in Pakistan in which people of different beliefs can live together in peace, and exercise their rights, guaranteed by the Constitution of Pakistan. The recent events of Pakistan have provided the state with a strong rationale to pursue the augmentation of religious tolerance and amicable conflict resolution. Learning from the vast historical background of the country, that preaches and promotes interfaith harmony and religious diversity, the state plans to inculcate these values back into policy-making for valuable peace and development outcomes. The state is aware of the crying need for promotion of tolerance, religious freedom and mutual acceptance to assure justice.

Situational analysis

Out of total population of approximately 184 million in 2013-14, projected according to the 1998 census, 95 per cent are Muslims. The rest five per cent are Christians, Hindus Parsis, Zoroastrians, Bahais, Sikhs, Buddhists, and small portions of Kalasha, Kihals, and Jains. During the recent past, minorities have faced individualised discrimination, which have marginalised them as individuals. To address these issues, there is a need for promotion of tolerance, religious freedom and mutual acceptance for ensuring justice.

Currently, religious minorities are deemed to be politically disadvantaged, economically poor and socially segregated in the larger picture, resulting in limited opportunities of jobs, labour, wages, and social security. Among other challenges, major ones are considered to be inequitable laws and policies, ignorance about others' rights and misperceptions, illiteracy and hatred for other religions, intolerance, poverty, extremism, gaps in curriculum, violations of merit and external interferences.

While looking at the weaknesses in the interfaith harmony, the main issues are: lack of interfaith dialogue, misinterpretation of religions, poor political will, self-centred biased thoughts, lack of social and cultural assimilation, poor religious knowledge, political instability, economic crisis, poor social safety net, non-religious sensitised budgets, projects, interventions and initiatives.

It is not only the minority non-Muslims, who are threatened by radicalists, rather the moderate people who show little or no inclination for recognising certain extremist elements. While the moderates refer themselves to be the majority in Pakistan, the ones under a direct threat of violence are those, who are vocal about their progressive views, and they are also in a minority. The unchecked manipulation of religion by certain elements, asserting themselves over others' beliefs, has taken a dangerous turn. This trend has augmented, especially when it is seen in the context of the post-9/11 scenario and global perspective of the War on Terror. This has not only tarnished Pakistan's image across the globe, rather it has created doubts about the Pakistani nation's mindset, which has been groomed to accept differences of all hues, and it has practically proven it over the decades.

Serious tensions arise when a group thinks it has the right to dictate how the others should practice their religion. This promotes a narrow fundamentalist minority view of Islam in an institutionalised manner, through media and others, with the result that today these minority extremist voices are the most heard as they encroach the public space in the perceived absence of moderates and the political will not to let this happen. On the other hand, the progressive voices of the civil society are not vocal enough, and thus stand marginalised. In the middle of these two ends, lies a risk and silent majority. This scenario spreads more ignorance about the core values of Islam, which like most other religions — Christianity, Judaism, Sikhism, Buddhism, Jainism — preaches universal values of equity, tolerance, and best behaviour for all.

Plan

To achieve the desired level of the religious and interfaith harmony, doable interventions are envisaged in future policy options for integrating different segments of the society and investing in the youth, who are the future of Pakistan. There is a dire need to sense new possibilities, estimating from the young generation of the Pakistani politicians, professionals, development workers, civil society, writers, artists, actors and creative people, who are all ready and working towards for a positive change. A Pakistani culture that moves past the old narratives, stories of hate, and dominance of hatred in the culture, to a newly imagined place rich in regional culture and a plethora of voices that have long been silenced. For this, a brave effort is needed to face the facts of history, claim it and move ahead beyond fear but with a focus on peace, mutual acceptance and tolerance. The following actions are, therefore, proposed to supplement these notions:

- Establishment of an apex body to register and regulate the functions of all Medressahs
- Establishment of a regulatory body (with representation from all religions) to regulate all religious institutions including mosques, temples, gurdwaras and churches
- Revert to the Quaid-e-Azam's vision: 'You may belong to any religion or caste or creed; that has nothing to do with the business of the state.'

- Review and revision of policies and practices to ensure basic human rights for all as equal citizens of Pakistan
- Formulate laws for the proper implementation of existing policies and cultural practices for promoting religious and interfaith harmony
- Take immediate action towards promoting peace, mutual acceptance and tolerance to diminish such elements, which are openly promoting hate campaign towards minorities and other excluded and vulnerable segments of population
- Create a reporting mechanism for cases of discrimination against religious minorities
- Representation of all religions in curriculum designing board and implement one curriculum in all Medressahs, schools and institutions, especially of the public sector
- Inclusion of interfaith harmony component (with a focus on commonalities) in the curriculum from the pre-school level
- Promote religious tourism, social and cultural gatherings
- Prevent misuse and misinterpretation of the blasphemy laws
- Allocations of resources for development of minorities across the board

Expected achievements and targets

The programme-wise physical targets for religious pluralism and interfaith harmony, and expected outcome during the Plan period are given as Annexure-A.

Annexure-A

Implementation Plan with targets for the Plan

Policy/Programme interventions	Output/Outcome	Indicators	Implementing agencies	Target 2013-18
1	2	3	4	5
Establishment of an apex body to register and regulate all religious institutions	Inclusion of all religions and beliefs' diversity Provided one platform for representation of all religions in registration and regulation process of religious institutions	Number of meetings and decisions of the apex body regarding interfaith harmony and inclusion of religious diversity	Ministry of Interior Ministry of Law, Justice and Human Rights (MoJ&HR)	An apex body to register and regulate all religious institutions Formed and fully functional
Review and revision of all relevant laws; prevent misuse and misinterpretation of blasphemy laws; formulate laws for proper implementation of existing policies for promoting interfaith harmony	Realised equal citizenship to all religious and beliefs' diversity Removal of cultural and other discriminatory patterns	Removal of biased laws in economic, social and cultural scenario Number of pending laws reviewed and revised Number of reported cases of discrimination against religious minorities	Ministry of Religious Affairs and Interfaith Harmony (MoJ&HR) Ministry of Interior Provincial law and home departments	All the existing relevant laws and policies will be reviewed and removed in accordance with the Constitution and legal framework for effective enforcement
Raising awareness for elimination of discrimination against religious minorities	Improved level of awareness and sensitisation about mutual acceptance at family, community and national levels	Number of incidence of violence, abuse and discrimination against religious minorities at community, institutional and other levels	MoRA&IH Ministry of Information and Broadcasting Provincial information departments, Media organisations	Urban and rural population sensitised on religion-based discrimination and violence Special programmes, plays, dialogues, talks shows and forums organised and telecast
Inclusion of religious minorities in all social and financial safety nets programmes and packages	Reduced level of sense of deprivation and exclusion among religious minorities	Number of minorities' beneficiaries in each safety net programmes and financial packages	PBM, income support programmes, provincial social welfare departments, social security institutions and fiscal packages authorities	All the deserving population of minorities will be given equal opportunities and benefits from the social safety nets programmes and financial packages

Chapter 13

MASS MEDIA, CULTURE AND NATIONAL HERITAGE

The mass media and culture have emerged as natural allies during the last two decades after remarkable expansion of the electronic media worldwide. The media of broadcasting is now the largest cultural carrier, and is playing a pivotal role in the cultural transformation of societies. Under this changed scenario, the subjects of broadcasting press, culture and national heritage have been put under one ministry at the federal level. Culture and media now enjoy a unique relationship as the mass media is now shaping up cultural traits and helping people learn, disseminate and adopt hybrid lifestyles. The culture, on the other hand, is the primary source of content to entertainment and the news media. Though after the devolution, the subject of culture has been transferred to the provinces, but protection, preservation and promotion of the national heritage is still on the national agenda, and is responsibility of the federal government as custodian of the consolidated interests of the state.

The mass media in Pakistan has been growing at a phenomenal pace since liberalisation of the broadcasting policies, initiated in the 1990s. The electronic media in particular, print media in general, has experienced massive technological changes in printing, transmission, production and contents. In 1947, when Pakistan appeared on the world map, it had a population of around 50 million with literacy rate around 18 per cent. There were 10 newspapers, both in English and Urdu languages, some regional languages dailies, no television and seven radio stations with an average Medium Wave power of 10 Kilo Watt. The country, which now lags behind in catching up with the modern technological trends, was the first in South Asia to enter the TV era in 1964, and continued its journey to develop thereon. The country has a history of controlled press till 1980s, under the unpopular press and publication laws. Newspapers were owned and controlled by the state under the National Press Trust. The Trust was abolished in 1972 and period of independent private sector print media started. Now the country has 350 newspapers, owned and published by the private sector. Similarly, radio broadcasting, initially a public sector monopoly, is now growing under the private sector with 143 Frequency Modulation (FM) radio stations, which arrived in 1988, and have taken over the cities by storm and are gradually moving to small towns. In the era of globalisation, it has emerged as one of the most effective advertising media. This phenomenon was witnessed during the last general elections, held in May 2013, when the FM broadcasters were used excessively and extensively by the local political parties and candidates for their election campaigns. With overwhelming part of its contents tilted towards population under 30, the FM radio has essentially appeared as a youth medium.

The globalisation, which has reached Pakistan economy via competition and investment from overseas, has transformed the media industry, and the mass media is currently going through one of its most exciting phases in the post-independence time. The 1990s was a watershed era of television broadcasting in Pakistan when satellite broadcasting started, and dramatic changes in content and style appeared on the screen. Television has made spectacular contributions to development and entertainment since then. The television broadcasting has developed by leaps and bounds from a single channel, controlled, development-oriented and propaganda-induced organ to a vibrant social partner in the overall development process. The Pakistan

Television(PTV), and a public sector entity, no longer monopolises the county's television market, but it still remains a significant player with an extensive network of channels and more than 90 per cent terrestrial and 100 per cent population coverage. In the face of tremendous technological advances and intense competition, the PTV has survived and continues to struggle to fulfil its role as a mass medium for education and entertainment. Its primary responsibility of safeguarding the cultural identity of Pakistan, and central role to provide space for a diverse range of ethnic, linguistic and religious views, can never be underemphasised.

The mass media, as a cultural industry and tremendous source of information, has affected lives of the Pakistanis in diverse ways. In a society with low literacy rate, per capita income, under-development in various fields and very high population growth rate, the mass media has to take on the responsibility of an entertainer, educator and an organ of awareness, raising among cross cultural groups. The Plan, therefore, takes off with a heavy agenda of developing not only the state-owned media, but taking the entire mass media towards the dream of a progressive and developed Pakistan.

Current structure of the mass media

The entire mass media in Pakistan is structured under two broad administrative and financial categories, that is, public and private sectors.

Public sector

The electronic media in terms of terrestrial structure has been dominated by the state-owned and controlled media, which comprises two major organisations, that is, Pakistan Television Corporation and Pakistan Broadcasting Corporation. The country's terrestrial TV network is 100 per cent monopoly of the PTV, which reaches ordinary homes through a network of 110 transmitters and Rebroadcast Stations (RBS) connected to seven Television Stations spread across the county. The PTV signals reach Pakistani homes through a simple antenna. The Medium Wave and Short Wave Radio network is also owned and controlled by the State. The Pakistan Broadcasting Corporation (PBC) has 27 Medium Wave radio stations and 32 FM stations. The Corporation also enjoys monopoly over the Medium Wave broadcasts.

Electronic media profile (2013-14)

PTV Stations	7
TV transmitters	110
Radio stations	27
Commercial FM radio stations	138 (123 operational)
Non-commercial FM radio stations	45 (30 operational)
Number of TV homes	13 million
Cable operators (licensed)	2700
Cable subscribers (official figures)	10 million
Satellite channels (local)	91 (84 Operational)
Landing rights permission	26
Multipoint Multi-channel Distribution System (MMDS)	6 (All Operational)

Source: *Pakistan Electronic Media Regulatory Authority (PEMRA)*

Private sector

For the purpose of convenience, the total mass media, which stays outside the ambit of the state ownership and control, has been put under this category. The electronic media, which has shown an incredible growth and expansion worldwide during the last 20 years, has landed in the Pakistani homes with pronounced strength. The configuration of electronic media, under this category, is quite complex. Broadly speaking, the following types of the electronic media are functioning in Pakistan.

- Satellite TV channels operating from the Pakistani soil under the PEMRA licensing
- Satellite channels available to the Pakistani viewers through cable, but operating from abroad
- The FM broadcasters, which have grown very rapidly during the last 10 years, are community-based, language based or narrow-casters catering to specialised groups such as entertainment, music, education and regional languages. In spite of small commercial market, the growth of the FM Stations has remained below the expectations.
- The media in the private sector are to be regulated by the PEMRA laws, but practically a number of channels are operating outside the code of conduct of the PEMRA owing to the fact that either they operate outside the Pakistani soil or are available through cable without any formal licensing. The state media, that is, PTV and PBC, are exempted from licensing.
- Film, as the strongest carrier of entertainment contents, has always remained a private sector activity though it hardly enjoys status of an industry. It has been a victim of inconsistent policies and non-professional handling, both at the government and the film makers' levels.

Print media profile (2013-14)

Dailies	350
Weeklies (Accredited, ABC certified)	363
Monthlies (Accredited, ABC certified)	200
News agencies	30
Regional papers	30

Primary issues

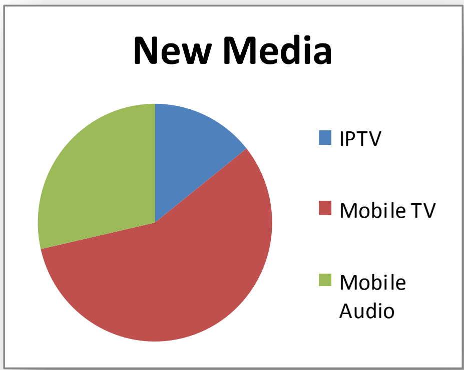
Issues being confronted by this sector are:

- The policy framework in vogue strongly supports the public sector ownership of the media operations.
- Small income generation capacity of the electronic media within the country owing to small size of capital market
- A sizeable part of the country is still dependent on terrestrial broadcasting in the rural areas, which necessitates the government funding for installation of transmitters, as the terrestrial broadcasting is monopolised by the public sector.
- Most TV broadcasters are operating from outside Pakistan and hence cater to a wider market, including India, Afghanistan and Bangladesh.
- Size of the public sector broadcasters is huge and requires continuous financial injection by the government yet subscribing to a very small segment of population practically and lacking credibility.
- Maximum efforts were directed towards strengthening the public sector electronic media without realising strength and outreach of the private sector.
- The main cause of failure has been the ownership and control of the electronic media by the government.

- Limited choices for the rural population
- Strengthening the technological base of the public sector electronic media through replacement of the existing electronic equipment by the state-of-the-art equipment
- Capacity-building of print and electronic media personnel
- Revival of the film sector of Pakistan
- Need for reviewing the existing regulatory mechanisms
- Extending cable TV service to rural areas through the private sector
- Launching Direct-to-Home TV service by the private sector
- Private sector not facilitated adequately

Strategy

The next 12 years (2013-25) are extremely crucial for media development as this is the period during which countries have to meet the deadline given by the International Telecommunication Union (ITU) for complete switch over to digital broadcasting. Both the public and private sector electronic media will have to rise to the challenge and convert their production and transmission facilities from analogue to digital. Hence the cable, satellite, Direct to Home and terrestrial television networks will be digital and the viewers will receive signals through digital televisions. A major shift will be the convergence of different media through the internet and mobile. Both these media will be a major source of content supply through mobile TV, mobile radio and Internet Protocol Television. Community television through multipoint Multi-channel Distribution System (MMDS) and community radio through FM will also be the key features of the electronic media. The country will have to redraft its agenda for the mass media development keeping in view the reality that role of the government in broadcasting activities will be minimum, while the mass media operations will be governed by the market forces and the international digital satellite broadcasting giants will enter as big players. Under the umbrella of the Vision 2025, three long-term plans will appear and two plans – one from 2013 to 2018 and the second from 2018 to 2023 – will complete the implementation periods. The plans will focus on achieving mega target of the Vision through complete restructuring of the mass media and come at par with competing international broadcasters. The salient features of the Vision are:



- Complete digitalisation of TV networks and switch over to digital broadcasts
- Complete financial and operational autonomy to the PTV and PBC with minimum government funding gradually moving to complete financial independence for self-sustenance
- Rightsizing the public sector broadcasters
- A broad partnership regime between the public and private sectors in radio and TV programme production and transmission

- Providing 100 per cent TV coverage through cable in remote and less developed areas
- Community TV, introduction of the Internet Protocol TV, Direct-to-Home (DTH) TV, network of community radio stations, Mobile TV and audio through the private sector
- Creation of state-of-the-art training institutions, new academies, universities and strengthening the existing training institutions
- Installation of powerful Medium and Short-Wave transmitters for regional and international coverage
- Digital Satellite radio
- Introduction of 3D film production and creation of cinema houses for exhibition of such films
- Film to enjoy status of industry and provided with regulatory and institutional support
- Financial institutions to be encouraged for offering investment in film-making
- Film making to be supported through enhanced training opportunities by the government in all technical areas

In the next five years, the entire mass media scenario will undergo revolutionary transformation under an innovative growth-led strategy, which will emphasise optimal use of human and physical potential of market forces mainly through wider community mobilisation and participation. The salient features of future mass media scenario will be a combination of broadcast television, internet services, video conferences and a complete network of communication facilities. The broader goals for Plan period are:

- Switch over to digital technology in electronic media
- Availability of the international satellite channels through cable to all households
- Provision of 100 per cent Radio and TV coverage through cable to all households with thrust on remote and less developed areas
- Strengthening and enhancing partnership between the public and private sectors in radio and TV programme production and transmission
- Strengthening the existing training institutions, creation of new academies and universities
- Enhanced operational autonomy to the PTV and PBC with minimum government funding gradually moving to complete financial independence for self-sustenance
- Downsizing the public sector broadcasters substantially
- Introduction of digital satellite radio
- Creation of a network of community-based FM radio stations in the private sector
- TV coverage by Direct-to-Home (DTH) Satellite broadcasts in the private sector
- Modernisation of the country's premier news agency Associated Press of Pakistan (APP) – The existing news transmission to be linked through the internet by making optimal use of the information technology, and its network extended to the district level
- Strengthening the technological base of the public sector electronic media through replacement of the existing electronic equipment by the state-of-the-art equipment

- Launching of the Internet Protocol Television, Mobile TV and Mobile Audio
- Installation of powerful Medium and Short-Wave transmitters for regional and international coverage
- Complete enforcement of the Copyright Act for print material and electronic broadcasts to safeguard intellectual property rights
- Enhancing interaction between the government and the media – Press clubs to be strengthened, and support for the new press clubs equipped with the latest information technology facilities
- Introduction of a comprehensive insurance scheme for working journalists and media professionals
- Reducing import duty on papers, printing machines and allied equipment to encourage publishing activities and newspaper circulation
- Reducing import duty on the electronic equipment used in TV and radio programmes production in the private sector
- Establishment of Interactive cable TV network in all major cities and towns
- Community television in the private sector through the MMDS
- Enhancement of the Development Support Communication in all sectors of the economy

Development Communication

The Development Communication is the integration of strategic communication in development projects and plans. When communication is used to promote social development and systematically apply processes, strategies and tools of communication to bring out positive sustainable social change, it is termed as 'Development Communication'. The UN has recognised the importance of the need to support two-way communication that enables dialogue and allow communities to speak-out, express the aspirations and participation in decisions related to their development.

The Planning Commission is undergoing a massive shift to a dynamic development strategy. It is in search of understanding the need for a more participatory and broad-based development exercise. It has been realised that an extensive understanding of development plans is an important phase in the public cooperation for the national development. Divergent methods of communication should give public messages in a simple language understood by all the concerned. Also, the development plans should be carried to all strata of the society expressed in terms of their common needs and problems. People ought to be informed about the steps taken to set things right.

A development communication activity has been launched. The aim of this communication is to transmit development messages to the masses for betterment of their economic and social conditions. It addresses development planning and its operation for implementation.

The development communication activity is to create a resource agency on development issues, bring about positive sustainable change through dissemination of useful information, knowledge and inculcating awareness among people, keep the people informed about on-ground progress of development projects, and provide uniform and cohesive map for the information flow on development activities, outcomes and processes in Pakistan.

Television broadcasting

Television is the massive of all mass media in Pakistan. Its growth, during the last ten years, has been phenomenal owing to the arrival of satellite broadcasters and introduction of the cable distribution system. The ITU has set 2015 as cut-off date for introduction of the digital broadcasting, which means all analogue equipment and transmission system will abruptly go redundant by 2015. During the transitional period, the country has to switch over its broadcast system from analogue to digital by replacing a huge quantity of equipment and pouring in heavy capital investment. Since the private sector has already captured a major part of the television broadcasting in urban centres through cable system, the investment in the coming years by the private sector is also expected to grow substantially. During the Plan period, the public sector investment will be mainly in the Pakistan Television Corporation only on new infrastructure and introduction of modern digital technology. The primary thrust will, however, remain on providing multiple viewing choices to the people, particularly in the rural areas, where the cable system has yet not reached. The main components of the programme in television sector are given below:

Digitalisation of the terrestrial networks

The entire terrestrial networks, which are currently analogue, will be switched over to digital format. This will be done in a gradual manner. In the first phase, 120 transmitters will go digital and thereon the rest of the system will be digitalised. Since, replacement of individual TV sets with digital sets is not possible in one go and that too is very costly, provision of subsidised set top boxes for enabling individual households to enjoy digital transmissions will be made possible through a private-public partnership.

TV coverage by DTH satellite broadcasts

The method of direct reception of satellite channels, which can render greater and better-quality coverage, is the DTH satellite television service. Through this service, subscribers or end users, receive signals directly from geostationary satellites. The quality of picture is much better than analogue. There are also widespread complaints of piracy of foreign channels by some of the local cable TV operators as well as individuals. Establishment of the DTH service with proper authorisation is expected to eliminate such grey market activity to a large extent. The licensing regime for awarding of the DTH licences, including eligibility criteria, SOQs, terms and conditions, bidding procedure, etc., is in process and the same will be finalised in near future. Earlier, two private sector parties secured licences from the Pakistan Electronic Media Regulatory Authority (PEMRA), but the facility could not be launched due to financial and administrative constraints.

Mobile television

In this case, the licensee provides content through video streaming services to the end users of the Mobile Network Operators (MNOs) under an agreement with the NO. Such arrangement is known as Mobile TV (Content Provision Service).

Community television through MMDS

The MMDS, a wireless telecommunications technology, is also known as wireless cable. The signal of the MMDS station has a range of 40-50 kilometres. Reception of the MMDS-delivered television signals is possible with a special rooftop microwave antenna and a set-top box for a television receiving the signals. The experiment of community television through the MMDS was initiated in 1995-96. Licences for more MMDS will be issues during the Plan period. (The licensing in this category is based on the spectrum availability.)

Internet Protocol TV channel distribution services

The IPTV is a relatively new method of delivering and viewing television programming using an IP network and a high-speed broadband access technology. It is a combination of three media called Triple Play Service involving TV, internet, and telephone. M/s Pakistan Telecommunications Company Limited is the only entity currently holding IPTV licence operational in Pakistan. More licences will be issued by the PEMRA during the Plan period.

Rebroadcast stations

For achieving 100 per cent population and area coverage by the PTV signals, Rebroadcast Stations (RBS) will be established all over the country for covering the left-out pockets, especially in the Northern Areas, Balochistan, Federally Administered Tribal Areas (FATA) and Azad Jammu and Kashmir (AJ&K). The ongoing projects of the RBS will be completed and new initiatives will be taken up during the Plan period.

Upgradation and modernisation of equipment of PTV stations

The digitalisation process at the existing five TV Stations has been completed, but even then some equipment needs replacement and upgradation at the PTV Home Islamabad and other stations. The latest digital equipment will be procured, which will replace the existing analogue and old equipment. The PTV should generate resources through better marketing methods for this purpose. One viable solution will be the private sector involvement in programme production through offering available PTV resources and infrastructure to the private sector.

Radio broadcasting

Due to its outreach, Radio is still the most effective medium even today. The use and place of radio in our social system has, however, undergone a huge change during the last 30 years. The concept of centralised radio broadcasting through Medium Wave and Short Wave broadcasters is shrinking and community radio through the FM broadcasting is now order of the day. The FM radio, started in the early 1990s, has now expanded to small towns and in rural areas as well because of its low cost and easy maintenance and operational convenience. The Pakistan Broadcasting Corporation (PBC) has 32 FM radio stations, whereas in the private sector 166 have been licensed out of which 143 are on air.

Though the FM broadcasting has shown a mushroom growth, but importance of the Medium Wave broadcasting cannot be under estimated. The MW signals, because of their strength and wider coverage, are required for reaching out to the far-flung areas, and the Short Wave broadcasting is important for covering even farther areas inside the country and across the borders for communication of the messages of good will, brotherhood and projection of country's soft image to its neighbours and friends.

A network of the FM stations for live round-the-clock broadcast of the Quran will be established. Starting from the provincial headquarters, it will be phased out to the district headquarters throughout the country.

In the Plan, the radio broadcasting will be developed on two fronts. One is modernisation and strengthening of the existing MW and SW systems, including replacement of some of the old equipment, and on the other is creation of a network of FM broadcasters, both in the public and in private sectors. A major part of investment on the FM radio will come from the private sector. The introduction of digital Radio broadcasting is still a far cry, but the country has to gradually switch over its analogue equipment to digital format for better production and transmission qualities to achieve better qualities.

The following are important programmes and projects to be actualised during the Plan period.

Installation of powerful Medium and Short Wave Transmitters for regional and international coverage

For improving the quality of radio signals, the existing old and obsolete Medium-Wave Transmitters will be replaced by the Solid State Transmitters. New MW Transmitters will also be installed in various parts of the country, especially FATA and other bordering areas. The SW power of the Radio Pakistan is very low at present. This will be enhanced, and new SW Transmitters will be installed at the High Power Transmitting Station (HPT) Karachi and Islamabad for increasing the regional and international coverage of the Radio Pakistan. The present coverage on the MW is 95 per cent of population and 75 per cent of area, while coverage on the SW is 100 per cent in population. Today, the Radio Pakistan is reaching four corners of the world through the internet (*Source: Radio Pakistan*). The finances of the Radio are met through subsidy from the government and advertisement income. About 80 per cent of the finances are met through government grant which it provides to the Pakistan Broadcasting Corporation (PBC).

Upgradation and modernisation of equipment at all radio stations

The replacement of the existing analogue equipment with digitalised equipment is partly in progress at Karachi, Lahore, Islamabad and Peshawar, which will be completed in the Plan period. However, digital transmission will not start during this period because of the high cost of radio receivers at the end of consumers.

Mobile audio

The introduction of mobile phone and internet has demonstrated that how these networks can be used to create new mass market products and services, which can change the way people think and transact. In times to come, people will buy mobile phones or any end-user terminal devices not just to remain connected, but to express themselves in a variety of ways. The services offered today have moved beyond their fundamental role of voice communications to a spectrum of non-core services, which in telecommunication parlance is called the Value-Added Services (VAS), that is, voice mail, Mobile-commerce, Mobile Internet, etc.

Introduction of the satellite radio

The digital transmission will not start during the Plan Period, but the preparatory work for shifting to digital transmission will be sped up. The Satellite Radio transmissions will start during this Period. Necessary alterations in the existing infrastructure and equipment for digitalisation will be initiated during the Plan Period, which include upgradation and replacement of equipment and complete replacement of the analogue equipment at major radio stations in Islamabad, Karachi, Quetta, Peshawar and Lahore.

Community-based FM radio stations

A network of FM radio stations will be created throughout the country, mostly by the private sector. The regulatory and other infrastructural support will be provided by the government of Pakistan through the Ministry of Information, PEMRA, FAB and PTA.

Press and news agencies

The Press is overwhelmingly belongs to the private sector, but support to free independent and technologically strong communication and mass media system is the responsibility of the state. The state intervention in the journalistic and professional activities can only be to the extent of providing support through relaxation in tariffs, regulations and providing a suitable environment for promotion of the print media. During the Plan Period, Press Clubs across the country will be financed by the federal government and provincial governments. Training opportunities to working Journalists will be extended through a mechanism evolved by the Ministry of Information and Broadcasting.

The Associated Press of Pakistan (APP) with limited size and modern facilities will continue the job of projection of state policies and feeding the regional press on the current issues. However, onwards 2014-15 no new investment will be made by the government. The agencies revenue generation capacity will be increased to meet its requirements.

Private sector investment and employment generation

It is estimated that by 2018 around Rs41 billion investments will be made in the electronic media sector, while the employment generation will be about 60,000. Its details are given in the following table.

Medium	Investment (Rs million)	Employment generation (Nos.)
Satellite TV	20,000	21,000
FM Radio	1,000	5,000
Cable TV	13,000	30,000
Multichannel Multipoint Distribution System (MMDS)/ Wireless Broadband (WIBRO)	1,500	600
Internet Protocol Television (IPTV)	1,500	500
Interactive Internet TV	1,000	500
Satellite Radio	500	500
Direct To Home (DTH)	500	1,000
Mobile TV (content provision)	1,000	500
Mobile Audio (content provision)	1,000	500
Total	41,000	60,100

Source: *PEMRA*

Film

Film, as an art form, has been an inseparable part of the common Pakistani's life. It has been a source of an affordable entertainment and a fine leisure time activity. It has also been playing significant role in dissemination of the messages of patriotism and national cohesion, and has challenged social issues in a very effective way. The Pakistani cinema has unfortunately undergone a crisis during the last three decades, despite the fact that enormous artistic and professional potential has always existed in the country. Film not only as an art form but also as an industry still possesses great potential and capacity to regain its lost glory. The cinema has always existed in the private sector, but now a support drive has become imperative on part of the government. A comprehensive survival and revival plan for the film industry is much needed.

The film trade in Pakistan does not enjoy the status of an industry. Currently, only two studios are working as compared to 11 in 1977. Number of cinemas stands at 170 as compared to 700 in 1977. Also, the annual film production has declined to 20 in 2012, which was 111 in 1977.

The post-production and editing works of films are currently done in production houses, not in studios. Most of the cinemas and studios have been turned into plazas, shopping centres, wedding halls, ware houses and even housing colonies in Karachi, Lahore, Rawalpindi and elsewhere. The remaining studios now depend on TV productions. The main reasons for decline in the film art are:

- Emergence of non-professional producers over the last 20 years
- Cinemas situated in the metros were on prime land and with the advent of video and DVD regime, the cine-going shrunk badly and cinemas, as prime property, were put to more profitable use.
- With the passage of time, professional film makers passed away and no replacements of the legends have joined the trade.
- Many professional producers and financiers have left the film trade and invested their assets elsewhere.
- Smuggled video, DVD, and pirated screening of films on the cable TV (cable channels) have contributed to the decline as well.

Strategy

Under the Plan, the following measures will be materialised.

- The government will act as a facilitator between the film trade and corporate sector. It will help the trade in legitimising its status with the Ministry of Industries. The producers will ensure themselves various rebates and loans from the banks and financial institutions, and be able to import production and cinema equipment with minimum duty and taxes.
- Piracy on TV will be brought to an end by the PEMRA. There is no control on content, which is shown on TV channels either produced indigenously or imported; hence necessary amendments will be introduced in the PEMRA Ordinance.
- The cinema entertainment tax will be rationalised in collaboration with the provinces.
- The provincial governments will expedite setting up their censor boards.
- Constitution and code of the Central Board of Film Censor (Islamabad) will be reviewed to make it effective.

- The government will encourage collaboration between the film trade and Pakistan Television and Radio with exchange of artists and technicians, and include film as part of the curriculum at the Film and TV Academy.
- Colleges and universities will be encouraged to include subject of film as part of mass media, communication and journalism.
- Joint film and TV festivals, both at home and abroad, will be arranged.
- Film archives and film museum will be set up in the Punjab.
- For co-production with neighbouring countries like Iran, Turkey, Bangladesh, Thailand, China and Sri Lanka, Pakistani missions abroad will facilitate this process of joint film production and exhibition. Overseas Pakistani can also play a role, like Non-Resident Indians (NRIs), who have financed and funded many films, shot on foreign locations.
- Outlets for distribution and sale of the Pakistani films on the DVD abroad through overseas Pakistanis in traditional (UAE, UK) and none-traditional (Africa, Latin America)foreign markets will be arranged.

Culture and national heritage

Culture and heritage are vehicles of change central to nation-building, and societal and material development. Traditionally, culture was defined in terms of artistic, creative and aesthetic endeavours. Today, the notion of culture also includes behaviour pattern, an individual's view of his person, society and the outside world. A political democracy rests on equitable economic and social opportunities, and a democratic culture that acknowledges individual expression and diversity of peoples' cultural identities. Peoples' understanding of their culture and heritage by ensuring their participation in local and regional festivals is of prime importance. It is possible only when people's cultural life and traditions are centred within the concept of development.

In pursuance of these goals, the policy framework for the Plan underpins protection and development of culture and heritage. This requires preparation of a national inventory of tangible, intangible and natural cultural heritage; protection, preservation and conservation of the cultural heritage assets; rejuvenation of the classical, Sufi and folk music; promotion of cultural tourism; strengthening and broadening the base of existing cultural institutional structures; encouraging and supplementing individual and private institutional endeavours to promote, teach and train students in the fields of arts and crafts. Tradition however, needs to be revisited and reinvented to serve the contemporary needs and to link it with collective future. When addressing contemporary aesthetic and material needs of the nation and citizens, contemporary culture will look ahead and forge a new vision of the future.

Pakistan is a signatory of the UNESCO Convention for the Protection of World Cultural and Natural Heritage, which includes architecture, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features in tangible cultural heritage to be protected by all states. The Convention suggests that effective and active measures will be taken for the protection, conservation and preservation of the cultural and natural heritage situated on its territory and to adopt a general policy, which aims to give the cultural and natural heritage a function in the life of community and to integrate the protection of that heritage into comprehensive planning programmes. It also emphasises development of scientific and technical studies and research and to work out such operating methods as would make the state capable of counteracting the dangers that threaten its cultural or natural heritage. Six tangible heritage sites have been inscribed on the World Heritage List, which include: Archaeological Ruins at Mohenjo-Daro, Buddhist Ruins of Takht-i-Bahi and Neighbouring City Remains at Sahr-i-Bahlol,Fort and Shalamar Gardens in Lahore, Historical Monuments at Makli (Thatta),Rohtas Fort and Taxila monuments (1980).

Issues

The main issues in cultural promotion and preservation of heritage are:

- Culture is not included as a subject in syllabi of the public and private educational institutions at any level.
- Preservation, protection and promotion of tangible, intangible and natural heritage have remained a neglected area.
- There is a shortage of books, educational material and information on culture of Pakistan.
- Tangible, intangible and natural heritage in Pakistan is not documented and mapped.
- Importance is given only to tangible heritage, while the intangible and natural heritages are neglected.
- There is an absence of modalities, rules, laws and procedures to support public-private ventures in culture.
- There is little support for individual artists.
- One finds an absence of a national culture policy.
- The archaeological sites on the World Heritage List have been handed over to the provinces after devolution. This decision needs a review.
- The role of federal government after devolution of culture sector is unclear.
- Absence of proper projection and propagation of authentic Pakistani culture is conspicuous.
- Home grown art is not promoted.
- Culture lacks touristic support as a policy.
- Artistic and creative activities in literature have not given due recognition.

Plan

In the Plan, a number of new initiatives will be supported in addition to providing financial support to the ongoing activities and policy backing to new drives in the private sector. These include:

- The entire tangible, intangible and natural heritage will be documented and mapped.
- Cultural curriculum will be developed and introduced in all public and private sector educational institutions from primary to graduate level.
- The federal government, all provincial governments, governments of the AJ&K and Gilgit-Baltistan will provide funding and incentives for producing books and educational material on culture.

- A legal framework and enactment by the Parliament will be introduced for facilitating public-private and NGOs cultural ventures.
- The national heritage monuments, which are inscribed on the World Heritage List of the UNESCO, will be declared a joint responsibility of the federal and provincial governments. These monuments are not part of the concurrent list.
- All provinces, the AJ&K and Gilgit-Baltistan will establish cultural funds at the district level for supporting individual artists and private sector cultural activities.
- A national culture policy will be developed, which will reflect the aspirations of the people of Pakistan, promote home grown art and culture and represent the culture of all parts and areas of Pakistan.
- The entire tangible, intangible and natural heritage will be linked with tourism. This heritage will be developed, projected and promoted for attracting domestic pilgrim, regional and foreign tourists.
- The state will portray authentic culture of Pakistan and employ culture as a tool for national development, culture diplomacy and social development. The federal government, all provincial governments and governments of the AJ&K and Gilgit-Baltistan will give priority to this sector.
- All governments will support regional languages, literatures, festivals and prepare folkloric ensemble for motivation of people.
- Linkages will be established with international cultural organisations and all Memoranda of Understanding (MoUs) and cultural exchange programmes will be honoured and implemented.
- The government will establish culture centres of Pakistan in all major countries of the world.
- The PTV will establish heritage and culture TV channels for motivating people to take pride in their own culture and traditions.
- All public and private sectors universities will conduct research on various cultural aspects.
- The Pakistan National Council of Arts (PNCA), Lok Virsa and private cultural institutes will be strengthened by enhancing technical capabilities, infrastructure and funding. The PNCA and Lok Virsa will also expand their scope to four provinces, Gilgit-Baltistan and AJ&K by creating of regional set-ups with the federal funding.
- Institutes will be established for local performing artists and artisans to improve their professional, marketing and business skills, etc.
- The government will provide a solid economic base for cultural pursuits and making all heritage sites financially viable and capable of surviving out of their own self-generating activities.
- A strong technological and industrial support to all cultural and artistic activities (preservation, promotion, rehabilitation and production) will be provided.
- A strong institutional coordination with other sectors of development will be established.

- Creation of sustainable and economically viable consumer markets for cultural products, internally and globally, will be priority area.
- Industrial support and coordination for the marketing of cultural products to domestic as well as international markets will be provided.
- Buildings and historic places, monuments, artefacts, considered worthy of preservation for the future, including objects significant for the archaeology, architecture, science or technology of a specific culture, cultural landscapes (natural features with cultural attributes), smaller objects such as artworks and other cultural masterpieces which are collected in museums and art galleries, will be the focal areas of the Plan.
- The scope and role of the Pakistan Academy of Letters (PAL) will be strengthened as a vehicle of cultural and intellectual pursuits.

Public sector investment

The financial outlay for mass media sector for the Plan will be Rs 5.8 billion, which includes allocations for the Pakistan Television Corporation, Pakistan Broadcasting Corporation, Associated Press of Pakistan Corporation, Pakistan Academy of Letters, Department of Archaeology and Museums, Pakistan National Council of Arts, and National Institute of Folk and Traditional Heritage (Lok Virsa) and Ministry of Information, Broadcasting and National Heritage. The table below shows details.

(Rs million)

Sub-Sector	Ongoing	New	Total
Ministry of Information, Broadcasting and National Heritage (APPC, PNCA, Lok Virsa, IRS, etc.)	68	1,451	1,519
Pakistan Television Corporation	732	1,254	1,985
Pakistan Broadcasting Corporation	774	1,526	2,301
Total	**1,574**	**4,231**	**5,805**

Chapter 14

FISCAL, MONETARY AND CAPITAL MARKET DEVELOPMENT

Major challenges on the fiscal front include an ever-increasing fiscal deficit due to power sector subsidies, expenditure on the loss-making public sector enterprises and declining tax-to-GDP ratio. Thus the fiscal policy has to ensure a sustained fiscal position by having targeted subsidies in all sectors, mobilising domestic resources, broadening the tax base and prioritising the public expenditure in line with the growth and development objectives of the Plan. The monetary policy will supplement the fiscal policy by maintaining price stability, strengthening the financial sector and ensuring availability of credit to the productive sectors of the economy for facilitating their expansion. Ultimately, the aim is to gear up fiscal and monetary policies towards achieving robust growth, while simultaneously ensuring macroeconomic stability.

Situational analysis

Pakistan's fiscal situation is under stress mainly owing to stagnancy in tax mobilisation, declining tax-to-GDP ratio and higher expenditure. During the last five years, the revenue generation has recorded dismal performance, and total revenue has declined from 14 per cent in 2008-09 to 13.3 per cent of the GDP in 2012-13. On the other hand, total expenditure rose from 19.2 per cent in 2008-09 to 21.5 per cent in 2012-13, while the current expenditure remained high at 16.4 per cent as compared to 15.5 per cent in 2008-09. The development expenditure has declined from 3.6 per cent in 2008-09 to 3.5 per cent in 2012-13. Consequently, the fiscal deficit on average stood at 6.6 per cent. In fact, this deficit rose to 8.2 per cent in 2012-13 from 5.2 per cent in 2008-09. (All percentages have been calculated as per the GDP.)

The main reasons for overshooting of the fiscal deficit during 2008-13 have been huge increases in interest payments, higher than budgeted energy and food subsidies, circular debt consolidation, increase in salaries and pensions, rising current expenditure, losses of public sector corporations, cost of the War on Terror, expenditure on rehabilitation and reconstruction of damages caused by the floods of 2010 and 2011, expenditure on the Internally Displaced Persons (IDPs),and tax and non-tax revenue slippages. This persistence of high fiscal deficit has ballooned the public debt by 133.3 per cent, from Rs6,126 billion in June 2008 to Rs14,293 billion in June 2013. It went further up to Rs15,996.5 billion in June 2014 and Rs16,936.5 billion in March 2015.

During 2003-2013, Pakistan's overall tax-to-GDP ratio remained stagnant at about ten per cent on average, whereas India and Sri Lanka have better tax-to-GDP ratios than Pakistan.

Resource mobilisation in developing countries

The need for additional revenue is substantial for many developing countries, but improving revenue mobilisation has more importance. Global experience shows that progress can be made given strong political will since a common element of success-stories is a sustained political commitment at the highest level even when administrative reforms can prompt strong opposition. However, reforms must be entrenched to avoid subsequent slippages.

Empirically, several countries have significantly improved their tax performance in relatively short periods, and analysis (comparing performance of differing countries) suggests that many lower-income countries can increase their tax ratios by two to four per cent of the GDP. While some (such as Egypt and Pakistan) show little or no improvement in tax ratios over extended periods, others have made impressive progress. Peru, for instance, increased its tax ratio from six to 13 per cent over the 1990s and to about 17 per cent now. Some have achieved sustained revenue increases of four to five per cent of the GDP over just a few years. During the last decade, El Salvador, Tanzania and Vietnam made substantial progress on tax mobilisation. Key tax reforms carried out by these countries (strong tax performers) during the 2000s are summarised in the box below.

Strong tax performers of 2000s – case studies

El Salvador

Significant and well-designed base-broadening measures have been adopted for improving both efficiency and fairness. These reforms *inter alia* included: (i) restricting VAT zero-rating to exports, (ii) eliminating exemptions on interest earned in banks licensed abroad and on income from interest and capital gains of individuals, (iii) establishing a tax on registration of new vehicles, and (iv) broadening the income tax withholding base for non-residents.

As a result of these reforms, the tax system is now simpler and the tax laws are of good quality by the international standards. With only a few and largely standard exemptions (financial services, health, education, and imported capital goods) and only one positive rate (13 per cent) the Salvadorian VAT has a good design; at 52 per cent, C-efficiency is among the highest in Latin America.

Reflecting these reforms, the tax revenue increased from 10.9 per cent of the GDP in 2004 to 13.4 per cent in 2010.

Tanzania

Major reforms of policy and administration have been undertaken over the past decade to address low revenue collection. Key reforms included: (i) introduction of a common taxpayer identification number (TIN) for all taxes, (ii) creation of a Large Taxpayers Department and consolidation of the VAT and income tax administration into a single, functionally-structured Domestic Revenue Department, (iii) registration compliance was improved by such measures as allocating geographical groups of taxpayers to a specific team with clear performance targets, and improving assistance to small taxpayers in understanding and complying with their obligations, (iv) a new income tax law (2004) introduced self-assessment and rationalised small taxpayer administration, (v) an increase in the VAT threshold focused on high-yield taxpayers, and (vi) modernisation of the customs department focused on interfacing its operations with domestic revenue operations.

Policy reforms brought significant simplification in the tax system. The number of brackets of the PIT was reduced and the top marginal rate was cut (from 35 to 30 per cent) and aligned with the CIT rate. Consequently, tax revenue increased steadily, that is, from nine per cent of the GDP in 2000 to 15.3 per cent in 2009.

Vietnam

During 2005-10, sweeping reforms have been seen in both policy and administration. The tax policy regime has been considerably rationalised. The CIT has been strengthened by unifying the rate structure (at 25 per cent, rather than 28 and 15) removing some incentives, permitting deductions for reasonable expenses and transferring unincorporated businesses to the PIT. The VAT has been improved by restricting zero-rating to exports, eliminating the discrimination between domestic and imported products and reducing exemptions. The PIT has also undergone comprehensive changes, which included: capital income brought into tax, 30 per cent surcharge eliminated, tax brackets significantly broadened, top marginal rate lowered from 40 per cent to 35 per cent and tax allowances for dependents introduced.

The tax administration has also undergone significant transformation and strengthening. A modern self-assessment system and a supporting set of tax administration procedures have been introduced. All tax offices are now connected via a computer network and a broad range of Information Technology applications has been developed to support core tax administration functions. Steps have also been taken to upgrade staff skills.

Reflecting these reforms, the tax revenue has increased significantly and other important benefits have been realised. As share of the GDP, the tax revenues increased from an average of 19.6 per cent during 2001-04 to an average of 23.7 per cent during 2005-08.

Source: *Revenue Mobilization in Developing Countries (2011), International Monetary Fund (IMF)*

The Pakistan Vision 2025 envisages a framework of growth and development, which comprises seven pillars where monetary and fiscal developments connect to the pillar of ‘Achieving Sustained, Indigenous and Inclusive Growth’. Broadly, the Vision calls for reforms, which catalyse revenue generation and curtail non-development expenditure. This consists of broadening tax base, moving away from across-the-board subsidies to the targeted subsidies, restructuring or privatisation of the selected Public Sector Enterprises (PSEs) and introducing performance-based assessment and strict accountability of the public spending.

Specifically, the Vision stipulates a rise in tax-to-GDP ratio by targeting it to increase from 9.8 per cent in 2012-13 to 16-18 per cent by 2025; thus bringing it at par with countries, like India, Turkey and Thailand.

Plan

The overarching pillars of the Vision, along with its specific targets, serve as the guiding principles of the Plan. It aims at an average growth target of 5.4 per cent per annum in order to achieve a growth rate of seven per cent by the year 2017-18. In order to achieve this target, substantially large allocations of resources are required to strengthen country’s physical and human infrastructure. A right-type of policy mix is required for boosting revenue generation, raising domestic savings and devising a prudent fiscal policy to release maximum funds for development in order to achieve the goals of sustainable and inclusive growth.

The major thrusts of the fiscal policy will be to prioritise government expenditure and curtail the maximum of it without harming the current salaries, allowances and pensions, targeting subsidies, fully or partially privatising and revamping of the loss-making PSEs, limiting government borrowing and also complementing efforts to curtail government's current expenditure, improving governance to eliminate wastage of public funds and optimally allocating development funds to increase the production as well as overall productivity of the real sector. In the area of revenue, tax mobilisation will be focused on broadening tax-base, doing away with exemptions and enhancing tax compliance by streamlining federal and provincial tax machineries.

Consolidated budgetary scenario for the Plan is given below.

Consolidated budgetary projections 2013-18
(As percentage of the GDP)

Items	2009-13 (Average)	2012-13	2013-14	Revised Estimates 2014-15	Budget Estimates 2015-16	Projections	
						2016-17	2017-18
Total revenue	**13.3**	**13.3**	**14.5**	**15.4**	**15.1**	**15**	**15.3**
Tax revenue	9.7	9.8	10.2	11.5	12	12.5	13
FBR tax revenue	8.9	8.7	9	9.5	10.1	10.6	11.3
Non-tax revenue	3.6	3.5	4.3	4	3.1	2.5	2.3
Total expenditure	**19.9**	**21.5**	**20**	**20.4**	**19.4**	**19**	**18.8**
Current	15.9	16.4	16	16.3	14.9	14.6	14.2
Development	3.5	3.5	4.5	4.1	4.5	4.4	4.6
Fiscal balance	**-6.6**	**-8.2**	**-5.5**	**-5.0**	**-4.3**	**-4**	**-3.5**

Source: *Finance Division*

The public debt to the GDP ratio is estimated at 62 per cent for 2015-16 and projected to be 58.8 per cent and 55.2 per cent in 2016-17 and 2017-18 respectively.

Objectives

The main objectives of the Plan are to:

- embark upon wide-ranging tax reforms to develop resilient, broad-based and growth-oriented tax structure that encourages progressive taxation, widens tax net and ultimately increases tax-to-GDP ratio

- curtail the government current expenditure in order to bring fiscal deficit within sustainable limit (as stipulated by the Vision)
- explore avenues for raising fiscal space preferably through indigenous resources mobilisation rather external resources, and
- devise prudent debt management policy that targets lower external debt-export ratio to ensure external credit worthiness and reduce stress on the financial sector

These objectives corroborate with the Vision as these ensure macroeconomic stability through prudent fiscal policy leading to sustainable growth and build investors' confidence in the growth prospects of the country.

Target

For achieving the above-mentioned objectives, the following targets have been envisaged.

- Increasing total revenue from 13.3 per cent of the GDP in 2012-13 to 15.3 per cent in 2017-18
- Enhancing tax revenue from 9.8 per cent of the GDP in 2012-13 to 13 per cent in 2017-18
- Increasing the FBR tax collection from 8.7 per cent of the GDP in 2012-13 to 11.3 per cent in 2017-18
- Curtailing total expenditure from 21.5 per cent of the GDP in 2012-13 to 18.8 per cent in 2017-18
- Curtailing current expenditure from 16.4 per cent of the GDP in 2012-13 to 14.2 per cent in 2017-18
- Increasing development expenditure from 3.5 per cent of the GDP in 2012-13 to 4.6 per cent in 2017-18
- Reducing fiscal deficit from 8.2 per cent of the GDP in 2012-13 to 3.5 per cent by 2017-18

Strategies

In order to achieve the targeted fiscal deficit, the following strategies have been proposed.

- Formulate expenditure policy, which aims at strict control of non-developmental expenditure and is adequately accommodative for meeting pressing social and infrastructure needs of the economy. The first step of this strategy entails a judicious choice between subsidies vis-à-vis development expenditure in the course of resource allocation. The following steps have been taken during 2013-2014:
  - In a bid to curtail the current expenditure by making subsidies more targeted, the National Energy Policy 2013 necessitates periodic increases in average tariff in order to eventually eliminate the Tariff Differential Subsidy (TDS) for all consumers except the most vulnerable ones over the next three years.
  - The first adjustments were made to commercial, industrial, bulk, and large consumer's targets for reducing subsidies by about 0.75 per cent of the GDP on an annualised basis during 2013-14.

- Introduce tax reforms under the aegis of the FBR, which targets simultaneous restructuring, simplification and automation of tax regime whereby restructuring constitutes (but not limited to) broadening tax-base and increasing tax net, rational and affordable rates covering a broad range of sectors and taxpayers. The initial steps to these reforms in the first year of the Plan (2013-2014) comprise:

  – Review of withholding income regime in order to address its regressive nature as it has become a turnover tax, the incidence of which is passed on to the public as price of consumption and income tax refunds are obtained as windfalls.

  – Encouraging and facilitating provincial governments to enhance their own tax revenues by effectively taxing agriculture income and property as well as broadening the sales tax. A simultaneous restructuring of the provincial authorities and boards as well as excise and taxation departments and boards of revenue is in the process for achieving these targets.

  – Publication of tax directories of the parliamentarians and all taxpayers and announcement of tax privilege scheme for top taxpayers. The annual tax directory aims to document and assess tax paid in the preceding three years. The next step to the strategy of publicising tax-payers is launching of an advocacy campaign for promoting the tax culture in the country and recognition of taxpayers' rights.

- Instate fiscal discipline by reining in internal and external debt. The following steps have been taken in the first year of the Plan.

  – Development of the Medium-Term Debt Management Strategy (MTDS) 2014-18, which ensures sustained level and rate of growth of public debt that remains serviceable under varying circumstances. The main objectives of the MTDS are: i) fulfilling financing needs of the government, ii) minimising the cost of debt while maintaining the acceptable level of risks, and iii) facilitating the development of domestic debt market. It focuses on lengthening of maturity profile to reduce the refinancing risk along with sufficient provision of external inflows in the medium-term to reduce the pressure on domestic resources keeping in view cost-risk trade-offs.

  – Facilitating implementation of the debt management strategy by mandating the Debt Policy Coordination Office (under the aegis of Ministry of Finance) to conduct the Debt Sustainability Analysis (DSA) in consultation with the stakeholders

  – Corresponding review and amendment in the provisions of the Fiscal Responsibility and Debt Limitation Act, 2005 for making it more effective to attain fiscal discipline

- Privatisation, divestment and restructuring of loss-making PSEs to increase total government revenue – This strategy is aligned with the objective of curtailing contingent liabilities of the government through implementation of the best practices of corporate governance. The initial steps in this regard for the year 2013-14 are:

  – Setting up of a consortium of Citigroup, Merrill Lynch International, Goldman Sachs and BMA Capital Management as Financial Advisory Consortium (FAC) for divestment of 10 per cent shares of the Oil and Gas Development Company Limited

(OGDCL) by simultaneous international offering through the Global Depositary Receipts (GDR) and a domestic secondary offering

– Curtailing non-development expenditure by following austerity drive by the Prime Minister's Office and House as well as the federal ministries and divisions, and remove discretionary grants of the federal ministers

Provincial revenues

In the 7th National Finance Commission (NFC) Award, the provincial share was substantially increased to 57.5 per cent of the divisible pool. Apart from the larger provincial share, Balochistan and Khyber Pakhtunkhwa were given additional resources – the former for reasons of its largest area and the latter because of the expenditure related to combating terrorism. Resultantly, the net federal receipts in proportion to gross federal receipts have declined to 56.2 per cent in 2012-13 from 67.9 per cent in 2009-10, the year preceding the 7th NFC Award, that is, hardly sufficient to finance interest payments and defence expenditure. The federal government is highly constrained in financing because some of the high priority programmes still remain its responsibility even after the passage of the 18th Constitutional Amendment.

The federal and provincial governments, in the 7th NFC Award, were recommended to streamline their tax collection systems for increasing their revenues in order to achieve 15 per cent of tax-to-GDP ratio by the terminal year, that is, 2014-15. However, the tax-to-GDP ratio remained at 9.3 per cent, 10.2 per cent and 9.8 per cent during 2010-11, 2011-12 and 2012-13 respectively.

The provinces will supplement the federal government's efforts to attain fiscal discipline by exploiting their revenue generating potential through making agriculture income tax more effective, broadening tax net on the services used by the rich, and devising mechanism to tax property at prevailing market rates. Moreover, the provinces will further augment their efforts to enhance outcome and efficiency of the public money. The Punjab, Khyber Pakhtunkhwa and Sindh have established authorities and boards to collect GST on services, while Balochistan is working on it. It will help exploit the potential of this huge sector.

The **Punjab** government, during the last few years, has tried to tap buoyancy of the land revenue by introducing structural reforms, which also included introduction of valuation table to the rural areas for the mutation purpose. The government is considering introduction of further reforms including introduction of e-stamping to land transactions to plug leakages in the tax and ensure greater transparency in the process of transfer of property. The provincial government intends to automate the base of urban immovable property tax plans, and in the medium-term plans to broaden the scope of the GIS mapping project – implemented in Sialkot district – to the entire province, which will help improve property tax collection. The government is also focusing on improving recovery of agriculture income tax and is making certain amendments in the schedule of agriculture income tax. The provincial government made necessary legal and institutional frameworks for the collection of sales tax on services through the Punjab Revenue Authority (PRA), which started working in July 2012. During 2014-15, the government revised stamp duty (on some instruments), Punjab Motor Vehicles Taxation Act 1958 and valuation list of properties as required under the Punjab Urban

Immovable Property Tax Act 1958. Moreover, some improvements were made in the taxation on services. The token tax rates of vehicles on some of the slabs have been revised through the Finance Act 2014. Taxes have been proposed on imported luxury vehicles, and luxurious houses for the purpose of providing cross subsidies. The government followed austerity measures to reduce expenditure on purchase of durable goods.

The **Sindh** government, in its fiscal outlay of 2013-14, reiterated its plan to enhance the base of the sales tax on services by removing anomalies and inequities, reviewing the exemptions to bare minimum and reforming the provincial tax administrations. The provincial government has projected to increase its sales tax collection to Rs100 billion in the next three years. During 2014-15, the government carried out Public Expenditure and Financial Accountability (PEFA) assessment to improve the performance of public financial management. Based on the PEFA assessment, the Sindh Public Sector Management Reform Project has been launched with the objectives of increasing revenue mobilisation, improving performance of the public financial management and procurement, and strengthening management and transparency of the development portfolio. Other initiatives include establishment of the Tax Reform Unit and Debt Management Unit. Moreover, the government has approved the Sindh Tax Revenue Mobilisation Plan 2014-19 and Public Financial Management Strategy, Government of Sindh (2014-15 to 2019-20). The Medium-Term Budgetary Framework (MTBF) has been rolled out in eight provincial departments.

The **Khyber Pakhtunkhwa** government has planned and undertaken an agenda of broad-based reforms, which encompasses good governance, economic growth and development. The provincial government has adopted strategies like Comprehensive Development Strategy (CDS), Post-Crises Need Assessment (PCNA), Economic Growth Strategy (EGS) and sectoral strategies. A Strategic Development Partnership Framework (SDPF) has been agreed with development partners to set top-level strategic priorities and commitments of the partners for accelerating and expanding service delivery in a transparent and accountable manner. The framework will be implemented through measures taken under the Medium-Term Budgetary Framework (MTBF), Output-Based Budgeting (OBB) and Integrated Development Strategy (IDS). Accordingly, the provincial receipts will be enhanced substantially during the Plan period. The provincial tax to the provincial GDP ratio will be increased from 0.4 per cent in 2012-13 to 1.5 per cent in 2017-18. The fiscal space for development will be enhanced through increased tax revenues and curtailed non-development expenditures. The major strategies for the purpose will include: improving tax base, elimination of non-productive expenditures, strengthening of the Khyber Pakhtunkhwa Revenue Authority, gradual broadening of the tax net on services, doubling the collection of infrastructure development cess in the next three years, provincial tax survey, tax policy review, strengthening of revenue collecting departments, harmonisation of agriculture income tax, and computerisation of the land revenue record etc. The provincial revenue will be shared with the local governments through statutory award to be made by the Provincial Finance Commission (PFC). The local governments will levy their own taxes and fees for the service delivery entrusted to them; thus sharing the burden with the provincial exchequer. A number of steps were initiated in 2013-14, while the rest were started in 2014-15 with completion targets by 2017-18. During 2014-15, the government broadened the tax net on services. It revised the rates of taxes on services, urban immovable property, stamp duty, land, agriculture income, and capital value, etc. Moreover, it revised the rates of various non-tax items.

The **Balochistan** government has taken certain measures for enhancement of its own revenue through the Balochistan Finance Act 2013. It mainly focuses on tax on the immoveable property called the Capital Value Tax, which is imposed on property of at least 500 square yards or one kanal. The exemption threshold in the Balochistan Urban Immoveable Property Tax Act 1958 has been reduced through amendment from current residential houses constructed area of 4500 square feet to 2500 sq. ft., whereas the value of immovable property will be calculated according to the valuation table notified by the Deputy Commissioner of the respective area. Similarly, the mutation fee is fixed at a certain percentage of the consideration or value of land and it will be calculated according to the valuation table notified by the collector in respect of the land situated in the locality under the Stamp Act 1899. Under the Balochistan Sales Tax Ordinance 2000, the existing schedule of taxable services has been expanded significantly. To overcome the capacity issues in tax collection, which is presently being carried out by different departments, the provincial government has planned to establish the Balochistan Revenue Authority (BRA). The BRA will improve tax efficiency, prevent tax evasion, broaden the tax-base and settle the issues of the tax compliance. Further strengthening of the revenue mobilisation measures, taken during 2013-14, will help in improving the provincial revenues.

Monetary developments

The overarching monetary and financial framework corroborates the broad objective of public welfare by targeting price stability and wealth creation. In order to catalyse domestic and foreign investment, the Vision 2025 advocates coordination and synchronisation between fiscal, monetary, investment, commercial and industrial policy. Though the Monetary and Fiscal Coordination Board is already established and working under the Ministry of Finance to achieve this end, there is a need for considerably scaling back monetary accommodations of the fiscal deficits.

Additionally, Pakistan’s financial services sector needs to be viewed in terms of its predominant role for satisfying the ever-growing needs of the economy on a pattern of the developed countries. Growing financing requirements of the private and public sector investments, particularly in energy and infrastructure development, are likely to remain unmet unless new long-term financing sources are developed.

However, development of the banking system and other financial institutions and markets are limited by shortcomings in the infrastructure for financial services and transactions. Given their central roles in banking and non-banking sectors respectively, the Vision thus emphasises facilitating the State Bank of Pakistan (SBP) and Securities and Exchange Commission of Pakistan (SECP) to continue with their operations efficiently and autonomously.

Plan

The Plan promotes a monetary policy that is coordinated with, but not subservient to the fiscal obligations since an important task of the monetary policy is to anchor expectations of the people in line with the announced targets of inflation and growth.

The Plan also focuses on development of the SMEs and enhancing productivity of the private sector through various measures, including value-addition and import substitution. This will allow resources to be channelised to the private sector, both for investment and consumption, which are the key drivers of growth in the economy.

A broad-based, modernised and developed capital market is considered imperative for macroeconomic stability and economic growth. A developed corporate bond market enables the issuers (corporates, federal government, provincial governments, city governments and municipal corporations) to raise funds against issuance of bonds for financing their projects (dams, motorways, highways, roads, railway lines, airports, high-rise buildings, housing schemes, etc.)

Simultaneously, it enables the investors (mutual funds, employee funds, investment companies and individuals) to invest their surplus funds in these bonds; thereby reducing dependence on the banking sector. This allows banks to provide financing facilities to the marginalised sectors of the economy. However, the corporate bond market is still nascent and needs to be developed to function effectively. Similarly, the diversion of credit away from the manufacturing sector to the presently under-served productive sub-sectors is required for the economic growth.

During the Plan period, the SBP and SECP – being the regulators of the financial sector – will strive to play a facilitating role in enhancing its growth. To adopt the developments in the monetary policy over time and the structural changes taking place in the domestic economy, the SBP has introduced several changes in the process of monetary policy formulation and its implementation.

During the last decade, the SBP has focused on institutionalising the process of policy formulation, stepped towards a more market-based credit allocation mechanism, developed its operational capacity, improved its analytical capabilities to assess future developments to act proactively, and improved upon the communication of the policy stance to the general public.

Additionally, combination of the economic and institutional arrangements will be made to keep inflation under control. Efforts will be made to ensure that the future financial sector growth is based on an enhanced private sector involvement, including banking, equities market and especially the corporate bond private debt markets. Under the concept of the public-private partnership to overcome the trust deficit, the private sector will be given due role in the Public Sector Development Projects, particularly in the implementation of the infrastructure development projects.

Objectives

The key objectives of the Plan are to

- maintain and strengthen autonomy of the SBP for an effective formulation and implementation of monetary policy and strengthen its institutional capacity
- ensure price stability and curb inflationary expectations to promote business activity and encourage economic growth for proper utilisation of resources, capital formation, productive employment and increase in income

- ensure less reliance on the government borrowing from the SBP for budgetary purposes in order to improve the effectiveness of monetary policy
- formulate a workable policy for effective implementation of the public-private partnership
- facilitate risk management and market-based operations of the financial markets, promote competition, diversification and efficiency, curb speculation and ensure financial sector stability via proactive supervision and regulation, and
- promote the culture of savings and investment among masses for broader financial inclusion in the society and promote broader documentation of the economy through corporatisation of the business enterprises and increase public listing at the stock exchange

It outlines that more resources will be mobilised for the formalisation of the informal economy through incentives, such as facilitating documentation, simplifying rules and procedures, easy access to dispute resolution, access to information and generally removing barriers to formalisation.

Strategies

The objective of monetary policy is to achieve and maintain monetary stability in line with the targets of inflation and economic growth set annually by the government. The monetary and credit policies, when coordinated with overall macroeconomic policies, facilitate capacity expansion of the real sectors and ensure soundness of the financial sector, which eventually reflect as increased savings and credit flows. In order to attain these objectives, the following strategies have been envisaged during the Plan period.

- Maintaining zero borrowings from the SBP at the end of each quarter
  - Previously, the SBP pursued an accommodative monetary policy to spur economic growth in the absence of the private investment. In FY13, it continued open market operations and direct financing for the fiscal deficit (approximately 20 present of the reserve money). However, for the Plan period, the SBP intends to refrain from further net direct lending to the government, and limit open market liquidity operations to the extent where they remain within fiscal and monetary targets. The shift in policy is indicated by firm commitment of no further direct financing of the budget, including purchases of the government papers from the primary market and limits on the Net Domestic Assets of the SBP.
- Enhancing independence of the SBP
  - A draft bill, related to the amendments in the SBP Act, is pending before the Parliament for approval. These amendments are envisaged to strengthen the autonomy of the Bank; thus ensuring full operational independence in its pursuit of the price stability.
- Addressing gaps in data collection and reporting mechanism in the financial sector (banking and non-banking) along with dissemination of relevant financial information to stakeholders

  - As the first step towards devising an effective communication strategy, the SBP has already initiated review of its existing communication strategy. It is also consulting financial market analysts to hear their views, and explain the rationale of prevailing monetary policy stance.

- Safeguarding the financial sector from internal and external vicissitudes, where the initial steps comprise the following.

  - A deposit insurance scheme is envisioned by the Ministry of Finance to introduce long-term stability in the banking system. The scheme is to be managed by a Deposit Protection Fund, established as a subsidiary of the SBP with its own governance structure and funded by flat premium payments from banks. The proposed initial coverage limit is Rs100,000 per depositor per bank, covering 72 present of depositors and 40 present of the total insurable deposits. The draft act for the Fund is being finalised, and the scheme is expected to be operational by December 2015.

- Promotion of the financial sector, which provides exhaustive financial service besides stimulating economic growth and contributing to the financial stability. This entails expanding and deepening financial markets (banking and non-banking) whereby the initial steps taken are:

  - Inclusion of non-banking financial institutions and Modarabas in the credit delivery to the SME and export sector in the financing schemes of the SBP, and international donors to ensure effective utilisation of resources by the targeted beneficiaries

  - Developing the Islamic financial market by promoting diversity of the Islamic financial products and services, and creating linkages with the global Islamic financial sector

  - Government bonds like PIBs, T-Bills, Sukuk issued by the government or the public sector companies and corporations [like Pakistan Domestic Sukuk Company Limited (PDSCL), WAPDA, Civil Aviation etc.] to be listed and traded on the stock exchanges

Inflation

In Pakistan, changes in prices are measured by three indices, that is, Consumer Price Index (CPI), Wholesale Price Index (WPI) and Sensitive Price Indicator (SPI), which are compiled with base year of 2007-08. The CPI is an index, which examines the weighted average prices of a basket of consumer goods and services such as food, transportation and medical care, etc. The WPI is an index, which measures and tracks changes in prices of goods in the stages before the retail level; thus showing the average price changes of goods sold in bulk. The SPI is an index through which the prices of essential daily-use items are measured.

The CPI covers the retail prices of 487 items in 76 markets of 40 major cities. The WPI covers the wholesale prices of 463 items prevailing in 21 cities. The SPI covers prices of 53 essential items, which are collected from 17 cities. During the last five years, average rate of inflation remained at 11.8 per cent per annum. In 2012-13, the CPI inflation witnessed a downward trend and stood at 7.4 per cent as compared to 11 per cent in 2011-12. Inflation decelerated to 4.6 per cent in July-May 2014-15 as compared to 8.7 per cent during the corresponding period of the last year. Therefore, inflationary expectations, during the Plan period, are not very high and it is expected that inflation will remain about six per cent during the later period of the Plan.

Financial sector development

Development, integration and deepening of the financial markets are major goals of the long-term economic planning. Fair, efficient and transparent equity and debt markets mobilise savings and provide lucrative investment opportunities through alternate sources of fund-raising. Therefore, the financial sector development is crucial for ensuring proper and full transmission of measures taken by the monetary policy, which entails smooth functioning of both banking and non-banking financial institutions. Pakistan ranks 67th in the financial development pillar of the Global Competitiveness Index (GCI), which shows potential for development of a competitive financial sector.

Accordingly, the Vision 2025 emphasises development of an efficient financial sector, which channels resources to entrepreneurial and investment projects with the highest expected rate of return. It intends to expand the outreach of the capital market beyond stocks by developing secondary market for corporate and government bonds. The Vision, thus, highlights the role of the SECP in developing a capital market, which facilitates efficient fund-raising rather than mere trading.

Plan

The objectives of the Plan resonate with that of the Vision, whereby it aims to develop the financial sector, which is at par with the global capital markets. The Plan focuses on deepening and diversifying the equity and debt markets, and promoting private sector-led economic growth, keeping in view the following objectives:

Objectives

The important objectives are to

- develop a capital market (both primary and secondary), which offers high quality financial products, and is accessible to both national and international investors and traders
- promote efficiency, transparency, integrity and reliability of capital markets to boost investor confidence and curtail capital flight, and
- provide necessary infrastructure to enhance market competitiveness in the international arena

Strategies

In order to achieve these objectives, focus will be on the following main areas.

- Attracting foreign and domestic investment by simplifying rules and procedures of business – In this regard, the SECP has already taken steps to create an enabling environment by promoting the 'ease of business':

  – One of the major initiatives is the signing of a Memorandum of Understanding for the establishment, operation and administration of a virtual 'One-Stop Shop' for company registration among the SECP, FBR and EOBI. Similarly, an MoU for consultation, cooperation, and the exchange of information – related to the supervision of the Alternative Investment Fund Managers (AIFM) entity between the SECP and European Union competent authorities – has also been signed.

- Development of primary, equity and corporate debt market by offering lucrative avenues for investment to the marginalised and untapped economic sectors – The following steps have been envisaged:

  – Launch of the high-yield Sukuk bonds (Pakistan's first Islamic bonds since 2005) is planned to capitalise on the shortage of the global Sukuk supply, which will ultimately cut borrowing costs for the government. The Sukuk sale is aimed to attract investment into the local Islamic finance industry, where excess liquidity in the Islamic capital market will lead to competitive pricing of the Sukuk bonds than the Dollar bonds.

  – In an attempt to facilitate the small and medium enterprises and services sector enterprises, the SECP is promoting the Limited Liability Partnership (LLP). It has developed a concept paper, which elaborates the Partnership in a new corporate structure, which combines the flexibility of a general partnership and the advantages of the limited liability of a company at a low compliance cost. The aim is to attract the SMEs towards the LLP, given its flexibility.

  – Similarly, in order to introduce the concept of the e-IPO, development of the IPO Portal on the SECP website is also in the offing.

  – The government also plans to list Treasury Bills with the Lahore and Islamabad stock exchanges for enabling small investors to invest in the government T-Bills. However, a detailed plan with extensive risk analysis is yet to be devised for this purpose.

- Strengthening the regulatory regime of the SECP – This entails reviewing, improving and amending of the consolidated registration, licensing and capital adequacy requirements for capital market intermediaries. A number of regulatory reforms are being launched to foster growth of a robust corporate sector and broad-based capital markets, which include:

  – Comprehensive review of the existing regulatory framework is in process, which specifically focuses on minimum entry standards, criteria for sponsors, directors and employees, revised risk-based capital adequacy and regular audit of financial position of the broker by independent auditors. This review aims to facilitate compliance of the companies with the relevant principles of the International Organisation of Securities Commissions (IOSCO) for market intermediaries.

  - Similarly, the requirement for limiting the aggregate liabilities, maximum exposure to a single person or group, assets under custody, code of conduct, KYC (Know Your Client) policies and customer-due diligence are envisaged to be reviewed keeping the best international practices in view. Detailed guidelines regarding the customer-due diligence and KYC policy to safeguard the Non-Banking Finance Companies (NBFCs) against the abuse of money laundering activities, terrorist financing and other illegal trades have been issued in this regard.

  - Following the demutualisation of the stock exchanges (in pursuance of the Stock Exchanges Corporatisation, Demutualisation and Integration Act 2012), a comprehensive plan for segregation of regulatory and commercial functions of stock exchanges has been approved by the government for implementation during the Plan period.

- Introduce reforms in the insurance industry and preclude financial risks and uncertainties keeping in view the global unprecedented challenges to insurers and regulators, which include:

  - The SECP has proposed a roadmap of reform and development for the insurance industry, whereby a strategy has been prepared by a committee with representation of insurance, banking and business segments. The roadmap suggests organisational and operational restructuring, market development, insurance education and technology development in life and non-life insurance.

- The SECP has drafted a new legislation as the Securities Bill 2015 (draft) in order to address deficiencies in the existing law, and incorporate international best practices. The draft bill is in the process of enactment. Similarly, the Futures Trading Bill is to be enforced in order to establish fair, transparent and efficient futures market. Several structural reforms are also in offing, which include:

  - Attainment of the Central Counter Party status by the National Clearing Company

  - Introduction of the revised settlement model for trading in the government debt securities

  - Improvement in the National Custodial Services and Direct Settlement System

  - Introduction of the Settlement Guarantee Fund of appropriate size

  - Development of the Commodities Market

  - Introduction of the single inspection regime in place of multiple inspections

- In order to develop the NBFCs engaged in lending activities (leasing, housing finance, investment finance, etc.), the following changes in the regulatory and structural framework have been envisaged:

  - Reduce equity requirements for non-deposit taking NBFCs

  - Introduce concept of the Islamic NBFCs and microfinance NBFCs

- Incorporate new regulations for discount houses
- Broaden scope of the housing finance companies to undertake commercial housing finance activities
- Revamp investment finance services model specifically focusing on lending

- The mutual fund sector is being developed to add diversity and depth to the financial system and reduce dependence on the banking system. This will promote savings by offering alternative asset classes and fund-raising avenues. A multipronged strategy to incentivise the Asset Management Companies (AMCs) is being considered, which includes:
  - Establishment of the AMCs' own distribution and branch network
  - Amendment in regulatory framework regarding fiduciary responsibilities, corporate governance, employee's trading, internal control and risk management requirements
  - Review of the existing regime to allow for a single entity to undertake all fund management services (asset management, investment advisory, etc.)
  - Introduce concept of the private funds to encourage alternative forms of capital formation

Chapter 15

TRADE AND COMMERCE – BALANCE OF PAYMENTS

The external sector has long proved to be problematic for the Pakistan economy. Most episodes of the GDP growth have come to an abrupt halt because of deteriorating balance of payments (BoP). The underlying reason is that Pakistan’s exports are relatively inelastic, while the country’s elasticity of imports is high with respect to the GDP. An unsatisfactory export performance over several decades is essentially due to the fact that the export basket consists largely of items – such as the lower counts of cotton yarn and textile products that sit low on the value chain – which are not very responsive to income increases in the importing countries, and that a substantial share of exports is directed towards those markets, which are relatively slow-growing. This underlines importance of accelerating structural changes in the economy, especially the manufacturing sector.

The Plan aims to maintain a sustained BoP position for ensuring macroeconomic stability. Pakistan has a high degree of dependence on oil imports, essential industrial raw materials, machinery and equipment. To meet such requirements without excessive reliance on external borrowing, the Plan has outlined a strategy to build a competitive trade sector, which will be capable of generating robust growth in export earnings. Non-export resources will also need to be increased by attracting private transfers, especially workers’ remittances. The capital and financial account will be strengthened by diversifying sources of financing, with greater recourse to non-debt-creating sources of financing.

Situational analysis

The BoP started worsening from 2006 with the worst crisis striking in 2008 when the current account deficit reached 8.5 per cent of the GDP (Table 1). This adverse situation coincided with the global financial crisis of 2008 and European Debt crisis of 2010. To make matters worse, prices of the crude oil and commodity escalated in 2008. The combination of these shocks compelled Pakistan to resort to an IMF Standby Arrangement in 2008.

Table-1: Key indicators

Indicator	Actual					
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
GDP growth (per cent)	5	0.4	2.6	3.7	4.4	3.6
Trade deficit (billion $)	-15	-12.6	-11.5	-10.5	-15.8	-15.4
(per cent of GDP)	-9.1	-7.8	-6.6	-4.9	-7.0	-6.5
CA deficit as per cent of GDP	-8.5	-5.7	-2.3	0.1	-2.1	-1.1

Source: *The State Bank of Pakistan*

The trade imbalance remained very high primarily because of lower export growth, which remained weak mainly because of the global economic slowdown and rising competition in the international market, particularly for textile exports. However, the domestic supply constraints, such as power outages and continuously deteriorating security also played a major part. The import bill remained high because of the international oil prices and other commodity prices. The relatively slow growth in imports during the last five years is a manifestation of weaker economic activity in Pakistan, and accounts for smaller deficits on the current account (as a per cent of the GDP). The disproportionate rise in imports in relation to exports resulted in slight increase of the trade deficit from $15 billion in 2007-08 to $15.8 billion in 2011-12 before declining to $15.4 billion in 2012-13. Policies can be used, which attempt to encourage consumers to switch their spending away from imports towards the output of domestic firms. The 'expenditure-switching' occurs if the relative price of imports can be raised, or if the relative price of exports can be lowered. For this, the measures include:

- Domestic inflation at appropriate level relative to trading partners
- Exchange rate at appropriate level relative to trading partners
- Government restrictions in the form of imposing tariffs or other import controls for reducing unnecessary import items

The current transfers continued to post huge surplus during the last five years, which almost offset huge goods and services trade imbalance. At the end of 2012-13, the current transfer surplus stood at $18.1 billion against $11.5 billion in 2007-08. The rise in the current transfers surplus was primarily on account of the robust growth in remittances, which increased from $6.5b in 2007-08 to $13.9b in 2012-13 coupled with payments for logistical support, which increased from $655 million in 2007-08 to $1806.5 million in 2012-13.

The current account deficit decreased sharply from 8.5 per cent of the GDP in 2007-08 to 1.1 per cent in 2012-13 mainly due to positive terms of trade. However, this substantial decline in the current account deficit was not supported by the financial account surpluses. Consequently, Pakistan had a run on its reserves, and it appeared that the country would not be able to meet its external obligations, which brought further pressure on the reserves and exchange rate. Pakistan, therefore, had to approach the IMF again for a BoP support in 2012-13.

Plan outlook and targets

The Plan for the BoP takes into account economy's structural features and potential trends in the volume of the global trade and international commodity prices. The Plan assumes that the law and order situation will improve, and policies will be put in place to address the energy crisis in a manner that will facilitate necessary investments, particularly in export-oriented industries. The Plan takes cognizance of difficulty in financing current account deficit and continuous pressure on exchange rate. However, reforms and efforts are applied, which will provide a sustainable position to the BoP.

The prospects of returning to the macroeconomic stability have improved during 2013-14. The available data shows revival of the industrial growth, contraction in the current account deficit, improvement in the foreign exchange reserves and relatively stable exchange rate. The government is committed to the stabilisation programme and has initiated steps to resolve some of the longstanding structural issues. On the global front too, there are indications that the worst will be over.

After a deep global recession, the economic growth has turned around. Substantial decrease in the price of crude oil and marginal decrease in the price of palm oil will reduce the import bill and relieve pressure on the current account balance. Pakistan is to benefit from the trade-related concessions, such as the GSP-plus initiative of the European Union. The key steps for the maximum use of the GSP-Plus facility will include: tariff reforms, tax rebate for value-added products, trade facilitation and uninterrupted supply of energy to export-oriented industry. On the financing side, major repayments are due in the next five years, including end of the Paris Club rescheduling grace period, which are likely to be more than offset by higher external capital inflows, particularly investment from China. Projections for the BoP (Table 2) have been set keeping in view the above-developments.

Table-2: Balance of Payments

($ million)

Item	Actual		Estimates		Projections	
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Current account balance	**-2,496**	**-3130**	**-1636**	**-2,891**	**-3,101**	**-4,129**
Balance on goods	**-15,355**	**-16,590**	**-16,617**	**-17,735**	**-19,498**	**-21,529**
Exports, fob	24,802	25,078	24,215	25,547	27,228	29,511
Imports, fob	40,157	41,668	40,832	43,282	46,726	51,040
Services balance	**-1,564**	**-2,657**	**-2,033**	**-3,313**	**-3,534**	**-4,101**
Income (net)	-3,669	-3,948	-4,291	-4,636	-5,028	-5,331
Balance on goods, services and income	**-20,588**	**-23,195**	**-22,941**	**-25,684**	**-28,060**	**-30,961**
Current transfers (net)	18,092	20,065	21,305	22,793	24,959	26,832
Workers' remittances	13,922	15,837	17,964	18,989	20,603	22,251
Capital account	**264**	**1,857**	**415**	**295**	**292**	**290**
Financial account, of which:	**-549**	**-5,553**	**-3,403**	**-7,246**	**-7,623**	**-7,320**
Direct investment in Pakistan	1,456	1,700	991	3,344	3,602	3,723
Portfolio investment (net)	-26	-2,762	-2,188	-800	-1,200	-1,150
General government	248	1,610	325	-922	1,357	9
Disbursements	2,530	4,349	3,161	3,842	3,405	2,340
Amortisation	-2,282	-2,734	-2,836	-4,764	-2,048	-2,331
Memorandum items						
Current account (percent of GDP)	-1.1	-1.3	-0.6	-1	-1	-1.2
Exports fob (growth percent)	0.3	1.1	-3.4	5.5	6.6	8.4
Imports fob (growth percent)	-0.5	3.8	-2	6	8	9.2

Source: *The SBP and Planning Commission*

The current account deficit is projected to remain in deficit at one per cent of the GDP during the Plan period. Exports are projected to grow at 3.6 per cent per annum, while imports will grow at five per cent per annum. Exports of services are expected to decline. The reduction in exports of services is largely due to the reduction in payments for the logistical support of the Allied Forces, which will decline as the role of these forces in Afghanistan has been scheduled to be phased out. However, services other than logistic support are assumed to grow substantially, mainly in the areas of computer and information technology, finance and insurance, and transportation and travel.

Workers' remittances are planned to grow by 10 per cent a year with policy measures to enhance human resource capacity to match demands in the international market. Due to these developments, the current account deficit will be about one per cent of the GDP. The financing requirements will be smaller, which envisages larger inflows of the FDI and FPI. It is being presumed that during the Plan period, Pakistan will be able to generate financial resources through both debt and non-debt instruments. It is based on the following assumptions.

- The law and order situation will be resolved largely, and the country's involvement in the War on Terror will be concluded successfully. It is expected that these two factors will pave the way for an increase in production and exports, which will also have effects on the FDI, tourism and other related sectors.
- Increase in the FDI will lead to an inflow of the advanced technology, expansion in services and growth in production.

Pakistan can benefit from advantage of difference in the production costs among countries. Some products, like electronics, require sophisticated technology, but have labour intensive final assembly; thus it is economical to perform this process in low wage countries. Concerted efforts will be made to branch out and expand exports besides putting emphasis on the services sector, dairy products, fruit and vegetables and labour-intensive areas of the small-scale industry. In addition to these by-products, untapped export markets will be explored. Nowadays, the services sector can perform without crossing borders; so there will be an emphasis on obtaining outsourced contracts from the industrialised world. Expansion of the e-services and e-commerce, such as telemedicine and telemarketing, will help earn foreign exchange. Export potential for the international markets will be taped by improving quality and standards of the commodities in compliance with global commitments. The following measures will be taken.

- Testing and certification facilities in Pakistan will be strengthened.
- Product standard relating to size, shape, chemical residues and packaging has to be overhauled.
- Marine fish harvesting technology will be upgraded, besides post-harvest handling and processing methods to meet quality standards.

Policies and strategies

The Plan envisages an external finance strategy to finance the projected current account deficits and accretion of foreign exchange reserves through a combination of equity and external debt flows. The ratios of foreign savings to investment and growth in foreign exchange earnings from exports of goods and services, remittances and other private transfers are two fundamental variables on which depends the long-term sustainable level of the BoP. Considering these two factors, the annual current account deficit should fall in the range of 1-2 per cent of the GDP.

The financing of the current account deficit is very sensitive to the state of political stability and the predictability of the economic policies. These two factors, in turn, ultimately hinge on the continuity of the system of governance and confidence of investors. The role of debt-creating and non-debt-creating capital inflows has changed substantially during the last few years, and the long-term inflows will enhance current account vulnerability in the long run. These inflows affect the real exchange rate, which in turn compromise the competitiveness of the economy and consequently, reintroduce structural trade deficits.

Exports of goods strategy

The Plan envisages a comprehensive strategy to increase market share in the world trade, which is insignificant at 0.15 per cent presently. This will be achieved by making export development a central plank of the economic policy. Particularly, efforts will be made to enhance export competitiveness through diversification of products and markets, improved product quality, certifications of products and process standards, and higher value-addition.

- The Plan recognises need for the textile sector to adjust to realities of the world market for restoring its competitiveness through an enhanced productivity to reap benefits of the GSP-plus types of arrangements. Economic policies will be geared towards encouraging major investments in both plant and equipment, and human skills.
- Product and market diversification will be expanded to the new promising areas, where Pakistan's presence is minimal in the international trade, such as IT exports, agricultural and livestock products.
- Import duties will be reduced, particularly on imported raw material, components and machinery.
- Export-oriented enterprises will be encouraged to invest in skills essential to raise their productivity and competitiveness.
- Export-oriented industries will be given priority in providing uninterrupted supply of energy.

Services development strategy

The export policy will give particular attention to the export of services by seeking enhanced market access to them. A strong services sector can not only become a fairly significant contributor to the export mix over time, but more importantly, it can provide critical support to merchandise exports. In this regard, the major steps are:

- Pakistan to expand its trade diplomacy to achieve greater market access for its services exports, particularly under Mode-4 of the Services Delivery.
- Encourage participation of the Pakistani IT companies in the world expos
- Encourage expansion of broadband infrastructure and webhosting infrastructure
- Enforce implementation of laws related to electronic communication and transactions, acceptance of electronic documents, signatures and privacy of information
- Policies to manage services, which align with the best global standards and practices
- Envisioning of the Trade in Services Development Agency (TISDA) For development and export of services
- Develop an integrated area tourism development plan to cover the requirements of hotels, resorts, golf courses, recreation shows, and others through the public-private partnership, and on BOT and BOO basis
- Give preferential treatment in taxation to the Information Technology, being service industry
- For ensuring high reliability of connectivity to the outside world, develop additional submarine cable and overland route

Transfers

Workers' remittances have historically provided significant support to the BoP. Policies to enhance these inflows will focus on surveys to assess demand for various skills in different countries. Based on the identified demand, programmes for the capacity-building and skill development will be initiated. Such policies will not only help migration of the skilled labour with large earning and remittance capability, but also boost domestic production through provision of the market-based skills. The steps for increasing remittances include:

- Reducing the cost of sending remittances
- Tightening of anti-money laundering policy
- Increasing the number of skilled manpower
- Involvement of the Islamic banking and other small banks in the remittances business
- Strengthening of the Pakistan Remittance Initiative (PRI)

Attracting Foreign Direct Investment strategy

The FDI is an important source of non-debt creating inflows, which has positive impact on technological upgradation and economic development. The FDI in Pakistan has been concentrated mainly in natural resources, import substitution industries, telecom and banking services. The Plan aims to make concerted efforts for attracting the FDI, especially in the export-oriented industries by removing the anti-export bias from policies, and improving the logistics and ports operations. To facilitate foreign investors, One-Stop Shop will be established. The FDI opportunities will be explored in the infrastructure, energy and other areas besides improving global competitiveness and 'ease of doing business'.

Regional cooperation strategy

Pakistan is a member of two regional groups – South Asian Association for the Regional Cooperation (SAARC) and Economic Cooperation Organisation (ECO) – but the intra-regional trade has not been promoted in a substantial manner. Divergent reasons can be attributed to this, which include: political differences, failure to develop requisite infrastructure and protocols for overland trade at a large scale, resemblance in the trade structure, lack of comparative advantage in the capital intensive and high value-added products (normally imported in the region). The following recommendations have been made for enhancing regional cooperation and market integration:

- **Vertical specialisation:** Trade complementarities, within the region, can be developed provided countries achieve vertical specialisation through production-sharing arrangements since the specialisation will enable them to reap economies of scale by concentrating on a specific production process in the value-addition chain, and will also allow the regional trading partners to strengthen their ties too.

- **Joint marketing initiatives:** Most of the South Asian countries are direct competitors for their exports, and these can forge a mutual alliance to protect their interests for the marketing of their competing exports products. It will be useful for the promotion of the mutual economic cooperation in the region, which will allow them to reap benefits of improved export opportunities.

Chapter 16

BALANCED DEVELOPMENT –
Focus on the less developed regions

Efficiency in allocation of resources among competing alternatives lies at the heart of the whole economic decision-making. The challenge of public policy formulation, at any level whether global, international or national, is fundamentally one tool for achieving economic development and poverty reduction in a cost effective and sustainable manner. The sociology of the Less Developed Regions (LDRs) in Pakistan adds a complex dimension to this challenge. These Regions comprise rural areas and Special Areas (Federally Administrated Tribal Areas, Azad Jammu and Kashmir, and Gilgit-Baltistan). Despite several periods of high economic growth, these areas have relatively lagged behind in development.

Typical characteristics of these areas include a difficult terrain, sparsely dispersed population in the form of tiny hamlets, recurring natural disasters, and subsistence agriculture. Women undertake several hours of daily travel for fetching drinking water and fuel wood. Widespread unemployment and lack of access to health and education facilities tend to exacerbate the situation, leading to perpetuation of poverty in these areas.

The 18th Constitutional amendment is a major policy shift for the development of the rural areas, and in consultation with the provincial governments, the federal government agreed to transfer its powers to the federating units along with the funds with the view of dispersing decision-making powers to the grassroots level, and eliminating time lags in the implementation of various policies and programmes. The federal government continues to provide development assistance to the Special Areas.

In successive Five Year Plans, the policy advice in the past has typically advocated a supply side response without providing an environment for community participation in the development process. The accumulated experience shows that the desired results have not been achieved and the nation has been unable to achieve either a sustainable growth trajectory or extricate a large proportion of its population from absolute poverty. The 11th Five Year Plan is an attempt to chalk out a roadmap to address the issues, and its puts forward a strategic framework for accelerated development of these areas.

An approach, integrating the economic (including financial) and social (including environmental and empowerment) dimensions of the federal development, has been adopted.

Three major factors for backwardness are:

- *Location and access:* Terrain, geography, weather, communication, physical and social infrastructure, population and its distribution, air, land and water linkages and attendant opportunities
- *Natural resources endowment:* Productive potential in commerce and agriculture, industry manufacturing, mining, commerce and services and other productive sectors, natural resources and assets and potential for value-addition

- *Institutional frameworks:* Local economies, markets and distribution channels, exchange mechanisms, intermediaries and information asymmetries, contract enforcement and legal avenues, customary practices and quality of social capital

The LDRs, identified for the purpose of accelerated development under the Plan, are:

Federally Administrated Tribal Areas (FATA)	Tribal Agencies (Bajaur, Khyber, Kurram, Mohmand, North and South Waziristan and Orakzai) Frontier Regions (Bannu, DI Khan, Kohat, Peshawar, Tank and Lakki Marwat)
Azad Jammu & Kashmir	Whole AJ&K, except Muzaffarabad and Mirpur cities
Gilgit-Baltistan	Astor, Baltistan, Diamir, Ghanche, Skardu
Islamabad	Rural areas of the Islamabad Capital Territory
Punjab	Layyah, Rajanpur, Muzaffargarh, Lodhran
Sindh	Umerkot, Tharparkar, Badin, Kashmor, Qamber, Dadu, Jacobabad, Sanghar
Khyber Pakhtunkhwa	Batagram, Dir Upper, Hangu, Karak, Kohistan, Lakki Marwat, Shangla, Tank, Buner, Chitral
Balochistan	Pishin, Kila Abdullah, Chagai, Zhob, Loralai, KilaSaifullah, Musa Khail, Barkhan, Ziarat, Kohlu, Dera Bugti, Dera Murad Jamali, Jaffarabad, Jhal Magsi, Kachhi, Bolan, Kalat, Mustung, Khuzdar, Kharan, Lasbella, Turbat, Kech, Panjgur, Gwadar, Noshki, Sherani, Washuk, Harnai, Sibbi, Awaran

Source:*Planning and development departments of the respective provinces and Special Areas*

Post-devolution scenario

In April 2010, the Parliament passed the 18th amendment to the 1973 Constitution. One of the major aspects of the amendment was the balance of power between the centre and provinces*, whi*ch also paved the way for the provincial autonomy. The implementation process of the Amendment devolved various ministries from the centre to the provinces and resulted in redistribution of functional responsibilities of the federal and provincial governments. After the devolution, rural development has been shifted from the centre to the provincial governments; hence development of the LDRs identified for the provinces is the provincial subject, while the federal government will continue to provide guidance, if required.

Since the devolution and decentralisation were largely focussed for the provinces, the federal government is still responsible for the development of the Special Areas, which requires an integrated and inclusive approach for developing the socio-economic infrastructure and promoting the public-private partnerships with optimum devolution and decentralisation of the administrative, financial and policy controls to develop local potential and maximum exploitation of natural resources.

For arriving at an optimum array of policies, programmes, projects and interventions, there are essentially three tiers of delivery channels, mentioned below along with their respective scopes and mandates.

Tier I: The federal government and its agencies: Overall governance and management, national priorities and objectives, security and law enforcement, macroeconomic fundamentals (especially price and monetary stability, fiscal space, large and capital intensive projects)

Tier II: Provincial or local governments and their agencies: Local development priorities and requirements, market research and needs, quantity and quality of services, performance and assessment, programmes and projects, provincial or local enabling and environment

Tier III: Private sector and civil society: Response to private incentive and consumer preferences (especially SMEs), competitive entrepreneurship and risk taking, community-led and demand-driven development, articulation of the micro-level and household priorities, social inclusion, mitigation against rent-seeking behaviour and elite capture

Policy

Since the late 1990s, the national policy dispensation has focused a framework of deregulation, liberalisation and privatisation. There has been wide-ranging paring down and rationalisation of state functions, especially as these relate to direct provision of goods and services. The private sector is being increasingly seen as the engine of economic growth and development. The demand for quality, and where relevant a willingness to pay, have driven the recent trends with the NGOs and private sectors emerging as important players reflecting a major shift in the official approach. The private sector and civil society organisations are being co-opted in financing, management and delivery. In essence, the government sees its role shifting from being a mere provider to manager, facilitator and financier also of development initiatives.

Strategic framework

In view of the foregoing, it is clear that the private organisations and civil society are at the core of reaching out to the poorest in the less and least developed regions and districts of Pakistan. Therefore, the focus will be required for this tier in its overall terms of reference. The dovetailing with Tiers I and II is predicated on entering into the public-private partnerships, and a renewed compact with the federal and provincial echelons of the government. These tiers and levels possess the current and potential comparative advantage in terms of delivering the first and second order preconditions and prerequisites for economic and social development (national and provincial frameworks, policies and programmes). For overarching national priorities to percolate to the village and household grassroots levels, it is essential that micro investments and interventions are delivered through institutional channels whose comparative advantage lies in this work.

The accelerated development of the LDRs is planned to be achieved through an integrated implementation of a four-pronged strategy, consisting of:

- Development of a nested hierarchy of growth centres
- Developing transport infrastructure
- Enhancing rural productivity
- Social safety nets

The role of the government will be limited to the development of inter and intra urban, and rural infrastructure of the primary and secondary nature. The tertiary or community infrastructure will be developed by the communities concerned with the assistance of the civil society organisations and maintained by the communities themselves. Making use of the appropriate levels of infrastructure, developed by the government and communities, the industrial and commercial enterprises will be developed and run by the private sector, where required through easily accessible credit and micro-credit facilities.

Development of growth centres

A large volume of multidisciplinary research, spread over almost a century, testifies that the development of growth centres is the most effective way of overcoming the 'friction of space' and setting in the process of accelerated development in the LDRs. The growth centres are essentially the places or settlements characterised by a high intensity of exchange of goods and services. With a view to facilitating the maximisation of inter and intra district exchange of goods and services and an accelerated industrial development, a three-tier hierarchy of growth centres is proposed to be developed as follows:

- District Growth Centres or 'Growth Poles'
- Tehsil Growth Centres
- Rural Growth Centres

The district headquarters will be developed as the first order growth centres or 'Growth Poles', the tehsil headquarters as the second order and the Union Council as the third order or 'Rural Growth Centres.' The minimum level of productive and service infrastructure by these centres is tabulated below:

Minimum level of productive and service infrastructure in growth centres

Level and type of growth centre	Minimum level of services and infrastructure
District Growth Centres/Growth Poles	• Connected to the national highway through a 3-lane asphalted road • Bus and truck terminals • Slaughter house • Grain, cattle, fruit and vegetable markets • Godowns and cold storages • Tertiary-level health and education facilities • An industrial and trading estate • A sports stadium and four play grounds • Four recreational parks
Tehsil Growth Centres	• Connected to the District Growth Centre, through a 2-lane asphalted road • Bus and truck terminals • Slaughter house • Grain, cattle, fruit, fish and vegetable markets • Godowns and cold storages • Secondary-level health and education facilities • A small industrial estate • 3 play grounds • Two recreational parks
Rural Growth Centres	• Connected to the national District Growth Centre, highway through a 2-lane asphalted road, • Bus and truck terminals • Slaughter house • Fruit, fish and vegetable markets • Primary-level health and education facilities • 2 play grounds • A recreational park

Developing transport infrastructure

One of the characteristics of the LDRs is the lack of access of a large number of human settlements to health and education facilities, employment centres, and the places where an exchange of goods and services can take place. In order to be able to lift the economy of any such area, network of the growth centres needs to be efficiently linked through black topped roads of adequate capacity. The rural growth centres will be linked with villages, and villages with farms through initially un-asphalted, but well-graded roads, topped with shingle or brick surfaces.

Productivity constraints

The rural areas in general, less developed areas in particular, are marred by low productivity, mainly owing to widespread prevalence of diseases associated with unsafe drinking water and poor environmental sanitation. This not only results in substantial health burden, but also in a reduction of the number of days one is able to work for livelihood, education, socialisation or recreation. Moreover, water for irrigation is often carried through earthen channels and flooded in unlevelled farms, resulting in huge losses of this increasingly scarce resource. Many villages are not connected with the national electric grid. People resort to using fuel wood for cooking and heating, and kerosene oil for lighting, resulting in poor internal environment and unabated deforestation. To enhance the productivity, there is a need to overcome the aforementioned constraints.

Social safety nets

A significant proportion of households in less developed areas live below the food security line. These people constitute the poorest of the poor, who are being identified through the administration of the poverty score card, being done under the Benazir Income Support Programme (BISP). An effort will be made to cover all the worst unserved by increasing the BISP outreach.

The devolution provides greater political autonomy, and has redefined the centre-province relations, while the provinces need to improve their delivery capacities. There is a need to set up a mechanism for coordination among the federal and provincial governments in order to avoid the issues emerged after the devolution, as the provincial governments are now responsible for taking initiatives to generate and utilise funds, and disseminate impacts of devolution to the grassroots level. In this regard, the following recommendations are made:

- Enhance capacities of the provinces to generate their own resources in the LDRs
- Capacity-building of institutions
- Integration of the FATA, Provincially Administered Tribal Areas (PATA) and Gilgit-Baltistan with the rest of country
- More administrative powers for the FATA

The accelerated development is envisioned to be achieved through an orchestrated participation of the public and private sector, and organised civil society. Most of the district and tehsil level infrastructure is envisioned to be constructed and maintained under the public-private partnership model. The investment in trade and industry (including agriculture) is, however, expected to be made primarily by the private sector. However, the basic infrastructure will be constructed and maintained by institutions, various organisations and communities.

Development of the Special Areas

The Special Areas are spread over an area of 113,000 square kilometres, having an estimated population of 10.4 million. The socio-economic indicators are substantially lower than the national. In the past, development activities remained less due to various reasons, including law and order situation. By virtue of which the socio-economic indicators (per capita income, literacy rate, enrolment of children in schools and others basic facilities, etc.) lag far behind than the rest of country.

Issues

The following are the major issues:

- Poor system of governance
- Political interference in decision-making regarding development
- Lack of transparency and accountability
- Law and order problem
- Conservative nature of the tribal society with strong resistance to change in some quarters, hindering socio-economic development
- Gender imbalance and less opportunities for women
- Low literacy rate
- Patchy social and physical infrastructure
- Scarcity of professional and skilled labour
- Capacity constraints exist within the ranks of service providers
- Few indigenous options for entrepreneurial activity, coupled by severely limited employment and income-generation opportunities
- Occurrence of environmental degradation with deforestation, intermittent drought and groundwater depletion in the absence of regulatory framework for environmental management

Strategies

The development strategy has been designed to focus on:

- Development, improvement and upgradation of the economic Infrastructure
- Natural resource management through participatory approach
- High priority for education, health, and expansion through computer literacy programmes
- Substantial increase in allocation for productive sectors to achieve self-reliance, and enhance income and revenue
- Self-sufficiency through exploitation of hydel power generation

- Tourism development
- Mineral development
- Focus on small farmers as the real back-bone of the rural economy and ensure their access to knowledge, inputs and market
- Clean drinking water and sanitation facilities for all
- Capacity-building and skill enhancement
- Gender mainstreaming and women empowerment
- Public-private partnerships
- Existing Basic Health Units to be strengthened, and where possible leased to private medical practitioners in the public-private partnership mode
- Optimum devolution and decentralisation of administrative and financial powers
- Reform the agriculture credit system for ensuring provision of at least 50 per cent of the total to small farmers, while priority be given to women

Action plan

The development efforts will be supplemented by additional federal programme in various sectors, such as the area development programmes, power generation and education improvement projects, agricultural extension programmes and schemes for improvement of the water courses, safe drinking water for all, etc. Moreover, the China-Pakistan Economic Corridor (CPEC) will significantly impact the development of the LDRs.

Financial

An amount of Rs215.6 billion will be provided for development of the Special Areas during the Plan period. Administrations of the region concerned have been authorised to allocate funds for respective sectors according to needs. In addition to these funds provided by the federal government to the administration, there are various programmes being implemented under the federal ministries and divisions for an accelerated development of the Special Areas. Agency-wise allocation is given below:

Five-year (2013-18) financial phasing for the Special Areas

(Rs million)

Region	Allocation		Proposed allocation (Estimated)			Total
	2013-14	2014-15	2015-16	2016-17	2017-18	
AJ&K	16,500	10,500	11,500	13,000	16,000	67,500
FATA	18,500	19,000	19,000	21,000	24,000	101,500
G-B	8,200	8,200	8,200	10,000	12,000	46,600
Total	**43,200**	**37,700**	**38,700**	**44,000**	**52,000**	**215,600**

Special development initiatives

The following are the initiatives being considered under this head:

- The FATA Sustainable Development Plan 2006-2015 of an estimated worth Rs2 billion has been initiated with an objective of mainstreaming the tribal areas into the social, economic and institutional fabric of the country.
- A special development package for the AJ&K worth Rs20 billion during the Plan period will be implemented to accelerate development.

It is emphasised that obtaining the maximum 'return on investment' of scarce national resources, both qualitative and quantitative, has been the essence of the current Plan. A focus on existing and potential capacities and capabilities has been given to obtain maximum impact in terms of socio-economic development of the Special areas. Targets for the selected indicators in the LDRs have been given as Annexure-I.

Annexure-I

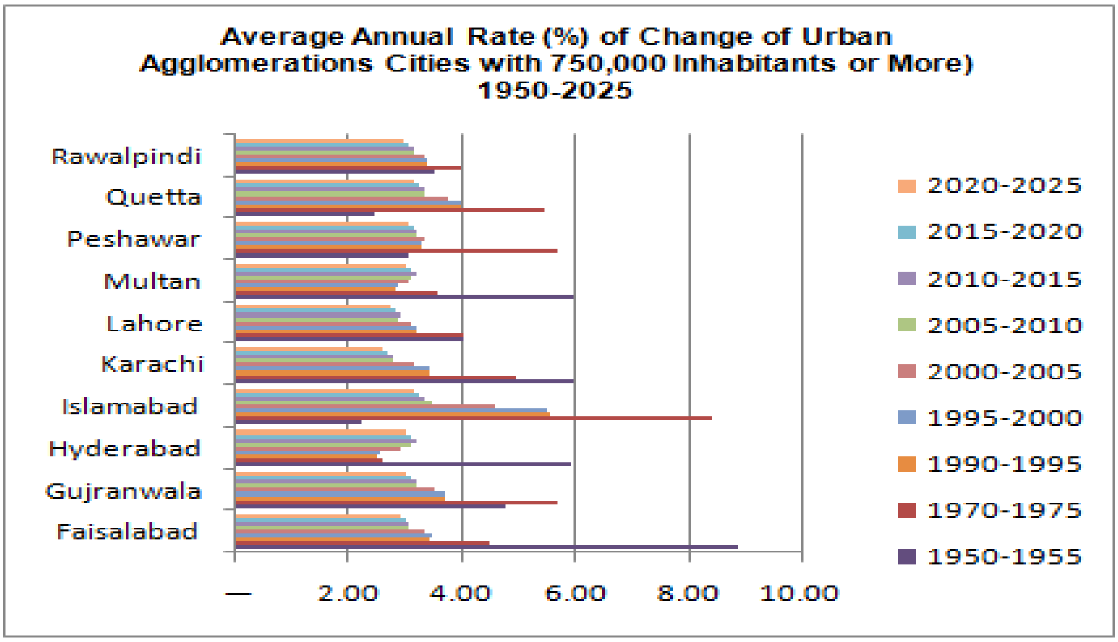
Targets for the selected indicators in less developed areas

Indicator	FATA		AJ&K		G.B	
	Benchmark	Target 2018	Benchmark	Target 2018	Benchmark	Target 2018
Literacy ratio (both sexes %)	24	28	65	75	50	60
Male literacy ratio (%)	36.6	41	76	85	62	65
Female literacy ratio (%)	10.5	13	54	65	38	45
Road density (per sq km)	0.24	0.25	0.48	0.5	0.06	0.1
Cultivated land (%)	8.3	10	13	15	1	5
Area under productive forest (%)	1	1.25	12	15	9	10
Unemployment rate (%)	-	-	6	4	18	10
Population per hospital bed	2,571	2,427	1,801	1,700	-	-
Population per doctor	6,728	4,734	5,685	4,000	-	-
Rural water supply coverage (%)	43	51	67	79	55	65
Electricity coverage (%)	62	65	89	93	75	80

Chapter 17

PHYSICAL PLANNING AND HOUSING

The urbanisation and economic development are mutually interdependent. The demographic trends of Pakistan show that its population has been urbanising pretty steadily with an average annual urbanisation rate being beyond four per cent since 1951. It is estimated that by 2025, more than half of the population will be living in the urban areas. In 1950, when the economy was predominately rural, only 18 per cent of the country was urbanised, which reached 35.9 per cent in 2000. As urban-based economic activities expanded, a proportion of the rural population found an incentive to shift to towns and cities. The spatial pattern of urbanisation has been haphazard. About 50 per cent of the urban population is concentrated in ten major cities, that is, Karachi, Quetta, Hyderabad, Multan, Lahore, Faisalabad, Rawalpindi, Gujranwala, Islamabad and Peshawar. This has relegated a large number of other urban centres to a status of under development.



Source: World Urbanization Prospects: The 2011 Revision

However, positivity of the urbanisation remained elusive due to inability of towns and cities to manage their expansion, which was compounded by high population growth. In particular, the development of infrastructure has not kept pace with the urbanisation. As a result, there is a huge deficit in all sub-sectors including housing, water and sanitation, transport, utilities and road networks, which has adversely affecting living conditions and economic progress.

Situational analysis

There is a severe housing shortage, and about nine million housing units are required to meet the present demand. The proportion of rental housing in the urban areas was about 22 per cent in 1998 (as per census of the same year). It is estimated that demand for rental housing is increasing at a rate of eight per cent per year. The tenant-favouring rent restriction laws are a major hurdle in the growth of the rental housing projects. The supply is extremely weak, meeting about one-third of the requirements. Most of these houses are being built by the private sector, which tend to exclude the coverage of low-income groups. The public sector housing schemes are few and take very long to develop. In addition, the quality of housing is generally poor. 30 per cent of the housing units are old and without permanent roofs, while these need replacement and improvements. The National Housing Policy 2001 prescribed the role of the government as a facilitator for the housing sector. Non-availability of affordable and serviced land is the principal constraint for housing. The growing population and expanding economic activities in towns and cities has generated an ever-increasing demand for basic urban services, infrastructure facilities and housing. The present unplanned and haphazard development pattern in most of the cities is continuing unabated. Very few cities have professionally managed traffic, waste disposal, sewage collection, safe drinking water, and pollution control systems. On the other hand, income of the City District Governments is limited and these have to heavily rely on the provincial and federal governments.

Issues and challenges

Pakistan lacks a National Spatial Planning Policy and Framework at present, and the inadequacy of the Urban and Regional Planning System has contributed to the deteriorating conditions in towns and cities. The followings are the major issues.

- Imbalanced urbanisation
- Lack of national land-use plan and policy
- Ineffective institutional framework to implement the urban master plans
- Inadequate funding for physical planning and housing
- Lack of professionals town planners
- Poor quality and coverage of the municipal infrastructure
- Lack of social infrastructure and recreational opportunities
- Shortage of around nine million housing units
- Weak enforcement of hiring by-laws
- Intrusion of interest groups and land grabbers
- Insufficient financing facilities for housing
- Inadequate urban transport facilities
- Lack of traffic planning and management
- Inadequate options for raising municipal finance
- Poor governance infrastructure for urban management
- Inadequate waste management resulting environmental degradation

Objectives

The overarching vision is to develop smart cities as the building blocks of a prosperous Pakistan. The aim of the physical planning and housing sector is to support cities as well as regions for generating growth. The salient objectives are to

- manage urbanisation and enable urban areas and regions to contribute their full potential through regeneration policies and plans at city and regional levels
- pursue sustainable urban development making cities smart and functional in all dimensions, that is, physical, economical, social, environmental and administrative
- develop synergies amongst national policies, strategies, provincial programmes and local regulations and by-laws and to promote a coherent urban and regional pattern in the country
- develop national infrastructure to support urban and regional development
- create new knowledge for understanding and resolving intricate urban and regional development issues
- enable local governments to financially and administratively manage towns and cities through their own resources and private sector involvement, and
- promote green, energy efficient and affordable housing for all, including up-gradation of the slum areas and Katchi Abadis.

Strategies

The following strategies have been outlined.

- A National Spatial Strategy to focus on managing coherent urban and regional settlement
- Reduce municipal and social infrastructure deficit
- Design and enforce city development plans
- Improve coordination among the federal, provincial and local entities
- Establish urban development fund
- Encourage the private sector to provide house mortgage facilities for overcoming housing shortage by 50 per cent
- Improve enforcement of the housing and hiring by-laws
- Enact consumer, market and environmental friendly laws, zoning regulations and procedures to promote housing for low and middle-income groups
- Enforce rules and regulations to prevent speculation property prices
- Promote public-private partnership for housing and new urban centres on the Build Own Operate and Build Operate Transfer (BOO and BOT) basis
- Reduce research and awareness gap for the urban and regional planning

Initiatives and action plan

A comprehensive study will be carried out for the preparation of the National Spatial Strategy to identify national policies relating to urbanisation, hierarchy of settlement, land-use, environmental assets, trade and transport networks and water, energy and communication infrastructure. Annexure-I enlists various schemes and programmes to be initiated, along with the budgetary allocations. The provincial and district governments will be encouraged to prepare spatial plans in their jurisdictions. The focus will be on the following areas.

- Development of vertical expansion –a high-rise building for residential and commercial purposes
- Establishment of the Housing Information System (HIS)
- Harnessing the full potential of the planned urbanisation by adding connectivity and modern infrastructure to develop creative, smart, and green cities
- Zoning to cater to the growing demand for commercial and parking places in large urban centres
- Developing additional growth centres around small and medium sized town and cities, based on their potentials (social and physical infrastructure, job opportunities), especially along the National Trade Corridor
- The private sector will be envisaged to provide housing facilities, including safe drinking water and disposal of water.
- To address the shortage of research and objective analysis in the field of urban and regional planning, an 'Urban and Regional Policy Research Centre' will be established for feedback and effective policy formulation and implementation.
- Katchi Abadis will be converted into low-income housing and financial support proceeded for the purpose.
- The urban environment will be protected through enforcement of regulation to make building more energy efficient.
- Housing-for-all will be launched by addressing the housing deficits and improve liveability standard in towns and cities.
- Seek economic recovery as the sector possesses a great potential for generating employment opportunities and expanding industry and trade activities – These housing initiatives will be expanded to build nearly 500,000 housing units in different urban areas for the target groups.
- The land supply in the urban areas will be improved by creating urban land through urban renewal and land banking techniques, and enforce the housing regulations under the National Housing Policy.
- Opportunities of housing finance and mortgages will be created through enabling the House Building Finance Company Limited (HBFCL) for bulk financing, mobilising banking and non-banking financial institutions, attracting the private sector investments, encouraging major cities to extend their municipal limits and creating the Urban Development Fund.

Annexure-I

PLAN 2013-18
(Federal and provincial)

(Rs billion)

No.	Name of the scheme and programme	Cost
1	Preparation of the National Spatial Strategy	1
2	Establishment of the National Urban & Regional Policy Research Centre (NUPRC) and its research and development projects	5
3	Preparation of provincial and district spatial plans	5
4	Preparation of the city development strategies (including urban regeneration) and business plans of major cities by the respective provincial governments	5
5	Establishment of the Urban Development Fund for implementation of city development strategies and business plan by the respective local governments Ongoing schemes = 200 New schemes = 150 Total = 350	321
6	Capacity-building urban planning and development institutions	5
7	Energy-efficient, green and affordable housing programmes including construction of 1,000 clusters of 500 houses each for lower-income families in a public-private partnership mode; and up-gradation of slum areas and Katchi Abadis	91
8	Construction of government buildings, including development of the Federal Capital Territory	45
	Total:	**478**

Chapter 18

INSTITUTIONAL REFORMS AND GOVERNANCE

The word 'Governance' refers to the exercise of political, economic and administrative authority for managing affairs of a nation. It comprises complex mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights and obligations, and mediate their differences. In basic terms, it denotes interplay of the state institutions, markets and civil society and a set of processes that deliver entitlements, services and rights to citizens.

The notion 'good governance' guarantees existence of the pluralistic frameworks ensuring that responsibility is jointly shared by players in the public and corporate private sectors, and the civil society by addressing the issues of accountability, transparency, participation, openness, rule of law and predictability. Improved governance contributes to economic growth and poverty reduction. As growth generates income, the good governance ensures that the citizens, especially the poor, share the benefits of the economic progress in an inclusive and equitable manner. A key responsibility of the state is to create conducive political, legal and regulatory environment for building individual capabilities and encouraging private initiatives. Furthermore, effective political and administrative structures and a robust civil society are essential for promoting the democratic governance as these facilitate peoples' participation in economic, social and political activities.

Review of the existing programmes

The government has undertaken a number of initiatives in line with the priorities set in the Medium-Term Development Framework (MTDF) 2005-10 as well as during the non-Plan period. An amount of Rs64 billion was utilised for the judiciary, Federal Board of Revenue, Auditor General's Office, Statistics Division and Police, and institutional changes in the judiciary and trainings activities of officers and officials within the country and aboard to augment their aptitude and skills. Some major initiatives of the governance sector are as under:

Public sector management efficiency

Tax administration reforms

Tax collections are not enough to meet expenditure requirements, both current and development activities of the government. About 10 per cent tax-to-the-GDP ratio is stagnant over time. The reforms were introduced for promoting voluntary tax compliance through enhanced taxpayers facilitation and provision of incentive packages to the Federal Board of Revenue (FBR) employees. With a view to broadening the tax base, document the economy and improve efficiency of the tax administration, the tax sector reforms in the following areas have helped in enhancing the tax collection capacity of the FBR:

- Fully Automated Customs Clearance Systems (PACCS) at Karachi for e-filling of the Goods Declaration (GDs)

- Improving tax-to-GDP ratio to 13-14 per cent in the next five years
- Reorganisation of the FBR and its field offices on functional lines
- Improved relations and business-friendly environment
- Introduction of the self-assessment system in income tax, federal excise, and customs
- Simplification of the tax laws and procedures
- Reduction in the number of litigation cases and introduction of a mechanism of alternate dispute resolution
- Taxpayers' education and facilitation
- Setting up of the Model Custom Collectorates

The Tax Administration Reform Project was started in 2003 and closed in 2011, which was carried out at a cost of Rs6.5 billion, including foreign aid of Rs5.433 billion for infrastructure development, end-to-end automation of the business processes and human resource development. In order to achieve the objectives, the FBR has established three large taxpayer units and 13 regional tax offices. With the help of reform measures, the registered persons as the sales tax payees have increased from 100, 000 in 2002-03 to 209,000 by the end of 2012-13, showing an increase of about 109 per cent. On the income tax front, the return filers have increased from one million in 2002-03 to 3.5 million during 2012-13, an increase by 230 per cent. Another marked achievement of the FBR has been the disposal of pending appeals related to both direct and indirect taxes. The maximum tariff, which was 150 per cent in the 1980s, has been gradually reduced to 25 per cent.

Improvements in audit and accounts

For this area, the Auditor General of Pakistan has launched phase-II of the 'Project for Improvement of Financial Reporting and Auditing (PIFRA)' at a revised cost of Rs10.365 billion, including a foreign assistance of Rs8.9 billion. A reform programme is being implemented to separate audit and account functions, provide effective accounting and reporting system in line with the international best practices, strengthen financial management practices and increase the impact of the development programmes, provide basis for enhancing public sector accountability through financial monitoring and control, and produce timely and reliable information for decision-making and policy formulation. Implementation of the New Accounting Model (NAM) is progressing smoothly. So far 231 Financial Accounting and Budgeting System (FABS) out of 240 District Account Office (DAO) sites have been established. Four FABS out of four departmentalised account offices, and 53 System Application Programme (SAP) competency centres have been set up.

Public sector capacity-building

The Public Sector Capacity-Building Project was launched to improve efficiency of the civil service. The total cost of the Project was Rs3.5 billion, including a foreign assistance of Rs3.2 billion. The Project had sponsored significant human resource development reforms in the government. The Pakistan Administrative Staff College and four National Institutes of Public Administration (NIPAs) were restructured, and replaced by the National School of Public Policy (NSPP). The focus of training has now shifted from the public administration to supporting effective policy formulation and implementation. Under another component of the Project,

4,657 officers benefitted from foreign and local trainings, while 36 consultants furnished technical assistance to the government and 30 studies were conducted.
The government established the National Commission for Government Reforms in April 2006 to propose a set of structural reforms for good governance. The Commission was mandated to review government structures, civil service and government processes at all levels of the government, that is, federal, provincial, and district, and make recommendations for improving efficiency and effectiveness of the public sector. This was done in consultation with all stakeholders to initiate a reform process, which will improve service delivery and encourage professionalism. The Commission has published a two-volume report on 'Reforming the Government in Pakistan' in May 2008. Implementation of the proposals is still pending as the finalisation of the recommendations was made when the political transition was taking place. However, the Commission and its report provide a useful guide for reforms.

Access to justice

The Access to Justice Programme (AJP) was launched at a cost of Rs21 billion for making improvements in the judicial and non-judicial legal services, security and equal protection of law to citizens, and ensuring greater transparency and accountability of the judiciary, police and administrative justice institutions. Major efforts have focused on reduction in backlog of the pending cases and institutional delays, particularly to help the poor and vulnerable segments of the society. Commercial benches have been established for quick disposal of litigation as a pro-investment measure.

In spite of some bottlenecks, significant policy reforms under the AJP since 2002 include:

- 786 development schemes have been launched pertaining to infrastructure development and capacity-building, and out of which 560 schemes have been completed so far.
- Implementation of the delay reduction programme was carried out, which was a part of the judicial reforms in 18 model districts across the country through case inventories, improved process serving, monitoring and inspection mechanism, and targeted disposals.
- The annual judicial conferences at the national, provincial, regional and district levels have culminated in raising performance of the superior courts since 2003.
- Laws affecting ordinary citizens have been enacted and amended to facilitate dispensation of justice, in particular for the poor and vulnerable segments of the society. These include: contempt of court, freedom of information, defamation, habeas corpus, family disputes, operationalisation of the Anjuman Musalihat Court inspections, ombudsman and alternate dispute resolution.
- Under the police reform, enactment of the Police Order 2002 includes provision of the Public Safety Commissions, functional division of the investigation from watch and ward and prosecution from investigation, internal and external complaints redressal mechanisms, and the District Criminal Justice Coordination Committees.
- Payment of the judicial allowance to augment quality of justice – Utility allowance has been allowed to the judicial officers in Sindh and Balochistan.
- Institutional strengthening and capacity-building measures relate to automation of the justice sector institutions including bar councils, training and capacity-building and public awareness campaigns for citizens to learn about their rights and entitlements

- Performance-based incentives to support adoption of delay reduction procedures and separation of civil courts and criminal courts
- Separation of judiciary from executive under the National Judicial Policy 2009

Public information and statistical management

The National Strategy for Development of Statistics (NSDS) is being implemented stepwise since 2013 to improve capacity of the Pakistan Bureau of Statistics (PBS) in collection, processing and dissemination of the statistical data to support evidence-based decision-making. During the Plan period, as a continuity of the process, the following activities will be conducted to ensure improvements in the key areas.

(a) *Censuses and Surveys:* The sixth Population and Housing Census 2016, Combined Agriculture Census 2014 and Mouza Census 2018, Pakistan Social and Living Standards Measurement (PSLM) Survey, Labour Force Survey and Pakistan Demographic Survey will be conducted.

(b) *IT Infrastructure and GIS:* Revamping of the IT infrastructure of regional offices and Geographical Information System (GIS) will be done, while eight GIS Labs have been established, which are functional in the PBS, Islamabad, Peshawar, Lahore, Multan, Karachi, Quetta, Muzaffarabad and Gilgit.

(c) *Data Collection and dissemination:* The Plan will revisit and harmonise layout and structure of the publications for branding 'Statistics Pakistan' logo, and layout throughout the PBS will be kept constant in order to create corporate identity and brand image. Memorisation with the users will be increased through an effective PR. Effectiveness and timeliness of the data collection, management and dissemination through introduction of modern technology and internationally recognised methodology will be improved. Credibility of data of the PBS will be improved by giving functional autonomy, and implementing international standards.

(d) *National Accounts and Economic Statistics:* The Plan will address key gaps in the economic and social statistics, quality and coverage of the national accounts through the National Economics Statistics Development Plan (NESDP) by applying rebasing of the National Account from 2005-6 to 2015-16, Census of Manufacturing Industries, revisit National Standard Classifications and Expand Business Register – FBR, SECP, EOBI, NEPRA, SNGC, SSGC, and provincial Directorate of Industries, etc.

(e) *Human Resource Development:* Professionally competent workforce and a highly professional management, strong research and analytical capabilities will be developed through an effective human resource development, and establishing a new training and research institute in Lahore.

Other major initiatives

The following other major reform initiatives have been launched by the government to improve governance.

- Monetisation of official transport for entitled officers (BS-20 and above) including MP scales
- Limits imposed on borrowings of the federal and provincial governments through amendments in the State Bank of Pakistan Act
- Austerity measures for expenditure adopted

- Supplementary grants limited to 10 per cent of the budget appropriations with mandatory cabinet approval
- Permanent committee of the federal and provincial Finance Ministers constituted for budgetary oversight through the 18th Constitutional amendment
- Substantial progress has been achieved in reconstitution of the professional Board of Directors and turn-around plans.
- Power sector reforms are underway, which include: improved governance framework, ensure autonomy to the DISCOs, GENCOs and NTDC through dissolution of the PEPCO, sustain power sector financing (resolving circular debt), improving efficiency of generation, transmission and distribution system, strengthen regulatory role of the NEPRA and improve energy mix.
- Restructuring of the PSEs, other than of the power sector, is also underway.
- Achieving economic efficiency through the devolution which includes: transfer of the concurrent list to the provinces under the 18th Constitutional amendment and equitable resources transfer to the provinces under the 7th NFC Award.

In spite of the above interventions, the governance indicators in Pakistan are not very encouraging. A comparative analysis of the World Bank Group report 2013 on the Worldwide Governance Indicators is given below.

Indicator	Year	Governance score -2.5 to +2.5			Percentile rank 0-100		
Country		Pakistan	Korea	India	Pakistan	Korea	India
Voice and accountability	2002	-1.22	0.70	0.36	14.42	68.75	58.17
	2007	-0.97	0.66	0.43	20.19	67.79	59.13
	2012	-0.87	0.69	0.35	23.70	69.67	58.29
Political stability and absence of violence and terrorism	2002	-1.70	0.17	-1.24	5.77	48.08	15.87
	2007	-2.43	0.53	-1.15	0.96	62.98	13.94
	2012	-2.68	0.17	-1.25	0.95	51.66	11.85
Government effectiveness	2002	-0.39	0.84	0.13	14.46	79.51	51.71
	2007	-0.46	1.23	0.11	39.32	84.47	56.80
	2012	-0.79	1.20	-0.18	23.44	84.21	47.37
Regulatory quality	2002	-0.79	0.80	-0.38	21.08	75.00	40.20
	2007	-0.50	0.92	-0.27	32.04	78.64	44.17
	2012	-0.73	0.89	-0.47	24.88	77.03	33.97
Rule of law	2002	-0.75	0.91	-0.04	28.23	77.00	51.20
	2007	-0.88	1.02	-0.11	21.05	82.78	55.92
	2012	-0.91	0.97	-0.10	18.96	79.62	52.61
Control on corruption	2002	-0.92	0.47	-0.50	21.95	69.76	38.05
	2007	-0.74	0.52	-0.42	24.76	72.62	40.78
	2012	-1.06	0.47	-0.57	13.88	70.33	34.93

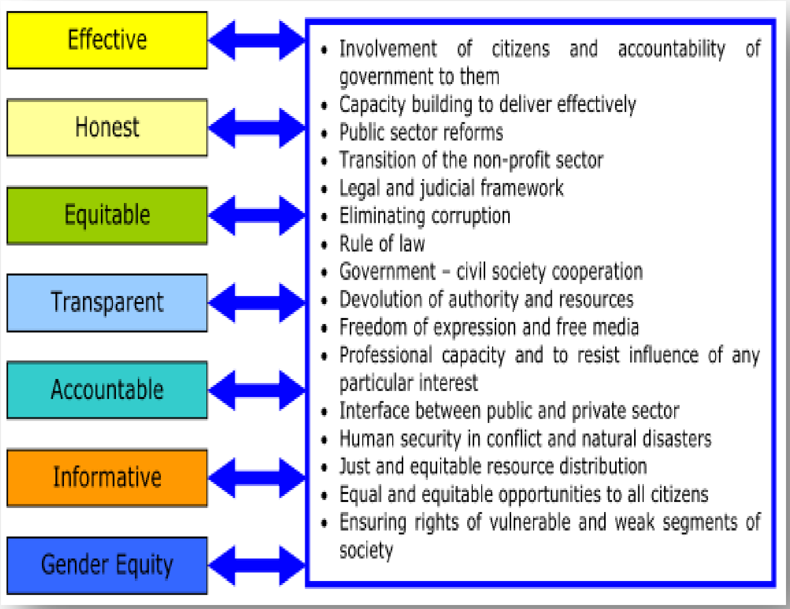
Governance issues and reasons for low down progress

A broad range of activities were undertaken to improve governance during the last nine years. While considerable progress has been made in a number of areas, major governance challenges persist. Some of these are:

- Ineffective management of resources, disparities in the pace and level of development across provinces and districts
- Denial of the basic needs of food, water and shelter to a substantial proportion of the population and poor service delivery mechanisms
- Lack of transparency and accountability in many facets of the state machinery, particularly those that have an interface with the public
- Weak performance management delivery mechanism
- Lack of credibility – the gap between the policy intent and development results – of public service institutions
- Weak rule of law manifested through deteriorating law and order, ineffective investigation system, expensive, unfriendly and opaque justice system, tax-evasion, weak regulatory frame-works and failure in getting timely justice
- Existence of a significant number of voiceless poor with little opportunities for participating in decision-making and local governance
- Weak Local Government System
- Deterioration of physical environment in the urban and rural areas
- Corruption in all sectors, especially in the Public Sector Enterprises (PSEs)

Plan strategy

The agenda of the present government emphasises improving governance, strengthening institutions, fostering markets and initiating reforms in the judicial system, civil service, systems and procedures, tax administration, procurement, financial management, enforcing property rights, and the PSEs. During the Plan period, the governance reform scheme – with objectives of sustained high and inclusive growth, improved economic fundamentals, competitiveness and bridging various divides that continue to fragment society – can only be achieved if there is a significant improvement in the quality of governance.



With a comprehensive reform agenda, the governance indicators are expected to improve during the Plan period. The strategic focus of good governance covers the following distinct dimensions for an effective service delivery:

- Strengthening local government system to enhance delivery of the critical municipal services

- Delegation of powers under the 18th Constitutional amendment from provinces to districts to tackle key issues of health, education and others in a more effective and responsive manner
- Ensuring balance development and regional equality among the provinces
- Capacity enhancement of the provincial governments to implement policies and plans through improved service delivery
- Establishing the Performance Management Delivery System for an effective monitoring of performance of the ministries and divisions
- Strengthening participatory approaches and local governance structures by involving civil society and other stakeholders in the design and implementation of policies, programmes and projects, with capacity-building of involved agencies – each ministry and division to ensure participation of all stakeholders in the planning, designing and implementation processes
- Addressing systemic problems that undermine the efficiency of legal, judicial and law enforcement institutions – Judicial reforms under the National Judicial Policy to bolster the delivery of justice
- Addressing corporate governance issues and improve the public-private interface in a manner which protects public interest as well as minimises private transaction costs
- Strengthening the law and regulatory framework for an effective implementation of economic policies
- Improving public sector management by (a) streamlining revenue administration, (b) strengthening public financial administration, (c) implementing e-governance initiatives, (d) public sector capacity-building and civil service reforms, covering professionalisation of civil services and qualitative improvements through continuous training and skill upgradation, (e) procedural reforms to simplify government processes and revising archaic rules, (f) enhancing the quality and coverage of data and statistics, (g) strengthening policy research functions within the government, and (h) establishment of performance management system
- Strengthening law enforcement agencies through capacity-building to improve law and order; ultimately improving investors' confidence as well
- Reducing corruption by introducing transparent, open and accountable financial and administrative mechanism in all fields
- Improving implementation effectiveness, at the sectoral, policy coordination and programme levels for key development outcomes with a particular focus on monitoring and evaluation of outcomes of the Public Sector Development Programme (PSDP)
- Strengthening and enhancing the role and capacity of the Parliament and parliamentary standing committees and democratic governance

Local government system

The decentralisation is promoted for an increased administrative efficiency, equity, service provision, participation and democratisation, national cohesion, local empowerment and poverty reduction and others. The strategy for the devolution process aims to correct the governance patterns marked by centralised and top-down decision-making, haphazard planning, weak accountability and financial management, and lack of transparency and citizens' participation.

During the Plan period, the Local Government System will be effectively devolved to the districts, which will be responsible to develop strategy on the following guidelines.

- All local governments are to function within the provincial framework in the aftermath of the 18th Constitutional amendment – 'absolution of concurrent list'. Each provincial and regional government in Pakistan will ensure that the Local Government System conforms to the provisions of the Constitution, in particular to its Article 140-A and devolve to the local governments the administrative, financial and political power for enabling them to deliver services to the citizens in a cost effective and transparent manner. The word 'devolve' must be focused and be understood in its true perspective as Article 140-A has been retained in the 18th Constitutional amendment with consensus of all political parties.
- The provincial governments are to ensure service delivery through policy, regulation, guidance, incentives, oversight and monitoring of outcomes. The local government laws will incorporate all the principles of the local governance as stated in the Commonwealth Aberdeen Agenda to which Pakistan is a signatory. The principle of subsidiarity can be the guiding theory for assigning the functions to the local governments with adequate financial autonomy
- Each local government will prepare its citizens-cum-clients charter for timely provision of the services. There will be effective control mechanisms for ensuring greater transparency and local accountability.
- Development authorities, the Public Health Engineering Departments, Local Government and Community Development Departments, and Water And Sanitation Agencies will be devolved to the local governments.
- Functions of the local government functions must not be performed by the provincial government or any other agency and body. As far as possible, vertical programmes or parallel structures for execution of local government functions will be phased out.
- The local governments are fully empowered to take any administrative and financial decisions relating to their functions. The local councils will notify their own bye-laws relating to delegation of the financial and administrative powers. The local government finance system will be based on incentives for promoting local level taxation and collection of taxes. The machinery for tax collection will be under the control of the local governments.
- The NGOs and civil society will assist in developing capacity of the local governments and facilitate these in improving service delivery.
- The local government elections will be held on party basis. These polls will be held along with the elections of the national and provincial assemblies. There will be a continuity of the local governments. The heads of district and tehsil-level local councils will be elected directly.
- The service structures for the local governments will be reviewed. The postings and transfers of the local government employees will be the exclusive domain of these dispensations.

- The capacity of local government employees will be enhanced to provide effective services to citizens and communities.
- The accountability mechanism of the local governments will ensure audit of the local governments by the Auditor General of Pakistan. The systems of inspections will be aligned to the standards set by the Public Procurement Authority.
- The local governments will ensure community participation in local planning and development.
- The local governments will improve enforcement mechanism for implementation of the local and special laws effectively.
- Inspection and monitoring mechanism will be established to ensure effective resource utilisation.

Participatory approach

Involvement and participation of people at all stages of planning, implementation and monitoring is a pre-requisite for good governance. People must feel a sense of ownership of policies and should participate in its planning and implementation at all levels of government. This can be achieved through participatory approach involving self-help groups, women groups, user groups, associations, trade unions, rural support organisations and civil society. The participatory approach in economic and social development includes the following strategic elements:

- Involving voluntary organisations in planning and implementation process to enhance interface with the public – Labs will be established in each ministry and division for ensuring participation of all stakeholders in planning and implementation process.
- Developing core competencies for participatory governance and professionalism in the voluntary sector will be done.
- Broaden the base and scope of volunteerism by encouraging its growth in districts and regions where such structures are weak. Such efforts will also aim to create an enabling environment for greater involvement of the voluntary sector for the marginalised and the excluded groups.
- Building appropriate databases, carrying out documentation, research and dissemination of innovative development models evolved by voluntary organisations will be ensured.
- Initiating a policy process, whereby the financial and social mobilisation for contributions of the civil society are harnessed, to improve the national development process.

Rule of law: Police and judiciary

The Plan considers police and judiciary to be the key agencies, which ensure the rule of law, and work as the bedrock of democracy and development. Accordingly, capacity-building of the police and judicial systems has been accepted as a legitimate activity for the Plan funding. Over the years, increased politicisation and corruption, overstretched duty hours and low policing intensity have only contributed to the decline in police credibility. Under the Plan, the government intends to re-establish the rule of law and improve public perception through effective delivery of justice and public safety services. There is a fundamental need to improve the criminal justice administration system. Efficacy of the criminal justice system will also help in counter-terrorism drive of the government. During the Plan, special attention will be given to enhance the capacity of police, prosecution and public defenders' system under the new legislation passed by the Parliament. The police and prosecution reform will help achieve improvements in the conviction rate, speedy disposal of the criminal cases and enhance citizen trust in the justice system. A new security policy will be prepared to tackle the issue of terrorism.

Access to justice is an important part of the governance reform agenda of the government. During the Plan period, efforts will be made to strengthen the judicial reforms undertaken earlier. In addition, the following areas will also be addressed.

- Provide better working environment for bar and litigant public, lawyers' chambers, bar rooms, libraries and special courts
- Introduce jail reforms and amendment of rules for reformation of prisoners, arrange special training sessions for jail staff and improve health facilities for prisoners and posting of officers of other cadres on rotational basis for jail administration
- Ensure independence of the prosecution system and strengthen forensic facilities
- Implement the National Judicial Policy 2009 in letter and spirit to consolidate and strengthen the independence of judiciary
- Introduce institutional reforms by: (a) removing the bottlenecks and duplication in the implementation of law with special reference to drug and human trafficking, and accountability law, (b) strengthening the Bar, (c) providing training to judges and police, (d) automation and e-governance of the court system, (e) ensuring judicial, police and Bar accountability, (f) depoliticisation of the police, and (g) police, prosecution and judiciary to be merit-based and number be increased
- Strict compliance of the existing laws
- Implementation of the Islamic laws
- Discouragement of the adjournment culture and time limit fixation for decision of cases
- Promotion of the corporate bodies of lawyers
- Protect clients by providing them awareness about their rights and legal support
- Thana culture be eliminated and introduction of the citizen-police liaison system
- National and provincial databases of criminals in coordination with the NADRA
- Public-friendly criminal justice system
- Reduce workload in courts by establishing methods of alternative dispute resolution
- Adoption of new security policy to tackle terrorism

Public sector management

Enhancing public sector management efficiency will be a key focus of the Plan. Reforms envisaged for the public financial sector, revenue administration, capacity-building, data and statistics, E-governance and corruption are outlined below:

Public financial sector

Under the ongoing PIFRA project, substantial progress has been made in the four areas of reforms: financial and budgeting reform, auditing, human resource development and change management. Efforts will be made for the sustainability of these reforms during the Plan period. Further, the office of the Auditor General of Pakistan will be strengthened to carry out performance, management, process, programme and financial audit by giving wider powers for audit. Professional auditors will be appointed to carry out broader audit functions. The DAGP has already taken several initiatives, including improvement of the legislative empowerment, financial and organisational independence, etc., which are at various stages of implementation or consideration by the government. Similarly, the audit methodology and quality assurance mechanisms have been improved and deployed. The scope of the AGP auditing will be expanded to the PSEs by reviewing relevant article(s) of the Constitution.

Revenue administration

The main emphasis of the tax administration reform is on promoting voluntary tax compliance through an enhanced level of taxpayers' facilitation. In the long-run, these administrative reforms will also enable tax administrators to effectively tackle delinquent taxpayers through a system of audit and penalties. During the Plan period, an earlier initiated reform agenda of the Federal Board of Revenue (FBR) to enhance its revenue collection effort and service standards will be completed, which will enhance the revenue collection through broad-based tax system by using IT data, reducing tax ratio and exemptions gradually, simplifying rules, accountability, transparency, integrity, publication of annual tax directory and provide transparent and high quality tax services. Briefly, the FBR reform strategy has three main planks of reforms, that is, policy, administrative and organisational.

Capacity-building and public sector reforms

The poor public management stems in part from low level of human resource development and weak institutions. A major effort has been envisaged as part of the Plan in the public capacity-building to produce a competent, accessible and motivated civil service, which is accountable and responsive to the changing socio-economic needs of the people. The government plans to implement recommendations of the National Commission for Government Reforms, especially to enhance the efficiency of education, health and revenue administration. The Parliamentary Standing Committees and other organisations overseeing and regulating financial and economic activities will be strengthened. A Performance Management Delivery Unit will be established in the Ministry of Planning, Development and Reform to monitor performances of development activities of the ministries and divisions.

The civil service reforms will be undertaken to enhance capacity of the public sector for proactive public policy, strategic vision in specialised fields and effective decision-making. In this regard, a project URAAN has been launched to reform the civil service. This will require restructuring, capacity-building and professional development with compensation linked to responsibility and performance, reforms in the areas of performance evaluation and review of the pay scales. The good governance has to be ensured in the PSEs. The Enterprises are losing about Rs400 billion per annum. Fast track privatisation, where feasible, will be undertaken. A framework for ensuring well-functioning BoDs and to engage them in turnaround plans of the PSEs will be developed envisaging a transparent process of the Board nominations, capacity-building of the BoDs, clarifying role of the BODs, and monitoring performance of the BoDs by setting key performance indicators. The corporate governance regulations for the PSEs, prepared by the Task Force on Corporate Governance, will be implemented. Moreover, capacity of these organisations will be enhanced and operational autonomy will also be ensured for better performance and management. In addition, the following specific measures will also be taken during the Plan period.

- Strict observance of security of tenure of office for a specified period – The Constitutional guarantee for security of services and tenure will be provided to each employee. Premature transfer or replacement of officers during the tenure will only be made on cogent reasons.
- Discretionary power of the Chief Executive or Chief Minister will be abolished and rationalised. However, the Cabinet will be authorised to approve any proposal, where relaxation of rules required.
- At the federal level, the Cabinet Secretary will play the role of the Chief Secretary in the provincial government. Meeting of the Secretaries Committee will be arranged regularly.
- Role of the PAO will be strengthened, and FAs organisation will be dispended with.
- Open, transparent merit-based recruitment at all levels and in all grades of the public services will be ensured keeping in view the regional quota as specified in the Constitution.
- Performance-based promotions and career progression for all public sector employees with compulsory training at the post-induction, mid-career and senior management levels will be ensured. Lateral inductions will be made from the market to enhance the public sector efficiency.
- Equality of opportunities for career advancement to all employees without preferences or reservations for any particular class, and the principle of 'Right man for the right job' will be practised.
- Smart governance will be introduced in the public sector.
- Delegation of powers to the local government for quick and efficient service delivery will carried out.
- Status of the Federal Public Service Commission as an autonomous body in all respects for merit based recruitment will be ensured.
- Educational qualifications for services groups to be recruited in the federal services will be revised. To induct technocrats, subject-based tests will be administered to candidates aspiring for induction in specific ministries. Those employed in these ministries will be moved from one job to another within the ministry, but transfer from one ministry to another will not be possible.
- Salary and retirement benefits of all civil servants will be market based.
- Execution end of bureaucracy will be made effective to provide better deliverance to the masses.
- System of check and balance will be introduced to encourage the doers and admonish the inefficient.
- The dichotomy of power between the political government and civil services will be done away with through appropriate amendments in all the relevant laws.

- Job description and the KPIs for every post will be made.
- Strengthening provincial civil services will be ensured for allowing the provinces to induct civil servants it needs without reliance on the centre.
- Decision-making tiers will be reduced.
- The redundant departments will be identified, and abolished.
- Innovation and ingenuity will be encouraged.

Restructuring of the provincial governments

The 18th Constitutional amendment is a major political achievement. It addresses long-standing political tensions among the provinces, as well as between the provinces and the centre. However, this political achievement needs to be balanced by policy outcomes. Major policy dilemmas have cropped up and require evidence-based, technically sound and politically savvy responses. First, the reform has affected 37,429 employees, who include 13,178 civil servants, 12,006 attached to autonomous bodies and 12,000 project employees. Their new roles and responsibilities need clearer definition. Second, the provinces need to bolster revenue mobilisation to finance the newly devolved responsibilities, which have not been completely covered by the 7th NFC Award. The inter-governmental fiscal relations need to be streamlined for addressing issues, such as revenue sharing for sales tax on services, which are already emerging. Third, the structure, function and authority of institutions affected by the reform is similarly unclear with bodies, such as the CCI and NEC, becoming more empowered in the policy-making process, and rethinking the roles of others such as the FPSC and the Planning Commission becoming necessary. Most importantly, capacity gaps relating to technical and administrative skills pertaining to newly devolved functions (for example, curriculum development) at the provincial level need to be identified and addressed. The provinces need to move from the operational minutiae of line-departments (domain of the local governments) to their new responsibilities, which include standard-setting, training and capacity-building, law-making, monitoring and evaluation, ensuring accountability and providing strategic leadership and prioritisation for the local governments, pertaining to each devolved service delivery area. This transition necessitates changes in the skill-sets, mindsets, job descriptions, reporting lines, etc., which need to be carefully worked out and implemented.

Role of legislators

It is more important than ever for legislators to assert their legitimate place in the decision-making, at both provincial and national levels. The Parliament is pivotal to the entire architecture of democratic governance, and needs to be strengthened virtually everywhere in the world with greater oversight capacities and legislative authority. More specifically, stronger parliaments will have to play a central role in the implementation of the future vision and development goals. The legislators' role will be enhanced in the policy-making and monitoring on the flowing lines.

- Proceedings of the Parliament and Standing Committees will be telecast through the PTV and broadcast through radio live transmissions.
- The Local Government System will be made effective and vibrant.
- Secretariat support and research staff will be provided to the parliamentarians to assist them in policy issues.
- Role of the Standing Committees will be enhanced in policy-making and monitoring.

- Political parties will constitute a group of senior parliamentarians to train their young colleagues.
- A training institute will be established to train the parliamentarians.
- Senior leaders of the political parties will visit the Parliament during proceedings.
- A curriculum on the role of the parliamentarians will be devised.
- Awareness will be created among public about the role of the Parliament.
- Capacity-building of the officers of the Ministry of Parliamentary Affairs will be ensured.

Data and statistics

It is recognised that the availability, quality, and accessibility of data in Pakistan needs to be improved to meet planning and monitoring needs, particularly of the rapidly growing economy. Better data is needed to provide the basis to develop well-informed policies, which facilitate broad-based equitable growth and poverty reduction. The Pakistan Bureau of Statistics (PBS) has been established as an autonomous body for the collection of the latest and reliable data. However, its structure and improved systems and procedures are to be operationalised. The improvement-requiring areas are:

- Addressing key gaps in the economic and social statistics, including the quality and coverage of management information systems national accounts, poverty estimation, monitoring and analysis, district and sub district data
- Timeliness of dissemination and presentation of statistical data
- Institutionalising the monitoring system of key indicators
- Harmonisation and integration between different sources of data on key indicators
- Awareness of masses regarding importance of statistics
- Perception of the public regarding reliability of statistics

During the Plan period, improvements will be ensured to achieve quality of statistic through measures such as:

- Improve statistical system
- Increase credibility of data by giving autonomy to the PBS, which will act as an independent statistical apex body with legal mandate. Independent statistical agencies will also be established at the provincial level. These agencies will implement international statistic standards.
- Efficient use of resources for improving quality of the statistical data
- Develop an effective producers-users joint mechanism to make statistical system user responsive
- Provide non-confidential micro-data for researchers
- Speed up collection of data by modernising infrastructure
- Promote professionalism through capacity-building and effective human resource development

E-governance

The concept of 'Electronic-Governance' is fast emerging as an important tool for achieving good governance, especially with regard to improving efficiency, accuracy, effectiveness, transparency and accountability in decision-making and delivery of efficient and cost-effective public services to the citizens of Pakistan, including provision of user-friendly interface with the government. So far the emphasis has been on providing connectivity, networking, technology upgradation, development of the distributed databases, selective delivery systems for information and services, and a package of software solutions. During the Plan period, the focus will be on amendment of the procedures and rules, which are in fact the core of any effective programme of e-governance. Issues of sustainability, interconnectivity, lack of requisite skill sets, ownership and change management in the beneficiary public organisation and standardisation of the e-governance activities will also be addressed. Within the ambit of e-governance, the government-to-government, government-to-citizens and government-to-business functionalities will be developed.

Further, one of the major initiatives envisaged in the IT sector is to increase access of the citizens to the IT tools and promote greater connectivity. Rollout of the successful e-governance model applications, within the federal and provincial levels, will also be concentrated. Requisite measures will be taken to mitigate gaps between key stakeholders of e-governance (public entities, academia and IT industry). Formation and re-activation of high level forum on e-governance for implementation of e-governance initiatives and restructuring of relevant institutions will be focused. Capacity development within the public sector will also be carried out to ensure that there is a greater familiarity of electronic procedures within the government quarters.

A reliable Information Communication Technologies (ICT) infrastructure will also be established by using ICT-based systems in the PSEs to promote efficiency, transparency and accountability in service delivery and decision-making.

Corruption

One of the major challenges in improving governance is to act against corruption, which is widely seen as having seeped into the administrative fabric. It is evident that systematic corruption exacts a heavy price from development activities by reducing investment, increasing capital costs, and enhancing the time business executives need to spend negotiating with the government officials. Several initiatives will be undertaken in accordance with the 18th Constitutional Amendment to curb corruption. These include: (i) Strengthening NAB through financial and administrative autonomy and utilising trained manpower already developed over the years, (ii) strengthening governance institution through an enhanced capacity and integrity, (iii) public sector management agenda consisting of actions to make markets competitive and supporting improvements in the public administration, (iv) the development of proper institutional and legal frameworks, (v) strengthening audit functions to improve resource allocation while making detection of embezzlement easy, (vi) procurement reforms, while reducing transaction costs and making fraud more difficult to perpetrate, (vii) civil service reforms, while improving procedures for recruitment and promotion that build capacity and help reduce patronage and nepotism, (viii) freedom of information through constitutional provision, (ix) reviewing and updating of the existing law against cybercrime and the IPR violation, (x) training of the investigation officers in the field of serious white crimes including banking and internet frauds, cyber offences, money laundering, terrorist financing, (xi) enforcement and streamlining regulations that improve public management and introduction of preventive tools and code of conduct which reduce opportunities for corruption, and (xii) enhancing public awareness on good governance and corruption. These initiatives will be implanted under an umbrella of the National Anti-Corruption Strategy, developed by the National Accountability Bureau. Under the mandate of section 33 C of the National Accountability Ordinance 1999, the NAB has intensified its awareness campaign against corruption. In this regard, different forums are being used to spread the NABs slogan 'Say No to Corruption' amongst the masses with an objective to make general public aware about the ill-effects of corruption and corrupt practices.

Effective implementation of the PSDP

A distinguishing feature of the Plan is the emphasis on an effective implementation of the Public Sector Development Programmes (PSDP). The strategy includes: capacity-building and institutional development of agencies involved, development of performance and result-based monitoring indicators, strengthening of planning and monitoring cells in ministries and departments, and impact analysis, and monitoring and evaluation activities in planning and development agencies with linkages to the District Monitoring Development Committees under the Devolution, periodic monitoring exercises with reports to the ECNEC and NEC, and training of project directors and other staff in the project management, monitoring and evaluation. A major focus will also be on building capacity for undertaking the public-private partnerships, monitoring the pace at which these partnerships are actually realised, lessons learnt and disseminating the implementation experience to catalyse actual realisation of the partnerships to enhance infrastructure development. Performances, outcomes and result-orientation will be the guiding criteria not only for projects and programmes, but also for policies, action plans and rules and regulations governing development as a whole.

In the past, the emphasis has only been on monitoring of activities related to the PSDP. During the Plan period, the development effectiveness of a framework as a whole will also be a focus of attention, covering both the public and private sectors. Progress on the strategic thrust of the framework will be monitored including policy coordination and effectiveness of key strategies and programmes. At the project, programme and sector-level, greater attention will be devoted to evaluation studies with a focus on impacts and outcomes, and on lessons learnt for incorporation in the subsequent phases. The monitoring system in the planning agencies, line ministries and departments, and agencies will be supplemented by constituting high-level standing committees in each of the thematic areas, with membership drawn from both the public and private sectors. These committees will have a strategic role in reviewing the Plan, implementation relating to overall policies, strategies and programmes, and key result areas, assessing the recent developments, both macroeconomic and sectoral, and making recommendations for action.

Realising importance of the monitoring, the Projects Wing of the Planning Commission is to be further strengthened by recruiting more staff and procuring equipment, and creation of the Evaluation Section. During the Plan period, the pace of monitoring will be increased by three-folds. About half of the portfolio of project inclusive of all large ones will be monitored. An impact evaluation of some of the important projects will also be taken up.

During the plan period, focus of monitoring and evaluation activities will be on following areas:

- Improving quality of projects ‘at entry’ through proper feasibility studies and setting-up of performance benchmark for all projects, incorporation of lessons learnt from evaluation of the earlier projects, capacity-building, and interagency coordination
- Ensuring adequate and timely release of funds
- Reviewing procedures for submission, examination and approval of projects
- Enhancing capacity for contract management, including transparency in contract documents, greater professionalism and adequate delegation of authority
- Strengthening the Result-Based Monitoring System (RBMS) – the financial phasing to be linked with the implementation schedule and key deliverables
- Simplifying procedures for the acquisition of land
- Preparing a ready reference of the financial control and regulation
- Facilitating project at preparation and design stage by the Planning Commission at the federal level, and Planning and Development Departments at the provincial level, including on-line services
- Enhance information flows, resources capacity and expenditure at the sub-national level for effective monitoring and evaluation
- Mandatory training of the project and M&E officials at the Pakistan Planning and Management Institute (PPMI) for an effective project implementation and accrual of benefits envisaged under the development initiatives
- Appointment of the qualified Project Directors from the preparation stage till completion of the project
- Establishment of the performance management delivery unit in the Planning Commission for effective monitoring of development activities as proposed under the Vision 2025
- Development of the M&E processes, procedures, tools and manuals
- Monitoring at the district level for the beneficiary-oriented schemes, and those schemes requiring greater efforts at the Tehsil, union council and community levels
- Online connectivity of all ministries and divisions with the Planning Commission to ensure sustained flow of information on the project implementation

Further to this, during the Plan period, an effective monitoring and evaluation system for managing development outcomes will be devised on the following lines:

- Realign resources in line with priorities
- Translate overall government objectives into specific programmes and activities
- Make explicit choices and trade-offs between objectives and policy options by assessing effectiveness and costs of various choices
- Build capacity to report on outcomes
- Enable managers to exert real management skills in their programmes (take decisions based on performance to improve impact of programmes rather simply ensuring disbursements and utilisations of funds)

Legal and regulatory framework

The complexity and dynamism of a market economy requires laws, rules and norms based on transparency and openness that encourage and facilitate economic interchange. It is, therefore, imperative that a progressive legal and regulatory policy framework is in place to stimulate participation in economic development and to effectively implement government policy. Laws and regulations have a direct bearing on the economic development. A legal and regulatory framework, which stifles business expansion, innovation and competitiveness, translates into a shrinking economic base. Vague laws and uneven regulations create institutional uncertainty, which constrains economic growth. This uncertainty is further compounded by cumbersome bureaucratic procedures, discretionary and arbitrary decision-making and enforcement practices or by repeated changes in the regulation and rampant corruption.

Laws, rules and regulations promoting accountability are most successful in creating conditions, which ensuring transparency and probity. Greater transparency, objectivity, predictability and legitimacy in the institutional environment lower transaction costs, and increase contracting efficiencies. It also encourages open and formal business transactions and enhances credibility of the state and its policies. All these factors provide impetus to economic development. Effective regulation is ultimately a function of good governance, which is compromised by the absence of an effective court system. Even the best-designed legal and regulatory frameworks cannot achieve their objectives if these are not accompanied by an independent and efficient judiciary to guarantee and enforce legal rights. The role of effective judicial system is critical for ensuring predictability in the economic transactions and for their long-term planning. The judicial independence guarantees enforcement of contracts, and fair and consistent application of the rule of law to economic life; thereby averting arbitrariness of officials.

During the Plan period, the legal and regulatory institutions will be strengthened to protect public interests through formulation and application of the rules and regulations, separation of power, democratic accountability, consistent and coordinated regulation, uniform regulatory framework, transparency and predictability. The main features of the Plan strategy to be implemented are:

- Provide an enabling environment for economic reforms to ensure development through investor-friendly legal and regulatory frameworks, which reduce corruption and enhance efficiencies within the public sector
- Introduction of 'One-Stop Shop' concept, that is, establishment of the central point of all government agencies dealing with new investment
- Enhance understanding and awareness of legal and regulatory framework issues, among all relevant stakeholders, including the general public
- Promote effective implementation of the government laws and rules to regulate the market in the public interest
- Improve capacity of the regulatory institutions for an effective enforcement of legal and regulatory policies, programmes and projects, and develop a monitoring mechanism for an effective implementation
- Develop and put in place a well-targeted, comprehensive and integrated legal and regulatory framework covering the following sectors: (i) banking and financial, (ii) trade facilitation, investment and industries (cartel and monopoly), (iii) power, oil, gas and water (public-private partnership legal framework), (iv) information technology, (v)

social sector (NGOs), administrative, tax, judicial and dispute resolution, (vi) labour, (vii) intellectual property rights, (viii) land and property, and (ix) consumer protection

Improving regulatory environment

A key pillar of the Plan is to facilitate growth through the private sector development, which in turn requires an enabling environment. The following institutions and their regulatory competence will be given priority during the Plan period:

State Bank of Pakistan

The main aim of the SBP is to regulate the monetary and credit system of Pakistan and to foster its growth in the best national interest with a view to secure monetary stability and fuller utilisation of the country's productive resources. As central bank of the country, the SBP has a number of policies, regulatory and fiduciary responsibilities aimed at strengthening the financial system of the country and providing an enabling framework for the financial industry that fosters economic growth.

A sound and dynamic banking sector is essential for the economic growth, as growth in the banking sector and real economy mutually reinforce each other, while this sector constitutes the core of the financial sector in Pakistan. The private sector investment and consumption will be seen as the key drivers of the economy, and will be supported by growing financial intermediation and services, including not only banks, but other financial sector players as well. The dynamism and robustness of the banking sector is impressive and stands out particularly relative to its state in the early 1990s when the financial system was dominated by the public sector banks. However, more reforms are needed for the banking sector to grow to its full potential (like other emerging market countries and enhance its outreach to undeserved and unbanked segment of the society) for supporting strong and sustained economic growth and development.

Issues and constraints faced by the financial sector

There are a number of critical problems and constraints, which limit scope of the banking sector growth and development in Pakistan. These include the following:

- A large number of segments of the economy, population and geography remain underserved by the formal financial system.
- The SBP has so far played its role very effectively. However, the competition and continuous market innovations continue to pose challenges to the SBP.
- The financial system of Pakistan remains bank-centred and needs to become more diversified in order to meet the country's future financing needs. The operations of the Development Finance Institutions (DFIs) also require reconsideration.
- Low level financial literacy contributes to the underdevelopment of the financial sector.
- Banks and Non-Bank Financial Institutions (NBFIs) are introducing new systemic risks as well as regulatory and supervisory challenges that have to be dealt with. The SBP has developed coordination, made different arrangements and formed a Joint Task Force (JTF) with the SECP to manage these risks.
- The current privately-owned structure of the domestic banking system calls for robust safety nets, particularly the deposit insurance for the small savers.

- There is a lack of bankruptcy legislation and confidence of the financial sector in available legal process for recovery of the Non-Performing Loans (NPLs).
- Growth and development of the banking system and other financial institutions needs further improvement in the Financial Market Infrastructure.
- There is a limited availability of the Shariah-compliant financial products and services against huge demand among various segments of the society.
- Issues and documentation of economy and asymmetry of information in various sectors of the economy discourage financial institutions to play their optimal role in promoting participatory modes of finance.
- Crowding-out effect excessive government borrowings from the banking sector also leads to availability of the limited resources for the real sector of the economy, including priority areas, like agriculture, SME, micro, infrastructure, etc.
- Also, there is a limited availability of Shariah-compliant government securities and non-availability of short and long-term Shariah-compliant securities for liquidity management of the Islamic banking institutions.
- The investor-base for the government securities is largely confined to the banking financial institutions. There is a need to attract a broader investor base including NBFIs and retail investors to channelise funds directly to debt instruments and bringing efficiency to bank intermediation process.
- Taxation issues of the Islamic financial services industry need to be resolved by providing a level playing field and tax neutrality.
- Capacity-building is needed in relevant government departments for promotion and development of the Islamic financial industry.
- Issues in efficient recovery system of non-performing financing need to be resolved in order to improve financial health of the banking industry.
- Institution mechanisms for alternate dispute resolution need to be developed.
- Opaque information and weak enforcement of laws is resulting in stringent collateral requirements from the banks contributing in access to finance.

Banking sector reform strategies

The Plan strategises sustainable growth and development of the economy in general, and the financial sector, in particular. The steps are:

- In line with our country's requirements and global trends, the SBP has recently developed a broader National Financial Inclusion Strategy (NFIS) for Pakistan in collaboration with the World Bank (WB) Group. The NFIS will help the SBP and government of Pakistan to adopt a strategic vision for universal financial inclusion in Pakistan. The NFIS provides a vision that underlies a framework and a roadmap for priority actions aimed at addressing constraints and significantly increasing access to the usage of quality financial services. The strategy will guide efforts to promote financial inclusion over the coming five years. It includes targets and objectives, which will be monitored, but it intends to be a living document that can be adjusted as required. Broadly, the NFIS covers priority areas such as branchless banking, SME finance and infrastructure, microfinance, rural and agriculture finance, housing finance, Islamic finance, digital payment systems, consumer protection and financial literary, insurance, pensions, etc.

- Strengthen competition and efficiency in the banking sector with more transparency and diversification with new products, and delivery channels as well as measures to enhance the outreach of the banking system in the rural areas
- Further strengthen and diversify the banking sector by continued efforts to raise governance and risk management standards, capital adequacy requirements and resolution of underperforming commercial and specialised banks
- Ensure consumer protection through codes of conduct and new institutional arrangements, and improve financial education through financial literacy programmes
- Strengthen prudential regulation and supervision by updating banking legislation and regulations, methods of supervision, and effective enforcement of the prudential rules for all banks, including state-owned ones
- Strengthen the legal framework to support consolidated supervision (for example, the concept of non-operating bank holding company) and to recognise the regulatory architecture to allow better regulation and supervision of financial groups and conglomerates
- Develop a financial safety net of protection for small depositors, coordination arrangements with the government for dealing with systemic banking problems
- Further strengthen the SBP to maintain monetary and financial stability by updating the half-century-old SBP Act in accordance with the best international practices for the central bank independence, accountability and governance structures
- Further efforts for steady foreign exchange reserves by attracting FDI in the financial sector and channelling of home remittances through formal banking channel
- Development of the Islamic banking system as an alternate to conventional banking by providing enabling legal, regulatory and Shariah-compliant framework, promotion of the Islamic finance as a distinct and competitive system to serve to the financial needs of the masses
- Improving the infrastructure, especially introduction of the Bankruptcy Act, improvement in legal process for recovery of the NPLs, enhancement of capacity of the Banking Courts, credit information and ratings, land and property registries and addressing the procedural delays in the legal system to improve the efficiency of the financial sector transactions
- More coordination among various segments and stakeholders of the Islamic financial industry, including relevant federal and provincial ministries, departments, authorities and regulatory bodies, required in order to achieve synergistic results of the efforts being made by them independently
- Increasing Pakistan’s connectively to the global Islamic financial services, appropriate mechanisms to be developed for utilisation of the funds from the Islamic banking industry in various economically and financially viable projects by the federal and provincial governments, PSEs, etc., through issuance of the project specific Sukuk or other Shariah-compliant modes

- Assessing the legal frameworks for supporting the resolution strategies of the SBP and coming up with enhancements and revisions therein.
- Developing legal frameworks and provisions in the existing laws to provide coverage for enhanced domestic and cross-border cooperation with other regulatory bodies
- Develop framework for facilitation of the electronic commerce
- Pakistan's investment policy provides complete freedom of investment repatriation of profits, dividends and disinvestment proceeds to the foreign investor
- The Pakistan Remittances Initiative (PRI), jointly launched by the Ministry of Finance, SBP and Ministry of Overseas Pakistanis in 2009, is striving hard for channelising of the home remittances through the formal banking channel.
- A high-level Steering Committee for the promotion of the Islamic Banking in Pakistan has been constituted.
- A Centre of Excellence for the Islamic finance is being created.

Competition Commission of Pakistan

Pakistan's contemporary competition law originally came into effect as the Competition Ordinance 2007, and was subsequently enacted by the Parliament as the Competition Act 2010, which aims to ensure, enhance and provide a legal framework to create a business environment based on healthy competition towards improving economic efficiency, developing competitiveness and protecting consumers from anti-competitive practices.

Since 2007, the competition regime in Pakistan has come a long way. The CCP's consistent cross-sector enforcement, supported by sound research, and coupled with broad-based advocacy efforts, have strongly established its presence and that of the Act in the country.

During the Plan period, the CCP and the competition regime will be further strengthened by adopting the following measures:

- Continued across-the-board enforcement, focused advocacy, and sound research
- Development of the formal institutional linkages with sector regulators such as the SECP, PPRA, PTA, etc., through the MoUs
- Introduction of the competition law and economics courses in the higher educational institutes
- Development of the specific regulations and guidelines relating to protection of competition in the public procurement
- Introduction of the competition impact assessment
- Improvement in the human resource capacity through close linkages with the international agencies and counterparts

Securities and Exchange Commission of Pakistan

The Commission is to develop an efficient and dynamic non-bank financial market based on sound legal, regulatory system, which fosters principles of good governance in the corporate sector, ensures proper risk management procedures in the capital market, and protect investors through a fair, efficient and transparent regulatory framework, based on the international legal standards and best practices. The SECP has proactively undertaken various reform initiatives for improving legal, regulatory and operational infrastructure. As result of these efforts, visible improvement in performance of the non-bank financial market has been witnessed, such as unprecedented growth, higher returns and amplified investor confidence. This growth coupled with inherent potential, necessitates concerted efforts for sustainable and comprehensive growth of non-bank financial market. For this purpose, the following measures will be taken:

Capital market

The SECP's future roadmap, as listed below, envisages introduction of the key structural and regulatory reforms for development of the non-bank financial market in line with the International Organization of Securities Regulators (IOSCO) principles and international best practices. The measures are:

- Revamp of the Broker Registration Regime for the demutualised environment, where registration will be linked to capital adequacy requirements and activity based licensing.
- Development of a robust regulatory framework in line with the best international practices and IOSCO principle
- Improve regulations governing exchange traded funds and regulations governing market making
- Review of a large number of outdated rules governing capital market and formulation and promulgation of new one
- Introduce new regime for the Islamic capital market with appropriate legal and regulatory framework for products and service to address investment needs of investors in compliance with the Shariah
- Improvement and introduction of new corporate laws to regulate securities market
- Introduction of the post-demutualisation reforms in stock exchange, such as brining in strategic investor
- Diversification of product portfolio of commodities market, including exploring options to introduce the Shariah-compliant commodity contracts
- Development of new products and systems, such as listing and trading of stock option
- Develop debt capital market for the government and corporate bodies
- Establishment of the Securities Investor Protection Corporation and Brokers Associations
- Introduce guidelines for issuance of the Sukuk (Assets Backed Securitisation)

Corporate sector

- Review of the Companies Ordinance 1984 for simplification of company law and its procedures
- Implementation of the newly-approved rule to improve corporate governance practices, that is, the Public Sector Companies (Corporate Governance) Rule 2013
- Amend the existing legal framework to improve e-governance

Non-banking finance companies

- Promulgation of an independent NBFC law
- Revamp the business model of investment banks through amendments in the NBFC rules and regulations
- Launch investor education programmes on mutual fund
- Amendments in the Modaraba Ordinance and Rules 1981 to protect interests of shareholders
- Introduce reforms in the real estate investment trusts

Insurance sector

- Establish terrorism pool for terror-effected persons on the public-private partnership basis
- Introduce framework for the micro-insurance schemes for the public and private sectors
- Introduce compulsory Motor Third Party Insurance Scheme
- Establish Guarantee Fund for protection of policyholders in the event of failure of companies
- Development of catastrophe insurance and bounds in Pakistan
- Corporatisation and rejuvenation of the State Life Insurance Corporation
- Strengthen role of the National Insurance Company Limited to promote insurance industry
- Regulation of the postal life insurance and group life insurance sector
- Development of the health insurance and review of insurance and reinsurance regulation

National Tariff Commission

The federal government promulgated the National Tariff Commission Ordinance 2015 and trade remedy laws, namely (i) Antidumping Duties Ordinance 2015, (ii) Countervailing Duties Ordinance 2015.

Under the Section 8 of the National Tariff Commission Ordinance 2015, the functions of the Commission will be to advise the federal government on:

(a) Tariff and other trade measures to

  i. provide assistance to the domestic industry; and

  ii. improve competiveness of the domestic industry

(b) Trade remedy actions being faced by domestic producers and exporters

(c) Rationalisation of tariff and proposals for tariff reform

(d) Removal of tariff anomalies, and

(e) Any other matter relating to tariff and trade measures, which the federal government refers to the Commission.

Public Procurement Regulatory Authority

The Public Procurement Rules (PPR) 2004 provide a broad regulatory framework for transparent public sector procurements, and are applicable to all the PSEs at the federal level. Adherence to these Rules promises introduction of transparency and accountability in the public sector procurements. The Authority has been assigned the role to reform and restructure process of regulating the public procurement of goods, services and works in the public sector. The first major assignment undertaken by the PPRA was review of the existing procurement regulations and procedures of five public sector enterprises as well as their re-engineering and redesigning for transparent and efficient procurement procedures by these enterprises.

During the Plan period, a robust public procurement will be established through intervention and reforms in the areas, which includes: i) review of the existing PPRA Ordinance 2002, PPR 2004, and PPRA Regulations to bring them at par with international best practices, ii) preparation of new regulations as per requirements of the PPR 2004, iii) preparation of Standard Bidding Documents (SBDs) for goods and services, and review of the existing SBDs for Works, iv) development and application of e-procurement as an end-to-end business solution, v) strengthening the National Institution for Procurement for capacity-building of officials of the procuring agencies and suppliers from the private sector through face-to face and on-line training, vi) strengthening the existing Advisory Group on Procurement – a representatives body of the federal and provincial governments for harmonisation of the procurement procedure and practice, vii) developing linkages and cooperation with the South Asian countries and other international bodies to learn from their experiences and replication of their best practices in Pakistan, viii) ensuring financial autonomy for the PPRA to reduce dependence on the federal government grants and generate own resources for meeting its expenses.

Intellectual Property Organisation

Pakistan's intellectual property rights regime is not being enforced for many years. Some quarters think that it discourages the Foreign Direct Investment (FDI), and serves as a disincentive to local research, innovation, creation and development of knowledge assets in the country. Counterfeiting in various fields of intellectual property, like software and recording industry, has become rampant and space for genuine business is squeezing. During the Plan period, the Law on Genetic Resources, Traditional Knowledge and Folklore (GRTKF) and Law on Utility Model and amendment in the Intellectual Property Legislation will be prepared and review of the Intellectual Property Law on copyrights, patents and trademarks in consultation with the Federal Investigation Agency, stakeholders of the private sector and IP experts will be undertaken. In addition, the following initiatives will also be undertaken:

- Building IP house in Islamabad
- Notification of the industrial law and designs of integrated circuit rules
- Establishment IP Academy in Islamabad
- Offering PhD scholarships in the IP education by the HEC
- Operationalisation of the IP Tribunals for speedy disposal of cases

- IP strategy and action plan to strengthen the IP regime to be implemented in collaboration with other stakeholders
- Strengthening the IP and its enforcement
- Capacity-building of diplomatic missions to rectify Pakistan's IP image abroad
- Revision of the legal framework
- Balance the interest of stakeholders
- Approval of the Plant Breeders Rights Law and establishment of PBR in the IPO-Pak

Oil and Gas Regulatory Authority

A number of legal and regulatory initiatives, including the Minimum Performance and Services Standard 2003, Natural Gas Quality Standard 2008, Standard Technical Specifications for Equipment and Material to be used in the Natural Gas Networks 2009, Contract for supply of gas for domestic, commercial and industrial consumers, OGRA (Financial) Regulation 2005, OGRA Service Regulation 2005, Natural Gas (Well-Head Price) Regulation 2009, UFG and HR benchmarking OGRA, NGRA (licensing) Rules Regulation 2009, Natural Gas Tariff Rules 2002, OGRA Complaint Resolution Procedure Regulation 2003, Oil Transportation (Pipeline) Technical Standards 2009, etc., have been launched by the OGRA to protect public interest, regulate and foster competition and investment in the oil and gas sector during 12 years. There is still a need to provide effective and efficient regulations to the sector. During the Plan period, the following regulations will be initiated in the sector:

- Introduction and expansion of the LPG Auto Refuelling Infrastructure
- Introduction and encouragement of LPG as alternate domestic fuel in domestic and commercial sector, particularly in new towns where natural gas infrastructure unavailable
- Implementation of the Natural Gas Regulated Third Party Access (TPA) Rules 2012
- Notification of the draft Pakistan Oil (Refining, Blending, Transportation, Storage and Marketing) Rules 2014
- Enhancement of storage capacity for the petroleum products for their better availability in emergency situations
- Encouraging investment in the oil refining and marketing to reduce oil imports bills
- Grant of the LNG licences to facilitate LNG import to bridge demand-supply gap
- Introduce UFG benchmark and HR benchmark in respect of the gas utility companies for next five years
- Implementation of standards, provisions of applicable rules and regulations, etc., by the licensees
- The federal government to issue policy guidelines in accordance with the provisions of the OGRA Ordinance 2002, and the regulator to be permitted to function independently as per provisions of the Ordinance

Pakistan Telecommunication Authority

Efforts to develop a fully competitive market in the telecom sector were initiated in the early 1990s and during the last 10 years, a number of initiatives, including promoting rapid modernisation of the telecommunication systems, and protecting interests of the telecom users, were taken by the PTA.

During the Plan period, the following policies will be adopted to regulate and operate the telecommunication sector.

- Create a fair regulatory regime for promoting competition and providing equal opportunities to the existing players and new entrants in the market
- Ensure fairness and transparency in licensing and competition
- Promote rapid modernisation of telecommunication systems and introduction of next generation technologies
- Build regulatory and technical support systems, including availability of additional spectrum, spectrum harmonisation, spectrum and infrastructure sharing
- A timely shift in the regulatory regime with the introduction of the next generation technologies, networks and proliferation of broadband in an increasingly converging environment
- Make efforts for ensuring quality telecom services to the unserved and underserved areas through the USF
- Undertake timely and efficient decisions to effectively safeguard public interests
- Encourage and facilitate local manufacturing of the telecom equipment and handsets
- Regular in-house as well as third party Quality of Service (QoS) audits and surveys
- Streamline enforcement of the national laws, rules and regulations for governing the telecom sector in the next revolution underway with an advanced spectrum licensing
- Safeguard Pakistan's national and security interests

Pakistan Electronic Media Regulatory Authority

Owing to the sudden and rapid impetus of the electronic media in Pakistan, the PEMRA inherited many challenges. One of these was to cause realisation among the media players that media freedom is coupled with a direct and equal proportion of responsibility. In a democratic country like Pakistan where freedom of speech and expression is guaranteed to every citizen by the Constitution as a fundamental right, it is the responsibility of all and sundry to exercise this freedom with due care to ensure that it might not incite violence, terrorism, racial, ethnic or religious discrimination, sectarianism, extremism, militancy, hatred, obscenity, vulgarity or anything offensive to the commonly accepted standards of decency. Another challenge for the PEMRA was flooding of the foreign satellite television into the country without any degree of control. Although initially, at the time when many Pakistani satellite television channels were in offing, many foreign TV channels did a commendable job in enhancing level of general knowledge and information of our people. Simultaneously, some posed grave cultural and political threats to the country. To tackle these issues, the PEMRA formulated a policy of 'Landing Rights' allowing public access to those channels, which conformed to generally accepted value system, while barring those which were on the contrary. During the last decade, the country has witnessed unprecedented growth in the number of TV channels, cable TV and FM Radio stations in the private sector, which is unmatched in the South Asian region, and perhaps elsewhere as well. This boom is owed to the government's unequivocal commitment to a free media and the proactive role played by the PEMRA in facilitating growth of the electronic media.

During the Plan period, the following strategy will be pursued to strengthen and regulate the electronic media:

- Improve the standards of information, education and entertainment
- Addition to choices available to the people
- Facilitate the devolution of responsibility and power to the grassroots level
- Ensure accountability, transparency and good governance by optimising the free flow of information or news

National Electric Power Regulatory Authority

The government embarked upon a restructuring plan of the WAPDA in 1992, and the entity was restructured into distinct autonomous entities under the Companies Ordinance 1984. To regulate the power sector, the NEPRA was established under the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997. The NEPRA, in pursuit of its functions, has introduced a number of regulatory tools to ensure service quality, and during the last five years added several rules, regulations, guidelines, Standard operating Procedures (SoPs), namely:

- NEPRA Upfront Tariff (Approval and Procedure) Regulations 2011
- NEPRA Financial Regulations 2010
- NEPRA (Procedure for filing appeal before the Authority) Regulations 2012
- NEPRA Standard Operating Procedures for Inspection, Examination and Provision of Copies of Documents 2015
- NEPRA (Sale of Electric Power by Renewable Energy Companies) Guidelines 2015
- NEPRA Guidelines for Determination of Consumer-end Tariff (Methodology and Process) 2015

The NEPRA is vigorously following monitoring and enforcement of its licences to enforce government policies effectively in addition to the existing laws for the betterment of the power sector. The NEPRA has announced upfront tariffs of various technologies, such as, wind, solar, coal, bagasse, small hydro, RLNG, etc., to expedite the process of grant of tariff in transparent manner. By the end of the Plan period, the prevalent state of the electricity affairs will be much improved.

Pakistan Nuclear Regulatory Authority

During the last five years (2008-2012), regulations on various subjects have been issued by the PNRA to control and regulate matters related to nuclear safety, radiation protection, transport and radioactive waste management. These organisations and subjects include:

- Licensing fee by the Pakistan Nuclear Regulatory Authority
- Transaction of business of the Pakistan Nuclear Regulatory Authority
- Licensing of the nuclear safety class equipment and component manufacturers

- Safety of the nuclear installations – site evaluation
- Management of a nuclear or radiological emergency
- Safety of the nuclear research reactor(s) operation
- Pakistan Nuclear Regulatory Authority enforcement regulations

During the Plan period, additional regulations and other regulatory activities will be taken up to control and regulate nuclear safety and radiation protection aspects: The subjects are:

- Physical protection of nuclear materials and nuclear installations
- Security of the sealed radioactive sources
- Decommissioning of facilities using radioactive material
- Safety of nuclear fuel cycle facilities
- Authorisation of organisations for non-destructive testing and evaluation of safety class equipment for nuclear installations
- Licensing of the Karachi Nuclear Power Plant (Unit-2 and Unit-3)
- Review and assessment of the site evaluation reports for new Nuclear Power Plants sites, other than the existing NPP sites in line with the energy security plan of the government
- Further increase in licensing net of facilities using radioactive sources and radiation generators being used in the medical, industrial and agricultural applications

With a comprehensive reform agenda as mentioned above, the governance indicators are expected to improve during the Plan period. In order to accomplish this agenda, Rs344.125 billion (Rs25.5 billion for the federal programmes and Rs318.625 billion for the provincial programmes) have been earmarked for the Plan period for activities related to the governance, innovation, reform, research and statistics sectors. It is expected that the successful implementation of initiatives in the areas of service delivery, rule of law, citizen participation and regulatory framework will result in improving governance and growth-related indicators.

Chapter 18

INSTITUTIONAL REFORMS AND GOVERNANCE

The word ‘Governance’ refers to the exercise of political, economic and administrative authority for managing affairs of a nation. It comprises complex mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights and obligations, and mediate their differences. In basic terms, it denotes interplay of the state institutions, markets and civil society and a set of processes that deliver entitlements, services and rights to citizens.

The notion ‘good governance’ guarantees existence of the pluralistic frameworks ensuring that responsibility is jointly shared by players in the public and corporate private sectors, and the civil society by addressing the issues of accountability, transparency, participation, openness, rule of law and predictability. Improved governance contributes to economic growth and poverty reduction. As growth generates income, the good governance ensures that the citizens, especially the poor, share the benefits of the economic progress in an inclusive and equitable manner. A key responsibility of the state is to create conducive political, legal and regulatory environment for building individual capabilities and encouraging private initiatives. Furthermore, effective political and administrative structures and a robust civil society are essential for promoting the democratic governance as these facilitate peoples’ participation in economic, social and political activities.

Review of the existing programmes

The government has undertaken a number of initiatives in line with the priorities set in the Medium-Term Development Framework (MTDF) 2005-10 as well as during the non-Plan period. An amount of Rs64 billion was utilised for the judiciary, Federal Board of Revenue, Auditor General’s Office, Statistics Division and Police, and institutional changes in the judiciary and trainings activities of officers and officials within the country and aboard to augment their aptitude and skills. Some major initiatives of the governance sector are as under:

Public sector management efficiency

Tax administration reforms

Tax collections are not enough to meet expenditure requirements, both current and development activities of the government. About 10 per cent tax-to-the-GDP ratio is stagnant over time. The reforms were introduced for promoting voluntary tax compliance through enhanced taxpayers facilitation and provision of incentive packages to the Federal Board of Revenue (FBR) employees. With a view to broadening the tax base, document the economy and improve efficiency of the tax administration, the tax sector reforms in the following areas have helped in enhancing the tax collection capacity of the FBR:

- Fully Automated Customs Clearance Systems (PACCS) at Karachi for e-filling of the Goods Declaration (GDs)

- Improving tax-to-GDP ratio to 13-14 per cent in the next five years
- Reorganisation of the FBR and its field offices on functional lines
- Improved relations and business-friendly environment
- Introduction of the self-assessment system in income tax, federal excise, and customs
- Simplification of the tax laws and procedures
- Reduction in the number of litigation cases and introduction of a mechanism of alternate dispute resolution
- Taxpayers' education and facilitation
- Setting up of the Model Custom Collectorates

The Tax Administration Reform Project was started in 2003 and closed in 2011, which was carried out at a cost of Rs6.5 billion, including foreign aid of Rs5.433 billion for infrastructure development, end-to-end automation of the business processes and human resource development. In order to achieve the objectives, the FBR has established three large taxpayer units and 13 regional tax offices. With the help of reform measures, the registered persons as the sales tax payees have increased from 100, 000 in 2002-03 to 209,000 by the end of 2012-13, showing an increase of about 109 per cent. On the income tax front, the return filers have increased from one million in 2002-03 to 3.5 million during 2012-13, an increase by 230 per cent. Another marked achievement of the FBR has been the disposal of pending appeals related to both direct and indirect taxes. The maximum tariff, which was 150 per cent in the 1980s, has been gradually reduced to 25 per cent.

Improvements in audit and accounts

For this area, the Auditor General of Pakistan has launched phase-II of the 'Project for Improvement of Financial Reporting and Auditing (PIFRA)' at a revised cost of Rs10.365 billion, including a foreign assistance of Rs8.9 billion. A reform programme is being implemented to separate audit and account functions, provide effective accounting and reporting system in line with the international best practices, strengthen financial management practices and increase the impact of the development programmes, provide basis for enhancing public sector accountability through financial monitoring and control, and produce timely and reliable information for decision-making and policy formulation. Implementation of the New Accounting Model (NAM) is progressing smoothly. So far 231 Financial Accounting and Budgeting System (FABS) out of 240 District Account Office (DAO) sites have been established. Four FABS out of four departmentalised account offices, and 53 System Application Programme (SAP) competency centres have been set up.

Public sector capacity-building

The Public Sector Capacity-Building Project was launched to improve efficiency of the civil service. The total cost of the Project was Rs3.5 billion, including a foreign assistance of Rs3.2 billion. The Project had sponsored significant human resource development reforms in the government. The Pakistan Administrative Staff College and four National Institutes of Public Administration (NIPAs) were restructured, and replaced by the National School of Public Policy (NSPP). The focus of training has now shifted from the public administration to supporting effective policy formulation and implementation. Under another component of the Project, 4,657 officers benefitted from foreign and local trainings, while 36 consultants furnished technical assistance to the government and 30 studies were conducted.

The government established the National Commission for Government Reforms in April 2006 to propose a set of structural reforms for good governance. The Commission was mandated to review government structures, civil service and government processes at all levels of the government, that is, federal, provincial, and district, and make recommendations for improving efficiency and effectiveness of the public sector. This was done in consultation with all stakeholders to initiate a reform process, which will improve service delivery and encourage professionalism. The Commission has published a two-volume report on ‘Reforming the Government in Pakistan’ in May 2008. Implementation of the proposals is still pending as the finalisation of the recommendations was made when the political transition was taking place. However, the Commission and its report provide a useful guide for reforms.

Access to justice

The Access to Justice Programme (AJP) was launched at a cost of Rs21 billion for making improvements in the judicial and non-judicial legal services, security and equal protection of law to citizens, and ensuring greater transparency and accountability of the judiciary, police and administrative justice institutions. Major efforts have focused on reduction in backlog of the pending cases and institutional delays, particularly to help the poor and vulnerable segments of the society. Commercial benches have been established for quick disposal of litigation as a pro-investment measure.

In spite of some bottlenecks, significant policy reforms under the AJP since 2002 include:

- 786 development schemes have been launched pertaining to infrastructure development and capacity-building, and out of which 560 schemes have been completed so far.
- Implementation of the delay reduction programme was carried out, which was a part of the judicial reforms in 18 model districts across the country through case inventories, improved process serving, monitoring and inspection mechanism, and targeted disposals.
- The annual judicial conferences at the national, provincial, regional and district levels have culminated in raising performance of the superior courts since 2003.
- Laws affecting ordinary citizens have been enacted and amended to facilitate dispensation of justice, in particular for the poor and vulnerable segments of the society. These include: contempt of court, freedom of information, defamation, habeas corpus, family disputes, operationalisation of the Anjuman Musalihat Court inspections, ombudsman and alternate dispute resolution.
- Under the police reform, enactment of the Police Order 2002 includes provision of the Public Safety Commissions, functional division of the investigation from watch and ward and prosecution from investigation, internal and external complaints redressal mechanisms, and the District Criminal Justice Coordination Committees.
- Payment of the judicial allowance to augment quality of justice – Utility allowance has been allowed to the judicial officers in Sindh and Balochistan.
- Institutional strengthening and capacity-building measures relate to automation of the justice sector institutions including bar councils, training and capacity-building and public awareness campaigns for citizens to learn about their rights and entitlements

- Performance-based incentives to support adoption of delay reduction procedures and separation of civil courts and criminal courts
- Separation of judiciary from executive under the National Judicial Policy 2009

Public Information and Statistical Management

The National Strategy for Development of Statistics (NSDS) is being implemented stepwise since 2013 to improve capacity of the Pakistan Bureau of Statistics (PBS) in collection, processing and dissemination of the statistical data to support evidence-based decision-making. During the Plan period, as a continuity of the process, the following activities will be conducted to ensure improvements in the key areas.

(a) *Censuses and Surveys:* The sixth Population and Housing Census 2016, Combined Agriculture Census 2014 and Mouza Census 2018, Pakistan Social and Living Standards Measurement (PSLM) Survey, Labour Force Survey and Pakistan Demographic Survey will be conducted.

(b) *IT Infrastructure and GIS:* Revamping of the IT infrastructure of regional offices and Geographical Information System (GIS) will be done, while eight GIS Labs have been established, which are functional in the PBS, Islamabad, Peshawar, Lahore, Multan, Karachi, Quetta, Muzaffarabad and Gilgit.

(c) *Data Collection and dissemination:* The Plan will revisit and harmonise layout and structure of the publications for branding ‘Statistics Pakistan’ logo, and layout throughout the PBS will be kept constant in order to create corporate identity and brand image. Memorisation with the users will be increased through an effective PR. Effectiveness and timeliness of the data collection, management and dissemination through introduction of modern technology and internationally recognised methodology will be improved. Credibility of data of the PBS will be improved by giving functional autonomy, and implementing international standards.

(d) *National Accounts and Economic Statistics:* The Plan will address key gaps in the economic and social statistics, quality and coverage of the national accounts through the National Economics Statistics Development Plan (NESDP) by applying rebasing of the National Account from 2005-6 to 2015-16, Census of Manufacturing Industries, revisit National Standard Classifications and Expand Business Register – FBR, SECP, EOBI, NEPRA, SNGC, SSGC, and provincial Directorate of Industries, etc.

(e) *Human Resource Development:* Professionally competent workforce and a highly professional management, strong research and analytical capabilities will be developed through an effective human resource development, and establishing a new training and research institute in Lahore.

Other major initiatives

The following other major reform initiatives have been launched by the government to improve governance.

- Monetisation of official transport for entitled officers (BS-20 and above) including MP scales
- Limits imposed on borrowings of the federal and provincial governments through amendments in the State Bank of Pakistan Act
- Austerity measures for expenditure adopted

- Supplementary grants limited to 10 per cent of the budget appropriations with mandatory cabinet approval
- Permanent committee of the federal and provincial Finance Ministers constituted for budgetary oversight through the 18th Constitutional amendment
- Substantial progress has been achieved in reconstitution of the professional Board of Directors and turn-around plans.
- Power sector reforms are underway, which include: improved governance framework, ensure autonomy to the DISCOs, GENCOs and NTDC through dissolution of the PEPCO, sustain power sector financing (resolving circular debt), improving efficiency of generation, transmission and distribution system, strengthen regulatory role of the NEPRA and improve energy mix.
- Restructuring of the PSEs, other than of the power sector, is also underway.
- Achieving economic efficiency through the devolution which includes: transfer of the concurrent list to the provinces under the 18th Constitutional amendment and equitable resources transfer to the provinces under the 7th NFC Award.

In spite of the above interventions, the governance indicators in Pakistan are not very encouraging. A comparative analysis of the World Bank Group report 2013 on the Worldwide Governance Indicators is given below.

Indicator	Year	Governance score -2.5 to +2.5			Percentile rank 0-100		
Country		Pakistan	Korea	India	Pakistan	Korea	India
Voice and accountability	2002	-1.22	0.70	0.36	14.42	68.75	58.17
	2007	-0.97	0.66	0.43	20.19	67.79	59.13
	2012	-0.87	0.69	0.35	23.70	69.67	58.29
Political stability and absence of violence and terrorism	2002	-1.70	0.17	-1.24	5.77	48.08	15.87
	2007	-2.43	0.53	-1.15	0.96	62.98	13.94
	2012	-2.68	0.17	-1.25	0.95	51.66	11.85
Government effectiveness	2002	-0.39	0.84	0.13	14.46	79.51	51.71
	2007	-0.46	1.23	0.11	39.32	84.47	56.80
	2012	-0.79	1.20	-0.18	23.44	84.21	47.37
Regulatory quality	2002	-0.79	0.80	-0.38	21.08	75.00	40.20
	2007	-0.50	0.92	-0.27	32.04	78.64	44.17
	2012	-0.73	0.89	-0.47	24.88	77.03	33.97
Rule of law	2002	-0.75	0.91	-0.04	28.23	77.00	51.20
	2007	-0.88	1.02	-0.11	21.05	82.78	55.92
	2012	-0.91	0.97	-0.10	18.96	79.62	52.61
Control on corruption	2002	-0.92	0.47	-0.50	21.95	69.76	38.05
	2007	-0.74	0.52	-0.42	24.76	72.62	40.78
	2012	-1.06	0.47	-0.57	13.88	70.33	34.93

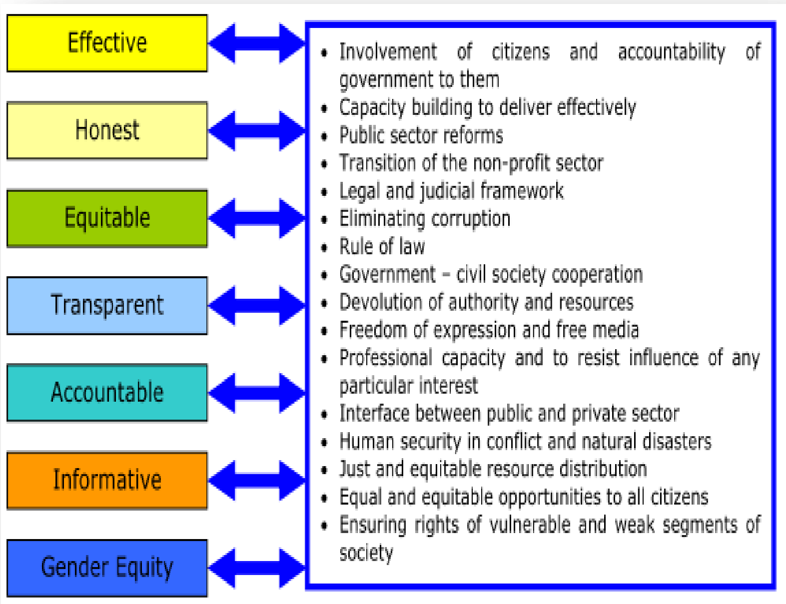
Governance issues and reasons for low down progress

A broad range of activities were undertaken to improve governance during the last nine years. While considerable progress has been made in a number of areas, major governance challenges persist. Some of these are:

- Ineffective management of resources, disparities in the pace and level of development across provinces and districts
- Denial of the basic needs of food, water and shelter to a substantial proportion of the population and poor service delivery mechanisms
- Lack of transparency and accountability in many facets of the state machinery, particularly those that have an interface with the public
- Weak performance management delivery mechanism
- Lack of credibility – the gap between the policy intent and development results – of public service institutions
- Weak rule of law manifested through deteriorating law and order, ineffective investigation system, expensive, unfriendly and opaque justice system, tax-evasion, weak regulatory frame-works and failure in getting timely justice
- Existence of a significant number of voiceless poor with little opportunities for participating in decision-making and local governance
- Weak Local Government System
- Deterioration of physical environment in the urban and rural areas
- Corruption in all sectors, especially in the Public Sector Enterprises (PSEs)

Plan strategy

The agenda of the present government emphasises improving governance, strengthening institutions, fostering markets and initiating reforms in the judicial system, civil service, systems and procedures, tax administration, procurement, financial management, enforcing property rights, and the PSEs. During the Plan period, the governance reform scheme – with objectives of sustained high and inclusive growth, improved economic fundamentals, competitiveness and bridging various divides that continue to fragment society – can only be achieved if there is a significant improvement in the quality of governance.



With a comprehensive reform agenda, the governance indicators are expected to improve during the Plan period. The strategic focus of good governance covers the following distinct dimensions for an effective service delivery:

- Strengthening local government system to enhance delivery of the critical municipal services

- Delegation of powers under the 18th Constitutional amendment from provinces to districts to tackle key issues of health, education and others in a more effective and responsive manner
- Ensuring balance development and regional equality among the provinces
- Capacity enhancement of the provincial governments to implement policies and plans through improved service delivery
- Establishing the Performance Management Delivery System for an effective monitoring of performance of the ministries and divisions
- Strengthening participatory approaches and local governance structures by involving civil society and other stakeholders in the design and implementation of policies, programmes and projects, with capacity-building of involved agencies – each ministry and division to ensure participation of all stakeholders in the planning, designing and implementation processes
- Addressing systemic problems that undermine the efficiency of legal, judicial and law enforcement institutions – Judicial reforms under the National Judicial Policy to bolster the delivery of justice
- Addressing corporate governance issues and improve the public-private interface in a manner which protects public interest as well as minimises private transaction costs
- Strengthening the law and regulatory framework for an effective implementation of economic policies
- Improving public sector management by (a) streamlining revenue administration, (b) strengthening public financial administration, (c) implementing e-governance initiatives, (d) public sector capacity-building and civil service reforms, covering professionalisation of civil services and qualitative improvements through continuous training and skill upgradation, (e) procedural reforms to simplify government processes and revising archaic rules, (f) enhancing the quality and coverage of data and statistics, (g) strengthening policy research functions within the government, and (h) establishment of performance management system
- Strengthening law enforcement agencies through capacity-building to improve law and order; ultimately improving investors' confidence as well
- Reducing corruption by introducing transparent, open and accountable financial and administrative mechanism in all fields
- Improving implementation effectiveness, at the sectoral, policy coordination and programme levels for key development outcomes with a particular focus on monitoring and evaluation of outcomes of the Public Sector Development Programme (PSDP)
- Strengthening and enhancing the role and capacity of the Parliament and parliamentary standing committees and democratic governance

Local Government System

The decentralisation is promoted for an increased administrative efficiency, equity, service provision, participation and democratisation, national cohesion, local empowerment and poverty reduction and others. The strategy for the devolution process aims to correct the governance patterns marked by centralised and top-down decision-making, haphazard planning, weak accountability and financial management, and lack of transparency and citizens' participation.

During the Plan period, the Local Government System will be effectively devolved to the districts, which will be responsible to develop strategy on the following guidelines.

- All local governments are to function within the provincial framework in the aftermath of the 18th Constitutional amendment – 'absolution of concurrent list'. Each provincial and regional government in Pakistan will ensure that the Local Government System conforms to the provisions of the Constitution, in particular to its Article 140-A and devolve to the local governments the administrative, financial and political power for enabling them to deliver services to the citizens in a cost effective and transparent manner. The word 'devolve' must be focused and be understood in its true perspective as Article 140-A has been retained in the 18th Constitutional amendment with consensus of all political parties.
- The provincial governments are to ensure service delivery through policy, regulation, guidance, incentives, oversight and monitoring of outcomes. The local government laws will incorporate all the principles of the local governance as stated in the Commonwealth Aberdeen Agenda to which Pakistan is a signatory. The principle of subsidiarity can be the guiding theory for assigning the functions to the local governments with adequate financial autonomy
- Each local government will prepare its citizens-cum-clients charter for timely provision of the services. There will be effective control mechanisms for ensuring greater transparency and local accountability.
- Development authorities, the Public Health Engineering Departments, Local Government and Community Development Departments, and Water And Sanitation Agencies will be devolved to the local governments.
- Functions of the local government functions must not be performed by the provincial government or any other agency and body. As far as possible, vertical programmes or parallel structures for execution of local government functions will be phased out.
- The local governments are fully empowered to take any administrative and financial decisions relating to their functions. The local councils will notify their own bye-laws relating to delegation of the financial and administrative powers. The local government finance system will be based on incentives for promoting local level taxation and collection of taxes. The machinery for tax collection will be under the control of the local governments.
- The NGOs and civil society will assist in developing capacity of the local governments and facilitate these in improving service delivery.
- The local government elections will be held on party basis. These polls will be held along with the elections of the national and provincial assemblies. There will be a continuity of the local governments. The heads of district and tehsil-level local councils will be elected directly.
- The service structures for the local governments will be reviewed. The postings and transfers of the local government employees will be the exclusive domain of these dispensations.

- The capacity of local government employees will be enhanced to provide effective services to citizens and communities.
- The accountability mechanism of the local governments will ensure audit of the local governments by the Auditor General of Pakistan. The systems of inspections will be aligned to the standards set by the Public Procurement Authority.
- The local governments will ensure community participation in local planning and development.
- The local governments will improve enforcement mechanism for implementation of the local and special laws effectively.
- Inspection and monitoring mechanism will be established to ensure effective resource utilisation.

Participatory approach

Involvement and participation of people at all stages of planning, implementation and monitoring is a pre-requisite for good governance. People must feel a sense of ownership of policies and should participate in its planning and implementation at all levels of government. This can be achieved through participatory approach involving self-help groups, women groups, user groups, associations, trade unions, rural support organisations and civil society. The participatory approach in economic and social development includes the following strategic elements:

- Involving voluntary organisations in planning and implementation process to enhance interface with the public – Labs will be established in each ministry and division for ensuring participation of all stakeholders in planning and implementation process.
- Developing core competencies for participatory governance and professionalism in the voluntary sector will be done.
- Broaden the base and scope of volunteerism by encouraging its growth in districts and regions where such structures are weak. Such efforts will also aim to create an enabling environment for greater involvement of the voluntary sector for the marginalised and the excluded groups.
- Building appropriate databases, carrying out documentation, research and dissemination of innovative development models evolved by voluntary organisations will be ensured.
- Initiating a policy process, whereby the financial and social mobilisation for contributions of the civil society are harnessed, to improve the national development process.

Rule of law: Police and judiciary

The Plan considers police and judiciary to be the key agencies, which ensure the rule of law, and work as the bedrock of democracy and development. Accordingly, capacity-building of the police and judicial systems has been accepted as a legitimate activity for the Plan funding. Over the years, increased politicisation and corruption, overstretched duty hours and low policing intensity have only contributed to the decline in police credibility. Under the Plan, the government intends to re-establish the rule of law and improve public perception through effective delivery of justice and public safety services. There is a fundamental need to improve the criminal justice administration system. Efficacy of the criminal justice system will also help in counter-terrorism drive of the government. During the Plan, special attention will be given to enhance the capacity of police, prosecution and public defenders' system under the new legislation passed by the Parliament. The police and prosecution reform will help achieve improvements in the conviction rate, speedy disposal of the criminal cases and enhance citizen trust in the justice system. A new security policy will be prepared to tackle the issue of terrorism.

Access to justice is an important part of the governance reform agenda of the government. During the Plan period, efforts will be made to strengthen the judicial reforms undertaken earlier. In addition, the following areas will also be addressed.

- Provide better working environment for bar and litigant public, lawyers' chambers, bar rooms, libraries and special courts
- Introduce jail reforms and amendment of rules for reformation of prisoners, arrange special training sessions for jail staff and improve health facilities for prisoners and posting of officers of other cadres on rotational basis for jail administration
- Ensure independence of the prosecution system and strengthen forensic facilities
- Implement the National Judicial Policy 2009 in letter and spirit to consolidate and strengthen the independence of judiciary
- Introduce institutional reforms by: (a) removing the bottlenecks and duplication in the implementation of law with special reference to drug and human trafficking, and accountability law, (b) strengthening the Bar, (c) providing training to judges and police, (d) automation and e-governance of the court system, (e) ensuring judicial, police and Bar accountability, (f) depoliticisation of the police, and (g) police, prosecution and judiciary to be merit-based and number be increased
- Strict compliance of the existing laws
- Implementation of the Islamic laws
- Discouragement of the adjournment culture and time limit fixation for decision of cases
- Promotion of the corporate bodies of lawyers
- Protect clients by providing them awareness about their rights and legal support
- Thana culture be eliminated and introduction of the citizen-police liaison system
- National and provincial databases of criminals in coordination with the NADRA
- Public-friendly criminal justice system
- Reduce workload in courts by establishing methods of alternative dispute resolution
- Adoption of new security policy to tackle terrorism

Public sector management

Enhancing public sector management efficiency will be a key focus of the Plan. Reforms envisaged for the public financial sector, revenue administration, capacity-building, data and statistics, E-governance and corruption are outlined below:

Public financial sector

Under the ongoing PIFRA project, substantial progress has been made in the four areas of reforms: financial and budgeting reform, auditing, human resource development and change management. Efforts will be made for the sustainability of these reforms during the Plan period. Further, the office of the Auditor General of Pakistan will be strengthened to carry out performance, management, process, programme and financial audit by giving wider powers for audit. Professional auditors will be appointed to carry out broader audit functions. The DAGP has already taken several initiatives, including improvement of the legislative empowerment, financial and organisational independence, etc., which are at various stages of implementation or consideration by the government. Similarly, the audit methodology and quality assurance mechanisms have been improved and deployed. The scope of the AGP auditing will be expanded to the PSEs by reviewing relevant article(s) of the Constitution.

Revenue administration

The main emphasis of the tax administration reform is on promoting voluntary tax compliance through an enhanced level of taxpayers' facilitation. In the long-run, these administrative reforms will also enable tax administrators to effectively tackle delinquent taxpayers through a system of audit and penalties. During the Plan period, an earlier initiated reform agenda of the Federal Board of Revenue (FBR) to enhance its revenue collection effort and service standards will be completed, which will enhance the revenue collection through broad-based tax system by using IT data, reducing tax ratio and exemptions gradually, simplifying rules, accountability, transparency, integrity, publication of annual tax directory and provide transparent and high quality tax services. Briefly, the FBR reform strategy has three main planks of reforms, that is, policy, administrative and organisational.

Capacity-building and public sector reforms

The poor public management stems in part from low level of human resource development and weak institutions. A major effort has been envisaged as part of the Plan in the public capacity-building to produce a competent, accessible and motivated civil service, which is accountable and responsive to the changing socio-economic needs of the people. The government plans to implement recommendations of the National Commission for Government Reforms, especially to enhance the efficiency of education, health and revenue administration. The Parliamentary Standing Committees and other organisations overseeing and regulating financial and economic activities will be strengthened. A Performance Management Delivery Unit will be established in the Ministry of Planning, Development and Reform to monitor performances of development activities of the ministries and divisions.

The civil service reforms will be undertaken to enhance capacity of the public sector for proactive public policy, strategic vision in specialised fields and effective decision-making. In this regard, a project URAAN has been launched to reform the civil service. This will require restructuring, capacity-building and professional development with compensation linked to responsibility and performance, reforms in the areas of performance evaluation and review of the pay scales. The good governance has to be ensured in the PSEs. The Enterprises are losing about Rs400 billion per annum. Fast track privatisation, where feasible, will be undertaken. A framework for ensuring well-functioning BoDs and to engage them in turnaround plans of the PSEs will be developed envisaging a transparent process of the Board nominations, capacity-building of the BoDs, clarifying role of the BODs, and monitoring performance of the BoDs by setting key performance indicators. The corporate governance regulations for the PSEs, prepared by the Task Force on Corporate Governance, will be implemented. Moreover, capacity of these organisations will be enhanced and operational autonomy will also be ensured for better performance and management. In addition, the following specific measures will also be taken during the Plan period.

- Strict observance of security of tenure of office for a specified period – The Constitutional guarantee for security of services and tenure will be provided to each employee. Premature transfer or replacement of officers during the tenure will only be made on cogent reasons.
- Discretionary power of the Chief Executive or Chief Minister will be abolished and rationalised. However, the Cabinet will be authorised to approve any proposal, where relaxation of rules required.
- At the federal level, the Cabinet Secretary will play the role of the Chief Secretary in the provincial government. Meeting of the Secretaries Committee will be arranged regularly.
- Role of the PAO will be strengthened, and FAs organisation will be dispended with.
- Open, transparent merit-based recruitment at all levels and in all grades of the public services will be ensured keeping in view the regional quota as specified in the Constitution.
- Performance-based promotions and career progression for all public sector employees with compulsory training at the post-induction, mid-career and senior management levels will be ensured. Lateral inductions will be made from the market to enhance the public sector efficiency.
- Equality of opportunities for career advancement to all employees without preferences or reservations for any particular class, and the principle of 'Right man for the right job' will be practised.
- Smart governance will be introduced in the public sector.
- Delegation of powers to the local government for quick and efficient service delivery will carried out.
- Status of the Federal Public Service Commission as an autonomous body in all respects for merit based recruitment will be ensured.
- Educational qualifications for services groups to be recruited in the federal services will be revised. To induct technocrats, subject-based tests will be administered to candidates aspiring for induction in specific ministries. Those employed in these ministries will be moved from one job to another within the ministry, but transfer from one ministry to another will not be possible.
- Salary and retirement benefits of all civil servants will be market based.
- Execution end of bureaucracy will be made effective to provide better deliverance to the masses.
- System of check and balance will be introduced to encourage the doers and admonish the inefficient.
- The dichotomy of power between the political government and civil services will be done away with through appropriate amendments in all the relevant laws.

- Job description and the KPIs for every post will be made.
- Strengthening provincial civil services will be ensured for allowing the provinces to induct civil servants it needs without reliance on the centre.
- Decision-making tiers will be reduced.
- The redundant departments will be identified, and abolished.
- Innovation and ingenuity will be encouraged.

Restructuring of the provincial governments

The 18th Constitutional amendment is a major political achievement. It addresses long-standing political tensions among the provinces, as well as between the provinces and the centre. However, this political achievement needs to be balanced by policy outcomes. Major policy dilemmas have cropped up and require evidence-based, technically sound and politically savvy responses. First, the reform has affected 37,429 employees, who include 13,178 civil servants, 12,006 attached to autonomous bodies and 12,000 project employees. Their new roles and responsibilities need clearer definition. Second, the provinces need to bolster revenue mobilisation to finance the newly devolved responsibilities, which have not been completely covered by the 7th NFC Award. The inter-governmental fiscal relations need to be streamlined for addressing issues, such as revenue sharing for sales tax on services, which are already emerging. Third, the structure, function and authority of institutions affected by the reform is similarly unclear with bodies, such as the CCI and NEC, becoming more empowered in the policy-making process, and rethinking the roles of others such as the FPSC and the Planning Commission becoming necessary. Most importantly, capacity gaps relating to technical and administrative skills pertaining to newly devolved functions (for example, curriculum development) at the provincial level need to be identified and addressed. The provinces need to move from the operational minutiae of line-departments (domain of the local governments) to their new responsibilities, which include standard-setting, training and capacity-building, law-making, monitoring and evaluation, ensuring accountability and providing strategic leadership and prioritisation for the local governments, pertaining to each devolved service delivery area. This transition necessitates changes in the skill-sets, mindsets, job descriptions, reporting lines, etc., which need to be carefully worked out and implemented.

Role of legislators

It is more important than ever for legislators to assert their legitimate place in the decision-making, at both provincial and national levels. The Parliament is pivotal to the entire architecture of democratic governance, and needs to be strengthened virtually everywhere in the world with greater oversight capacities and legislative authority. More specifically, stronger parliaments will have to play a central role in the implementation of the future vision and development goals. The legislators' role will be enhanced in the policy-making and monitoring on the flowing lines.

- Proceedings of the Parliament and Standing Committees will be telecast through the PTV and broadcast through radio live transmissions.
- The Local Government System will be made effective and vibrant.
- Secretariat support and research staff will be provided to the parliamentarians to assist them in policy issues.
- Role of the Standing Committees will be enhanced in policy-making and monitoring.

- Political parties will constitute a group of senior parliamentarians to train their young colleagues.
- A training institute will be established to train the parliamentarians.
- Senior leaders of the political parties will visit the Parliament during proceedings.
- A curriculum on the role of the parliamentarians will be devised.
- Awareness will be created among public about the role of the Parliament.
- Capacity-building of the officers of the Ministry of Parliamentary Affairs will be ensured.

Data and statistics

It is recognised that the availability, quality, and accessibility of data in Pakistan needs to be improved to meet planning and monitoring needs, particularly of the rapidly growing economy. Better data is needed to provide the basis to develop well-informed policies, which facilitate broad-based equitable growth and poverty reduction. The Pakistan Bureau of Statistics (PBS) has been established as an autonomous body for the collection of the latest and reliable data. However, its structure and improved systems and procedures are to be operationalised. The improvement-requiring areas are:

- Addressing key gaps in the economic and social statistics, including the quality and coverage of management information systems national accounts, poverty estimation, monitoring and analysis, district and sub district data
- Timeliness of dissemination and presentation of statistical data
- Institutionalising the monitoring system of key indicators
- Harmonisation and integration between different sources of data on key indicators
- Awareness of masses regarding importance of statistics
- Perception of the public regarding reliability of statistics

During the Plan period, improvements will be ensured to achieve quality of statistic through measures such as:

- Improve statistical system
- Increase credibility of data by giving autonomy to the PBS, which will act as an independent statistical apex body with legal mandate. Independent statistical agencies will also be established at the provincial level. These agencies will implement international statistic standards.
- Efficient use of resources for improving quality of the statistical data
- Develop an effective producers-users joint mechanism to make statistical system user responsive
- Provide non-confidential micro-data for researchers
- Speed up collection of data by modernising infrastructure
- Promote professionalism through capacity-building and effective human resource development

E-governance

The concept of 'Electronic-Governance' is fast emerging as an important tool for achieving good governance, especially with regard to improving efficiency, accuracy, effectiveness, transparency and accountability in decision-making and delivery of efficient and cost-effective public services to the citizens of Pakistan, including provision of user-friendly interface with the government. So far the emphasis has been on providing connectivity, networking, technology upgradation, development of the distributed databases, selective delivery systems for information and services, and a package of software solutions. During the Plan period, the focus will be on amendment of the procedures and rules, which are in fact the core of any effective programme of e-governance. Issues of sustainability, interconnectivity, lack of requisite skill sets, ownership and change management in the beneficiary public organisation and standardisation of the e-governance activities will also be addressed. Within the ambit of e-governance, the government-to-government, government-to-citizens and government-to-business functionalities will be developed.

Further, one of the major initiatives envisaged in the IT sector is to increase access of the citizens to the IT tools and promote greater connectivity. Rollout of the successful e-governance model applications, within the federal and provincial levels, will also be concentrated. Requisite measures will be taken to mitigate gaps between key stakeholders of e-governance (public entities, academia and IT industry). Formation and re-activation of high level forum on e-governance for implementation of e-governance initiatives and restructuring of relevant institutions will be focused. Capacity development within the public sector will also be carried out to ensure that there is a greater familiarity of electronic procedures within the government quarters.

A reliable Information Communication Technologies (ICT) infrastructure will also be established by using ICT-based systems in the PSEs to promote efficiency, transparency and accountability in service delivery and decision-making.

Corruption

One of the major challenges in improving governance is to act against corruption, which is widely seen as having seeped into the administrative fabric. It is evident that systematic corruption exacts a heavy price from development activities by reducing investment, increasing capital costs, and enhancing the time business executives need to spend negotiating with the government officials. Several initiatives will be undertaken in accordance with the 18th Constitutional Amendment to curb corruption. These include: (i) Strengthening NAB through financial and administrative autonomy and utilising trained manpower already developed over the years, (ii) strengthening governance institution through an enhanced capacity and integrity, (iii) public sector management agenda consisting of actions to make markets competitive and supporting improvements in the public administration, (iv) the development of proper institutional and legal frameworks, (v) strengthening audit functions to improve resource allocation while making detection of embezzlement easy, (vi) procurement reforms, while reducing transaction costs and making fraud more difficult to perpetrate, (vii) civil service reforms, while improving procedures for recruitment and promotion that build capacity and help reduce patronage and nepotism, (viii) freedom of information through constitutional provision, (ix) reviewing and updating of the existing law against cybercrime and the IPR violation, (x) training of the investigation officers in the field of serious white crimes including banking and internet frauds, cyber offences, money laundering, terrorist financing, (xi) enforcement and streamlining regulations that improve public management and introduction of preventive tools and code of conduct which reduce opportunities for corruption, and (xii) enhancing public awareness on good governance and corruption. These initiatives will be implanted under an umbrella of the National Anti-Corruption Strategy, developed by the National Accountability Bureau. Under the mandate of section 33 C of the National Accountability Ordinance 1999, the NAB has intensified its awareness campaign against corruption. In this regard, different forums are being used to spread the NABs slogan 'Say No to Corruption' amongst the masses with an objective to make general public aware about the ill-effects of corruption and corrupt practices.

Effective implementation of the PSDP

A distinguishing feature of the Plan is the emphasis on an effective implementation of the Public Sector Development Programmes (PSDP). The strategy includes: capacity-building and institutional development of agencies involved, development of performance and result-based monitoring indicators, strengthening of planning and monitoring cells in ministries and departments, and impact analysis, and monitoring and evaluation activities in planning and development agencies with linkages to the District Monitoring Development Committees under the Devolution, periodic monitoring exercises with reports to the ECNEC and NEC, and training of project directors and other staff in the project management, monitoring and evaluation. A major focus will also be on building capacity for undertaking the public-private partnerships, monitoring the pace at which these partnerships are actually realised, lessons learnt and disseminating the implementation experience to catalyse actual realisation of the partnerships to enhance infrastructure development. Performances, outcomes and result-orientation will be the guiding criteria not only for projects and programmes, but also for policies, action plans and rules and regulations governing development as a whole.

In the past, the emphasis has only been on monitoring of activities related to the PSDP. During the Plan period, the development effectiveness of a framework as a whole will also be a focus of attention, covering both the public and private sectors. Progress on the strategic thrust of the framework will be monitored including policy coordination and effectiveness of key strategies and programmes. At the project, programme and sector-level, greater attention will be devoted to evaluation studies with a focus on impacts and outcomes, and on lessons learnt for incorporation in the subsequent phases. The monitoring system in the planning agencies, line ministries and departments, and agencies will be supplemented by constituting high-level standing committees in each of the thematic areas, with membership drawn from both the public and private sectors. These committees will have a strategic role in reviewing the Plan, implementation relating to overall policies, strategies and programmes, and key result areas, assessing the recent developments, both macroeconomic and sectoral, and making recommendations for action.

Realising importance of the monitoring, the Projects Wing of the Planning Commission is to be further strengthened by recruiting more staff and procuring equipment, and creation of the Evaluation Section. During the Plan period, the pace of monitoring will be increased by three-folds. About half of the portfolio of project inclusive of all large ones will be monitored. An impact evaluation of some of the important projects will also be taken up.

During the plan period, focus of monitoring and evaluation activities will be on following areas:

- Improving quality of projects 'at entry' through proper feasibility studies and setting-up of performance benchmark for all projects, incorporation of lessons learnt from evaluation of the earlier projects, capacity-building, and interagency coordination
- Ensuring adequate and timely release of funds
- Reviewing procedures for submission, examination and approval of projects
- Enhancing capacity for contract management, including transparency in contract documents, greater professionalism and adequate delegation of authority
- Strengthening the Result-Based Monitoring System (RBMS) – the financial phasing to be linked with the implementation schedule and key deliverables
- Simplifying procedures for the acquisition of land
- Preparing a ready reference of the financial control and regulation
- Facilitating project at preparation and design stage by the Planning Commission at the federal level, and Planning and Development Departments at the provincial level, including on-line services
- Enhance information flows, resources capacity and expenditure at the sub-national level for effective monitoring and evaluation
- Mandatory training of the project and M&E officials at the Pakistan Planning and Management Institute (PPMI) for an effective project implementation and accrual of benefits envisaged under the development initiatives
- Appointment of the qualified Project Directors from the preparation stage till completion of the project
- Establishment of the performance management delivery unit in the Planning Commission for effective monitoring of development activities as proposed under the Vision 2025
- Development of the M&E processes, procedures, tools and manuals
- Monitoring at the district level for the beneficiary-oriented schemes, and those schemes requiring greater efforts at the Tehsil, union council and community levels
- Online connectivity of all ministries and divisions with the Planning Commission to ensure sustained flow of information on the project implementation

Further to this, during the Plan period, an effective monitoring and evaluation system for managing development outcomes will be devised on the following lines:

- Realign resources in line with priorities
- Translate overall government objectives into specific programmes and activities
- Make explicit choices and trade-offs between objectives and policy options by assessing effectiveness and costs of various choices
- Build capacity to report on outcomes
- Enable managers to exert real management skills in their programmes (take decisions based on performance to improve impact of programmes rather simply ensuring disbursements and utilisations of funds)

Legal and regulatory framework

The complexity and dynamism of a market economy requires laws, rules and norms based on transparency and openness that encourage and facilitate economic interchange. It is, therefore, imperative that a progressive legal and regulatory policy framework is in place to stimulate participation in economic development and to effectively implement government policy. Laws and regulations have a direct bearing on the economic development. A legal and regulatory framework, which stifles business expansion, innovation and competitiveness, translates into a shrinking economic base. Vague laws and uneven regulations create institutional uncertainty, which constrains economic growth. This uncertainty is further compounded by cumbersome bureaucratic procedures, discretionary and arbitrary decision-making and enforcement practices or by repeated changes in the regulation and rampant corruption.

Laws, rules and regulations promoting accountability are most successful in creating conditions, which ensuring transparency and probity. Greater transparency, objectivity, predictability and legitimacy in the institutional environment lower transaction costs, and increase contracting efficiencies. It also encourages open and formal business transactions and enhances credibility of the state and its policies. All these factors provide impetus to economic development. Effective regulation is ultimately a function of good governance, which is compromised by the absence of an effective court system. Even the best-designed legal and regulatory frameworks cannot achieve their objectives if these are not accompanied by an independent and efficient judiciary to guarantee and enforce legal rights. The role of effective judicial system is critical for ensuring predictability in the economic transactions and for their long-term planning. The judicial independence guarantees enforcement of contracts, and fair and consistent application of the rule of law to economic life; thereby averting arbitrariness of officials.

During the Plan period, the legal and regulatory institutions will be strengthened to protect public interests through formulation and application of the rules and regulations, separation of power, democratic accountability, consistent and coordinated regulation, uniform regulatory framework, transparency and predictability. The main features of the Plan strategy to be implemented are:

- Provide an enabling environment for economic reforms to ensure development through investor-friendly legal and regulatory frameworks, which reduce corruption and enhance efficiencies within the public sector
- Introduction of 'One-Stop Shop' concept, that is, establishment of the central point of all government agencies dealing with new investment
- Enhance understanding and awareness of legal and regulatory framework issues, among all relevant stakeholders, including the general public
- Promote effective implementation of the government laws and rules to regulate the market in the public interest
- Improve capacity of the regulatory institutions for an effective enforcement of legal and regulatory policies, programmes and projects, and develop a monitoring mechanism for an effective implementation
- Develop and put in place a well-targeted, comprehensive and integrated legal and regulatory framework covering the following sectors: (i) banking and financial, (ii) trade facilitation, investment and industries (cartel and monopoly), (iii) power, oil, gas and water (public-private partnership legal framework), (iv) information technology, (v)

social sector (NGOs), administrative, tax, judicial and dispute resolution, (vi) labour, (vii) intellectual property rights, (viii) land and property, and (ix) consumer protection

Improving regulatory environment

A key pillar of the Plan is to facilitate growth through the private sector development, which in turn requires an enabling environment. The following institutions and their regulatory competence will be given priority during the Plan period:

State Bank of Pakistan

The main aim of the SBP is to regulate the monetary and credit system of Pakistan and to foster its growth in the best national interest with a view to secure monetary stability and fuller utilisation of the country's productive resources. As central bank of the country, the SBP has a number of policies, regulatory and fiduciary responsibilities aimed at strengthening the financial system of the country and providing an enabling framework for the financial industry that fosters economic growth.

A sound and dynamic banking sector is essential for the economic growth, as growth in the banking sector and real economy mutually reinforce each other, while this sector constitutes the core of the financial sector in Pakistan. The private sector investment and consumption will be seen as the key drivers of the economy, and will be supported by growing financial intermediation and services, including not only banks, but other financial sector players as well. The dynamism and robustness of the banking sector is impressive and stands out particularly relative to its state in the early 1990s when the financial system was dominated by the public sector banks. However, more reforms are needed for the banking sector to grow to its full potential (like other emerging market countries and enhance its outreach to undeserved and unbanked segment of the society) for supporting strong and sustained economic growth and development.

Issues and constraints faced by the financial sector

There are a number of critical problems and constraints, which limit scope of the banking sector growth and development in Pakistan. These include the following:

- A large number of segments of the economy, population and geography remain underserved by the formal financial system.
- The SBP has so far played its role very effectively. However, the competition and continuous market innovations continue to pose challenges to the SBP.
- The financial system of Pakistan remains bank-centred and needs to become more diversified in order to meet the country's future financing needs. The operations of the Development Finance Institutions (DFIs) also require reconsideration.
- Low level financial literacy contributes to the underdevelopment of the financial sector.
- Banks and Non-Bank Financial Institutions (NBFIs) are introducing new systemic risks as well as regulatory and supervisory challenges that have to be dealt with. The SBP has developed coordination, made different arrangements and formed a Joint Task Force (JTF) with the SECP to manage these risks.
- The current privately-owned structure of the domestic banking system calls for robust safety nets, particularly the deposit insurance for the small savers.

- There is a lack of bankruptcy legislation and confidence of the financial sector in available legal process for recovery of the Non-Performing Loans (NPLs).
- Growth and development of the banking system and other financial institutions needs further improvement in the Financial Market Infrastructure.
- There is a limited availability of the Shariah-compliant financial products and services against huge demand among various segments of the society.
- Issues and documentation of economy and asymmetry of information in various sectors of the economy discourage financial institutions to play their optimal role in promoting participatory modes of finance.
- Crowding-out effect excessive government borrowings from the banking sector also leads to availability of the limited resources for the real sector of the economy, including priority areas, like agriculture, SME, micro, infrastructure, etc.
- Also, there is a limited availability of Shariah-compliant government securities and non-availability of short and long-term Shariah-compliant securities for liquidity management of the Islamic banking institutions.
- The investor-base for the government securities is largely confined to the banking financial institutions. There is a need to attract a broader investor base including NBFIs and retail investors to channelise funds directly to debt instruments and bringing efficiency to bank intermediation process.
- Taxation issues of the Islamic financial services industry need to be resolved by providing a level playing field and tax neutrality.
- Capacity-building is needed in relevant government departments for promotion and development of the Islamic financial industry.
- Issues in efficient recovery system of non-performing financing need to be resolved in order to improve financial health of the banking industry.
- Institution mechanisms for alternate dispute resolution need to be developed.
- Opaque information and weak enforcement of laws is resulting in stringent collateral requirements from the banks contributing in access to finance.

Banking sector reform strategies

The Plan strategises sustainable growth and development of the economy in general, and the financial sector, in particular. The steps are:

- In line with our country's requirements and global trends, the SBP has recently developed a broader National Financial Inclusion Strategy (NFIS) for Pakistan in collaboration with the World Bank (WB) Group. The NFIS will help the SBP and government of Pakistan to adopt a strategic vision for universal financial inclusion in Pakistan. The NFIS provides a vision that underlies a framework and a roadmap for priority actions aimed at addressing constraints and significantly increasing access to the usage of quality financial services. The strategy will guide efforts to promote financial inclusion over the coming five years. It includes targets and objectives, which will be monitored, but it intends to be a living document that can be adjusted as required. Broadly, the NFIS covers priority areas such as branchless banking, SME finance and infrastructure, microfinance, rural and agriculture finance, housing finance, Islamic finance, digital payment systems, consumer protection and financial literary, insurance, pensions, etc.

- Strengthen competition and efficiency in the banking sector with more transparency and diversification with new products, and delivery channels as well as measures to enhance the outreach of the banking system in the rural areas
- Further strengthen and diversify the banking sector by continued efforts to raise governance and risk management standards, capital adequacy requirements and resolution of underperforming commercial and specialised banks
- Ensure consumer protection through codes of conduct and new institutional arrangements, and improve financial education through financial literacy programmes
- Strengthen prudential regulation and supervision by updating banking legislation and regulations, methods of supervision, and effective enforcement of the prudential rules for all banks, including state-owned ones
- Strengthen the legal framework to support consolidated supervision (for example, the concept of non-operating bank holding company) and to recognise the regulatory architecture to allow better regulation and supervision of financial groups and conglomerates
- Develop a financial safety net of protection for small depositors, coordination arrangements with the government for dealing with systemic banking problems
- Further strengthen the SBP to maintain monetary and financial stability by updating the half-century-old SBP Act in accordance with the best international practices for the central bank independence, accountability and governance structures
- Further efforts for steady foreign exchange reserves by attracting FDI in the financial sector and channelling of home remittances through formal banking channel
- Development of the Islamic banking system as an alternate to conventional banking by providing enabling legal, regulatory and Shariah-compliant framework, promotion of the Islamic finance as a distinct and competitive system to serve to the financial needs of the masses
- Improving the infrastructure, especially introduction of the Bankruptcy Act, improvement in legal process for recovery of the NPLs, enhancement of capacity of the Banking Courts, credit information and ratings, land and property registries and addressing the procedural delays in the legal system to improve the efficiency of the financial sector transactions
- More coordination among various segments and stakeholders of the Islamic financial industry, including relevant federal and provincial ministries, departments, authorities and regulatory bodies, required in order to achieve synergistic results of the efforts being made by them independently
- Increasing Pakistan’s connectively to the global Islamic financial services, appropriate mechanisms to be developed for utilisation of the funds from the Islamic banking industry in various economically and financially viable projects by the federal and provincial governments, PSEs, etc., through issuance of the project specific Sukuk or other Shariah-compliant modes

- Assessing the legal frameworks for supporting the resolution strategies of the SBP and coming up with enhancements and revisions therein.
- Developing legal frameworks and provisions in the existing laws to provide coverage for enhanced domestic and cross-border cooperation with other regulatory bodies
- Develop framework for facilitation of the electronic commerce
- Pakistan's investment policy provides complete freedom of investment repatriation of profits, dividends and disinvestment proceeds to the foreign investor
- The Pakistan Remittances Initiative (PRI), jointly launched by the Ministry of Finance, SBP and Ministry of Overseas Pakistanis in 2009, is striving hard for channelising of the home remittances through the formal banking channel.
- A high-level Steering Committee for the promotion of the Islamic Banking in Pakistan has been constituted.
- A Centre of Excellence for the Islamic finance is being created.

Competition Commission of Pakistan

Pakistan's contemporary competition law originally came into effect as the Competition Ordinance 2007, and was subsequently enacted by the Parliament as the Competition Act 2010, which aims to ensure, enhance and provide a legal framework to create a business environment based on healthy competition towards improving economic efficiency, developing competitiveness and protecting consumers from anti-competitive practices.

Since 2007, the competition regime in Pakistan has come a long way. The CCP's consistent cross-sector enforcement, supported by sound research, and coupled with broad-based advocacy efforts, have strongly established its presence and that of the Act in the country.

During the Plan period, the CCP and the competition regime will be further strengthened by adopting the following measures:

- Continued across-the-board enforcement, focused advocacy, and sound research
- Development of the formal institutional linkages with sector regulators such as the SECP, PPRA, PTA, etc., through the MoUs
- Introduction of the competition law and economics courses in the higher educational institutes
- Development of the specific regulations and guidelines relating to protection of competition in the public procurement
- Introduction of the competition impact assessment
- Improvement in the human resource capacity through close linkages with the international agencies and counterparts

Securities and Exchange Commission of Pakistan

The Commission is to develop an efficient and dynamic non-bank financial market based on sound legal, regulatory system, which fosters principles of good governance in the corporate sector, ensures proper risk management procedures in the capital market, and protect investors through a fair, efficient and transparent regulatory framework, based on the international legal standards and best practices. The SECP has proactively undertaken various reform initiatives for improving legal, regulatory and operational infrastructure. As result of these efforts, visible improvement in performance of the non-bank financial market has been witnessed, such as unprecedented growth, higher returns and amplified investor confidence. This growth coupled with inherent potential, necessitates concerted efforts for sustainable and comprehensive growth of non-bank financial market. For this purpose, the following measures will be taken:

Capital market

The SECP's future roadmap, as listed below, envisages introduction of the key structural and regulatory reforms for development of the non-bank financial market in line with the International Organization of Securities Regulators (IOSCO) principles and international best practices. The measures are:

- Revamp of the Broker Registration Regime for the demutualised environment, where registration will be linked to capital adequacy requirements and activity based licensing.
- Development of a robust regulatory framework in line with the best international practices and IOSCO principle
- Improve regulations governing exchange traded funds and regulations governing market making
- Review of a large number of outdated rules governing capital market and formulation and promulgation of new one
- Introduce new regime for the Islamic capital market with appropriate legal and regulatory framework for products and service to address investment needs of investors in compliance with the Shariah
- Improvement and introduction of new corporate laws to regulate securities market
- Introduction of the post-demutualisation reforms in stock exchange, such as brining in strategic investor
- Diversification of product portfolio of commodities market, including exploring options to introduce the Shariah-compliant commodity contracts
- Development of new products and systems, such as listing and trading of stock option
- Develop debt capital market for the government and corporate bodies
- Establishment of the Securities Investor Protection Corporation and Brokers Associations
- Introduce guidelines for issuance of the Sukuk (Assets Backed Securitisation)

Corporate sector

- Review of the Companies Ordinance 1984 for simplification of company law and its procedures
- Implementation of the newly-approved rule to improve corporate governance practices, that is, the Public Sector Companies (Corporate Governance) Rule 2013
- Amend the existing legal framework to improve e-governance

Non-banking finance companies

- Promulgation of an independent NBFC law
- Revamp the business model of investment banks through amendments in the NBFC rules and regulations
- Launch investor education programmes on mutual fund
- Amendments in the Modaraba Ordinance and Rules 1981 to protect interests of shareholders
- Introduce reforms in the real estate investment trusts

Insurance sector

- Establish terrorism pool for terror-effected persons on the public-private partnership basis
- Introduce framework for the micro-insurance schemes for the public and private sectors
- Introduce compulsory Motor Third Party Insurance Scheme
- Establish Guarantee Fund for protection of policyholders in the event of failure of companies
- Development of catastrophe insurance and bounds in Pakistan
- Corporatisation and rejuvenation of the State Life Insurance Corporation
- Strengthen role of the National Insurance Company Limited to promote insurance industry
- Regulation of the postal life insurance and group life insurance sector
- Development of the health insurance and review of insurance and reinsurance regulation

National Tariff Commission

The federal government promulgated the National Tariff Commission Ordinance 2015 and trade remedy laws, namely (i) Antidumping Duties Ordinance 2015, (ii) Countervailing Duties Ordinance 2015.

Under the Section 8 of the National Tariff Commission Ordinance 2015, the functions of the Commission will be to advise the federal government on:

(a) Tariff and other trade measures to

i. provide assistance to the domestic industry; and

ii. improve competiveness of the domestic industry

(b) Trade remedy actions being faced by domestic producers and exporters

(c) Rationalisation of tariff and proposals for tariff reform

(d) Removal of tariff anomalies, and

(e) Any other matter relating to tariff and trade measures, which the federal government refers to the Commission.

Public Procurement Regulatory Authority

The Public Procurement Rules (PPR) 2004 provide a broad regulatory framework for transparent public sector procurements, and are applicable to all the PSEs at the federal level. Adherence to these Rules promises introduction of transparency and accountability in the public sector procurements. The Authority has been assigned the role to reform and restructure process of regulating the public procurement of goods, services and works in the public sector. The first major assignment undertaken by the PPRA was review of the existing procurement regulations and procedures of five public sector enterprises as well as their re-engineering and redesigning for transparent and efficient procurement procedures by these enterprises.

During the Plan period, a robust public procurement will be established through intervention and reforms in the areas, which includes: i) review of the existing PPRA Ordinance 2002, PPR 2004, and PPRA Regulations to bring them at par with international best practices, ii) preparation of new regulations as per requirements of the PPR 2004, iii) preparation of Standard Bidding Documents (SBDs) for goods and services, and review of the existing SBDs for Works, iv) development and application of e-procurement as an end-to-end business solution, v) strengthening the National Institution for Procurement for capacity-building of officials of the procuring agencies and suppliers from the private sector through face-to face and on-line training, vi) strengthening the existing Advisory Group on Procurement – a representatives body of the federal and provincial governments for harmonisation of the procurement procedure and practice, vii) developing linkages and cooperation with the South Asian countries and other international bodies to learn from their experiences and replication of their best practices in Pakistan, viii) ensuring financial autonomy for the PPRA to reduce dependence on the federal government grants and generate own resources for meeting its expenses.

Intellectual Property Organisation

Pakistan's intellectual property rights regime is not being enforced for many years. Some quarters think that it discourages the Foreign Direct Investment (FDI), and serves as a disincentive to local research, innovation, creation and development of knowledge assets in the country. Counterfeiting in various fields of intellectual property, like software and recording industry, has become rampant and space for genuine business is squeezing. During the Plan period, the Law on Genetic Resources, Traditional Knowledge and Folklore (GRTKF) and Law on Utility Model and amendment in the Intellectual Property Legislation will be prepared and review of the Intellectual Property Law on copyrights, patents and trademarks in consultation with the Federal Investigation Agency, stakeholders of the private sector and IP experts will be undertaken. In addition, the following initiatives will also be undertaken:

- Building IP house in Islamabad
- Notification of the industrial law and designs of integrated circuit rules
- Establishment IP Academy in Islamabad
- Offering PhD scholarships in the IP education by the HEC
- Operationalisation of the IP Tribunals for speedy disposal of cases

- IP strategy and action plan to strengthen the IP regime to be implemented in collaboration with other stakeholders
- Strengthening the IP and its enforcement
- Capacity-building of diplomatic missions to rectify Pakistan's IP image abroad
- Revision of the legal framework
- Balance the interest of stakeholders
- Approval of the Plant Breeders Rights Law and establishment of PBR in the IPO-Pak

Oil and Gas Regulatory Authority

A number of legal and regulatory initiatives, including the Minimum Performance and Services Standard 2003, Natural Gas Quality Standard 2008, Standard Technical Specifications for Equipment and Material to be used in the Natural Gas Networks 2009, Contract for supply of gas for domestic, commercial and industrial consumers, OGRA (Financial) Regulation 2005, OGRA Service Regulation 2005, Natural Gas (Well-Head Price) Regulation 2009, UFG and HR benchmarking OGRA, NGRA (licensing) Rules Regulation 2009, Natural Gas Tariff Rules 2002, OGRA Complaint Resolution Procedure Regulation 2003, Oil Transportation (Pipeline) Technical Standards 2009, etc., have been launched by the OGRA to protect public interest, regulate and foster competition and investment in the oil and gas sector during 12 years. There is still a need to provide effective and efficient regulations to the sector. During the Plan period, the following regulations will be initiated in the sector:

- Introduction and expansion of the LPG Auto Refuelling Infrastructure
- Introduction and encouragement of LPG as alternate domestic fuel in domestic and commercial sector, particularly in new towns where natural gas infrastructure unavailable
- Implementation of the Natural Gas Regulated Third Party Access (TPA) Rules 2012
- Notification of the draft Pakistan Oil (Refining, Blending, Transportation, Storage and Marketing) Rules 2014
- Enhancement of storage capacity for the petroleum products for their better availability in emergency situations
- Encouraging investment in the oil refining and marketing to reduce oil imports bills
- Grant of the LNG licences to facilitate LNG import to bridge demand-supply gap
- Introduce UFG benchmark and HR benchmark in respect of the gas utility companies for next five years
- Implementation of standards, provisions of applicable rules and regulations, etc., by the licensees
- The federal government to issue policy guidelines in accordance with the provisions of the OGRA Ordinance 2002, and the regulator to be permitted to function independently as per provisions of the Ordinance

Pakistan Telecommunication Authority

Efforts to develop a fully competitive market in the telecom sector were initiated in the early 1990s and during the last 10 years, a number of initiatives, including promoting rapid modernisation of the telecommunication systems, and protecting interests of the telecom users, were taken by the PTA.

During the Plan period, the following policies will be adopted to regulate and operate the telecommunication sector.

- Create a fair regulatory regime for promoting competition and providing equal opportunities to the existing players and new entrants in the market
- Ensure fairness and transparency in licensing and competition
- Promote rapid modernisation of telecommunication systems and introduction of next generation technologies
- Build regulatory and technical support systems, including availability of additional spectrum, spectrum harmonisation, spectrum and infrastructure sharing
- A timely shift in the regulatory regime with the introduction of the next generation technologies, networks and proliferation of broadband in an increasingly converging environment
- Make efforts for ensuring quality telecom services to the unserved and underserved areas through the USF
- Undertake timely and efficient decisions to effectively safeguard public interests
- Encourage and facilitate local manufacturing of the telecom equipment and handsets
- Regular in-house as well as third party Quality of Service (QoS) audits and surveys
- Streamline enforcement of the national laws, rules and regulations for governing the telecom sector in the next revolution underway with an advanced spectrum licensing
- Safeguard Pakistan's national and security interests

Pakistan Electronic Media Regulatory Authority

Owing to the sudden and rapid impetus of the electronic media in Pakistan, the PEMRA inherited many challenges. One of these was to cause realisation among the media players that media freedom is coupled with a direct and equal proportion of responsibility. In a democratic country like Pakistan where freedom of speech and expression is guaranteed to every citizen by the Constitution as a fundamental right, it is the responsibility of all and sundry to exercise this freedom with due care to ensure that it might not incite violence, terrorism, racial, ethnic or religious discrimination, sectarianism, extremism, militancy, hatred, obscenity, vulgarity or anything offensive to the commonly accepted standards of decency. Another challenge for the PEMRA was flooding of the foreign satellite television into the country without any degree of control. Although initially, at the time when many Pakistani satellite television channels were in offing, many foreign TV channels did a commendable job in enhancing level of general knowledge and information of our people. Simultaneously, some posed grave cultural and political threats to the country. To tackle these issues, the PEMRA formulated a policy of 'Landing Rights' allowing public access to those channels, which conformed to generally accepted value system, while barring those which were on the contrary. During the last decade, the country has witnessed unprecedented growth in the number of TV channels, cable TV and FM Radio stations in the private sector, which is unmatched in the South Asian region, and perhaps elsewhere as well. This boom is owed to the government's unequivocal commitment to a free media and the proactive role played by the PEMRA in facilitating growth of the electronic media.

During the Plan period, the following strategy will be pursued to strengthen and regulate the electronic media:

- Improve the standards of information, education and entertainment
- Addition to choices available to the people
- Facilitate the devolution of responsibility and power to the grassroots level
- Ensure accountability, transparency and good governance by optimising the free flow of information or news

National Electric Power Regulatory Authority

The government embarked upon a restructuring plan of the WAPDA in 1992, and the entity was restructured into distinct autonomous entities under the Companies Ordinance 1984. To regulate the power sector, the NEPRA was established under the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997. The NEPRA, in pursuit of its functions, has introduced a number of regulatory tools to ensure service quality, and during the last five years added several rules, regulations, guidelines, Standard operating Procedures (SoPs), namely:

- NEPRA Upfront Tariff (Approval and Procedure) Regulations 2011
- NEPRA Financial Regulations 2010
- NEPRA (Procedure for filing appeal before the Authority) Regulations 2012
- NEPRA Standard Operating Procedures for Inspection, Examination and Provision of Copies of Documents 2015
- NEPRA (Sale of Electric Power by Renewable Energy Companies) Guidelines 2015
- NEPRA Guidelines for Determination of Consumer-end Tariff (Methodology and Process) 2015

The NEPRA is vigorously following monitoring and enforcement of its licences to enforce government policies effectively in addition to the existing laws for the betterment of the power sector. The NEPRA has announced upfront tariffs of various technologies, such as, wind, solar, coal, bagasse, small hydro, RLNG, etc., to expedite the process of grant of tariff in transparent manner. By the end of the Plan period, the prevalent state of the electricity affairs will be much improved.

Pakistan Nuclear Regulatory Authority

During the last five years (2008-2012), regulations on various subjects have been issued by the PNRA to control and regulate matters related to nuclear safety, radiation protection, transport and radioactive waste management. These organisations and subjects include:

- Licensing fee by the Pakistan Nuclear Regulatory Authority
- Transaction of business of the Pakistan Nuclear Regulatory Authority
- Licensing of the nuclear safety class equipment and component manufacturers

- Safety of the nuclear installations – site evaluation
- Management of a nuclear or radiological emergency
- Safety of the nuclear research reactor(s) operation
- Pakistan Nuclear Regulatory Authority enforcement regulations

During the Plan period, additional regulations and other regulatory activities will be taken up to control and regulate nuclear safety and radiation protection aspects: The subjects are:

- Physical protection of nuclear materials and nuclear installations
- Security of the sealed radioactive sources
- Decommissioning of facilities using radioactive material
- Safety of nuclear fuel cycle facilities
- Authorisation of organisations for non-destructive testing and evaluation of safety class equipment for nuclear installations
- Licensing of the Karachi Nuclear Power Plant (Unit-2 and Unit-3)
- Review and assessment of the site evaluation reports for new Nuclear Power Plants sites, other than the existing NPP sites in line with the energy security plan of the government
- Further increase in licensing net of facilities using radioactive sources and radiation generators being used in the medical, industrial and agricultural applications

With a comprehensive reform agenda as mentioned above, the governance indicators are expected to improve during the Plan period. In order to accomplish this agenda, Rs344.125 billion (Rs25.5 billion for the federal programmes and Rs318.625 billion for the provincial programmes) have been earmarked for the Plan period for activities related to the governance, innovation, reform, research and statistics sectors. It is expected that the successful implementation of initiatives in the areas of service delivery, rule of law, citizen participation and regulatory framework will result in improving governance and growth-related indicators.

PILLAR-IV

ENERGY, WATER AND FOOD SECURITY

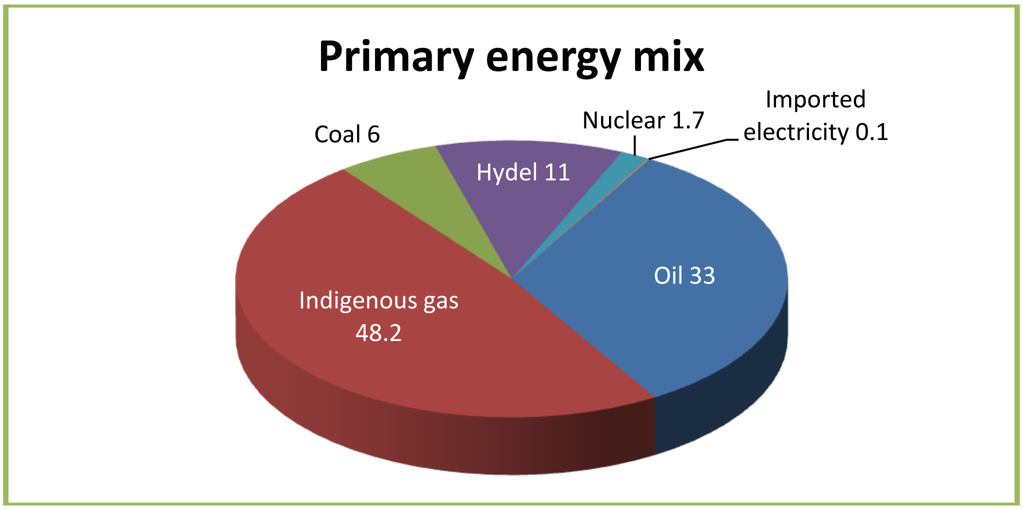
Chapter 19

ENERGY

Energy, being lifeline of socio-economic development of a country, occupies a dominant position in the Plan as ensuring energy security is one of the important themes of the Vision along with water and food. Pakistan is facing a formidable challenge of energy shortages with the demand outweighing its supply. The energy shortage has adversely affected all sectors of the economy resulting in an annual loss of up to three per cent of the GDP.

Pakistan’s existing energy mix is highly dependent on expensive fuels, like oil and gas, instead of coal and hydel. In this context, gas accounts for 48 per cent, followed by oil 33 per cent, hydel 11 per cent, coal six per cent, nuclear two per cent and a small fraction from imported electricity. Disproportionate reliance on the imported oil, that is 85 per cent of the total supply, is exerting a strain on the balance of payments besides making the energy mix unfavourable.

The total commercial primary energy mix for 2012-13 was 64.59 MTOE of which 26.5 per cent was from imports and 73.5 per cent was from local indigenous resources. The current energy mix is heavily based on the subsidised indigenous gas, which is depleting and is left with useful life of 17 years at the current consumption level. The future demand of primary energy is projected to surge up to 92 MTOE during the Plan period.



Source: *Energy Year Book 2013*

Pakistan is blessed with huge resources of energy potential as mapped in the table given below. According to the resource assessment, there is a potential of 1,250 MTOE of oil and natural gas in addition to 1,540 MTOE of coal in the country. Furthermore, there is a potential of approximately 100,000 MW of renewable energy (56,721MW of hydro and 43,000 MW of wind).

Table-1: Ultimate energy resource potential estimates

Resource category	Ultimate / Recoverable reserves	Level of production (2013)	Consumption (2013)
Oil	27.5 billion BBL/ 1.1 billion BBL *(147.92 million TOE)* **4%**	27.84 million BBL *(3.74 million TOE)* **2.5%**	19.39 million tonnes *(19.78 million TOE)* **81% import of oil and petroleum products**
Natural gas	150 TCF/ 55.63 TCF *(1,100 million TOE)* **37%**	1.5 TCF *(4,126 MMCFD)* *(31.15 million TOE)* **2.70%**	1.5 TCF *(4,126 MMCFD)* *(31.15 million TOE)* **0% Import**
Shale/Tight gas	100TCF 0TCF **0%**	*Not produced yet*	
Coal	186 billion tonnes/ 3.45 billion tonnes *(1.54 billion TOE)* **1.85%**	3.17 million tonnes *(1.422 million TOE)* **0.09%**	6.89 million tonnes *(3.86 million TOE)* **54% imported coal**
Hydel	56,721 MW (Identified potential)	6,773 MW 29,857 GWh *(7.12 million TOE)* Installed capacity **12%**	96,122 GWh *(23 million TOE)* Total installed capacity Hydel **31%** Thermal **69%**
Wind power	43,000 MW (Identified potential)	106 MW 245 GWh *(0.06 million TOE)* **0.25%**	96,122GWh *(23 million TOE)* Total installed capacity Wind **0.25 %**

Source: *Estimates based on scientific methods. (Ahmed. R. 1998, Hydrocarbon Resource Base of Pakistan, Pakistan Journal of Hydrocarbon Research Vol.10, p1-10), and Energy Year Book 2013*

For efficient and effective exploration and exploitation of the energy resource potential, an integrated energy planning for fuels (oil, gas and coal) and renewable energy is required. It also emphasises importance of the institutional restructuring in the energy sector besides revamping policies, governance, regulation and capacity to overcome the prevailing energy crisis.

Fuel sector

Situational analysis

The fuel sector consists of oil, gas and coal. The domestic oil production has remained flat in the range of 70 to 77 BBL per day for last couple of decades whereas the demand has constantly been increasing. In 2012-13, 7.5 million tonnes of crude oil and 10.5 million tonnes petroleum products were imported to meet the domestic demand. Pakistan is expected to remain dependent on imported oil. Oil is being basically used for transport sector (49 per cent) and power generation (42 per cent). Remaining nine per cent is consumed by domestic, industrial, agriculture and other sectors. Out of the total supply of 21.3 MTOE including crude oil, petroleum products and LPG around 84 per cent are imported, and remaining 16 per cent is domestically produced.

In the upstream gas sector, seven existing large fields represent 65 per cent of the total gas production, which will start declining in the medium-term. Out of 1,267 billion CFT gas consumption, 28.6 per cent goes to the power sector, followed by domestic sector (23 per cent), general industry (22 per cent), fertilizer (14.8 per cent), transport (7.9 per cent) and commercial (3.2 per cent). At the current pace of consumption, gas deficits could climb to over 3,000 MMCFD in addition to major oil imports, which could pose energy security risk. There is a dire need to increase exploration and development activities to meet the growing needs of various sectors of the economy.

Coal is a cheap fuel for power generation compared to other fuels. Despite huge reserves of 186 billion tonnes, the consumption and exploitation of domestic coal has been negligible. Out of the total consumption of 6.88 million tonnes coal, cement industry utilises 56.1 per cent followed by brick kilns, that is, 39.1 per cent. Coal is found in almost all the four provinces. One of the basic hurdles for not developing coal is the use of rudimentary mining methods.

Challenges

The major challenges are:

- Inappropriate wellhead pricing structure of indigenous gas
- Law and order situation hampering the exploration activities
- Shortage of drilling rigs causing low exploration and development possibilities and prospect generation, whereas lack of economies of scale makes the international bidder non-competitive
- Slow exploration activities in off-shore areas due to high cost (The present on-shore exploratory drilling density is about one well per 1,000 square kilometres against the world average of 9.5 wells per 1,000 sq. km.)
- Non-development of dormant gas reserves because of slow evaluation and appraisal process, litigations, low BTU or marginal reserves
- Lack of a proper monitoring system to review the progress on blocks already awarded for exploration
- Highly volatile prices in the international oil market
- Inefficient and obsolete refining operations and sub-standard oil products

Targets

Fuel demand and supply

Demand projections of oil, gas and coal are given below, which are based on an analysis and assessment of various fuel consumption trends. These projections highlight that demand for gas is expected to continue to be higher than other fuels. Similarly, there is an increasing trend for the imported coal, which is substituting the expensive fuels.

Table-2: Demand and supply projections for fuel

(MTOE)

	2013-14	2014-15	2015-16	2016-17	2017-18
Oil (including LPG)	23.86	24.6	25.51	26.23	27
Gas	31.44	33.09	37.98	37.27	40.87
Coal	3.31	3.55	3.83	4.14	26.43
Primary energy supply (import + domestic)	58.61	61.24	67.32	67.64	77.16
Imports as % of primary energy supplies	36.60%	35.94%	43.30%	43.86%	48.64%

Source: *Planning Commission*

In the context of heavy reliance on the gas supplies in the overall energy mix, the indigenous resource sustainability is questionable. At the current rate of production and consumption of gas, it will last only for about 17 years if no new discoveries are made in the country. This situation warrants boosting the pace of exploration and development activities of oil and gas. It is projected that the domestic fuel supplies will improve by 2017-18 due to anticipated Thar coal production, which is 10 million tonnes coal per annum.

Table-3: Domestic fuel production

(MTOE)

	2013-14	2014-15	2015-16	2016-17	2017-18
Oil (including LPG)	4.07	4.26	4.46	4.67	4.72
Gas	31.44	33.09	31.56	30.86	30.89
Coal	1.64	1.88	2.15	2.45	12.82
Total indigenous supply	**37.15**	**39.23**	**38.17**	**37.98**	**48.43**

Imports

Total imports are estimated to rise from 21.45 million TOE in 2014 to 45.87 million TOE by 2018. The higher growth is expected for the natural gas, LNG and coal as shown in the Table 4 below.

Table-4: Fuel imports

(MTOE)

Description	2013-14	2014-15	2015-16	2016-17	2017-18
Oil (including LPG)	19.78	20.34	21.05	21.56	22.28
Imported LNG	0	0	6.42	6.42	9.98
Coal	1.67	1.67	1.68	1.69	13.61
Total imports	21.45	22.01	29.15	29.67	45.87

Strategies and initiatives

Oil and gas exploration

Presently, the conventional exploration for oil and gas is reaching its maturity stage, especially in Sindh and the size of oil and gas discoveries is decreasing. Consequently, the reserves and productions are not being replenished effectively. In order to support the conventional oil and gas resources, the exploitation of unconventional resources, especially shale oil and gas, is one of the priority areas of the government.

A shale gas study, with the USAID financial assistance of $1.8 million, has been initiated in January 2014 and is expected to be completed by the end of 2015. The prime objective of the study is to provide basis for formulation of the shale gas policy.

Coal

Thar coal field contains 175 billion tonnes of lignite, which can be utilised for power generation. The Thar Coal Energy Board (TCEB) has been formed by the Sindh government, entrusted with the task of exploring Thar coal for power generation, is a part of the overall power generation plan. During the Plan period, the following initiatives to expedite the exploitation of the Thar coal reserves will be undertaken.

- Block-II: Sindh Engro Coal Mining Company for 600-1000 MW plant by 2017-18
- Block-III: M/s Couger Energy Company to conduct feasibility for underground coal gasification technology for establishment of 400 MW plant
- Block-IV: M/s Bin Dean Group, UAE to conduct feasibility for coal mining and power generation plant of 1,000 MW
- Block-V: Under Ground Coal Gasification Project by the Planning Commission
- Block-VI: Sindh Carbon Energy Limited for feasibility study for 300 MW plant

In addition to above, seven additional blocks in Thar field will be offered for award to interested investors for development of mines and power generation.

LNG import

In order to bridge the existing demand-supply gap of over two BCFD, projected to further increase to 1.4 BCFD by 2017-18, a three-pronged strategy envisaging – incentivising Exploration and Production (E&P) companies for enhanced domestic production, import of gas and LNG, and rationalising economic use of gas in various sectors – will be pursued during the Plan period.

An LNG terminal at the Port Qasim (Karachi) is in place (being developed) by the Engro Elengy Terminal Pakistan (Pvt) Limited. The imported LNG is expected to reach by the end of 2015. The imported LNG will be supplied to major sectors, like power, to mitigate the power shortages.

The Gwadar-Nawabshah LNG Terminal and Pipeline Project envisaging construction of 700 kilometres pipeline from Gwadar to Nawabshah, and installation of LNG regasification terminal at the Gwadar Seaport is also planned.

A project of laying an internal 42-inch diameter gas pipeline to pump the imported RLNG, TAPI and IP gas from South to North (Karachi-Lahore) will also be implemented during the Plan period.

Iran-Pakistan Gas Pipeline Project

This Project aims to bring natural gas from South Pars gas field in Iran to Pakistan. The project includes laying of 42-inch diameter 1,800 km pipeline with design capacity of 750 million cubic feet of natural gas per day (BCFD) from Iran. 1,150-km long pipeline from the Iranian field to Iran-Pakistan border is being completed by Iran whereas the Pakistani portion of 781 kms is under active consideration for implementation. In spite of difficulties arising from geopolitical complications, the IP project will be accorded special attention and all efforts will be made to commission the project within the Plan period.

Turkmenistan-Afghanistan-Pakistan-India Gas Pipeline Project

The TAPI Project aims to bring natural gas from the Yoloten, Osman and adjacent gas fields in Turkmenistan to Afghanistan, Pakistan and India. The Project, being supported by the Asian Development Bank (ADB), envisages a 56-inch diameter 1,680 kms pipeline with design capacity of 3.2 billion cubic feet of natural gas per annum (BCFD). The first gas flow is planned by the end of 2019.

The TAPI Pipeline Company Limited (TPCL) has already been formed with MD, Interstate Gas System Ltd (ISGSL), as its Chairman. Presently, the feasibility study earlier conducted in 2008 for the project is being reviewed by the ADB.

Fuel sector reform initiatives

The Plan highlights the need to depart from the business-as-usual approach to meet difficult but doable challenges facing the energy sector and to remove impediments for ensuring sustainable energy supplies to the economy. The main recommendations and strategies are:

- The price of gas in various uses and sectors to be gradually adjusted to a level close to the prices of substitute fuels
- Developing human resources for large-scale mining operations at Thar and Lakhra coalfields
- Provincial governments to augment present facilities and establish new ones based on latest technologies
- Special attention will be made to attract investors in the offshore exploration. Director General (Petroleum Concessions), being a focal point, will put all efforts together for enhancing offshore petroleum exploration activities and target at least two wells per year (one each in public and private sector) during the Plan period.
- In order to bring efficiency and competition in gas distribution and marketing, the unbundling of gas distribution system will be examined.

Pakistan is rich in natural energy resources, but unfortunately these have been largely untapped so far. The Plan envisages a comprehensive strategy aiming at exploring and exploiting to make energy affordable for the people of Pakistan. The focus will be on enhancing share of cheap coal resource.

Power sector

Situational analysis

The overall power generation capacity of Pakistan at the end of 2012-13 was 20,849 Mega Watt (MW) on the NTDC system and 2,341 MW on K-Electric. Against this installed capacity, the power generation was 96,122 GWh, which represents 48 per cent average capacity utilisation. Seasonal variation in hydro power generation, de-rated capacity of the public sector generating units and failure of timely supply of fuels to the IPPs are main causes of low-capacity utilisation. The power generation mix comprises 64 per cent thermal, 31 per cent hydel, 4.7 per cent nuclear and 0.1 per cent coal sources.

The peak demand for electricity in July 2013 was 17,000 MW whereas the total generation of electricity was around 12,000-14,000 MW and the shortfall was around 2,180-5,314 MW during the same period. The shortage of electricity has not only adversely affected social life, but also the national economy as the shortfall in electricity supply results in annual losses of three per cent of the Gross Domestic Product (GDP) and more than 12 per cent to 37 per cent of the industrial output, varying from sector to sector.

Furthermore, the power sector continues to be affected by the circular debt as revenues collected do not fully cover the cost of production due to high Tariff Differential Subsidy (TDS). The debt at the end of 2011 was Rs532 billion, which rose to Rs872 billion in 2012, representing about four per cent of the GDP. The issue has not yet been addressed fully, and it will continue to constrain the sector.

Under-capacity transmission and overloaded distribution networks are causing frequent power outages in main load centres. Due to the technical and administrative pitfalls, there are around 17 per cent transmission and distribution losses. Institutional capacity of the power sector is also being questioned as it has failed to show the desired level of efficiency and improvement in recovering the outstanding dues, cost of service and arrest the transmission and distribution losses.

Challenges

Power sector deficits

Load-shedding is now a common occurrence in Pakistan and it takes place both during peak and off-peak hours. Based on the planned generation schedule and forecast demand, the nationwide deficits will continue until the end of 2017-18. However, the intensity of load-shedding will be reduced approximately by 2000-3000 MW, depending upon the seasonal variation and peak demand hours.

Transmission network

The existing transmission network is sufficient only to evacuate the exiting power generation. However, with an additional power available, the transmission capacity will have to be augmented in accordance with production.

Distribution capacity

The existing distribution capacity of various DISCOs is deficient because these have not been upgraded over a period according to the changing socio-economic needs.

Project financing

Currently, the government is not in a position to provide the required funds for power projects because of its limited fiscal space, and competing needs of social and other sectors. Furthermore, due to high regulatory and security risks, local and international commercial banks offer loans on high interest rates, thus increasing the cost of financing.

Fragmented management and inefficient decision-making

There has been an inadequate focus on implementation of existing energy plans in the short-term and consolidation of energy functions in the medium and the long-term. There are more than 20 organisations engaged in developing electric power projects, for example, WAPDA (Hydroelectric), Pakistan Electric Power Company (PEPCO), the unbundled ex-WAPDA entities, Private Power Infrastructure Board (PPIB), the Alternative Energy Development Board (AEDB), Thar Coal and Energy Board, the Infrastructure Project Development Facility (IPDF) and provincial energy departments. All these entities are working on policies, but there is little or no coordination or institutional cooperation among these to formulate unified energy policy or act in unison.

Untargeted tariff subsidies

Historically, the power sector has had increasing block tariffs whereby each consumer class was getting the advantage of all the previous slabs, which meant more than half of the subsidy was allocated to consumers with consumption of more than 100 kWh. Poor consumers, also known as lifeline consumers, were benefiting the least from the subsidy because it applies to all strata of the society equally irrespective of their incomes.

Inefficient regulatory framework

There is a lack of uniform regulation, which creates distortions between the gas and electricity sectors. Inconsistent regulation between the National Electric Power Regulatory Authority (NEPRA) and Oil and Gas Regulatory Authority (OGRA) has created disharmony in pricing strategies between gas and electricity, while sending unclear signals to the potential investors of the energy sector. Moreover, operational directives from the government, overriding decisions of these regulatory authorities, have undermined their independence. Both regulatory entities also suffer from a dearth of professional capacity to properly exercise its monitoring functions to monitor operational efficiency and quality of service standards.

Circular debt

The issue of circular debt has brought considerable burden on the national exchequer, crippling most of the energy sector entities. Poor collection by the DISCOs is one of the largest contributors to the power sector's circular debt. In 2013, the average collection rate was 80 per cent as some DISCOs reported collection rate as low as 33 per cent (QESCO). Moreover, on average the DISCOs are incurring Aggregate Technical and Commercial (AT&C) losses over and above the percentage allowed by the NEPRA, thus adding to the circular debt.

Tariff differential subsidy is another significant contributor to the circular debt as the uniform rate is charged across all DISCOs despite differences in the cost of supplying electricity. The government has frozen tariffs between 2003 and 2007 at a very low level. Subsequent tariff increases did not make up for the shortfall, while crude oil and gas prices globally hiked. Between 2004 and 2008, the price of imported furnace oil, which represents about one-third of the fuel mix for power generation, increased by 76 per cent. Gas prices also saw a hike of 76 per cent between 2007 and 2008. The cost of electricity generation consequently increased with the result that notified tariffs were not able to cover the higher cost. The cost of the electricity subsidy was computed as Rs225 billion[1] in 2013. This represents a significant burden on the national exchequer, making the government unable to pay the amount to the DISCOs on time.

[1] Tariff Subsidy Cell of MOWP

Targets

Electricity demand projections

The projected electricity demand will be 31,039 MW by the end of the Plan period. The following table presents forecasts of power generation required to meet demand for both the NTDC system and KESC.

Table-6: Projected demand

	Unit	2013-14	2014-15	2015-16	2016-17	2017-18
NTDC System	MW	20,836	21,924	23,213	24,762	26,530
KE(SC)	MW	3,397	3,582	3,809	4,092	4,509
Total Demand	**MW**	**24,233**	**25,505**	**27,022**	**28,855**	**31,039**

Source: *Power Market Survey, NTDC*
For DISCO-wise details, Annexure C is attached.

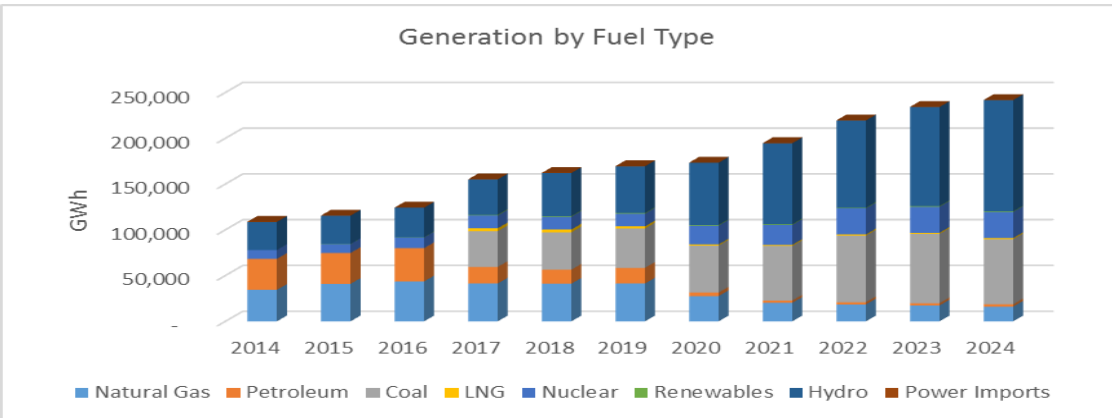
Table 7 gives the planned increase in installed capacity from 2013-14 to 2017-18. If the planned investments go according to schedule, the operating capacity will rise from almost 20,849 MW at the end of 2013-14 to 37,272 MW by the end of 2018 keeping in view the affordability and early commission of plants, the new addition of power from Hydel, LNG and Coal based plants.

Table-7: Generation capacity (MW) by 2017-18

	Nuclear	Hydel	Solar/ Wind	Oil	Gas	Coal	Total	Cumulative
Existing	650	6,928	50	3,896	9,175	150	20,849	20,849
Addition								
2015	-	-	250	425	-	-	675	21,524
2016	340	-	680	-	-	-	1,020	22,544
2017	340	2,526	1,720	-	2,400	-	6,986	29,530
2018	-	1,522	-	-	1,300	4,920	7,742	37,272
Total:	**1,330**	**10,976**	**2,700**	**4,321**	**12,875**	**5,070**	**37,272**	

Figure 2 presents the addition in generation capacity by fuel type. As seen from the table, most of the investments in the next 10 years are going to be in coal and hydro.

Figure-2 Generation by type



A complete list of the upcoming plant-wise generation projects and is given in Annexure-A.

Transmission expansion plan

During the Plan period, 31 new transmission projects will be undertaken by the NTDC. This will augment their present transmission capacity of 39,641 to 77,451 MVA. The table below summarises the planned addition in transmission capacity through augmentation of substations and transmission lines.

Table-8: NTDC planned capacity expansion (Cumulative)

Year	500 kV		200kV		Total	
	Addition	Capacity MVA	Addition	Capacity MVA	Total period additions	Capacity MVA
2013-14	3,150	18,000	6,277	21,641	9,427	39,641
2014-15	4,200	22,200	7,130	28,771	11,330	50,971
2015-16	1,050	23,250	3,000	31,771	4,050	55,021
2016-17	4,375	27,625	3,840	35,611	8,215	63,236
2017-18	4,375	32,000	3,840	39,451	8,215	71,451

Source: *NTDC*

Table-9: NTDC planned transmission line expansion

Year	500 kV TLs		220 kV TLs		Total TLs	
	Circuit kms	Addition	Circuit kms	Addition	Circuit kms	Total addition
2013-14	5,180	103	9,104	1,738	14,284	1,841
2014-15	5,729	549	9,791	687	15,520	1,236
2015-16	6,595	866	10,218	427	16,813	1,293
2016-17	8,760	2,165	10,780	562	21,705	4,892
2017-18	10,925	2,165	11,342	600	26,597	4,892

Source: *NTDC*

Strategies and initiatives

Affordable energy for all

To make the energy affordable, generation mix is being improved by adding coal and hydro-based generations. Further, gas-based highly efficient plants have been planned in the coming years.

On-Grid projects

Keeping in view the potential of alternate energy in Pakistan, the working group on the Alternate Renewable Energy (ARE) have recommended that the overall integrated energy plan will target to commission at least 5,695 MW of power (up above current installed capacity of 341 MW) through alternative and renewable energies by 2018 under the Plan.

Alternate energy and conservation

To deal with the ongoing energy crisis, the government is taking all possible measures to ensure energy security and development in the country. The Vision 2025 strategises fast track development of renewable energy resources in order to diversify country's energy mix and reduce import dependence.

Solar power is already competitive vis-à-vis diesel-based captive power generation. Irrigation pumps are being converted to solar under both private and public investments. Rooftop electricity generation, both in residential as well as industrial and commercial sectors, will become significant after 2020. This will reduce demand of central generation and reduce load on transmission and distribution network.

Energy efficiency

Promoting energy efficiency and conservation occupies an important role in the Plan as saving and conserving one watt of energy is more valuable than producing two watt. Taking simple and sensible steps to ensure energy efficiency and conservation have been categorised as 'triple win' as (i) it saves money, (ii) reduces energy demand and (iii) curbs CO2 emissions. The Vision lays special emphasis on energy efficiency and conservation.

Realising the importance of energy efficiency and conservation, all key stakeholders have been taken on board, and the following steps have been taken to ensure energy efficiency and conservation:

- Proposal to encourage use of energy efficient air conditioners
- Proposal to encourage use of energy efficient lights, that is, LEDs
- Encouragement of solar water heaters
- A target of saving 1,000 MW through conservation during the Plan period
- Improvement in transmission and distribution

The DISCOs will have to enhance their capacity and are required to prepare their respective distribution as well as performance improvement plans to smooth distribution of additional generation to the end consumers. In order to upgrade and expand the distribution network of Discos, the World Bank is financing a programme under the sixth transmission and grids improvement of all the Discos. Tranche-II for power distribution enhancement project has also been approved.

International cooperation

Under the China-Pakistan Economic Corridor (CPEC), China, being a key economic partner of Pakistan, has offered to collaborate on a number of economic projects, including power generation. During the Plan period, one of the major steps will be to start 21 power sector projects with a cumulative installed capacity of 17,000 MW, which will be carried out at a total cost of $32.293 billion. The projects, being actively promoted under the CPEC, include seven projects having a total capacity of 6,645 MW with an estimated total cost of $16.787 billion.

Besides funding from international financial development institutions, such as the World Bank and ADB, economic assistance from friendly countries like USA, Japan, Germany, France and Gulf countries is being lined up, which is estimated at Rs3,927 billion including Rs2,280 billion Foreign Project Assistance (FPA) in shape of loans and grants. Notably, the ADB is financing 1,200 MW coal-fired power plant at Jamshoro. Other projects include upgradation of the Transmission Grid Systems.

The ADB is also supporting in conducting the studies of coal conversion of the FO and Gas-based Thermal Power Plants and establishment of new hydel projects. China is engaged in construction of nuclear power stations at Karachi C-II and C-III for 2,200 MW.

The USAID is funding construction and rehabilitation of the Gomal Zam Dam, Satpara Dam, Mangla Dam, Kaitu Weir, and Tarbela Dam and the modernisation of Guddu, Jamshoro, and Muzaffargarh power plants. In addition, the Overseas Private Investment Corporation (OPIC) is facilitating the private sector investment in a number of wind projects to provide up to 250 megawatts of clean, renewable, grid-connected power.

Power sector reform initiatives

Undertaking reforms in the energy sector is fundamental for improving efficiency of the sector and creating the enabling environment required to attract private sector investment. The planned reform initiatives for implementation during the Plan period are summarised below:

Policy reforms

- Subsidy reforms – Adopting a balanced approach to tariff hikes and government subsidies
- Prioritising the recovery of dues from problem areas
- Improving performance of the distribution companies by signing performance contracts between the Ministry of Water and Power (MoW&P) and government-owned entities including GENCOs, NTDC and DISCOs[2], installing smart meters to monitor power theft, and offering differential tariffs to consumers willing to pay more for uninterrupted and high quality supply

Privatisation of the GENCOs and DISCOs – Due to problems of circular debt and financial constraints, the government has invited proposals from private investors to undertake necessary investments in these loss making entities, and to control management and operations.
Open access: During the next five years, the power sector will show transition from a single buyer market to a multi-buyer market by allowing power producers to directly sell to bulk consumers and DISCOs; thereby reducing and eliminating role of the CPPA and distribution companies.

Regulatory reforms

Considering prevailing challenges, the government has chalked out a detailed energy reform agenda. The proposal includes consideration of merger of the NEPRA and OGRA, establishment of the Energy Appellate Tribunals to avoid costly and delaying litigation, formulation of Regulatory Advisory Committees (RACs) to provide an institutional mechanism to elicit response and inputs of the stakeholders. It also proposes reorganisation of the NEPRA and OGRA along professional lines, tariff-setting reforms in the regulatory process by building technical capacity, and unbundling of gas sector to improve and ensure visibility of their performance. Other

[2] The objective of these Performance Contracts is to monitor and evaluate the performance of these entities on the basis of key performance indicators which have been developed after consultation with the relevant stakeholders. These performance contracts will make it a binding upon these entities to take measures to improve their performance.

proposals include standardisation of the Wheeling Contracts in both electrical and gas sector, time based Whole-sale Tariff for DISCOs and regional and DISCO-wise quotas of electricity

Addressing circular debt and subsidy

The government plans to eliminate circular debt through rationalisation of tariffs and pursuing a comprehensive energy sector reform agenda. The tariff reform includes the following:

- Determination of base revenue requirements on the principle of full cost recovery for all DISCOs for each fiscal year
- Allowing only technical line losses for assessing revenue requirements of the DISCOs
- Retail tariff for all DISCOs to be identical, that is, consumers of a particular category to pay the same retail tariff irrespective of their geographical location
- Rationalisation of the domestic sector tariffs by eliminating subsidy for high-end users
- Offering guaranteed uninterrupted supply to industrial users at a 50 per cent premium
- Implementation of a national plan to improve tariff collections (with necessary legislation for penalties)
- Implementation of programmes for loss reduction, improvement of monitoring system, pilot scale smart grid, demand management, improved metering and other initiatives for efficiency improvement

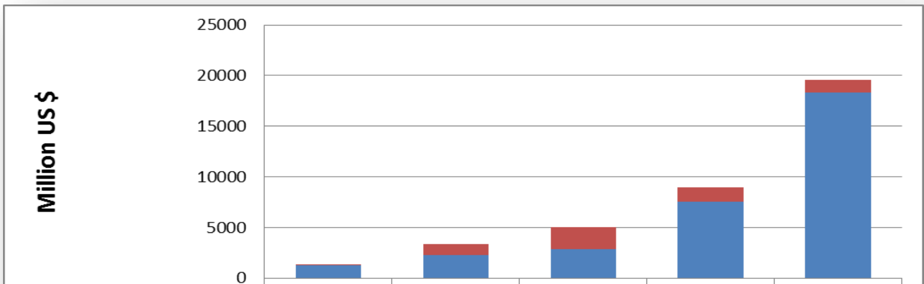
Integrated energy modelling initiatives

Considering the diverse nature of Pakistan's energy mix and its peculiar nature of challenges, importance of an integrated energy modelling and planning mechanism has been realised. A proper modelling-based integrated energy plan review and mid-course modification, therefore, will be ensured during the Plan period.

Financial outlay

The annual investments required for the planned power generation and transmission projects are given in Figure 3. The total investment requirement is estimated at $38,215 million out of which $6,022 million will be spent on transmission, and the remaining $32,193 million on distribution.

Figure 3: Investment requirements for generation and transmission



	2013-14	2014-15	2015-16	2016-17	2017-18
Transmission investment	5.55	1097.84	2215.20	1464.50	1239.95
Generation Investment	1267.37	2270.89	2830	7520.8	18306.35

A practical and sustainable planning process entails thinking ahead, thinking across and thinking again. The Plan endeavours to do the same by looking at the energy sector holistically and formulating strategies for ensuring future energy security of the country. By 2017-18, the nationwide peak shortage of power will be reduced to the range of 2,500-3000 MW, assuming timely completion of the projects in pipeline. Hydro and coal are projected to be the work-horses of the electrical sector as 90 per cent of the planned additions are based on these sources. Due to induction of cheap coal into the energy-mix (Annexure D), average cost of generating electricity is projected to come down, providing relief to the consumers and easing strain on the national exchequer. In the short-to-medium term, the LNG will fill some of the demand. The efficiency improvements in the transmission and distribution sectors are going to alleviate the circular debt issue.

Annexure-A

Summary of generation addition

Sr. No.	Fiscal Year	Names of projects	Agency	Fuel	Location	Installed capacity (MW)
1	2014-15	Quaid-e-Azam Solar Park (Phase-1)	PPDB	Solar	Lal Sohnra (Cholistan), Punjab	100
2		FWEL-I	AEDB	Wind	Jhampir/Gharo/Bhambore, Sindh	150
3		Nandipur (Remaining Unit-CC)	GENCO	RFO	Gujranwala, Punjab	425
		Total generation addition in 2014-15				**675**
4	2015-16	Sapphire Wind Power Plant	AEDB	Wind	Jhampir/Gharo/Bhambore, Sindh	50
5		CHASNUPP-III	PAEC	Nuclear	Chashma, KPK	340
6		Other Wind Power Plants	AEDB	Wind	Jhampir/Gharo/Bhambore, Sindh	330
7		Quaid-e-Azam Solar Park (Phase-2)	PPDB	Solar	Lal Sohnra (Cholistan), Punjab	300
		Total generation addition in 2015-16				**1,020**
8	2016-17	Other Wind Power Plants	AEDB	Wind	Jhampir/Gharo/Bhambore, Sindh	1,120
9		Neelum Jhelum Hydel	WAPDA	Hydel	Nauseri/Muzaffarabad, AJK	969
10		CHASHNUPP-IV	PAEC	Nucl	Chashma, KPK	340
11		Tarbela 4th Ext. Project	WAPDA	Hydel	Tarbela, KPK	1,410
12		Patrind HPP	PPIB	Hydel	Kunhar River, KPK/AJK	147
13		LNG Based Plants (Phase-I)	PPIB	LNG	Bhikki and Baloki, Punjab	2,400
14		Quaid-e-Azam Solar Park (Phase-3)	PPDB	Solar	Lal Sohnra (Cholistan), Punjab	600
		Total generation addition in 2016-17				**6,986**
15	2017-18	Keyal Khwar	WAPDA	Hydel	Dasu District, KPK	122
16		Coal Plant at Sahiwal	PPDB	Coal	Sahiwal, Punjab	1,320
17		Port Qasim Power Plant	PPIB	Coal	Port Qasim Karachi, Sindh	1,320
18		Engro Thar Coal (unit-1)	PPIB	Coal	Thar, Sindh	330
19		Nooriabad Gas Plant	GoS	Gas	Nooriabad ,Sindh	100
20		Engro Thar Coal (unit-2)	PPIB	Coal	Thar, Sindh	330
21		LNG Based Plants (Phase-II)	PPIB	LNG	Haveli Bahadur Shah (Jhang), Punjab	1,200
22		Coal Plant at Salt Range	PPDB	Coal	Salt Range, Punjab	300
23		Tarbela 5th Ext. Project	WAPDA	Hydel	Tarbela, KPK	1,400
24		SSRL	TCEB	Coal	Thar, Sindh	1,320
		Total generation addition in 2017-18				**7,742**
25	2018-19	Golen Gol HPP	WAPDA	Hydel	Chitral, KPK	106
26		HUB Power Company Ltd.	PPIB	Coal	HUB, Baluchistan	1,320
27		Siddiqsons Limited	TCEB	Coal	Port Qasim, Sindh	350
28		Lucky Electric Power Company Ltd.	TCEB	Coal	Port Qasim, Sindh	660
29		Grange Holding	PPIB	Coal	Arifwala, Punjab	163
30		Gulpur Poonch river	PPIB	Hydel	Poonch River/Gulpur, AJK	100
		Total generation addition in 2018-19				**2,699**
		Total addition during the Plan period				**19,122**

Source: NTDC

Annexure-B

Power transmission plan

Sr. No.	500 kV transmission line/ 500/220 kV transformer description	Expected Year of Commissioning
1	Extension at Ghazi Brotha, 2nd 500/220 kV T/F	2013-14
2	Augmentation of 1x450 MVA T/F with 1x750 MVA capacity at Rawat 5 00 kV G/S	2013-14
3	Guddu – Multan 2nd circuit In/Out at Dera Ghazi Khan	2013-14
4	Guddu – Multan 3rd Circuit In/Out at Rahim Yar Khan	2013-14
5	Guddu – R.Y. Khan single circuit In/Out at Guddu New Power Plant	2014-15
6	Guddu New Power Plant – M. Garh	2014-15
7	D.G. Khan – Multan circuit In/Out at M. Garh	2014-15
8	Guddu – Dadu 1st circuit In/Out at Shikarpur New	2014-15
9	Guddu – Dadu 2nd circuit In/Out at Shikarpur New	2014-15
10	Sahiwal – Lahore single circuit In/Out at Lahore New	2015-16
11	Gujranwala – Lahore single circuit In/Out at Lahore New	2015-16
12	Neelum Jhelum HPP - Gakkhar (Gujranwala)	2015-16
13	M. Garh – Gatti circuit In/Out at Faisalabad West	2016-17
14	Multan – Gatti circuit In/Out at Faisalabad West	2016-17
15	Augmentation of 3x237 MVA T/Fs with 3x450 MVA capacity at Tarbela 500 kV G/S	2016-17
16	EngroThar Coal – Matiari	2017-18
17	Gaddani – Gaddani Power Park	2017-18
18	Gaddani – Matiari	2017-18
19	Gaddani – Khuzdar	2017-18
20	Quetta – Khuzdar	2017-18
21	HUBCO – Jamshoro circuit In/Out at Gaddani	2017-18
22	Faisalabad West –Ludewala	2017-18
23	Ludewala –Peshawar New	2017-18
24	Lahore South – Lahore North	2017-18
25	Lahore North – Gujranwala	2017-18
26	±600 kV HVDC Bi-pole from Gaddani – Faisalabad West ± 600 kV HVDC Bi-pole from Gaddani – Lahore South	2017-18
27	Bin Qasim Coal Power Plant – Matiari	2017-18
28	Jamshoro – Moro	2017-18
29	Dadu – Moro	2017-18
30	Moro – R.Y. Khan	2017-18

220 kV Transmission expansion plan

Sr. No.	220 kV Transmission Line/ 220/132 kV Transformer Description	Expected Year of Commissioning
1	Gatti– K.S.K D/C In/Out at Bandala New	2013-14 (T/L commissioned)
2	Foundation Power (Dharki) IPP – Rohri New D/C	2013-14 (T/Ls commissioned)
3	Foundation Power (Dharki) IPP – Rohri New D/C at Engro IPP	
4	Rohri New – Shikarpur	
5	Ravi/K.S.K – Ghazi Raod D/C In/Out at Shalamar	2013-14
6	Multan – Samundri Rd D/C In/Out at T.T. Singh	2013-14
7	Vehari – Yousafwala D/C In/Out at Kassowal	2013-14 (T/L commissioned)
8	Augmentation of 4x 160 MVA T/F with 4x250 MVA capacity at Sheikh Muhammadi 500 kV G/S	2013-14
9	Augmentation of 2 x 160 MVA T/F with 2x250 MVA capacity at Mardan 220 kV G/S	2013-14
10	Augmentation of 4 x 160 MVA T/F with 4x250 MVA capacity at Burhan 220 kV G/S	2013-14
11	Augmentation of 4x 160 MVA T/F with 4x250 MVA capacity at Bund Road 220 kV G/S	2013-14
12	Vehari – Chistian New	2013-14
13	Augmentation of 2 x 160 MVA T/F with 2x250 MVA capacity at Bahawalpur 220 kV G/S	2013-14
14	Augmentation of 2 x 160 MVA T/F with 2x250 MVA capacity at Quetta Industrial 220 kV G/S	2013-14
15	Dadu – Khuzdar	2013-14
16	D.G. Khan – Loralai	2013-14
17	Uch – Guddu S/C In/Out at D.M. Jamali	2014-15
18	Mangla – Gujranwala S/C &Mangla – Gakkhar S/C In/Out at Gujrat	2014-15
19	Uch I – Guddu S/C In/Out at Shikarpur New	2014-15
20	Augmentation of 2 x 160 MVA T/Fs with 2x250 MVA capacity and Extension of 1x250MVA at Rewat 500 kV G/S	2014-15
21	K.S. Kaku – Ravi S/C In/Out at Ghazi Road + N. Kotlakhpat – Sarfraznagar S/C In/Out at Ghazi Road	2015-16
22	Kot Lakhpat New – WapdaTown S/C In/Out at Lahore New	2015-16
23	Kot Lakhpat New – Ghazi Road S/C In/Out at Lahore New	2015-16
24	Uch II – Sibbi	2015-16
25	AllaiKhwar – ISPR double circuit In/Out at Mansehra	2015-16
26	G.Brotha – Shahibagh D/C In/Outat Nowshera Ind.	2015-16
27	In & Out of C1/C-2 – Ludewala S/C at D.I. Khan	2015-16
28	Gatti – Ludewala D/C In/Out at Lalian New.	2015-16
29	Hala Road – T.M. Khan Road	2015-16
30	Reconductoring of 220 kV Tarbela – ISPR D/C on twin bundled Rail conductor	2015-16
31	Reconductoring of 220 kV Tarbela – Burhan D/C on twin bundled Rail conductor	2015-16
32	In & Out of Manshera – ISPR S/C at Islamabad University	2015-16
33	Jhimpir – T.M. Khan Road	2016-17
34	Jhimpir – Garho	2016-17
35	Hala Road – T.M.Khan Road S/C In/Out at MirpurKhas New.	2016-17
36	Mardan – ShahiBagh New S/C In/Out at Chakdara New	2016-17
37	Mangla – Rewat S/C In/Out at Chakwal New	2016-17
38	Faisalabad West – T.T. Singh	2016-17
39	Faisalabad West – Lalian New	2016-17
40	Shadman – Bund Road	2016-17
41	In & Out of D.I.Khan –Ludewala S/C at C-3	2016-17
42	Sibbi – Mastung	2016-17
43	C-3/C-4 to Bannu	2017-18

Annexure-C

Table-8: Demand projection DISCO-wise (MW)

Year	LESCO	GEPCO	FESCO	IESCO	MEPCO	PESCO	HESCO	QESCO	TESCO	SEPCO	TOTAL*
2013-14	4,148	2,004	2,500	2,072	3,178	2,666	1,251	1,399	662	956	20,836
2014-15	4,364	2,109	2,631	2,180	3,344	2,805	1,316	1,472	697	1,006	21,924
2015-16	4,621	2,233	2,786	2,308	3,540	2,970	1,394	1,559	738	1,065	23,213
2016-17	4,930	2,382	2,972	2,462	3,777	3,168	1,487	1,663	787	1,136	24,762
2017-18	5,281	2,552	3,184	2,638	4,046	3,395	1,593	1,781	843	1,217	26,530

Annexure-D

Power generation mix

Description	2013-14		2014-15		2015-16		2016-17		2017-18	
	MW	%	MW	%	MW	%	MW	%	MW	%
Hydel	7,097	29	7,097	27	7,097	26	9,809	32	10,163	24
Oil	8,417	34	8,842	34	8,842	33	8,842	29	8,842	21
Gas	7,757	32	8,068	31	8,068	30	8,068	26	8,068	19
Coal	150	1	150	1	150	1	250	1	10,480	25
Nuclear	802	3	802	3	802	3	1,142	4	1,482	4
Renewable	206	1	986	4	2,236	8	2,827	9	2,877	7
Total power generation		**24,429**		**25,945**		**27,195**		**30,938**		**41,912**

Chapter 20

WATER

Pakistan has one of the largest contiguous irrigation systems in the world, known as the Indus Basin Irrigation System (IBIS). The System comprises six major rivers, that is, the Indus, Jhelum, Chenab, Ravi, Sutlej and Kabul, and their catchments. It has three major storage reservoirs, 19 barrages, 12 inter-river link canals, 40 major canal commands and over 120,000 watercourses. The Indus River has a total average annual flow of 146 Million Acre Feet (MAF), of which only 106 MAF of water is diverted to canals. Pakistan receives about 50-80 per cent of the total average river flows from snow or glacial melt, while the remaining from the monsoon rains.

Having a very large contiguous irrigation system, Pakistan is also highly vulnerable to the adverse impacts of climate change due to its geo-climatic situation. Climate change has posed serious threats associated with increased frequency and intensity of floods, prolonged droughts and growing water stress and the frightening possibility of the melting of the Himalayan icecap.

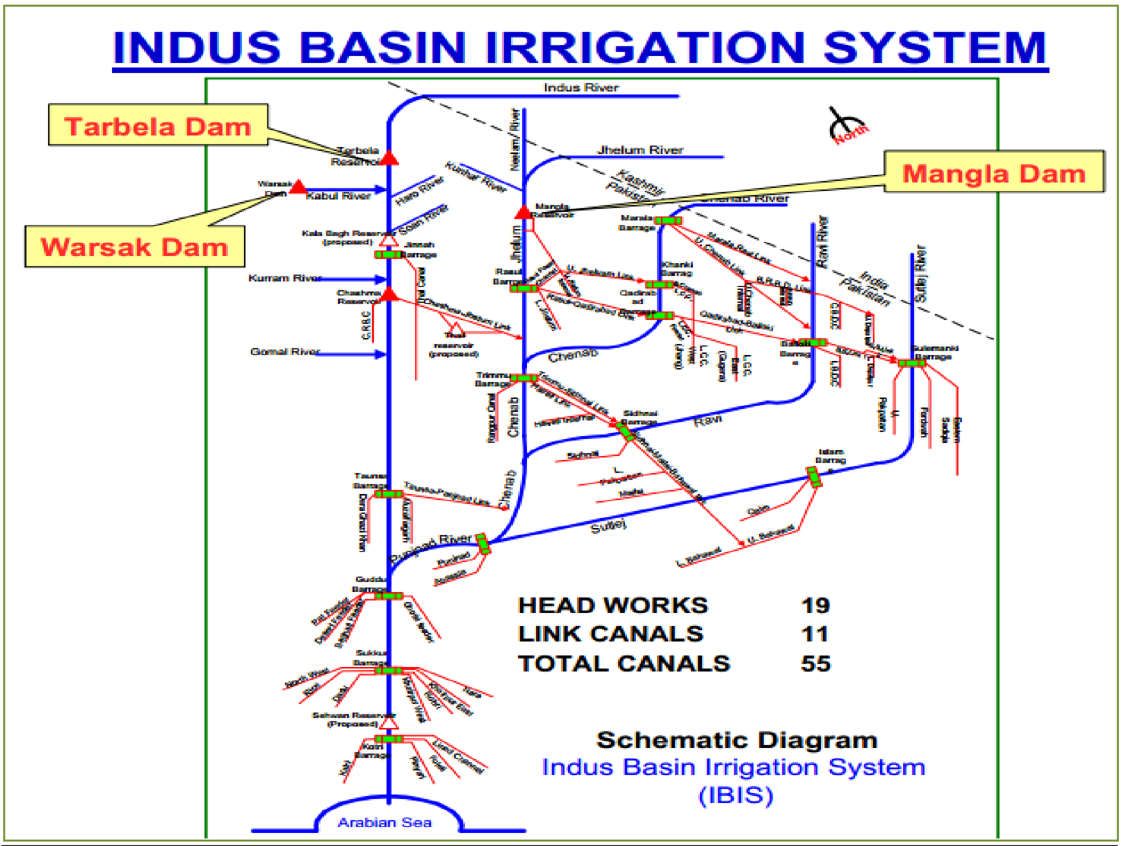


Figure-1: Schematic Diagram of the Indus River Basin (Source WAPDA)

Pakistan's economy is facing daunting challenges in the water sector. Besides demands of an ever-growing industrialising economy and rapidly urbanising society, the potential for augmenting supply is limited, water table is falling and water quality issues have increasingly become serious. Pakistan is in the group of countries, which are now moving from water stressed to water scarce. Keeping in view the emerging issues related to climate change, water resource management is also a serious challenge.

Moreover, access to an adequate supply of water for all sectors (agriculture, industry and domestic) is one of the top priorities of the present government. Since water availability is continuously diminishing in all contexts, formulation and effective implementation of a comprehensive set of measures for the development and sustainable management of the water resources are key challenges. The government vision for the welfare of the people, and poverty alleviation has been given top priority in the development programmes and projects being implemented under the water sector. The strategies adopted so far provide a benchmark for moving forward in the next five years.

The broad goal of development of water resources sector is to uplift the agro-based economy on the national level by maximising crop production, through progressively increasing surface water supplies and conserving them using the latest technologies available and protecting land and infrastructure from water-logging, salinity, floods and soil erosion in an integrated manner. The goal also includes electricity generation to achieve the better energy mix, catering to the ever-increasing demand of water for industrial and commercial activities in a cost effective manner as well as for drinking purposes. The Plan emphasises the importance of institutional infrastructure in the water sector, that is, policies, governance, institutional strengthening, capacity-building, and knowledge-based management to make the investment in physical infrastructure more efficient and sustainable.

Situational analysis

Water availability

Pakistan receives snowfall mostly in the Northern Areas during the winters, whereas the rainfall is markedly erratic in magnitude, time of occurrence and aerial distribution. The average rainfall ranges from less than 100 mm in parts of the Lower Indus Plain to more than 750 mm near the foothills in the Upper Indus Plain.

At present, Pakistan is totally depending on three western rivers of the Indus, that is, Kabul, Jhelum and Chenab, while three eastern tributaries of the Indus – Ravi, Sutlej and Beas – were given to India for its exclusive use after an agreement. Currently about 4.60 MAF of water flows from India to Pakistan through these eastern rivers, with an additional 3.33 MAF of run-off generated in their catchments within Pakistan. Contribution of the Kabul River to surface water is 21 MAF.

According to the IRSA figures (2013), the Indus River System receives an average annual water inflow of about 146 MAF, which is mostly derived from snow and glacial melting. Pakistan's current water availability at various canal head works is about 97.71 MAF with estimated annual losses of 48.29 MAF. As per the WAPDA, Pakistan extracts about 50 MAF from groundwater aquifers, and has already crossed the sustainable limit of safe yield. This over-mining and pollution of aquifers has resulted in salinisation, and increased concentration of fluorides and arsenic in water, which in turn is degrading the quality of agricultural lands.

Table-1: Canal head works withdrawals (below Rim Station (MAF) 2013

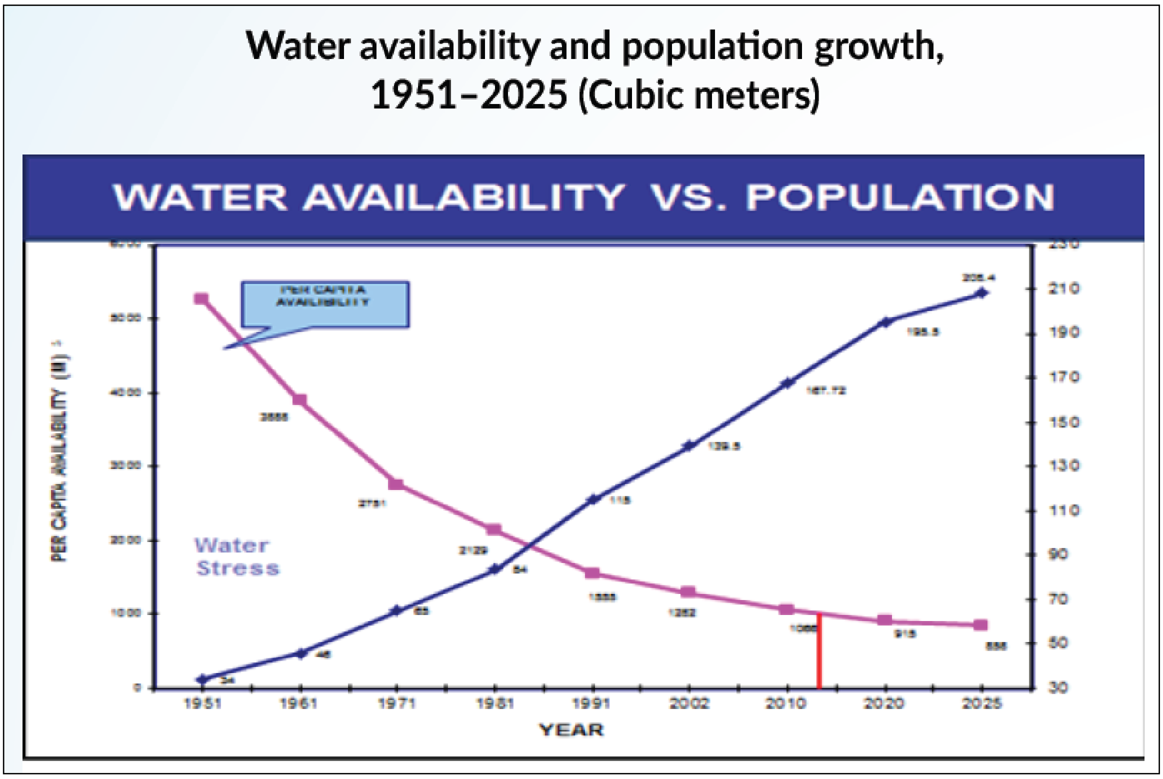
Province	Kharif (April-September)	Rabi (October-March)	Total
Punjab	33.83	17.44	51.27
Sindh	29.16	13.6	42.76
Khyber Pakhtunkhwa	0.94	0.49	1.43
Balochistan	1.61	0.64	2.25
Total	65.54	32.17	97.71

Source: *Indus River System Authority*

Water requirements

According the Economic Survey of Pakistan 2013-14, population of the country is projected to reach 220 to 230 million by 2025. Population rise, rapid urbanisation and poor socio-economic conditions will increase pressure on water resources. The corresponding requirement at the canal heads would be nearly 62.3 MAF. This represents a shortfall of about 27.3 MAF of water in 2025. Unless improvements are made, this will limit the development potential in various sectors.

Figure-2: Declining water availability in Pakistan



Source: *WWF-Pakistan, 2007*

Agriculture

To meet the food need of the ever-growing population, an efficient use of water is a must for sustainable agricultural growth and agriculture-oriented activities to gain more benefits from this sector. Increases in agricultural production will require additional water. Based on the population growth projections, an estimated additional 10 MAF of water will be needed at the farm gate by 2025.

Municipal use

The current urban and rural water usage for the domestic and municipal purposes is estimated to be 4.5 MAF, but by 2025 it is expected to increase by 10.5 MAF, having a shortfall of six MAF.

Industry

Out of over half a million large and small industrial units, around 120,000 are textile, chemical, fertilizer, tanneries and other manufacturing and processing activities. Presently, these industries and mines are estimated to be using 3.5 MAF, which is expected to rise to 4.8 MAF by 2025, that is, an additional requirement of 1.3 MAF.

Environment

In order to ensure adequate water for wetlands, environmental protection (to curb sea water intrusion and meet requirements of mangrove forests) and increased irrigated forestry, substantial quantity of water will be required.

Strategies

Conflicts across competing water uses and users are growing every day. Access to an adequate supply of water for the agriculture, industry and domestic sectors is one of the priorities of the Vision 2025. The Plan provides a roadmap to provide clean and judicious amount of water to all sectors and stakeholders. In this regard, the federal and provincial governments will leave no stone unturned to enhance water storages and conservation, including construction of small, medium and large dams. A comprehensive set of strategies encompasses the following:

Water storage

In order to meet future water requirements, it is necessary to construct large storage dams on the Indus River. The federal government has launched a comprehensive integrated programme of water resource and hydropower development. For storage, the WAPDA has identified water reservoir sites of about 65 MAF capacities, and other locations with a power potential of 35,000 MW. The implementation of this programme on various projects has already commenced. The Diamer-Bhasha is a flagship multipurpose mega dam on which work has already been initiated, and it will provide an additional storage capacity of 6.4 MAF and generate 4500 MW of hydroelectric power.

Water conservation

Water conservation and its rational management is the central theme of water strategy of the Plan. This is to be achieved through on-farm water management, canal lining, rehabilitation of the irrigation infrastructure, rainwater harvesting and hill torrents management, wastewater treatment and adoption of high-efficiency irrigation system techniques.

Flood management

Pakistan is facing serious threats of floods due to climate change and global warming. It has witnessed frequent disastrous floods for the last several years, which are generally caused by heavy concentrated rainfall in the catchment areas of the main rivers during the monsoon season, and are often augmented by snowmelt. Some of the floods were most devastative in nature and caused huge losses to property, agricultural crops and a large number of human lives. According to the Federal Flood Commission estimates, Pakistan has suffered a cumulative financial loss of more than $37.554 billion during the past 66 years. From 1950 to 2013, around 11,572 people lost their lives, some 188,531 villages damaged or destroyed and a total area of 603,942 square kilometres was affected due to 21 major floods. To address the future flood management and increasing flood protection works, the Planning Commission has extended its full support to the Federal Flood Commission for formulating the 'National Flood Protection Plan IV' to protect infrastructure, flood embankments, spurs and flood forecasting and warning system. Yearly details of flood damages are:

Year	Direct losses ($ Million)	Number of lost lives	Number of affected villages	Flood affected area (square km)
1950	488	2,190	10,000	17,920
1955	378	679	6,945	20,480
1956	318	160	11,609	74,406
1957	301	83	4,498	16,003
1959	234	88	3,902	10,424
1973	5,134	474	9,719	41,472
1975	684	126	8,628	34,931
1976	3,485	425	18,390	81,920
1977	338	848	2,185	4,657
1978	2,227	393	9,199	30,597
1981	299	82	2,071	4,191
1983	135	39	643	1,882
1984	75	42	251	1,093
1988	858	508	100	6,144
1992	3,010	1,008	13,208	38,758
1994	843	431	1,622	5,568
1995	376	591	6,852	16,686
2010	10,000	1,985	17,553	160,000
2011	3730	516	38,700	27,581
2012	2640	571	14,159	4,746
2013	2000	333	8,297	4,483
2014	188	346	3,610	9,510
Total:	37,741	11,918	192,141	613,452

Source: *Federal Flood Commission*

Integrated water resources management

The IWRM approach helps manage and develop water resources in a sustainable and balanced way, taking account of social, economic and environmental interests. It recognises many different and competing uses and users. The integrated approach coordinates water resources management across all sectors and interest groups, and at different scales from local to international. It emphasises involvement in national policy and law making processes, establishing good governance and creating effective institutional and regulatory arrangements as routes to more equitable and sustainable decisions. A range of tools, such as social and environmental assessments, economic instruments, and information and monitoring systems support this process. Water resources management calls for high-level consensus and political resolve, because the basin management is a politically sensitive issue.

Water governance

In many ways, the water crisis is because of the lack of governance, resulting from the failure of the public institutions to manage resources for the well-being of humans and ecosystems. Institutional reforms and effective coordination linkages among all water-related sub-sectors will be strengthened. An organisational framework in consistent with international best practices will be further improved to undertake developmental and regulatory functions in an effective manner.

Water pollution

It is a serious concern having adverse impact on the health of people and ecosystems. One of the most dangerous consequences of industrial and agricultural pollution is an ever-increasing groundwater contamination. Environmental degradation, along within safe drinking water and lack of basic sanitation facilities, has a huge impact on health of the people, particularly children under the age of five years. Diarrhoea and typhoid, two most common illnesses related to poor water and sanitation, account for about 30 per cent of the environmental costs or 1.8 per cent of the GDP. The WHO has reported that about 25-30 per cent of the hospital admissions are related to water-borne bacterial and parasitical conditions, whereas half of the infant deaths are caused by water-related infections. The Plan will promote an enabling environment to achieve goals for an efficient use of water for protection and conservation of environment.

Knowledge-based interventions

The following steps will be taken.

- An operational mathematical model of the Indus Basin will be prepared for an efficient management of the water resources, taking into account the factor of climate change.
- Efficient and effective hydro-meteorological data dissemination systems will be put in place.
- Nationwide surveys will be undertaken for assessment of the groundwater, including its quality, quantity, withdrawal and recharge potential.
- Conflict resolution mechanism will be strengthened to manage disputes and ensure equitable and fair sharing of water.
- Economic instruments will be designed using value and prices for efficiency and equity. It will improve allocative and technical efficiency for sustainable social and economic development.

- Information management and exchange to improve knowledge for better water management will be done.
- Participatory assets management will be extended.
- Steps will be taken for reducing the unaccounted and non-revenue water.

Trans-boundary water issues

The following steps will be taken during the Plan period.

- Necessary measures will be intensified for resolving the trans-boundary water issues with India and for implementation of the Indus Waters Treaty (1960) in letter and spirit, including capacity-building of institutions.
- Consultations on other trans-boundary issues will be initiated, such as pollution, untreated effluent being passed down to Pakistan from India.
- Since signing of the Indus Waters Treaty, India has developed numerous storage projects on three Eastern Rivers of Ravi, Sutlej and Beas, and consequently, during the dry season, there is almost zero flow in these rivers. Minimal environmental flows are required to protect the river biodiversity.
- India is over-mining the aquifer with the result that groundwater in Western Punjab is also being affected. This concern will also be pursued and more authentic data will be collected on this account.
- The Kabul River brings water into the Indus Basin. Construction of projects on the River and its tributaries can have a negative impact on Pakistan's already scarce water resources, and violate its historic and lower riparian water rights. Deliberation will be made to pre-empt and protect these inflows.
- Capacity-building process of the related institutions will be undertaken to effectively address the trans-boundary waters.

Water infrastructure and financing

Both traditional and innovative modes of financing are required to meet the large deficit of deferred maintenance and capital investment, while higher investments are also necessary for the future programmes. The allocation in the PSDP for dealing with this has increased considerably over the years. Since water-related infrastructure is one of the primary responsibilities of the federal government, the total allocations for this will be increased to Rs247.37 billion in the Plan. The year-wise federal and provincial details of the investment plan are given in Table 2, 3 and 4. Suitable projects will be prepared and offered to private investment through mechanisms, such as the Build Operate Transfer (BOT), Build Own Operate (BOO), Build Own Operate and Transfer (BOOT). Direct investment in the form of loans as well as equity will be promoted and establishment of the Special Purpose Vehicles will be encouraged to attract financing through bonds and debentures. Since water is an important sector, it is also hoped that additional funds will be made available by the multilateral banks, international development agencies and bilateral donors. Levying of additional charges on consumers to repay capital investment – on the pattern of the Neelum-Jehlum Hydropower project – will be replicated in other projects. Innovative financing options will be explored for the Diamer-Bhasha Dam and other similar projects. The Public-Private Partnerships will be pursued as the preferred mode of financing.

Federal programme

The water sector investments have following dimensions.

- Investment to keep the system operative
- Investment to keep the system sustainable
- Investment to keep providing basic human needs, that is, Food, Fibre and Energy

However, the water sector investment has to take into account future needs as the system can neither be built in pieces nor in a given short time, for example, the Bash Dam Project gestation period is over ten years including six to seven years of construction period. It is estimated that the financing requirement is to the tune of Rs208 billion in the next five years.

Table-2: Year-wise Federal Investment Plan

(Rs billion)

S#	Sub-sector	2013-14	2014-15	2015-16	2016-17	2017-18	Total
On-going programmes							
1	Medium and small dams	18	11	7	7	9	52
2	Canals	9	11	6	5	6	36
3	Drainage	6	5	5	4	5	25
5.	Provincial Irrigation Scheme	22	15	8	7	9	61
6.	Flood Protection Programme	1	1	1	1	1	5
7.	New initiatives and research	1	1	3	6	6	17
8.	Miscellaneous scheme	2	1	0	4	5	11
	Total	**58.5**	**43.9**	**30.6**	**35**	**40**	**208.1**

The Proposed Provincial Programme, amounting to Rs384 billion, mainly focussed on rehabilitation and improvement of the existing irrigation system, construction of medium and small dams, and water conservation through on-farm water management and micro-irrigation practices, introducing high efficiency irrigation system (sprinkler and drip irrigation).

Yearly financial projection and sub-sector wise details are given in Table 3:

Table-3: Year-wise provincial investment Plan

(Rs billion)

S. #	Name of province	Five Year Plan					
		2013-14	2014-15	2015-16	2016-17	2017-18	Total
1.	**Punjab**						
	Irrigation and drainage	10.8	12.1	15.9	15.9	16.2	91
	Flood schemes	0.7	1.1	1.8	2	2.9	11
	Small dams	7.2	8.3	10.6	10.7	11	61.5
	Research	0.7	1.1	2.2	2.4	2.6	11.5
	New schemes	3.6	4.2	5.7	5.6	5.7	31.8
	Total	**23.0**	**26.9**	**36.1**	**36.5**	**38.4**	**206.8**
2.	**Balochistan**						
	Irrigation, drainage and Flood	2.2	3	4.4	4.8	5.9	26
	Small dams and delay action dams	1.4	1.9	3.1	4	4	18.5
	New schemes	1.4	1.9	4	4	4.8	20.5
	Total	**5.0**	**6.8**	**11.4**	**12.7**	**14.7**	**65**
3.	**KPK**						
	Irrigation, drainage and flood	1.4	2.3	4.4	5.6	5.9	25
	Small dams andresearch	0.9	1.9	2.6	3.2	4.4	16.7
	New schemes	1.4	1.9	2.2	3.5	3.7	16.4
	Total	**3.7**	**6.1**	**9.2**	**12.3**	**13.9**	**58.1**
4.	**Sindh**						
	Irrigation, drainage and flood schemes	8.6	10.6	14.1	14.3	15.4	81
	Small and delay action dams	3.6	5.3	7	7.9	9.9	43.5
	New schemes	3.6	4.5	6.2	7.1	8.4	38.5
	Total	**15.8**	**20.5**	**27.3**	**29.4**	**33.8**	**163**
	Grand total (Provincial)	**47.6**	**60.3**	**84.1**	**90.9**	**100.8**	**383.7**
	Grand total (National)	106	104	115	126	141	592

Innovative approach

In order to meet challenges of the growing water demands of the nation, a number of innovative initiatives will be undertaken. A detailed overview of these new initiatives has been provided below in Table 5. However, a systematic analysis is needed to be made to ensure the success of these innovative schemes.

Table-5: Major interventions for water resources development

S.#	Description	On-going interventions	Future interventions
1	Large and medium dams	Gomal Zam Dam Satpara Dam KurramTangi Dam (Kaitu Weir) Darawat Dam NaiGaj Dam Naulong Dam Ghabir Dam	Diamer-Basha Dam Mohmand or Munda Dam Dasu HPP* Bunji HPP Thakot HPP
2	Small and delay action, and recharge dams	All provinces	All provinces
3	Raising and extension of dams	Mangla Dam raising	Tarbella 4th Extension HPP
4	Intra-basin water transfer	Greater Thal Canal Project (Phase-I) Rainee Canal Project (Phase-I) Kachhi Canal (Phase-I)	Greater Thal Canal Project (Phase-II) Rainee Canal Project (Phase-II) Kachhi Canal (Phase-II)
5	Water conservation	Canal lining in all provinces Rehabilitation of irrigation systems in all provinces High efficiency irrigation system in all provinces	The programmes will be continued in the future.
6	Flood management	Normal emergent flood programme in all over Pakistan Other flood management programmes are also being implemented in all provinces	Master planning for future flood management is underway.
7	Drainage	Lower Indus Right Bank Irrigation and Drainage (RBOD-I) RBOD-II Balochistan Effluent Disposal into RBOD (RBOD-III) Remedial measures to control water logging due to Muzaffargarh and TP Link Canals	The programmes will be continued in the future.
8	Rainwater harvesting and hill torrents management	A feasibility study on rain water harvesting and hill torrents management is in process. Survey and study design for construction of rain water dams (reservoir along river Indus in Sindh)	Future projects on the basis of feasibility study will be taken up for implementation.
9	Master planning of water and hydropower projects	Review and evaluation of master planning and hydropower resources of western rivers.	Future projects on the basis of master planning will be taken up for implementation.
	Wastewater recycle and reuse	Installation of Effluent Treatment Plant (RBOD-III) pilot project	The major programmes of effluent treatment plants in all over Pakistan will be initiated after successful implementation of pilot project.

* HPP – Hydro Power Project

Table-4: Major on-going projects

S#	Name of projects	PC-I cost (Rs Million)	Storage live (MAF)	Power (MW)	Updated status
1.	Gomal Zam Dam	20,626	0.892	17.4	Substantially completed
2.	Satpara Dam	4,480	0.053	17.36	Completed
3.	KurramTangi Dam (KeituWier)	12,662.6	0.90	83.4	Review of design completed. Tendering and bidding of Stage-I (Kaitu Weir) in process.
4.	Darawat Dam	9,300	0.09	0.45	97% completed
5.	Nai Gaj Dam	26.236	0.16	4 .2	41% completed
6.	Naulong Dam	18,027	0.242	4.4	Contractor being mobilised
	Total	**65,121.836**	**2.337**	**127.21**	

Chapter 21

FOOD SECURITY AND AGRICULTURAL DEVELOPMENT

The agricultural development strategy for the Plan aims to substantially improve productivity and to bridge the yield gap by the systematic application of better inputs and technology. This will enhance profitability of the farming, improve competitiveness and ensure the environmental sustainability of agriculture. The overall objective is to achieve an agriculture growth rate of four to five per cent per annum during the Plan period in order to support the overall GDP growth trajectory, ensure food security and reduce rural poverty. This chapter is divided into two portions, that is, Agriculture and Food Security, and Livestock, Dairy and Fisheries.

The agriculture sector continues to be an important component of Pakistan's economy despite its decreasing share in the GDP. In 2012-13, it contributed 21.4 per cent to the GDP, about 60 per cent to exports and provided productive employment to 44 per cent of the labour force. More than two-thirds of the rural population depends on agriculture for its livelihood. Hence, an accelerated growth of agriculture is a prerequisite for the economic and rural developments. During four decades from 1960 to 2000, the agriculture sector grew at an average rate of about four per cent annually, higher than the population growth rate of 1.9 per cent. Unfortunately, the momentum of growth could not be sustained after 2000, and its performance fluctuated hugely from 2001 to 2010, seeing a decline of 2.2 per cent in 2000-01 which rose to 6.5 per cent in 2005-06, averaging about 2.6 per cent every year.

In 2007-08, the growth rate fell to 1.8 per cent amidst the global food crisis, which resulted in widespread food shortages, high prices of staple food items, and large imports of wheat from 2007 to 2009 (4.4 million tonnes). The average growth of agriculture between 2008-09 and 2012-13 was just 2.4 per cent, with the crop sector growing only by 1.3 per cent in this period. If the declining trend in agriculture growth was not reversed, it could jeopardise food security, increase malnutrition, cause significant increase in rural unemployment and poverty, leading to increase in the rural-to-urban migration, and slow agro-based industrial growth.

The World Development Report 2008 pointed out that the GDP growth originating in agriculture is at least twice as effective in reducing poverty as that originating in other sectors of the economy. The experience of rapid agricultural growth in Brazil, China and Vietnam demonstrates its impact on overall economic growth, poverty reduction and move towards industrialisation. In Pakistan, there has been under-investment in the agriculture sector and neglect of agriculture infrastructure and institutions over the past two decades.

Situational analysis

Growth

The agriculture sector, including livestock, grew at a disappointing rate of about 2.4 per cent during the last five years. The performance of the crop sector was even worse, averaging just over one per cent in this period. The rate of growth fluctuated widely in the crop sector ranging from 5.2 in 2008-09 to -4.2 in 2009-10. Livestock performed consistently and supported the overall growth of the sector. The growth in fisheries was negative and other smaller sectors, such as forestry, also performed below par (Table 1). The low growth rates in agriculture are attributed to underinvestment, particularly in agricultural research and marketing infrastructure, absence of an effective strategy for improved seed, water management and credit disbursement.

Table 1: Agricultural growth (per cent)

Year	Crop	Livestock	Fisheries	Forestry	Agriculture
2008-09	5.2	2.2	2.6	2.6	3.5
2009-10	-4.2	3.8	1.4	-0.1	0.2
2010-11	1	3.4	-15.2	4.8	2
2011-12	3.2	4	3.8	1.8	3.6
2012-13	1.5	3.5	0.7	6.6	2.7
Average	1.3	3.4	-1.3	3.1	2.4

Source: *Pakistan Economic Survey, 2012-13*

Physical

The production of major crops showed a mixed trend during 2008-13.

- Wheat production remained below 25 million tonnes except in 2010-11, when about 25.2 million tonnes of wheat were produced. The country was thus self-sufficient in its staple diet, and also generated surplus for export.
- Rice production increased initially, but failed to sustain the momentum.
- Cotton production never exceeded 14 million bales, mainly because of pest attacks caused by the resurgence of the Cotton Leaf Curl Virus (CLCV), whitefly, and mealy bug. Resultantly, the annual cotton production remained below the domestic demand, necessitating the import of raw cotton to the extent of 1.5 to 2.0 million bales each year to meet the requirement of the local textile industry.
- The production of sugarcane, after a double dip in the initial two years, was able to surpass 55 million tonnes.
- Maize, along with potato, has emerged as a crop yielding consistently well.

The performance of minor crops was never up to the mark. The underinvestment in agriculture (water, seed, and technology) and deterioration of agriculture terms of trade coupled with markets failures were the major reasons for less than historical production trend (Table 2).

Table 2: Production achievements (2008-13)

(Million tonnes)

Crop	2008-09	2009-10	2010-11	2011-12	2012-13
Wheat	24	23.3	25.2	23.5	24.2
Rice	7	6.9	4.8	6.2	5.5
Maize	3.6	3.3	3.7	4.3	4.2
Cotton*	11.8	12.9	11.5	13.6	13
Sugarcane	50	49.4	55.3	58.4	63.7
Gram	0.7	0.6	0.5	0.3	0.8
Sunflower	0.4	0.3	0.4	0.3	0.2
Potato	2.9	3.1	3.5	3.4	3.8
Onion	1.7	1.7	1.9	1.7	1.7

Source: *Pakistan Bureau of Statistics* ** Million Bales*

Agriculture and food security

Issues and challenges

The major challenge to the agriculture sector is to create an environment for achieving an average growth rate of four to five per cent annually with a focus on small and resource poor farmers. This would require a strategy, which addresses main causes of: (i) stagnant productivity of major crops, (ii) declining investments in agriculture (both public and private), (iii) increasing food insecurity and poverty; (iv) inefficient use of agricultural inputs such as water, fertilizer and agro-chemicals, (v) slow development and dissemination of technologies, (vi) poor delivery of public services, (vii) market failures, (viii) weak institutions, (ix) inadequate agriculture credit, and (x) lack of appropriate policies and incentives to make agriculture more productive and competitive. These issues will be addressed by the agriculture development strategy outlined below for the Plan.

Strategy for agriculture development

Objectives

The main objectives of the strategy are to: (i) accelerate agriculture growth and reduce rural poverty, (ii) achieve self-reliance in essential food commodities, (iii) expand exports and galvanise agro business potential, (iv) achieve an average growth rate of four to five per cent per annum to support overall growth strategy of the government, and (v) improve quality of growth by adopting a strategy which is pro-poor, pro-small farmer and pro-environment.

Strategy

Achieving these objectives will require success in the following strategic areas based on energy and water efficient high-yielding production technologies and market-oriented public policy interventions:

- Ensuring food security and safety for all (that is, availability and access to quality food at affordable prices) and setting up institutional framework within the Ministry of National Food Security and Research (MoNFS&R) to implement the strategy
- Improving total factor productivity and competitiveness of the agriculture production systems through technology-based interventions with emphasis on small and medium size farmers and landless tenants
- Improving export of agri products in compliance to the international food standards for accessing regional and high-end markets
- Policy and institutional reforms for moving towards market economy and involving private sector in the agricultural business
- Paradigm shift from resource-intensive to resource-conservation technologies for more productive, competitive and sustainable farming systems (grow more with less and increased use of bio energy, etc.)
- Managing natural resources in a sustainable manner by adopting good agricultural production practices (Global GAP) with emphasis on sustainable use of land and water resources (aquifer recharge in arid and semi-arid regions)

- Strengthening and integration by improved coordination of the National Agricultural Research System to enhance the process of innovation and commercialisation.
- Market-led approach to diversification of agriculture into high-value crops, value addition and supply chain infrastructure development
- Improving post-harvest management, marketing infrastructure and policies based on the public-private partnership
- Improving sector governance, particularly the delivery and quality of agriculture support services (research, extension, agriculture credit, marketing, inputs supply) and computer-based land record management system
- Ensuring fair price to producers and consumers by improving the procurement and distribution system for essential food items through developing adaptation and mitigation strategies for climate change in different agro climatic zones of the country and reclamation of lands

A balanced approach to the agriculture development will be persuaded for achieving equitable productivity growth both at small and large farms. Pre-requisites to success will be macroeconomic stability and sustained efforts to consolidate and deepen the agriculture policy reforms to achieve improved productivity, food security and better living conditions of the rural people.

The following paragraphs translate the aforementioned strategy into various plans and programmes for implementation during the Plan period.

Plans and programmes

As a long-term development plan, the Vision seeks a country with ensured food security for its inhabitants in the entire supply-chain. Food security has been included as a component of Pillar-IV along with Energy and Water in the Vision with an aim to provide sufficient, reliable, safe and cost-effective food for present and the future needs. The Plan aims to achieve food security for all by developing the agriculture sector into a modern, efficient and diversified entity.

Improving agriculture productivity

There exist huge gaps between current yields and what can be economically achieved with better support services, especially in high-potential areas. This provides an opportunity to achieve the growth targets envisaged in the Plan. Improved productivity and competitiveness of the crop sector will require accelerated adoption of resource conservation technologies to grow more with less investment in agricultural research and extension systems, improved access to agriculture credit, targeted subsidies to stimulate the use of new technologies, better mechanisms for risk mitigation, and improved post-harvest management and marketing facilities.

Bridging the yield gap of smallholders requires greater emphasis on enhancing coverage of certified seed of improved varieties, efficient use of available water and fertilizer by adopting resource conservation technologies (that is, laser levelling, furrow irrigation, drill seeding, band placement of fertilizer, minimum tillage, integrated pest management, etc.), recycling rather than burning of crop residues and increased use of organic matter.
The investments in agricultural research system will be enhanced to upgrade capacity for development and adaptation of appropriate resource conservation technologies. Immediate

attention is needed for strengthening the Provincial Agricultural Research System through significant increase in the financial allocations for rehabilitation and up-gradation of research infrastructure (including scientific equipment, laboratories and green houses), and improvement of the service structure of scientists in line with the PARC and the agriculture universities. For high priority research issues, the ongoing competitive grant system of the PARC, HEC and PARB will be strengthened. In addition, national and international cooperation in agricultural research will be promoted. The private sector-led inputs delivery and other agricultural services will be encouraged in linking farmers with markets and processing industry to ensure fair returns to farmers by enhancing their capacity to invest in the modernisation of agriculture production systems.

Diversification into high-value agriculture

Given the diversity of the agriculture sector and export competitiveness in high-value crops, the strategy needs to balance food crops and higher-value horticultural crops. Fundamentally, the growth must come from farmers' enhanced capacity to modernise their production systems based on optimal utilisation of land and water resources and commercial approach to agriculture production and value chain. This will require economies of scale at the farm individual, corporate or cooperative level, adoption of modern production and post-harvest technologies, and investment in the supply chain infrastructure.

Accelerated growth in high-value agriculture will be achieved on sustained basis, only if the markets work better, ensure fair price to farmers, and mop up marketable surpluses for processing and packaging into value-added products for local and export markets. This will require necessary market reforms and establishment of supply and cold chain infrastructure through innovative public-private partnerships to realise full market potential. Experiences of other developing countries indicate that given the large size and technical complexity, these investments can best come through the private sector-led joint ventures with the government providing an enabling environment in terms of incentive policies. In addition, better functioning of markets requires addressing the public sector infrastructure – deficit in farm to market roads – to facilitate small farmers' entry to market, especially in areas of good agricultural potential.

Treating production and marketing operations holistically, using the policy support tools for precision agriculture, offer substantially higher financial and economic returns by minimising expenditures on capital inputs, such as fertilizers, pesticides, energy and by reducing risks of crop failure. The corporate or cooperative approach is the best suited for diversification into high-value agriculture on commercial scale where production, processing and marketing operations are integrated and managed as an agro-industry. The Plan will encourage these initiatives in the private sector through appropriate public policy interventions and provision of incentives.

Improving sector governance

The poor state of governance is common in the management of agriculture, both by the public and private sectors. It has adverse impact on the agriculture productivity resulting from litigations over land and water disputes, rent-seeking by the revenue functionaries, tempering of water course outlets (mogaaz) by influential farmers upstream of distributaries, and market failures, etc.

To improve governance in agriculture, it is imperative to revisit the role of public institutions and modify control-oriented and supply-driven system to the decentralised and demand-driven. At the same time, appropriate regulatory mechanism must be put in place to prevent exploitation of the small producers. Devolution at the local level is important, including improvement in their administrative capacity and accountability, and strengthening of the participatory process. An independent third party evaluation of the devolution system implemented in 2002 versus the previous system would provide guidelines for needed reforms. Likewise, the post-18th Constitutional amendment devolution needs a review. In addition, measures that improve governance and accountability – stricter enforcement of laws, legal reforms and wider dissemination of information on spending and effectiveness of public sector projects and programmes – can help spur both greater efficiency of government, as well as growth and investment in the rural areas.

Improving governance is also crucial for reducing poverty through improved growth in the rural sector. Governance issues, including litigation over land, water disputes, and corrupt practices in land transactions involving transfer, sale or purchase are a major bar to investments and growth in agriculture.

To address these issues, the strategy will emphasise: (i) improving financial management and accountability at the project and institutional levels, (ii) transparent and authentic land records and water entitlements by modern IT-based system, (iii) increased transparency and information of the government activities to facilitate public oversight, (iv) capacity-building of the local government institutions, and (v) safeguards against market failures.

Improving water-use efficiency

Inefficient use of water is one of the serious issues of the agri sector. The irrigated area in Pakistan has increased from 16.8 million hectare in 1990-91 to 18.9 million ha in 2012-13, and is expected to expand further. This happened because of increase in water availability from 119.6 MAF to 137.5 MAF during the same period. Yet the water resources available for agriculture continue to shrink due to increased demand from the urban and industrial sectors.

To overcome these problems, the Plan recommends a strategy of 'More Crop per Drop' by increasing crop productivity per unit of water through promotion of water saving technologies. These will include the lining of watercourses, drip and sprinkler irrigation system, land levelling, permanent raised-beds, and substitution of high delta water crops (sugarcane, rice) with low delta crops (maize, oil seeds, pulses, etc.). A multi-pronged strategy will be adopted for improved water use efficiency to sustain food and water security. The main components of this strategy will be:

- Reducing water losses (both at system and farm level) and improving conservation of available resource to enhance water productivity
- Minimising system losses by improving operational management of canal system for wet, average, and dry season scenarios and by monitoring of water discharges at mogaaz
- Increasing the water storage capacity through development of on-farm storage tanks, small dams, check dams, and spate irrigation (rod kohi) in rain fed, sailaba and mountainous areas

- Strengthening on-farm water management research on crop water requirements, water pricing, water losses and use efficiency, water productivity, cost recovery, and equity issues under the demand-driven versus supply-driven irrigation management
- Build consensus among provinces, like the 1991 Water Accord, to initiate new water projects and extension of the existing irrigation facilities to additional areas
- Increase irrigation intensity through fuller utilisation of available water resources by expanding the on-farm water management programmes
- Launching of major programme of aquifer recharge in arid and semi-arid areas of Cholistan, Thar and Balochistan to ensure that water flows from tube-wells can be sustained

Improving land resources

Pakistan faces serious issues of land degradation from water-logging, salinity, nutrient mining and soil erosion. Inefficient irrigation and drainage systems, secondary salinisation, sea water intrusion, and lack of awareness are the major causes of land degradation. Rapid urbanisation is eroding arable land. About 3.2 million ha of canal command area are severely affected by water-logging (water table less than 150 cm) and salinity. In spite of the huge investment for reclaiming land fertility, the menace of water logging and salinity still persists. In addition, soil fertility has badly affected by water and wind erosion and inefficient application of fertilizers. For this purpose, strategies encompassing mitigation, rehabilitation and better land-use planning will be adopted in order to protect land resources.

The strategy includes actions such as: establishment of groundwater regulation system to monitor and regulate water and salt balance of aquifers, reduction in drainage surplus through precision irrigation, strengthening and expansion of soil testing labs for issuance of soil health cards to farmers to provide updated information on nutrients balance, improved watershed and rangelands management, soil conservation programme through technical, biological, chemical, and social measures, promotion of Remote Sensing and Geographic Information System tools for identification, assessment and monitoring of degraded lands, and improved coordination and capacity-building of the stakeholders concerned. Legislation will be introduced against unchecked spread of housing schemes on fertile lands. Under the land reform programme, additional land will be reclaimed and irrigated for allotment to landless, agri graduates, women haris and tenants. A land consolidation programme, where necessary, will be undertaken to create viable units for modern agriculture.

Agricultural biodiversity

Pakistan is rich in indigenous crop diversity with an estimated 3000 taxa of the cultivated plants. There are around 500 wild relatives of the cultivated crops, mostly found in the Northern Areas. Introduction of high-yielding varieties, expansion of land, deforestation and dam constructions have threatened wild landraces of the crops, as agro ecological diversity of the region is in danger due to modern agriculture. Pakistan has preserved 15,600 germplasm accessions from more than 40 crops at the Pakistan Genetic Research Institute. Around 50 per cent of the germplasm has been evaluated and catalogued. During the Plan period, preservation of plant genetic resources will further be improved.

Mitigating impact of climate change

Manifestations of the climate change are already evident by changes in rainfall patterns, occurrence of droughts and floods, extreme temperature, etc. It is predicted to have significant negative impacts on agriculture production systems in different parts of the country, particularly in the arid and semi-arid regions.

Although the impact of climate change is not yet fully understood and may not always be negative, there is a need to initiate research on adaptation and mitigation strategies. The research agenda will focus on measures to minimise the impact of climate change on crop production and water resources, including: (i) development of crop varieties resistant to pests, diseases and drought and also tolerant to extreme variations in temperature, (ii) changes in cropping patterns and sowing dates based on more accurate weather forecast for the cropping season, (iii) changes in planting methods and water management practices for high delta crops such as rice, sugarcane and maize (for example, from flat to bed planting and from flood irrigation to furrow or drip or sprinkler irrigation, etc.), (iv) water resource conservation and demand management through expansion of small scale water storage capacity and rain water harvesting at the farm level, (v) equitable water pricing based on delta of water for different crops, (vi) development of water markets at the farm level where the farmers could buy and sell water through mutual agreements as is presently done in case of the tube-well water.

To address climate change issues and their impact on agriculture on a systematic and long-term basis, a National Climate Change Policy will be formulated. The Global Change Impact Study Center (GCISC) is well-placed to undertake this task in close collaboration with key stakeholders under the overall guidance of the Prime Minister's Committee on Climate Change. As per recommendation of the Task Force, the Ministry of Climate Change will take steps on priority basis to formulate the National Climate Change Policy, along with the action plan, and the GCISC will take necessary initiatives for high-quality research and modelling studies on the climate change.

Agricultural inputs and support services

Seed

Quality seed is a prerequisite to realising the full benefit of good crop husbandry practices. Any weakness in terms of genetic purity or physical health may damage all investments and efforts made during the course of crop life. The seed sector is grossly underdeveloped due to extended delay in legislations though number of private domestic seed companies is around 700, which are dealing in all field and horticultural crops. Several initiatives such as establishment of facilitation units and testing labs were taken.

Along with insistent legislation issues, wide spread spurious seed, especially GMOs, non-availability of certified seed and planting material, no system of seed commercialisation in the National Agricultural Research System and lagging seed registration process have been identified as potential obstacles to the seed sector. Enactment of laws regarding seeds has been considered a fundamental step to resolve this major issue. Certified nurseries of planting material in production areas with mother plant banks are needed to meet the fruit orchard needs along with backup support. High-tech seeds, such as Hybrid and GM, should be given high priority and must be developed indigenously by technology acquisition, strengthening of the public sector R&D and enhancing role of the private sector for seed development and commercialisation. A comprehensive but convenient registration procedure for new entrants is also deemed necessary. Projected seed requirements for major crops, along with fruit nursery plants, are given in Table 3.

Table 3: Requirements and targets of improved seed and fruit nursery plants distribution

('000' Tonnes)

Crop	Total Req.	2013-14		2014-15		2015-16		2016-17		2017-18	
		Target	%	Target	%	Target	%	Target	%	Target	%
Wheat	1,085	217.1	20	227.9	21	233.4	21.50	238.8	22	244.2	22.5
Cotton	40	40	100	40	100	40	100	40	100	40	100
Paddy	42.5	12.7	30	13.6	32	14.4	34	15.3	36	16.1	38
Maize	31.9	9.6	30	10.2	32	10.8	34	11.3	36	12.1	38
Fodders	40.1	12.0	30	12.4	31	12.8	32	13.3	33	13.7	34
Oil seeds	10.6	2.1	20	2.2	21	2.2	21	2.3	22	2.3	22
Pulses	47.5	9.5	20	9.9	21	10.5	22	10.3	23	11.4	24
Vegetables	5.1	5.1	100	5.1	100	5.1	100	5.1	100	5.1	100
Potato	372.7	37.3	10	41	11	48.5	13	52.2	14	55.9	15
Fruit Nursery (000 No.)	1,000	40	4	60	6	65	6.5	70	7	85	8.5

Source: *Federal Seed Certification & Registration Department (FSC&RD)*

Fertilizer

Since the advent of the Green Revolution, the use of fertilizers in Pakistan has been growing at a fairly good pace. However, the imbalance application of nitrogen and phosphate has been a recurring issue to affect fertilizer use efficiency, and subsequently the crop productivity in the prevailing intensive cultivation systems. Consequently, essential plant nutrients are depleting, lowering the average productivity of crops. The imbalanced nutrient application during 2012-13 recorded in terms of the NP ratio was at 4.15:1 against desirable 2:1. The decrease in use of P and K is attributed to their high prices and less overall farm profitability due to deteriorating terms of trade.

The use of fertilizers up to 2017-18 is targeted to grow by three per cent per annum (Table 4). The growth rate for the nitrogen is estimated to be 2.5 per cent, while phosphate and potash at five per cent each. In quantitative terms, by 2017-18, nitrogen, phosphate and potash use is projected to increase by 3,499.9, 9,45.3 and 29.5 thousand tonnes respectively. The overall fertilizers consumption is estimated at 4,474.7 thousand nutrient tonnes. Other fertilizer products to meet micronutrient deficiencies such as Zinc, Boron, Iron and Copper will also be needed for specific crops in order to enhance productivity and improve quality. Pakistan has the potential to fulfil its entire urea fertilizer requirements through indigenous production, but has to rely on imports due to prevailing energy crisis, particularly reduction of natural gas to the fertilizer sector. The use of fertilizers up to 2017-18 is targeted to grow by three per cent per annum.

Table 4: Fertilizer off-take projections

('000' Nutrient tonnes)

Nutrient	Benchmark	2013-14	2014-15	2015-16	2016-17	2017-18	Growth (%)
Nitrogen	3,170.7	3,184.4	3,222	3,331.2	3,414.5	3,499.9	2.5
Phosphate	777.7	880.9	912	857.4	900.3	945.3	5
Potash	24.3	23.6	28	26.8	28.1	29.5	5
Total	3,972.7	4,088.9	4,162	4,215.4	4,342.9	4,474.7	3

Note: *Benchmark is average of the last five years.*
Source: *National Fertilizer Development Centre (NFDC)*

In terms of fertilizer marketing, Pakistan has been experiencing problems of timely availability of fertilizer to farmers due to heavy dependence on imports, delays in imports, and weak regulatory mechanisms. The public sector control over urea imports, owing to subsidy element, also sometimes poses problem of supply. Fertilizer use development has now been strongly established by the governmental support during the previous years. It is a right time to loosen the governmental control over this business and let the market forces prevail. Urea imports must be deregulated completely and do away with direct and indirect subsidies in a phased manner. The Fertilizer policy 2001 needs review to undertake such decision. To guarantee continuous supply, strategic reserves of major fertilizers, such as DAP and urea, need to be maintained by the private sector under a predefined mechanism, to assure fertilizer availability during peak seasons.

Plant protection

To sustain higher yields, it is imperative to protect crops from insects and pests and keep fields clear from weeds by judicious use of pesticides and herbicides. Indiscriminate use of pesticides and other chemicals is harmful as residual levels in the food chain can exceed permissible limits. In 2004-05, pesticide use was 129,000 tonnes which is now around 40 thousand tonnes. Pesticide consumption has been declining in Pakistan largely because of more cultivation of Bt cotton requiring comparatively less sprays. Previously, schemes involving IPM, biological control, pesticide quality control labs, and plant quarantine services were taken up. To provide healthy food, the Integrated Pest Management along with monitoring of pesticide residues in agriculture produce need to be promoted. This strategy will be continued during the Plan period.

Farm mechanisation

Accelerated farm mechanisation is an important ingredient of the strategy to step up agriculture growth. Range of current power and implements are insufficient to support the need of the sector. Before de-functioning of the MINFA, developmental schemes were initiated for high efficiency irrigation system, provision of the subsidised tractors and farm implements such as laser land leveller, zero or minimum tillage machine, seed-fertilizer drill, raised bed technology, combine harvesters, threshers, etc. Most of such schemes could not get high success, except the tractor scheme, which remained continued by the federal as well as provincial governments. Due to this, the level of farm mechanisation is basically confined to tractor cultivation. To improve the situation, availability of tractors along with modern farm implements for zero and deep tillage, fertilizer band placement and laser land levelling will be provided on credit. This will enhance integrated use of inputs and farm machinery to improve productivity. Better enabling environment for agriculture machinery manufacturers may improve their production capacity to help reduce the lag period. The role of service providers will be enhanced for rental of farm machinery and adoption of corporate or cooperative farming. Strengthening of the R&D involved in farm mechanisation will help accelerate the pace of farm mechanisation through acquisition or development of appropriate farm machinery. Around 0.95 million tractors with improved implements usage at the farm level, have been envisaged at the end of this Plan as against 0.72 million units in 2013.

Agricultural research

Traditionally, the National Agricultural Research System (NARS) has contributed well to the agri development. However, since the 1990s, Pakistan has grossly underinvested in the agri research. According to the IFPRI study (2008), the level of investment in research declined by 23 per cent between 1991 to 2002, while in India and China it increased by 81 and 118 per cent respectively. This adversely affected the national capacity for research. Many of the research programmes, pursued by the agri research institutions, have not kept pace with the needs of the farmers and economy. There was more emphasis on knowledge generation than on moving from research to innovations and technology development. The Provincial Agriculture Research System, which is the backbone of the Pakistan's National Agricultural Research System (NARS), suffered from budgetary constraint, brain-drain, outdated research infrastructure and a service structure providing little incentive for creative research and innovations.

To address these issues, revamping and strengthening of the whole research system along with improvement in the incentive structure, enhanced budget allocations will be taken up on priority basis in the Plan period. At the same time, an effective monitoring and evaluation system will be put in place to measure the impact of research and technology generation on sustainable agriculture development. The role of the PARC as an apex research organisation will be enhanced in resource mobilisation, acquisition, adaptation, and generation of cutting edge technologies, and sustainable management of natural resources. Research will be intensified to reduce the energy intensity of the agri sector to bring down the cost of production, which has gone up due to high energy prices.

Agricultural extension and training

Extension is a vital link between a researcher and farmer. The yield difference between small farmer and progressive farmers shows gaps in resource and knowledge. An effective extension service can play an important role in adding to the resource and knowledge to increase productivity by adopting cost-effective production technologies. However, the quality of agriculture extension service has deteriorated overtime since the extension methodologies and tools are outdated, while the crop production systems have become more complex and diversified. The extension strategy envisaged in the Plan will promote the use of more modern and effective extension service based on electronic and extension technologies and on provision of specialised extension service staffed by subject matter specialists for precision agriculture and high value crops, such as horticulture and floriculture. The service may also include information dissemination on weather forecasts for agriculture, Global GAP or good agriculture practices, latest innovations in conservation agriculture, post-harvest management, and market information on crop prices, etc. It will also upgrade the training programmes, along the lines of technical and vocational training needed for commercial farming. Greater involvement of the private sector (fertilizer, pesticides and seed industry) in specialised extension services to address specific production problems at the field level and provide services such as soil testing, integrated nutrient and pest management, drip and sprinkler irrigation system, and production of hybrid and GM (Genetically Modified) crops will be encouraged.

Agricultural credit

Inadequate financial resources and lack of access to financial institutions are major constraints on the adoption of modern agricultural practices by small farmers. One-window operation, revolving credit scheme, microcredit scheme, inclusion of more banks and institutions in agricultural credit and issuance of smart card for small farmers were some of the major interventions to increase credit out-reach. By such actions and active monitoring by the State Bank of Pakistan, the target of agricultural credit disbursement was achieved most of the time. Total credit disbursement was Rs232 billion in 2008-09, which has added up Rs100 billion in five years by 2012-13. Generally agricultural credit accounts for only four to five per cent of banks credit portfolio. Banks are not enthusiastic about agri credit due to the significant number of widely dispersed clients they are supposed to cover, while farmers shy away from banks because of the cumbersome procedure involved.

Table 5: Agriculture credit disbursement targets (2013-18)

(Rs billion)

Year	Total
2013-14	380
2014-15	500
2015-16	600
2016-17	680
2017-18	770
Total	2,930

Source: *Planning Commission*

In view of the potential role of agriculture in the poverty alleviation and promoting rural employment, the commercial banks will be encouraged to be more innovative and promote group loaning, inducting agricultural graduates as their Mobile Credit Officers, and increasing branch network in rural areas. To enhance outreach, number of branches in rural areas will be significantly increased. The smart card facility, supported by a system of due diligence, can also be introduced.

It has been argued that the agricultural credit system should be reformed so as to ensure that at least 50 per cent of the total is provided to small farmers, and that landowners are able to obtain credit on the basis of the market-value of the land rather than on the outdated produce index units. Measures will be sought to substantially increase the amounts being provided to small farmers. A high priority to women borrowers in microcredit programmes will also be given.

In view of the recent enhancement of indicative credit ceiling and greater emphasis on technology-based agriculture in the future, the agricultural credit disbursement target for the Plan period has been set at Rs2,930 billion (Table 5). Almost equal share is expected to be allocated for production and development purposes.

Agriculture marketing infrastructure and trade

The present marketing policies and infrastructure facilities constitute major constraints on the agri production. The market failures are common in years of surplus production resulting in low farm gate prices and poor return to farmers on their investments. This results in low production of these crops in the ensuing cropping season; hence leading to a cycle of food surplus and deficit years. These market failures entail high cost for the producers, consumers and for the national economy.

The Plan will start the movement towards converting Pakistan into a large net exporter of food and high-value agriculture products, including halal food to regional markets, by modernising marketing and post-harvest handling systems. To access any international food market, the foremost requirement is food safety and health compliance as per the international standards. An accredited food safety inspection system will be established to enhance the Pakistani share in the international trade.

At present, Pakistan is annually producing about 35 million tonnes of grain (wheat, rice, maize) and 13 million tonnes of horticulture products. The existing grain storage capacity is about 4.5 million tonnes. Its marketing and storage infrastructure to handle these diverse agricultural products is grossly inadequate and inefficient, resulting in high transaction cost to farmers and significant losses during handling and storage. Losses are estimated at three to six per cent for grains, and 25 to 40 per cent for perishable commodities, entailing a financial loss of Rs12 billion to Rs25 billion for grains and Rs24 billion to Rs38 billion for perishables. In contrast, the developed countries manage their storage losses within zero to two per cent by using the modern storage technologies, including silos storage for grains and cold chain systems for perishables. The latter includes: pack houses (for washing, grading, waxing and packing, etc) cold storages, controlled atmosphere chambers, and refrigerated transport containers (for flowers, fruits and vegetables).

The issues relating to the post-harvest handling of agriculture produce, such as marketing and storage, have been discussed at various levels in the government for some years, and a number of proposals for development of grain storages and cold chain infrastructure were in consideration. Storage and cold chain is a high investment area and does not appear feasible for the public sector to invest. There is an urgent need to amend the Agriculture Produce Market Act 1939 to attract the private sector in the business.

Special crops: Tea, olive, palm

Import bill of tea and the edible oil is very high and is a burden on the economy of Pakistan. As import substitution measures, efforts are being made to promote tea, olive and palm cultivation. Parts of the Khyber Pakhtunkhwa and Azad Jammu and Kashmir have been potentially identified to have potential for tea cultivation. Accordingly, a research station was established at Shinkiari (District Mansehra), which was subsequently upgraded to the National Tea Research Institute (NTRI). The NTRI developed varieties, production and processing technologies. It also established a tea processing unit and started promotion of tea cultivation in these areas. An area of about 500 acres has been brought under tea and cooperating farmers have been trained. Commercialisation of tea production, with the involvement of the private sector, is planned on 3,000 acres each in the KPK and AJ&K. Effective monitoring and independent evaluation is needed to assess the potential of tea cultivation on a commercial scale.

Pakistan is dependent on imported edible oil to meet its needs. Wild olive is indigenous in Pakistan, but cultivated species have been introduced only recently. About seven million wild olive plants, with cultivated species through grafting small plantations of cultivated species, have been established by the PODB on about 600 acres. No scientific data has been produced so far to determine the success of the grafted plants and the varieties with production potential. As such the project did not attract the growers for its commercial cultivation.

A recent GIS study has identified the tribal areas of the KPK and Balochistan, and the adjoining areas of North and South Waziristan, Mohmand and Kurram agencies, Bajaur, Malakand, Loralai, Barkhan and Zohb, better suited for olive cultivation than the areas with wild olive. An independent evaluation of the projects undertaken so far is needed to determine their economic and commercial viability.

Agro-forestry

Agro-forestry represents the integration of agriculture and forestry to improve the productivity and sustainability of farming system and increase farm income. The perennial woody plants provide direct and indirect benefits, and assure livelihood security to the farming community. The role of trees in soil conservation, erosion control and environment amelioration is widely acknowledged and serve as compelling reasons for including trees as part of the farming system. The present challenges of food security and diversification, issues of energy requirement and clean fuel can be met through different agro-forestry systems. In addition, harnessing large areas of arable land for plantation of suitable multi-purpose plants will promote sustainable development of agriculture. As per a survey (2008) of the Ministry of Environment, the total area under agro-forestry is estimated to be 773,000 ha with provincial breakup showing: Punjab 435,000, KPK 190,000, Balochistan 80,000, Sindh 50,000, AJ&K 12,000 and Gilgit-Baltistan 6,000.

The main issues in agro-forestry development relate to lack of systematic and sustainable development of agro-forestry due to lack of institutional ownership either by the Ministry of Agriculture or Ministry of Environment. As a result, there is neither a development plan nor specific fund allocation for this activity. The research, extension and development programmes are non-existent. Given the stronger linkages of agro-forestry with sustainability of agriculture and natural resources, the Planning Commission will set up a 'Committee on Agro-forestry comprising all major stakeholders to prepare strategic plan for systematic development of agro-forestry. The committee will address the following issues with specific recommendations: (i) institutional home of agro-forestry at the federal and provincial levels, (ii) past performance and future outlook in terms of impact on sustainability of natural resource base, (iii) research and development needs, (iv) current state of legislation and regulations for agro-forestry and need for improvement, if any, (v) selection of suitable plant species with economic value and development of nurseries for different agro-climatic zones, (vi) training and technology transfer, adoption of social forestry on commercial scale, and (vii) need for a dedicated knowledge acquisition and dissemination centre on agro-forestry.

Policies and institutions

Despite closing down of the Ministry of Food and Agriculture, several policy interventions are still under adoption and implementation though there exists no centralised and documented policy at the federal level. However, the MoNFS&R is actively working to formulate a national Agriculture and Food Security Policy.

Restructuring of the Agricultural Policy Institute: Historically, Pakistan has substantial experience and expertise of the agricultural pricing policy analysis and the Agricultural Prices Commission (APCOM), now renamed as the Agriculture Policy Institute (API), headed by experts of international repute. The situation has unfortunately deteriorated. Many of the recent policy initiatives and interventions in the wake of the food crisis lacked the requisite analytical and prescriptive underpinnings. As the country is increasingly grappling with complex policy issues, there is an urgent need to have a first rate autonomous agriculture policy institute to critically examine the emerging challenges and provide various policy options. The proposed institute will build on the existing capacity at the Agricultural Policy Institutes in the MoNFS&R and will be made fully functional during the Plan. Most of the groundwork has already been done on its mandate, governance and financial structure, and detailed terms of reference.

The API, as an autonomous institution, will have an independent professional Board of Governors having representation of eminent experts (economists, agri economists and experts), private sector (farmers, agro-industry, financial institutions, exporters) and relevant representatives of different ministries concerned.

Agricultural statistics and database management: Timely availability of reliable agricultural statistics and the capacity to use them in support of effective planning and policy formation are essential requirements for improved agri performance. Although Pakistan has a long history of agricultural data collection as well as policy analysis, its capacity has weakened overtime as evidenced by the recent interventions introduced in the wake of the food crisis. This is primarily due to lack of real time quality data and weak analytical capacity to use the data in policy formulation. The size of harvests, demand and supply, balance of food crops and products have become contested issues necessitating improvements in agricultural statistics to address the current challenges and provide policy options for sustainable agriculture development in the longer run.

There are a variety of sources of agricultural statistics in Pakistan. The agricultural census, livestock census, and farm machinery census are conducted at periodic intervals. The data generated by these censuses are of reasonably good quality. The major issue with this data is its availability in real time, that is, within a period of no more than one year. With the availability of new software programmes and the modernisation of data entry systems, this is feasible for quick implementation. The data with respect to complete enumeration of land use, cropping pattern and sources of irrigation have improved considerably, as has been that of crop-cutting experiments. However, recently doubts have been expressed regarding data quality in wake of the controversy over the size of crops. Recently, there have been some pilot efforts to collect and to revalidate crop reporting data through satellite imaging and remote sensing.

The above review underpins the need for improvement, both in the quality of data and analytical capacity to use it for policy formulation and planning purposes. Recently, the SUPARCO has emerged as an organisation providing data of five important crops with state of the art satellite technology in a timely manner having much more authenticity and reliability. It is proposed to examine these issues and make recommendations for modernising the data collection, analysis and reporting system should be constituted. To ensure effective use of these data, analytical capacity will be developed to prepare and publish reports on changes in agriculture productivity, profitability and competitiveness, domestic resource cost of producing major agriculture products, consumption and utilisation of agro products, food security and terms of trade indices, agriculture prices and parity, etc. This will contribute to informed decision-making by the government.

Agricultural terms of trade: The agricultural terms of trade are an important parameter to determine changes in the profitability of the sector. The trends in terms of trade shape the economic condition faced by farmers and constitute an important component of the prevailing investment climate. According to the Task Force Report on Food Security, the decline in the agricultural terms of trade since 1990 has been a major constraint for depressing investment. It is important to arrest the historical resources transfer from the agri sector to other sectors of the economy.

Agriculture can only be transformed into a fully-viable economic industry by changing the policy framework and terms of trade, which must be favourable to agriculture. Thus, there is a need to monitor the agricultural terms of trade by an official agency on a regular basis. As recommended by the Task Force on Food Security, the API will be mandated to estimate the agricultural terms of trade on an annual basis. There is also an urgent policy need to strengthen the capacity in the Ministry of Agriculture for judicious formulation of the agricultural price policies.

Policy on biotechnology: Biotechnology application in agriculture has emerged as a major technical innovation of the 21st century to increase the productivity and quality of agriculture and livestock products. It is a powerful scientific tool for improved food security and reduced environmental hazards of the current production system.

Biotechnology offers opportunities to develop pest resistant transgenic crop varieties (Bt cotton, Bt maize, Bt canola etc.) as well as crop varieties tolerant to drought, salinity and resistance to herbicides. In addition, it covers other technologies, which are crucial for sustainable agriculture development such as bacterial based bio-fertilizers to meet the crop nutrient requirements, bio-pesticides, and bacterial polysaccharides. In addition, the tissue culture technology is commonly used in floriculture, forestry and micro propagation of disease free planting material. Bio-energy is another area where biotechnology has the potential to make a significant contribution. With the help of genetic engineering, the production of enzymes used for converting lignin to cellulose, sugars and then to bio-fuel can be initiated. In addition energy crops are being genetically engineered to have lower content of lignin and higher cellulose, making the process of converting biomass to energy economically feasible.

Considering the current state of biotechnology research and its potential benefits, this policy roadmap is proposed to accelerate R&D activities: (i) immediate legislation of the Amended Seed Act and Plant Breeder Right Bill, (ii) upgrading the research on biotechnology to a level at par with other major agricultural economies through international collaboration with the Consortium Group for International Agriculture Research (CGIAR) institutions and multinationals (e.g. Monsanto, Sygenta, Bayer's, Biocentury, Du Pont, etc.), (iii) third-party evaluation of existing biotechnology institutions, (iv) implementation of the National Biosafety Guidelines and Rules, and (v) establishing a National Biosafety Committee (NBC), which must gradually evolve into a National Biotechnology Regulatory Authority as an autonomous body to take care of all the IPR, bio-safety, bio-security and related bioethical issues.

Coordination: Agriculture development activities primarily fall in the domain of provincial governments, except for national policy and regulatory matters. The Plan addresses new development initiatives, programmes and projects relating to national food and fibre security, international trade and trans-boundary research and development issues, such as introduction of new varieties, flow of agricultural goods and services, pests and diseases, and research and development. During the Plan implementation period, the provincial governments will take up most of the development initiatives. For better planning and implementation of development initiatives, the coordination between the federal ministries and provincial departments of agriculture will be strengthened through more frequent interaction. The number of vertically driven projects will be limited only to innovative high-tech projects or those involving trans-boundary issues, such as pest and diseases, quarantine, sanitary and phyto-sanitary measures and compliance with the WTO regulations.

Corporate agriculture: In Pakistan about 90 per cent farmers are small. They cannot use high technology for crop production being uneconomical in farm operations due to their farm size. To solve this problem there is need to revitalize corporate agriculture to overcome the limitation of the small land owners by setting up land development corporations with majority equity of the poor and managed by professional managers.

Ensuring food security

Notwithstanding the recent increases in food production, the challenge of food security remains a real one. Food availability, its safety and affordability are three essential ingredients of food security. Long-term food security requires not only producing sufficient food to meet market demand, but also ensuring its timely availability in adequate amounts at affordable prices to the common man. It is estimated that nearly one-third of the population still suffers from varying degrees of hunger, poverty and malnutrition.

According to the UN study of 2008, the number of food insecure people across Pakistan has reached about 45 million following the food price hikes during 2007-08. Persistence inflation of commodity prices in conjunction with declining economic activity is likely to have further increased the incidence of food insecurity (potentially impacting one-third of the population). The government is strengthening social protection framework, and coordination mechanism is being evolved to protect the poor. Despite some problems of targeting and efficiency of delivery systems, these programmes were affective in meeting the urgent food security needs of the poor. However, it is recognised that income and food support programmes, by their very nature, are emergency measures and their fiscal sustainability in the long run is a major issue in a resource constrained economy, like Pakistan. There is, therefore, need to evaluate these programmes and make them more cost-effective and sustainable by linking them with (i) Acquisition of productive assets such as land, technical skills, credit for micro enterprises, etc. (ii) Food for work, (iii) NGO-led Dal Roti Kitchens, and (iv) School Nutrition Programmes as proposed under the WFP initiatives.

Food security can not be only ensured by increasing availability of food through higher agricultural production rather it also requires better access to food. It means that the objective of food security cannot be achieved until the issue of poverty is also addressed. A significant reduction in poverty levels is the most important development challenge.

A new article 'Right to Food' will be added to the Constitution for making it the fundamental right of every citizen. To implement the 'Right to Food' policy, a national food security policy will be formulated. There is a need to evolve an equitable system of food procurement and distribution, improve the access of poor households to food at affordable prices and evolve a transparent system of safety nets for very poor households. The procurement programme will be strengthened to ensure all farmers receive the guaranteed support price for grains and improve arrangements for storage and subsidised distribution to ensure relative price stability throughout the year.

In addition to food security, food safety needs urgent attention due to poor compliance with the Sanitary and Phyto-Sanitary (SPS) measures during food production, marketing, storage, and processing, given the poor hygienic and sanitary conditions prevailing at work place as well as due to lack of enactment and enforcement of food laws. The presence of pesticide residues, bacteria, viruses, parasites, adulterants including hazardous physical and chemical agents are largely responsible for food contaminants and consequent illness, hospitalisation and death, accounting for large financial losses to individual families as well as to the public exchequer. Similar to food security, ensuring food safety is central to human development and poverty reduction. To improve food safety, quality and compliance of the SPS, a project the NAPHIS is under implementation for the last many years. It is going to establish food safety authority at the federal and provincial levels. It will integrate the scattered institutions under one umbrella having complementary nature of work.

In view of the multi-sectoral nature of food security and food safety issues, it is proposed to set up an 'Institutional Framework' at the Ministry of National Food Security and Research (NFS&R) for a holistic and multi-faceted approach to food security and food safety issues to cover the entire supply chain of food, that is, from plough to plate. More specifically, the Framework must cover:

- Monitoring of the Food Security Index as a composite indicator of food security status at any point in time. The variables covered by the Index include availability, price, access or affordability, absorption and ability to withstand shocks. The task of preparing specific indices may be carried out jointly by the API and PIDE in collaboration with the IFPRI.
- Determination of optimal size of strategic and operational stocks, and their locations
- Support and release prices
- Size of procurement and release prices
- Market information on national, regional and global production, prices, stocks, and future prices
- Food demand and supply balance, and projections for imports, exports, and stocks
- Food supplementation and fortification
- Revision of the existing Pure Food Law to harmonise with the international food safety standards and sanitary and phyto-sanitary measures set by the Codex Alimentarius Commission and WTO
- Upgrade food analysis labs to the international level under the international accreditation

The Ministry of NFS&R, being the lead Ministry on grain food-related issues, is well-placed to implement this institutional framework through appropriate strengthening of the analytical capacity of its Food Wing and the API. At the same time, the capacity of the provincial governments will require strengthening in the area of food production, forecasting, pricing, procurement, storage and distribution. The analytical capacity of the Planning Commission (F&A Section) will also be enhanced to provide intelligent inputs and views in policy-making based on policy analyses work. As a matter of policy, market-based approaches will be followed for production, marketing, and trade of food commodities with appropriate safeguards to ensure availability of adequate, nutritious and safe food at affordable prices on sustainable basis.

Crop growth targets

Keeping in view the pace of growth in the crop sector, investment and policy framework the physical production targets of various crops, including horticulture, has been fixed and presented in the Table 6.

Table 6: Physical production targets of crop and horticulture products and projected growth rates for the Plan

(000 Tonnes)

Crop	Bench mark*	2013-14	2014-15	2015-16	2016-17	2017-18
Wheat	24,306	25,979	25,478	26,000	27,357	28,178
Rice	5,508	6,798	7,005	6,902	6,954	7,371
Maize	4,225	4,944	4,695	5,323	5,749	6,208
Cotton (mil bales)	12.7	12.8	13.9	15.44	16.1	17
Sugarcane	58,737	67,460	62,652	68,035	71,395	74,964
Gram	484	399	484	715	709	780
Rapeseed, Mustard & Canola	184	203	183	213	223	234
Sunflower	328	193	186	566	679	815
Potato	3,551	2,901	3,084	4,110	4,316	4,532
Onion	1,723	1,740	1,763	1,967	2,016	2,096
Vegetables	2,080	2,184	2,294	2,408	2,529	2,655
Fruits	7,109	7,465	7,838	8,230	8,641	9,073
Fodder	46,802	48,206	49,652	51,142	52,676	54,256

***Average 2010-13.** *Projections have been made keeping in view the historical trends, growth potential and likely impact of exogenous and indigenous factors including policy interventions and investment in the plan period.*

Financing the Plan

To realise the agriculture growth targets envisaged in the Plan (Table 6), it will be necessary to significantly increase the level of investments in the sector, focusing on strategic areas including marketing and storage infrastructure, farm mechanisation, cost of agricultural inputs, adequate and timely availability of inputs, water harvesting and conservation technologies, post-harvest management and supply chain infrastructure, etc. Most of these investments are of a commercial nature, and thus fall under the purview of the private sector. However, certain investments comprise the nature of public-goods and would require continuing and increasing amounts of the PSDP-funding for accelerated growth of the agriculture sector.

Investment requirements of the sector are enormous. The potential contributor can be the federal and provincial governments, private sector and to some extent donor and international agencies. Planned expenditure from the public sector has been estimated to be around Rs294.8

billion. Keeping in view the nature of agricultural and food activities about Rs245.9 billion will be invested by the provincial governments, while that of Rs48.8 billion is the plan investment in the federal PSDP for this sector. This also includes investment of Rs90 billion on livestock development (the programmes and projects are discussed in the subsequent sections). The breakup for the crop sector includes agricultural research (Rs30 billion); water conservation technologies (Rs110 billion), farm mechanisation (Rs25 billion), capacity-building in agricultural planning, policy analysis, monitoring and evaluation, human resource development (Rs16 billion), post-harvest management, agriculture marketing, and storage infrastructure including cold chain (under public-private partnership modality (Rs45 billion). The year-wise break up is given in table 7. Nearly half of the total investments needs for marketing and storage infrastructure are expected to come from the private sector.

Table 7: Estimated expenditures planned for the Plan

(Rs million)

	2013-14	2014-15	2015-16	2016-17	2017-18	Total
Federal	950	1,257	1,706	2,000	3,000	8,913
Provincial	17,200	19,600	32,170	35,362	40,300	144,632
National	18,150	20,857	33,876	37,362	43,300	153,545

Priority investment areas for the Plan

Based on the foregoing strategic thrusts, the following priority investment areas are identified for funding by the federal and provincial governments along with the involvement of the private sector:

Agriculture intensification and diversification

- Development of a modern seed industry including local production of hybrid and genetically modified plant varieties (Hybrid Rice, Maize, Bt. Cotton, Bt. Maize, and Hybrid Vegetables, and disease free certified planting material for horticulture)
- Promotion of resource conservation technologies
- Establishment of farm-level water storages for rainwater harvesting
- Diversification into high-value agriculture and value-added products
- Farm mechanisation with emphasis on farm machinery designed to improve efficient use of agricultural inputs, particularly fertilizer, water and energy and resource conservation technologies
- Sustainable management of natural resource base
- Crop maximisation programmes for import substitution crops
- Floriculture and agro-forestry development
- Value-addition through cluster development
- Olive promotion

Policy and institutional reforms

- Establishing an autonomous Agricultural Policy Institute, and Centre for rural economy

- Setting institutional framework for food security and safety issues at the MoNFS&R
- Strengthening of the provincial agricultural research system
- Establishment of the Federal Committee on Food and Agriculture to provide platform for consultations with stakeholders on major issues for participatory planning and development
- Promoting corporate agriculture, cooperative and contract farming
- Crop production forecasting and market information

Marketing infrastructure and trade

- Animal and plant health inspection system
- Post-harvest management, marketing, storage and supply chain infrastructure
- Cold chain infrastructure for high-value perishable commodities (Horticulture, Floriculture and Livestock Products)
- Farm to market roads and rural markets

Capacity-building

- Capacity-building in agriculture policy analysis, resource management, monitoring of food security and terms of trade indices, monitoring and evaluation, etc.
- Natural resource planning and management
- Agri business, marketing and international trade (infrastructure and institutions)
- Moving from research and knowledge-based technologies to innovations

Agro-forestry

- National survey and assessment of agro-forestry
- Community-based interventions in promoting agro-forestry development
- Conservation, development and commercial exploitation of medicinal plants
- Bamboo research and development programme, and establishment of the Bamboo Research Institute

Livestock, poultry and fisheries

The livestock (including poultry and fisheries) sub-sector plays an important role in the economy of the country and the livelihood of its people. It accounts for 55 per cent of the agricultural GDP. It is a net source of foreign exchange earnings and provides raw materials, particularly for the leather products, carpets, and woollen textile industries. The livestock is mainly raised by more than 8.5 million small farmers and landless families in the rural areas, and is their main source of livelihood. It serves as a safety net for the poor and provides opportunity for self-employment of women. The livestock rearing is the only agricultural activity, which generates daily cash income. The farm-yard manure produced by livestock is a significant source of organic fertilizer for crop production as well as domestic fuel. Thus the sub-sector plays an important role in poverty alleviation, gender employment, and stimulation of agricultural growth given its enormous potential for value addition and export.

During the last five years, value-added in the livestock subsector grew at an annual rate of 3.8 per cent. Pakistan is endowed with a large livestock population, well-adapted to the local conditions. The growth in livestock population is presented in Table 8, which shows a steady upward trend. Pakistan is the fourth largest producer of milk in the world. In addition, there is a vibrant poultry sector with more than 560 million birds produced annually.

Table 8: Comparative status of livestock population during 2008-13

(Million numbers)

Animal	2008-09	2009-10	2010-11	2011-12	2012-13	% Change
Buffaloes	29,883	30,790	31,726	32,689	33,681	2.54
Cattle	33,029	34,274	35,567	36,907	38,301	3.19
Sheep	27,432	27,757	28,086	28,418	28,755	0.96
Goats	58,279	59,858	61,480	63,147	64,858	2.25
Camels	958	970	983	996	1,008	1.04
Horses	350	352	354	356	358	0.45
Mules	165	167	170	173	176	1.33
Asses	4,510	4,593	4,678	4,765	4,853	1.52
Total	154,606	158,761	163,044	167,451	171,990	2.24

Source: *Pakistan Bureau of Statistics, Estimated figures based on inter census growth rate of Livestock Census 2006*

Situational analysis

Growth: The Livestock sector achieved a satisfactory growth rate of about 3.4 per cent per annum, which is attributed to the new interventions launched during the period addressing the issues of cold chain development, marketing and livestock management and health. The growth in the fisheries sector was negative (Table 9). The poor growth rate is attributed to insufficiencies in fisheries research, value-chain and marketing infrastructure, non-compliance of the SPS standards inadequate implementation of envisaged strategy, and shortfall in credit disbursement targets.

Table 9: Livestock and fisheries growth rate (per cent)

Year	Livestock	Fisheries
2008-09	2.25	2.57
2009-10	3.80	1.40
2010-11	3.39	-15.20
2011-12	3.95	3.77
2012-13	3.68	0.65
Average (2008-13)	3.41	-1.36

Source: *Pakistan Bureau of Statistics*

Financial

The livestock sector's contribution to the GDP remained around 11 per cent. As a result of the establishment of an independent Ministry of Livestock and Dairy Development, the emphasis on this sector increased substantially. In terms of the Public Sector Development Programmes, an allocation of Rs2.6 billion was earmarked for the development projects of livestock, poultry and fisheries during 2009-10. This was the ever highest allocation for the sector. In the next year (2010-11), the allocation was reduced to Rs900 million and in the same year the Ministry was closed down because of the 18th Amendment. All major investments, thereafter, were abandoned considering the sector as provincial subject. Historically, the government has underinvested in livestock sub-sector as it accounted for only 0.5 per cent of the federal PSDP spending and 10 per cent of the agriculture sector spending.

Physical

With regard to physical achievements, a mixed trend was observed during the last five years. Meat production grew by 3.77 per cent with major contributions from poultry. Other poultry product, eggs also showed an impressive achievement of over 4.53 per cent. Value-addition in fisheries increased at a rate of 0.97 per cent, with not much expansion in the marine catch. Growth in milk production was 2.73 per cent. Increased private sector involvements in the sub-sectors (livestock, poultry and fisheries) and attention of the public sector were the major reasons for better production, which is shown in the Table 10 below.

Table 10: Livestock, poultry and fisheries achievements during 2008-13

('000 Tonnes)

Product	2008-09	2009-10	2010-11	2011-12	2012-13	Growth (per cent)
Meat	2,843	2,965	3,094	3,232	3,379	3.77
Beef	1,601	1,655	1,711	1,769	1,829	2.84
Mutton	591	603	616	629	643	1.75
Poultry	651	707	767	834	907	7.86
Milk	43,563	44,977	45,622	47,951	49,512	2.73
Egg (Millions)	11,258	11,839	12,857	13,114	13,813	4.53
Fish	695	704	712	725	729	0.97
Inland	215	219	225	260	262	4.37
Marine	480	485	487	465	467	-0.54

Source: *Pakistan Bureau of Statistics and Agricultural Statistics 2011-12, MoNFS&R*

The principal initiatives undertaken were: Strengthening of Livestock Services for Livestock Diseases Control in Pakistan, Eradication of Rinderpest, Prime Minister's Special Initiative for Livestock, Milk Collection /Processing and Dairy Production & Development Programme, Livestock Production and Development of Meat, Improving Reproductive Efficiency of Cattle and Buffaloes in Smallholders Production System, The White Revolution 'Doodh Darya' Horizon – II, National Programme for Control and Prevention of Avian Influenza, Fisheries Training Centre, Monitoring of Deep Sea Fishing Vessels, and Aquaculture and Shrimp Farming. The major accomplishments include: eradication of Rinderpest, effective control of avian influenza, improvement in farm-gate milk prices with community organisations and provision of chillers, and establishment of the Centre of Excellence in Bovine Genetics.

Livestock

The livestock has an enormous potential to become an engine of economic growth given the large potential for productivity increase and value-addition. With the increase in population, urbanisation and income levels the national demand for a nutritious and more diverse diet with more meat and milk products is increasing. There is a need to accelerate the development of this sector given its role in poverty reduction, national food security and export. To achieve this, appropriate policy framework should be put in place that enables improved marketing, efficient technologies, and food safety standards through the food chain. Promotion of these practices will provide profitable business opportunities and help in reducing the incidence of poverty amongst livestock holders.

Issues and challenges

Major issues and problems of the sub-sectors includes: (i) low productivity per animal, (ii) poor genetic stock, artificial insemination of only about 10 per cent, yield gap of 61 per cent between national milk average yield and that of progressive livestock holders, (iii) inadequate animal health coverage (25 per cent) (iv) inadequate feed resources, (v) shortage of needed skills, (vi) primitive marketing infrastructure and unfair marketing practices, (vii) weak research system and ineffective extension services, (viii) inadequate development funds allocation, (ix) limited credit availability, and (x) outdated regulatory framework, and inadequate database and analytical capacity.

Strategy

The overall objective of livestock development during the Plan is to achieve broad-based economic growth, poverty reduction, and improved livelihood of the rural people. The specific strategies to achieve these objectives include:

- Improved productivity of meat and milk per animal through genetic improvement of the indigenous livestock, and improved animal nutrition and health
- Improved marketing facilities and infrastructure for livestock and its products to enhance share of producer in consumer rupee
- Reduced morbidity and mortality by effective preventive and curative control measures
- Development of highly trained and qualified human resources for livestock, dairy, poultry, fisheries development and value chain for animal products
- Effective food safety regulatory measures
- Improvement of database and analytical capacity
- Promotion of private sector-led livestock and dairy development

Plans and programmes

Special attention has been paid to developing the sector by launching some mega development projects at the federal level during 2005-2011. The goal was to improve marketing facilities, breed improvement and to extend proper health coverage throughout the country. The investment priorities for livestock development during the Plan period can include:

- Focusing on small, landless farmers and women households

- Breed improvement including (i) genetic improvement of indigenous livestock through pedigree record keeping, production of progeny tested bulls, and (ii) artificial insemination and embryo transfer technology
- Nutrition through (i) production, import and distribution of certified fodder seed, (ii) balanced feed for large and small ruminants, (iii) rangeland management and development, and (iv) imposing ban on burning of wheat straw after harvesting of the crop as it is a very important roughage available for livestock feeding.
- Improve animal health by (i) enhancing effective veterinary coverage to livestock, (ii) encouraging the private sector role in veterinary cover, and (iii) controlling infectious and contagious diseases by production of quality vaccines and mass vaccination programmes, and (iv) encouraging the pharmaceutical sector for production of quality veterinary medicine
- Quality control, marketing and value-addition by (i) establishing effective testing and regulatory mechanism for ensuring quality of feed, milk and other livestock products, (ii) organising livestock holders into milk marketing groups and promoting vertical integration, (iii) value-addition in dairy and meat industry for better gains, (iv) deregulation of milk and meat prices, and (v) public-private partnership in setting up of livestock markets and state of art slaughterhouses
- Capacity building by (i) strengthening of planning, policy making, analytical, monitoring and regulatory capacity, and (ii) imparting training in livestock management, artificial insemination, embryo transfer, dairy technology, and silage/hay making.
- Mechanisation by (i) mechanisation of livestock rearing operations, (ii) development of machinery for making straw bundles simultaneously while wheat crop is being harvested by the combined harvester.
- Credit by ensuring increase in institutional credit for accelerated growth in livestock sub-sector by increasing its outreach and reasonable mark-up

Feed and forage

Fodder is the cheapest source of food for livestock, but its shortage limits the livestock production in the country. The livestock is generally underfed and under-nourished, which results in their poor health and productivity. There is a shortage of 44 per cent in total digestible nutrients and 51 per cent in digestible protein. It is established that simply by meeting nutritional requirements of animals, production can be increased by 50 per cent.

It is estimated that the livestock population in Pakistan would increase by 50 per cent by 2025. But the main issue that remains to be addressed is whether the supply of forage from rangelands and residues from crop fields would be sufficient to sustain such a huge number of livestock? This concern is magnified given that there had been a 12 per cent decrease in the area under fodder cultivation during the previous decade because of competing demand of land for crops. It is evident that present forage resources would not be sufficient to meet the future livestock population. Effective measures will be required to meet the future forage demand through both introducing new high yielding forage crops (irrigated and rained) and efficiently utilising existing forage resources from the vast rangelands by their effective and sustainable management.

Pakistan is an arid country, with 80 per cent of its geographical area classified as arid and semi-arid, with an average annual rainfall of 278 mm. A dominant part of these dry lands is rangelands (65 per cent of geographical area), which despite being overgrazed and highly neglected has sustained more than 60-70 per cent of the total sheep and accounts for 28 per cent of the Total Digestible Nutrients (TDN) intake by the livestock. The present production capacity of rangelands is only 10-15 per cent, which can be increased up to 50 per cent if proper attention is paid. Rangelands are managed by the provincial Forest Departments, but unfortunately have received low priority. In the context of growing demand for feed and forage, the rangeland has assumed greater significance in the context of policy interventions in the 11th Plan.

Issues and challenges:

The major issues in feed and forage are:

- Inadequate attention to research and development of high yielding, multi-cut fodder varieties and hybrids by public and private sectors and its multiplication and resultant inadequate availability of quality seed and the widening gap between its demand and supply
- Lack of awareness of fodder and seed production technology by the growers
- Decrease in the fodder cultivation area
- Non-availability of quality balanced ruminant feeds
- Neglect of rangelands development
- Burning of wheat and paddy straws resulting in wastage of an important potential livestock feed source

Strategy

The strategy for enhancing feed and forage production includes:

- Increasing availability of quality fodder seed through strengthening fodder research and seed multiplication arrangements and imports
- Promoting multi-cut fodder crops; training farmers in silage and hay making; creating awareness for planting of cereal crops and legumes in rotation such as Lucerne to enhance both fodder production and soil productivity
- Promotion of the balanced ruminant feed
- Use of waste and reclaimed land for fodder cultivation
- Establishment of the Rangeland Development / Management Authority to encourage introduction of drought-tolerant and high-yielding grasses and fodder plant; rainwater harvesting; establishment of nurseries; production of rotational grazing through community involvement
- Imposing ban on burning of wheat straw, and appropriate mechanisation to enable wheat and rice straw bale-making

Poultry

A viable poultry sector is essential to national food security as the effective domestic demand for meat continues to grow in step with increasing population and per capita income. Poultry is growing as a major job provider in the rural areas. In addition, informal rural poultry can be started with low investment. It is an important means of improving nutrition, self-employment of women and can help in poverty alleviation. The poultry sector is currently a competitive business that is relatively free from government price and marketing restrictions and barriers to entry or exit. In this unrestrained environment, the private sector has made substantial investment in commercial poultry production. As a result, production in the early 1970s grew in the range of 20 to 30 per cent per annum, and from '80s to mid-90s, the annual growth rate was between 10 to 15 per cent annually. This increased poultry production released the pressure on the demand for beef and mutton. The real price of both chicken and eggs over the years have not increased at the same rate as the prices of mutton and beef, and today chicken meat is priced lower than beef.

A new class of entrepreneurs has come into broiler production with modern technology, adopting controlled environment houses, with automatic feeding and drinking systems. The trend to apply modern technology is spreading gradually in all segments of the poultry production.

Poultry is by far the largest consumer of agro and livestock residue and by-products, such as, oilseed meals, wheat bran, rice polishing, broken rice, corn gluten meal, guar meal, fish meal, animals' by-product meal. Poultry sub-sector is emerging as one of major consumers of agriculture residues and by-products (2-3 million tonnes) along with consuming near three million tonnes coarse grains like maize, sorghum, broken rice, rice tips, etc.

The main objective of the poultry development for the Plan is to have a vibrant private poultry sector, which can flourish without much involvement of the government.

Issues and challenges

Issues and problems currently constraining the development of poultry include:

- Supply and quality of poultry feed ingredients (lack of local soybean production)
- Disease prevalence, and lack of trained supportive human resource
- Import of chicken meat without duty – the greatest threat
- Rationalisation of levy of local government fees and taxes; sales tax on poultry farms electricity bills
- Sales tax on poultry feed, which results in higher prices of poultry meat and contribute to food inflation
- Non-exploiting full potential of rural poultry

Strategy

The strategy to be adopted covers:

- Incentives for enhancing poultry production in the form of relief in taxes, and import duties on the modern poultry equipment

- Creating conducive environment for the industry by provision of level-playing field for local poultry industry, that is, protecting it from unfair competition from poultry imports
- Setting up of well-equipped laboratories for conducting detailed pathological tests, monitoring of diseases and control methods at the district level in intensive poultry-producing areas
- Provision of the adequate credit to accept poultry farm as collateral, equity debt ratio of 30: 70, repayment period 5 to 10 years depending on cash flow with a two-year grace period
- Launching programmes for research, extension and increased production of soybean in the country to meet the needs of poultry feed
- Training programmes to create skilled human resources
- Develop and improve markets for poultry industry

Fisheries

Fish is considered to be one of the best sources of animal protein and it can contribute to balancing the diet of the protein-deficient people. Pakistan produced about 0.73 million tonnes of fish in 2012-13. About 50 per cent of the total fish production is consumed locally, 20 per cent is exported, and about 30 per cent is converted into fish-meal for the poultry industry. Fish and fishery products from Pakistan are exported to 75 countries of the world. A major fraction of seafood is exported in frozen form whereas dried, chilled, fresh and live seafood are also exported. There are 65 fish processing plants in Pakistan with the capacity to process 800 metric tonnes of fish and shrimp daily. Previously a ban imposed on export of fish to the European Union has been lifted recently, which will boost local production as well as increase exports.

Issues and challenges

The main issues and impediments currently constraining the development of fisheries are:

- High post-harvest losses due to inadequate infrastructure and lack of awareness
- Non-compliance of the SPS standards
- Lower-level of investment in the fisheries and aquaculture by public and private sector
- Competition of local fish production with low-price imported fish
- Lack of trained manpower, infrastructure and modern technologies for fisheries and aquaculture sector
- Inadequacy in supplementary fish feeds in various aquaculture systems
- Dependence on low yielding fish species with unreliable genetic potential in inland fisheries
- Over fishing and destruction of habitat in coastal and inland fish resources
- Monitoring of marine fishery to control unauthorised catch

Strategy

The objectives of the fishery development are to increase the national fish supply based on sustainable production and improved marketing of aquatic products. The strategies to be adopted for achieving the Plan targets of the inland fishery development include:

- Providing enabling environment for the private sector investment and infrastructure development
- Detailed evaluation of freshwater resources by use of the GIS, sustainable exploitation of natural fisheries resources, control of aquatic pollution and enforcements of laws and regulations
- Conservation of biodiversity and propagation of indigenous fish species for commercial production and allocation of water for promoting aquaculture; sustainable release of freshwater downstream Kotri for conservation of biodiversity of the Indus River
- Sustainable development of inland aquaculture production to increase fish production by modern aquaculture technologies and introduction of high-value fish species in culture system with emphasis on intensification and conservation of Trout or Mahaseer aquaculture
- Reducing post-harvest losses by developing proper cold chain from production to consumption
- Development of skilled human resource by establishing the National Fisheries Research and Training Institute
- Provision of soft loans for fish farming, and replenishing the existing water bodies
- Improvement of fishing vessels with modern equipment and nets to control over exploitation
- Promoting private sector investment in coastal aquaculture production (including seed and fingerlings, feed and grow-out)
- Modernising the capturing, handling, preservation and value addition of fish and aquatic products; cool chain development for aquatic products
- Initiation and development of intensive coastal aquaculture and introduction of high value fish species in culture system
- Exploring possibilities for saline and brackish water aquaculture
- Controlling over-exploitation of marine fisheries resources by establishing sustainable harvesting and utilisation of untapped marine resources
- Improving fishing facilities for local communities and fishermen in coastal areas and establishment of modern fish markets
- Promoting export of high-value aquatic products to international markets

Marketing, value-addition and cold chain development

Inadequate and poor marketing system and infrastructure with weak food safety measures are major constraints to improved production and marketing. It undermines both the quality and value of the product with low return for the producer and high cost for the consumers. The existing marketing system is exploitive of both the producer and consumer by the chain of middlemen.

Previously many valuable suggestions have been made to address the issues of marketing, but no discernible improvement could be made. At the institutional level, there is disconnect between different organisations at the federal, provincial and district levels to address marketing issues. Owing to the perishable nature of the livestock products (milk and meat), its timely disposal is critical to the profitability of the producer and quality and price of the product to the consumer. It is reported that spoilage losses of milk alone are approximately 15 per cent causing an annual loss of Rs169 billion. Lack of infrastructure such as cooling facilities at farm or collection points as well as transportation of milk is major causes. If properly handled, channelised and processed, it has the potential to increase the availability of milk and dairy products in the country worth at least Rs300 billion. The milk, which is already reaching the urban market, if chilled at source and processed, has an additional potential of value-addition worth up to Rs200 billion.

Issues and challenges

The issues and problems constraining the development of proper marketing, cold chain development and value-addition in livestock, poultry and fisheries sub-sectors include:

- Outdated marketing infrastructure, that is, markets, slaughter houses and retail outlets)
- Weak market information and research system
- High wastage of milk and fish due to non-availability of proper cold chain
- Exploitation of producers and consumers by the middleman
- Lack of incentives for private investment, and inadequate analytical capacity

Strategy

To safeguard the interest of the producers and consumers following strategy will be adopted:

- Policies will be formulated with the participation of stakeholders regarding incentives for quality production, processing, marketing and value-addition.
- Development of cold chain for milk, meat and fish, and encouraging processing and packing industry through dairy farmers associations
- Ensuring quality of processed and improved livestock products, vet medicines and vaccines, and animal feed by establishing testing labs to avoid adulteration and enforcing punishments for defaulters
- Strengthening research on market issue and related aspects by producing trained cadre of livestock business managers, technicians and farmers
- Providing necessary relief in taxes and import duties on the processing equipment and slaughter houses equipment
- Protection of consumer rights, and promotion of the private sector investment and joint ventures

The major investment priorities for improving marketing, value-addition and cool chain development include: improving marketing infrastructures, promoting livestock holders organisations at village level for collective marketing of milk as well as its processing, establishing regulatory mechanism for ensuring quality of feed, medicines, livestock products; improving market information system; enforcing quality standards and grades for local and export markets with a proper certification and inspection system-establishment of testing labs, and developing analytical capacity for studying of marketing issues.

Livestock, poultry and fisheries research and extension system

Research and extension cannot be overlooked for the development of any sector. In Pakistan, the research system of the sub-sector is very weak and needs complete overhaul along with the establishment of new research institutes in the missing areas and disciplines. We do not have a proper livestock, poultry and fisheries extension system. The Livestock system is primarily confined to disease control, while livestock nutrition, management, productivity enhancement, and marketing are neglected.

Physical targets

The sub-sectors of agriculture — livestock, poultry, dairy and fisheries — are expected to grow well since they are highly resilient against climatic changes and normal shocks. The growth targets of 13.89 per cent for meat, 9.24 per cent for milk, 17.14 per cent for eggs and 3.71 per cent for fisheries have been fixed for the Plan (Table 11).

Table 11: Livestock, poultry and fisheries production targets for the Plan

(‘000 tonnes)

Product	Benchmark	2013-14	2014-15	2015-16	2016-17	2017-18	Growth(%)
Meat	2,515	3,531	3,697	3,873	4,061	4,262	13.89
Beef	1,449	1,887	1,951	2,017	2,085	2,155	9.74
Mutton	554	657	671	686	701	717	5.88
Poultry	512	987	1,074	1,170	1,276	1,391	34.33
Milk	39,596	50,989	52,632	54,328	56,080	57,890	9.24
Egg (Millions)	9,712	14,556	15,346	16,188	17,083	18,037	17.14
Fish	754	780	806	788	863	894	3.71
Inland	262	278	294	295	331	351	6.79
Marine	492	502	512	493	533	543	2.07

Source: *Ministry of National Food Security and Research*

Financial outlay and investment priorities

The importance of the livestock sector — dairy, poultry and fisheries — will become more important when the agriculture sector is worked out to significantly increase its contribution to the overall growth of the GDP because, in the short-run at least, the manufacturing sector in particular is liable to be hobbled by the ongoing financial and energy crises.

During the Plan, an investment of Rs60 billion will be made. Major areas of investment include: productivity increase through genetic improvement (Rs8 billion), supporting feed lot fattening of large and small ruminants and development of meat processing and marketing infrastructure (Rs7 billion) establishing livestock and fisheries extension and strengthening research (Rs6 billion), increasing certified fodder seed availability and ensuring balanced feed (Rs5 billion), effective disease monitoring and control (Rs12 billion), marketing reforms and cold chain development (Rs12 billion), quality testing and certification (Rs2 billion), compilation of vital statistics and developing analytical capacity (Rs2 billion), and capacity-building Human Resource development (Rs6 billion). Proposed major development initiatives include:

Livestock

- Enhancing productivity of large and small ruminants through selective breeding, establishing livestock breeding societies and production of proven sires and artificial insemination and embryo transfer technology
- Supporting feed lot fattening of large and small ruminants and development of meat processing and marketing infrastructure
- Improving certified fodder seed coverage and creating farmer awareness for fodder conservation technologies
- Rangeland development and management
- Establishing community organisations of livestock holders for milk collection, processing and marketing
- Effective prevention and progressive control of livestock diseases through effective immunisation programmes by producing and distributing quality vaccines
- Encouraging pharmaceutical sub-sector for production of quality veterinary medicines
- Establishing quality testing and certification labs for vet medicines, animal feed and livestock products
- Establishing modern slaughterhouses and markets through public-private partnership
- Capacity-building of livestock, dairy, poultry and fisheries technicians, farmers and professionals

Poultry

- Promoting rural poultry and supporting commercial poultry by providing policy support
- Promoting soybean cultivation and identifying alternate sources for feed

Fisheries

- Establishing the National Fisheries Research and Training Centre
- Promoting inland fisheries
- Intensification of trade of aqua culture and introduction of high-value fish

Common interventions

- Developing database and analytical capabilities
- Strengthening of planning, policy-making, monitoring and regulatory capacity
- Establishing new and improved livestock, poultry and fish markets
- Setting up livestock and fisheries extension services
- Strengthening capacity research on livestock, poultry and fisheries

Chapter 22

NUTRITION

The human resource development of Pakistan is substantially undermined due to poor physical and mental growth of its population resulting in poor performance in socio-economic engagements. Malnutrition remains a major cause of affecting children's physical and mental growth having burden on the health and education sectors, while at later age, low labour productivity leading to poverty, and consequently deteriorated socio-economic development of the country. Nutrition is also an important poverty determinant cutting across all sectors. The malnutrition burden is being carried over at least for the last two decades without any change.

Malnutrition is prevalent in the country in spite of overall sufficient food availability, and curative nutrition provided by the primary health care system. According to the National Nutrition Survey (2011), there has been no substantive change over the decades in nutritional status of under-five-year children.

(Per cent)

Indicators	Underweight	Stunted	Wasted
NNS 2001	38	31	11.6
NNS 2011	31.5	43.7	15.1

Source: *National Nutrition Survey*

Besides general malnutrition, micronutrient deficiencies also remain prevalent, as reported in the NNS 2011. It reflects a widespread micronutrient deficiency of Iron, Vitamin-A, Vitamin D and Zinc among children up to five years and mothers. Only the status of Iodine improved during the last decade.

Inadequate or inappropriate food intake and inefficient biological utilisation results in hidden hunger, macro and micro nutrient imbalances. Factors affecting malnutrition are considered to food security, feeding practices, access to health care, water supply, sanitation, education and nutrition awareness. Nutrition interventions are low-cost preventive actions to be integrated in the sectoral programmes, but receive low priority.

The efforts are to improve the nutritional status of the population, particularly women and children, through adequate diet and nutritional awareness as envisaged in the Pakistan Vision 2025. The Scaling up Nutrition Movement and multi-sectoral strategies will help the government departments at the federal and provincial levels to overcome malnutrition problem through various interventions because:

- Direct implications of the early nutrition on an individual's performance, ill health and disability
- Improves productivity and economic development
- Critical parameter to affect poverty and MDGs
- Impacts public and private health care expenditures

It requires

- strong coordination among stakeholders for synergy, effectiveness, monitoring and to report at all level
- capacity building – human resource (secretarial and technical)
- Nutrition Surveillance System, and
- plan of work and budgetary resources.

The Policy, strategy development and its implementation will be helpful to overcome malnutrition because nutrition investments can help break the poverty cycle and increase the GDP by at least 2-3 per cent annually.

Situational analysis

Strengths

The positives are:

- Sufficient food availability due to increased agricultural production
- Food fortification and supplementation programmes
- Food security activities to meet the challenges of food insecurity
- Nutrition awareness activities and programmes
- The findings of the NNS (2011) provide a baseline for an analysis of malnutrition throughout the country, and raise awareness among masses about nutrition.
- Presence of high-level academia in the nutrition sector further enhances its urgency and importance at the national level.
- Strong private sector involvement in nutritional interventions further strengthens the coordination mechanism and reduce burden on the government.

Weaknesses

The negatives are:

- Uneven distribution mechanism of food
- Limited and improper education, and awareness
- Lack of capacity and coordination
- Lack of ownership of nutrition programmes
- Lack of substantial budgetary allocations
- Low political commitment
- Improper monitoring of the implementation of nutrition programmes

Opportunities

The prospects are:

- Multi-sectoral strategies approach

- Agriculture extension
- Health infrastructure improvement
- Bio-fortification of food crops
- Wheat flour fortification
- Pakistan as member of Scaling up Nutrition (SUN) Movement
- Strengthening of provinces after the 18th Constitutional amendment

Issues and challenges

The challenges are:

- Malnutrition
- Household food insecurity
- Limited education and awareness
- Limited resources
- Political commitment
- Limited multi-sectoral Buy-in
- Limited technical and institutional capacity

Future roadmap

Short-term (2-3 years)

- Advocacy and awareness at all levels to put nutrition at the centre of the national development agenda
- Finalisation of nutrition strategic and policy framework
- Resource allocation to priority sectors
- Integrated preventive interventions focused on children and pregnant and lactating women
- Food fortification of wheat flour with iron and folic acid
- Agronomic biofortification of food grain crops through application of micronutrient fertilizers
- Research in nutrition through universities and research organisations
- Extensive use of media for nutrition education
- Approach international organisations for interventions at larger scale

Medium-term (3-5 years)

- Expansion of nutrition supplementation programmes
- Revised curriculum with focus on nutrition education and establish national nutrition degree awarding research institute

- Academic training in nutrition at the university level
- Centre of excellence of nutrition needs to be established at least one in each province, and one at the federal level to promote research
- Provision of Nutritionists and Dieticians in hospitals
- Support to nutrition intervention with quality
- Implementation with coverage of quality nutrition interventions
- Enhance water supply and sanitation facilities
- Reduce poverty in rural areas through creating business opportunities on-farm and off-farm for the farmer community

Chapter 23

ENVIRONMENTAND CLIMATE CHANGE

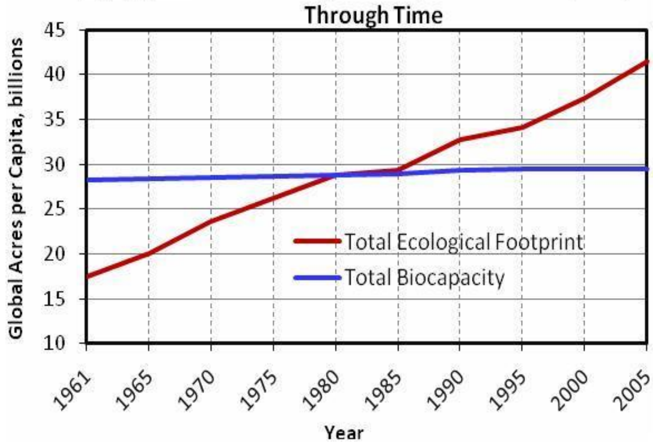
Pakistan is faced with serious challenges of degradation and pollution of land, water and air, while freshwater faces perhaps the most critical threat. The industrial pollution, though not too high at the moment, is unchecked and can get worse unless economic activity is underpinned with sustainable development. Air pollution is endemic because of a surge in automobiles, insufficient emission standards, and absence of effective enforcement. This is further exacerbated in the winters by heavy smog rolling in from India's coal-fired power plants. Also, the land degradation is a serious problem, both in irrigated and barani areas. Elsewhere, mining, erosion and deforestation are major causes of this too. This is compounded by relentless urbanisation, continuous industrialisation, changing consumption patterns, and climate change.

The overall achievements in the environment sector have not been very encouraging with little or no visible improvement due to low level releases of funds and lower utilisation capacity. It also did not address important factors, such as institutional and implementation weaknesses, weak legislation, inadequacy of knowledge management, environmental auditing and monitoring to name a few. The environmental regulatory institutions, like the Federal and Provincial EPAs, remained inadequately manned and staffed, and had insufficient budgets. This has been partially compensated through development projects.

Despite its overarching role, the environment sector has not been recognised fully in the calculus of the economic and social sectors, even though the direct and indirect losses to the economy are estimated to be over Rs365 billion annually or six per cent of the GDP. The inability to address the situation will result in extremely high costs in the future. It is, therefore, necessary to help improve country's capacity to achieve environmentally sustainable economic development to meet needs of the present and future generations.

To achieve sustainable economic development, it will be necessary to keep in mind the balance between the ecological footprint (resource demand) and the bio-capacity (resource supply). The ecological footprint across the planet has been increasing inexorably, as its capacity has diminished, leading to a state of deficit as far back as the eighties (Figure 1) [Source: WWF1]. This allows a better understanding of the underlying causes behind phenomenon such as climate change. The model suggests that Pakistan has

Fig 1.0: Global Ecological Footprint And Biocapacity Through Time



[1]See www.wwf.ca/downloads/lpr2008_ecologicalfootprint.pdf

an ecological footprint of 1.84 Global Acres2, while its bio-capacity is only 0.9 Global Acres3, which has serious implications for long-term sustainability.

Objectives

The aims are to

- improve Pakistan's capacity for achieving environmentally sustainable economic development
- gradually improve the country's air and water quality
- ensure sustainable development in different sectors of economy through adequately mitigating and adapting climate change impacts, capacity building, and effective linkages
- gradually integrate environment in development planning, projects, programmes and policies
- ensure sustainable forest management and development
- ensure biodiversity conservation
- achieve the Millennium Development Goals (MDGs) efficiently regarding provision of safe drinking water and adequate sanitation
- ensure sustainable management of land, and
- build the capacity of environment-related institutions and knowledge management.

Situational analysis

Land and water

The large-scale expansion of private-sector tube-well irrigation greatly helped the agricultural sector, but has had serious environmental consequences resulting in over-mining of the aquifer, and salinity. Furthermore, 11 per cent of the 22 million hectares of arable land has been declared as 'disaster area' because of severe water-logging and salinity. Water is not only in short supply, it is also contaminated by various toxic chemicals and biological materials flowing in from agriculture, municipal waste, and industries. Cotton alone accounts for 70 per cent of pesticide pollution in Pakistan. Only about eight per cent of the two million tonnes of human waste produced annually is treated, the rest is discharged untreated into the water-courses and sea. The aquifers too, are becoming chemically stressed. As a consequence, only river Indus and Jhelum have acceptable water quality, while all the other rivers carry a biological load higher than the acceptable standards. Few treatment plants have been installed by industries (133 in Punjab, 207 in Sindh and two in Khyber Pakhtunkhwa. Only three cities Karachi (3), Faisalabad (1) and Islamabad (1) have municipal sewage treatment plants, but these are highly inadequate and do not meet the National Environment Quality Standards (NEQS). The government established the NEQS in 1993, the industries did so after 1994 have effluent treatment plants installed yet they are reluctant to operate them. Furthermore, industrial units established prior to 1994 have invested in wastewater and chemical treatment plants, however, still a lot of

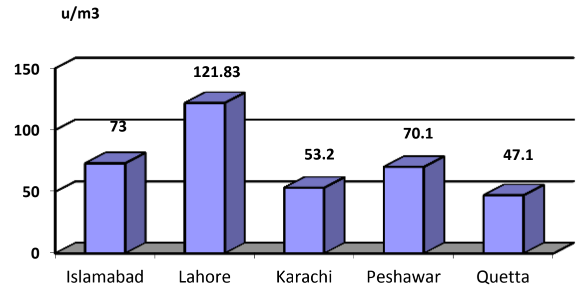
[2] A Global Acre takes account of the different land productivities based on use (crops, grazing, etc) and geographical location (favourable climate, water)

[3] See www.footprintnetwork.org/atlas

improvement is required to ensure compliance of the NEQS. Majority of the industrial units have no arrangements for treatment of their effluents. Out of 20 industrial estates, only Korangi and Kasur have wastewater treatment plants. The third one is under construction in the Sunder Industrial Estate Lahore. The Environment Protection Agencies (EPAs) are ineffective in monitoring pollution or prosecuting the polluters.

Air

Figure 2 Levels of Particulate Matter (PM2.5)



(Safe limit: 35)

All five capital cities show high concentration of suspended particulate matter (SPM 2.5 microns), which have reached levels that are 2-3.5 times higher than the safe limit (Figure 2) [Source: Pak-EPA]. The main causes of air pollution include a sharp increase in the number of vehicles and the old models having inefficient automotive technology, uncontrolled emission from the industrial units, burning of garbage, and presence of loose dust because of dry climate. Environmental standards are not enforced in important sectors, such as transport and industry. At present, only commercial vehicles are supposed to be 'visually' checked by the Motor Vehicle Examiners (MVEs) after every six months. However, all the MVEs are ill-equipped to enforce compliance with emission standards. Private vehicles do not undergo any mandatory inspection at all.

Solid waste

The scale of urban waste management can be gauged from the fact that usually no proper land fill or other disposal infrastructure is available to manage 60,000 tonnes of waste generated every day. Existing infrastructure permits collection of only 50 per cent of this waste, which is further dumped in open spaces and water bodies or burnt inefficiently, leading to pollution of freshwater and the aquifers. Littering too is an endemic issue. The issue of hospital waste (over 250,000 tonnes per annum with much infectious waste) is particularly severe. Most hospitals lack incineration or treatment facilities. The government has notified the Hospital Waste Rules 2005, but those are not being adequately implemented.

Impact and cost of environmental degradation

Environmental pollution is seriously impacting the ability of the country to sustain the desired long-term development. The most serious consequence of industrial and agricultural pollution is ever increasing groundwater contamination, with particular impact on the health of people and the ecosystem downstream. Due to low oxygen in river waters, fish catch has also decreased, adversely affecting the livelihood in some areas. Environmental degradation along with poor home hygiene, lack of basic sanitation and unsafe drinking water has a huge impact on the health of the population, particularly children under five. Diarrhoea and typhoid, the two common illnesses related to poor water and sanitation, account for about 30 per cent of the environmental costs or 1.8 per cent of the GDP. According to the WHO, about 25-30 per cent of all hospital admissions are connected to water-borne bacterial and parasitic conditions, with half of infant deaths caused by water infections. Polluted air is estimated to cause about 22,000 pre-mature deaths every year and ever-increasing incidents of respiratory diseases. Smog, haze, brown clouds and dense fog, adversely impact the economy and individual health.

Forests and natural resources

The total land area covered with forests and trees is about 5.2 per cent. Despite investments spread over several decades, including the promulgation of the Forestry Sector Master Plan (FSMP 1992), natural forests in Gilgit-Baltistan and Khyber Pakhtunkhwa have reduced significantly[4], as also the riverine forests and mangroves. The gap between the demand and supply of wood is widening every year. Against a total demand of 43 mm^3, annual wood growth rate is 14.4 mm^3, and this gap is filled with unauthorised felling of trees. The global warming is also having an impact on the survival, growth rate, and health of forests. Over 150,000 hectares of former forestlands, since converted for non-forestry purposes, have also reduced the forest cover. Environmental deterioration is also increasing as:

- Watershed management is deficient in its scope and scale, which accelerates erosion. Beyond the tree-line, no agency takes responsibility for watershed areas, which are deteriorating due to deforestation, and land and water mismanagement.
- Rangelands occupy more than 66 per cent of the land area and provide livelihood directly to 15 million people as well as being the major source of meat and milk. They are mostly over-exploited and suffer from cycles of drought.
- The status of biodiversity has slightly improved, yet some of our obligations require immediate implementation, such as the national law on biodiversity.
- Desertification is on the rise in the wake of climate change driven extended droughts, floods and over- extraction of sub-soil water.

Opportunities under the UN Conventions are not adequately harnessed. Pakistan is a party to several UN Conventions on Biological Diversity (UNCBD), Combat Desertification (UNCCD), Migratory Species, Ramsar on Wetlands, and the Convention on International Trade of Engendered Species of Wild Fauna and Flora (CITES, UN Forum on Forests (UNFF). At the federal level, awareness and understanding about the obligations and opportunities under these agreements are improving, but at the provincial and local levels, real stakeholders are not fully conversant with these agreements. Resultantly, the financial and technical opportunities are not potentially exploited to meet the objectives of these agreements. After the 18th Amendment, there is a need to involve provincial government departments in the implementation of the MEAs.

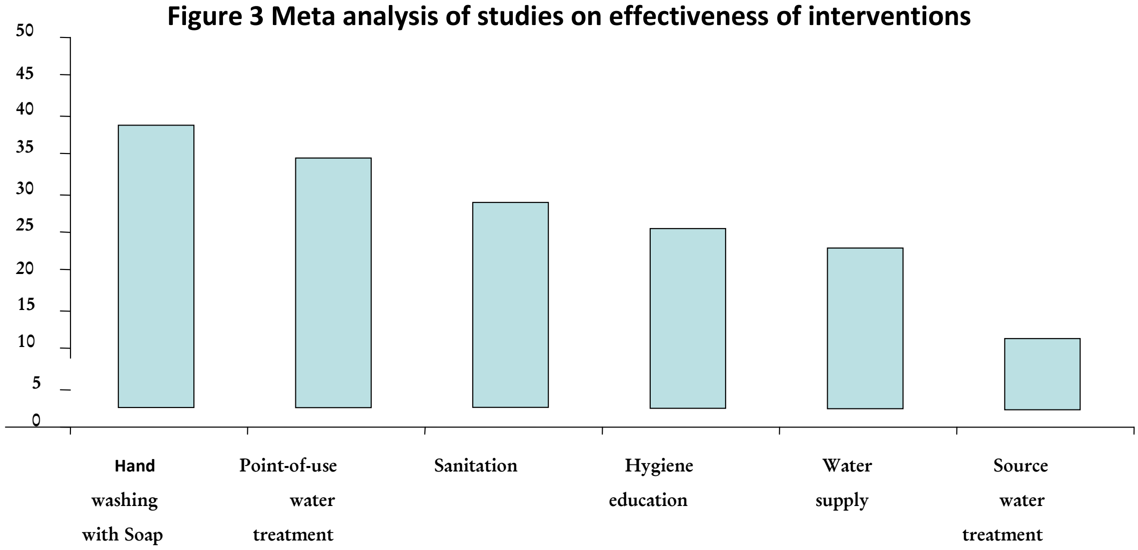
Drinking water supply and sanitation

Traditional hazards arising from poor water supply, sanitation, and hygiene continue to be the predominant environmental risks to quality of life and health faced by citizens. The close and multiple connections underscore the need for sustainable water supply and sanitation (SWSS) investments and people-centred management. A meta-analysis of studies on the effectiveness of water supply, water quality, sanitation, hygiene and multi-factorial interventions has shown that hand washing with soap and the purification of water at point-of-use are the most effective interventions (Figure 3) [Source: Fewtrell & Colford, 2004]. The meta-analysis is rich in policy

[4]The average rate of deforestation is 27,000 ha per year. 84 per cent of illegally cut wood is consumed as fuel wood, while the rest is smuggled as constructional timber.

implications, which indicates that the emphasis on water supply networks, without considering the downstream risks of contamination needs to be reviewed.

Figure 3 Meta analysis of studies on effectiveness of interventions



Pakistan, however, faces a growing shortage of water owing to population growth, increasing per capita consumption, uncertain supply, and ineffective traditional institutions for water management. New mechanisms are required for the efficient and equitable sharing of water resources. The problem is likely to aggravate further due to an increased variability of monsoon and shrinking of the Hindu Kush-Karakoram-Himalayan glaciers (our natural reservoirs). While provincial allocations of surface waters have been made under the Water Accord 1991, there is a need for a policy direction on allocations of surface and groundwater for agriculture, ecosystem, and people.

Access to water supply is another important basic need. Fortunately, the country is on-track on access to 'improved' water resources. This achievement owes partly to higher public sector investment in water supply schemes, and self-provision of water from hand and motor-pumps in the rural areas. Around 95 per cent of the urban and 87 per cent of the rural population have now access to various means of improved drinking water supplies, with household connections of 48 per cent and 19 per cent respectively.[5] Further, less than one per cent of the population has to travel more than 0.5 kilometre to the source of their drinking water[6] compared to two per cent at the start of the decade.[7]In addition to the hilly areas, access to water remains difficult in the Southern Khyber Pakhtunkhwa, parts of Balochistan, Tharparkar and Cholistan. One-third of Pakistan's rural population is deprived of sanitation facilities. Overall, 40 million people defecate in the open, which makes Pakistan the third largest after India and Indonesia. The Water and Sanitation Programme of the World Bank assessed an annual loss of 3.9 per cent of the GDP due to inaction in sanitation. Half of the black water is disposed off through open drains. The rest is drained through sewers or covered untreated drains before being discharged into low-lying land or water body. The only exception to this are those few cites where treatment plants operate rather intermittently.

[5] (Joint Monitoring Programme of WHO and UNICEF, Progress Report 2008)
[6] (PSLM, 2010-11)
[7] (PIHS, 2001-02)

Regulatory weakness

It is imperative to build partnerships and coordination among the federal and provincial governments, municipal authorities, industrial associations and other stakeholders. Clear targets should be set and responsibilities defined for improving the environment. For this purpose, the federal and provincial government institutions concerned must show necessary resolve to strengthen regulatory institutions (EPAs) and enable them to play their statutory role effectively. After the 18th Amendment, the provinces have been allowed to enact their own provincial environmental acts.

Strategies

- **Pollution control:** Existing environmental policies will be translated into implementable programmes and actions plans. A programme-based approach will be preferred to identify issues, gaps, strategies, action and activities and projects (Annexure-1).
- Monitoring and evaluation will be enhanced through up-gradation of capacity of the existing institutions, by focusing on knowledge management, human resource development and improvement of technical facilities. This will include outsourcing of monitoring to the private sector, NGOs and educational institutions.
- **Natural resources:** A holistic ecosystem approach of forest management will be pursued to include other functions such as water and soil conservation, biodiversity protection, carbon sequestration, NTFP, etc.
- **Water and Sanitation (WS):** The implementation of the WS policies will be based on a set of challenging but practical goals and a roadmap set out to achieve the intermediate targets with objectively and verifiable indicators for staying on course.

A summary of environmental issues, gaps, strategies and action plans is presented in Annexure-1.

Policies and plans

The Plan has an integrated approach designed to mainstream environmental aspect in the nation's development and quality of life of its citizens through an integrated approach towards better environmental management. While it covers the traditional areas of water pollution, sanitation, air pollution, waste management, deforestation, energy conservation, it also brings the issues of environmental economics into the discourse of development and poverty. The Plan focuses on gradually improving air and water quality, providing healthy and productive natural resources, strengthening institutions, and taking up sustainable development across different sub-sectors of the economy.

Pollution control

Improvement in air quality: Based on the existing state of the environment, prudent measures are planned to combat pollution and make the institutions more effective. For example, cleaner public transport is recommended to be operated in all cities with a population above 0.5 million and mass transit facilities for those above two million (Karachi, Lahore, Peshawar, Faisalabad, Sukkur, Hyderabad and Rawalpindi/Islamabad). Besides, the Ministry of Climate Change, along with the provincial EPAs, will ensure compliance of the Pak-II Emission Standards for new vehicles. Reduction in sulphur content requires heavy investment to install desulphurisation plants in refineries. Therefore, the Ministry of Petroleum will pursue this intervention to facilitate the availability of the Euro-II compliant sulphur diesel (0.05 per cent). Keeping in view shortage of the CNG, the Ministry of Petroleum will encourage use of the LNG in vehicles and dual fuel (Diesel + LPG and Diesel + CNG) in diesel vehicles. Mandatory annual and biannual inspection of emissions from public and private vehicles requires regular vehicle inspection and emission testing. This is being done through the Motor Vehicle Examination and Emission Testing Centres (MVE & ETC) established throughout the country, in collaboration with the MVE, Motor Vehicle Registration and Environmental Protection Agencies. During the Plan period, these areas will be strengthened. Additionally, the green cover in cities will be increased through urban plantation. The city administrations will be made responsible to plant trees in open spaces and along internal roads and make tougher laws regulating and increasing the green cover.

Wastewater treatment

Water scarcity calls for treatment of the wastewater and its use for agriculture. The industry has the capacity for designing and fabricating sewage and wastewater treatment plants locally. The existing treatment plants can treat only a fraction of the total wastewater of the industrial sector. Therefore, a Wastewater Treatment Programme will be initiated in collaboration with the provincial governments to treat and recycle industrial effluents, with a target to cover 50 per cent of industries by 2018, and all of them by 2022 along with municipal waste water treatment to comply with the recently approved environmental quality standards. Besides, the environmental assessment mechanism of development projects, particularly in the urban areas, will be strengthened at the federal and provincial levels.

Forests and natural resources

All the programmes and development projects will include, as an essential component, the involvement of local communities, particularly for the management and development of forests and natural resources. At the same time, the Plan specifically emphasises the provision of alternate, renewable and clean fuels including Liquid Petroleum Gas (LPG), microhydel power, wind turbines, biogas and solar oven for forest dependent communities along with alternate livelihood sources. It seeks to give ownership of local tourism to custodian communities through development of community-based tourist infrastructure, promotion and marketing, and training. Moreover, the relevant institutions will be strengthened to deliver with improved surveillance through training and by equipping field forest establishments for watch and ward.

This Plan proposes to provide sufficient capacity and resources to intensify the effort and steer it efficiently in addition to development of other forestry resources. The government will also take measures to import wood from forest rich countries to reduce the gap between demand and supply and to relieve natural forests from stress. The FBR is deliberating on arrangements to waive off sales taxes on imported timber. The Plan simultaneously will undertake measures to expand energy plantations throughout the country to meet the fuel wood demand.

The Plan foresees a new international mechanism to pay compensation in lieu of cutting of trees, called Reduced Emission from Deforestation & Forest Degradation (REDD), which is already in place since 2012. In collaboration with the provinces, full-scale REDD projects will be undertaken with international assistance to generate and sell carbon credits.

Participatory management of rangelands is a neglected area. For regulated grazing, range replenishment through grass seeding, planting of fodder trees, soil conservation and water harvesting will be carried out more intensively. To conserve biodiversity, a biodiversity clearinghouse mechanism under the Convention of Biological Diversity will be created in the focal Ministry with the GEF and bilateral assistance. More projects for donor and multi-bilateral assistance will be prepared and implemented. To combat desertification, measures will be undertaken to activate the national committee, establishment of the Desertification Control Cell in the focal Ministry, creation of desertification control fund, and promulgation of sustainable land management policy. Furthermore, support to academia for providing tertiary level education on forestry and allied disciplines will be continued. Collaborative R&D programmes will be also undertaken. The capacity of national and provincial institutions for implementation of programmes, donor negotiations, management planning, monitoring and assessment, protection, and research and development, will be enhanced.

Drinking Water Supply and Sanitation

Improvement of the WSS needs special attention. The WHO has made an assessment of the economic returns on various levels of investment in water supply and sanitation. Results depict that the millennium development targets for access to improved water supply and sanitation are financially affordable and yield a high rate of economic return as it accrues greater benefits per unit investment, specifically through the point-of-use water disinfection.

Institutional challenges: For an effective implementation of the proposed Plan, institutional strengthening is required. The institutional challenges may be consolidated into five main themes: (i) re-orienting WSS sector towards appropriate public health practices through a holistic appreciation of the sector, based on scientific and strategic reviews, (ii) achieving transparency and accountability through uniform policies, consistent standards, and clarity in institutional roles and responsibilities, (iii) strengthening service delivery by restructuring water supply and sanitation agencies and departments as professional utilities, (iv) enhancing the political commitment and funding for sanitation, (v) focussing on behaviour-change communications as a strategic intervention for improving water quality, sanitation and hygiene. The subsidiary measures propose feasible steps for reaching out to citizens, by promoting basic civic sense and hygiene, focusing on water safety and quality, and on culturally appropriate interventions in sanitation.

Focus on public health: The federal and provincial governments will review their health and WSS policies to explicitly incorporate elements such as (i) home hygiene as a distinct discipline in preventive and curative medicine, (ii) dedicated responsibilities for home hygiene promotion, for example through the Lady Health Workers Programme, (iii) sanitation and water quality and water supply as the priorities for public-health interventions in the WSS sector with priority to water purification interventions closer to the point of use as these are likely to be more effective, (iv) shift from periodic water quality testing through samples drawn at fixed points towards pro-active water safety planning (or system-wide risk management), (v) improved sanitation through eradicating open defecation through behaviour change campaign, especially the in rural Pakistan, and (vi) a target-based approach to public health, for example establishing a basic national target for zero epidemics of water-borne diseases as well as higher targets, such as zero detection of contaminated water samples, to be achieved progressively at the Union Council levels across the country.

Institutional efficiency: The provincial governments exercise authority over water supply and sanitation. There is a need to demarcate inter-government roles in the WSS to avoid jurisdiction and overlap issues and clarify roles of different levels and branches of government. In most cases, the responsibilities for operation and maintenance and the systems for evaluating water quality performance are not well-defined. The following are the logical arrangements proposed to be implemented during the Plan period:

Federal and provincial governments: Water supply and sanitation strategies, policies, and guidelines; financing and human resource development; monitoring, and scientific research

Local governments: Health-based water supply and sanitation projects for Tehsil and Union Councils, including O&M, and monitoring

Union Councils: Social mobilisation for water safety and total sanitation

To achieve this synergy, it will be necessary to professionalise WSS service providers through a system of service quality contracts in addition to appointing provincial WSS regulators and assessors.

Energy efficiency and conservation

Implementation of the National Energy Conservation Policy: For energy efficiency and conservation, a major initiative will be launched to coordinate the implementation of the National Policy on Energy Conservation. The implementation will see the launch of an umbrella project encompassing a host of activities in various energy consuming sectors of economy, notably industry, building, agriculture, water pumping, power and transport. Efforts will be made to achieve an integration of energy-related functions by creating a unified institutional arrangement with all relevant entities reporting to it. Necessary support and resources will be provided to enable the related agencies to bring about a change in the energy use patterns at the national and provincial levels. Energy conservation will also be incorporated as part of the education curriculum from school to college level with the help of various authorities. Universities will provide degree and certificate courses for a specialised cadre of Energy Managers and Auditors to help apprehend energy losses occurring in different sectors of the economy. The Energy Service Companies (ESCOs) will be enabled to take the lead in implementation using market mechanisms and innovative practices. The Building Energy Code (BEC) will be formally adopted and incorporated. The BEC-compliance will be made mandatory for all new buildings, both in the public as well as the private sector. All public sector buildings will be required to ensure necessary retrofitting as required under the BEC. The development agencies concerned, like Development Authorities and Municipal bodies, will be required to ensure revision of by-laws to be completed by 2016.

Industrial and manufacturing value added per unit of energy will be enhanced for improvement of energy audit and management systems. It is also planned to promote energy efficiency (EE) in industrial sector through the ESCOs by the Ministry of Climate Change. The Plan envisages energy efficiency enhancement in pumping municipal water and running agricultural tube wells, through audit and retrofits, infrastructure development, capacity-building, use of alternates energy technologies and standardisation. The use of bio-gas plants and solar heaters for home water will be promoted through various fiscal and financial incentives through the Gas Utility Companies. In addition, there will be limited demonstration of renewable technologies in selected areas. The government will also focus on the establishment and operation of legitimate energy standards and labelling regime. The development of appropriate testing capacity along with regularisation of domestic production and import of appliances, such as air conditioner, refrigerator, CFLs, fans, pumps, geysers, space heaters, etc., will be emphasised.

The ministries of Climate Change, and Science and Technology will coordinate with relevant agencies to put the standards and labelling regime in place.

Knowledge management

The knowledge management will be mainstreamed in the environment-related institutions. The initial goal of the environment sector will be to raise the level of discourse within the Ministry of Climate Change (MoCC), making it a repository of knowledge and a catalyst for environment-related activities. Reversing environmental degradation will be a key responsibility of the MoCC, which will also initiate the preparation of systematic and regular National Environmental Accounts for Pakistan. It will also focus on the environmental sustainability aspects of energy, water, and transport infrastructures in the disaster-prone areas, which are predicted to succumb to additional physical stress due to the impact of climate change. This requires a whole new set of building and safety standards as well as design for retrofits to improve safety.

Programmes and projects

To achieve objectives of the environment sector, the following programmes and projects have been identified for implementation, which will be done partnership with the provincial governments, donors, and bi-multilateral assistance:

Pollution control

- Pakistan Clean Air Programme
- Wastewater Treatment Programme
- Fresh Water Protection and Surveillance Programme
- Solid Waste Management Programme
- Hazardous Waste Management Programme
- SEA Introduction and EIA Promotion Programme
- Institutional Strengthening Programme
- Awareness Raising Programme
- Sustainable Transport Project

Forestry and natural resources

- Provision of alternate energy and livelihood
- Sustainable forest management
- Improve surveillance and law enforcement
- Development of forest resources
- Involvement of all citizens in tree planting
- Energy plantations and wood efficient technologies
- Reduced emissions from deforestation and forest degradation
- Rehabilitation of rangelands with participatory models

- Biodiversity conservation and national parks
- Sustainable biomass utilisation and forest management in rural areas
- Sustainable land management programme

Water Supply and Sanitation

- Triggering behaviour change communication for water, sanitation, and hygiene (BCC-WASH)
- Total Sanitation Support Programme (TSSP)
- Water Safety Planning Support Programme (WSPSP)
- Policy Reform and Institutional Development of Water Utilities (PRIDE WATER)
- Research and Institutional Innovation projects (RIIP)

Energy conservation and efficiency

- National Energy Conservation Policy Implementation
- Building Energy Code Compliance
- Energy Conservation and Efficiency in Building Sector
- Energy Conservation in Transport Industry Sector
- Renewable Energy Based Technologies
- Household Appliances

Knowledge management and institutional strengthening

- Institutional strengthening and knowledge management programme
- SEA and EIA promotion

Financial resources mobilisation

The proposed resource mobilisation for the environment sector under an optimal scenario depicts funding for about 60 programmes and projects in different sub-sectors. The environmental indicators and targets for the Plan are given in tables at the end.

Climate change

The climate change is one of the most complex challenges of this century. Pakistan, being amongst the highly vulnerable countries to its impacts, has to bear the brunt of the climate change effects, which is already facing a number of challenges of environmental degradation, poverty and institutional weaknesses. The climate change makes these challenges more complicated, which deepens its vulnerability; thereby undermining its prospects for development. Poverty reduction and sustainable development remain core priorities of Pakistan and in this context, the climate change must urgently be addressed. The economic growth alone is unlikely to be fast or equitable enough to counter threats from this change. An ever-increasing concentration of the Greenhouse Gases (GHGs) in the atmosphere due to the use of fossil fuels and other human activities has been causing the climate change; thus becoming a major international concern. It is a phenomenon, which is likely to impact almost every sector of Pakistan's economy. Today it stands not only as a major environmental problem, but also as a multi-dimensional developmental issue. It is posing a direct threat to the water security, food security and energy security of Pakistan. The country's vulnerability to such adverse impacts is likely to increase considerably in the coming decades as the average global temperature, which increased by 0.6 °C over the last century, and has increased further by 0.1°C in the first decade of the current century. It is a challenging reality for thinkers, planners, policymakers and professionals alike.

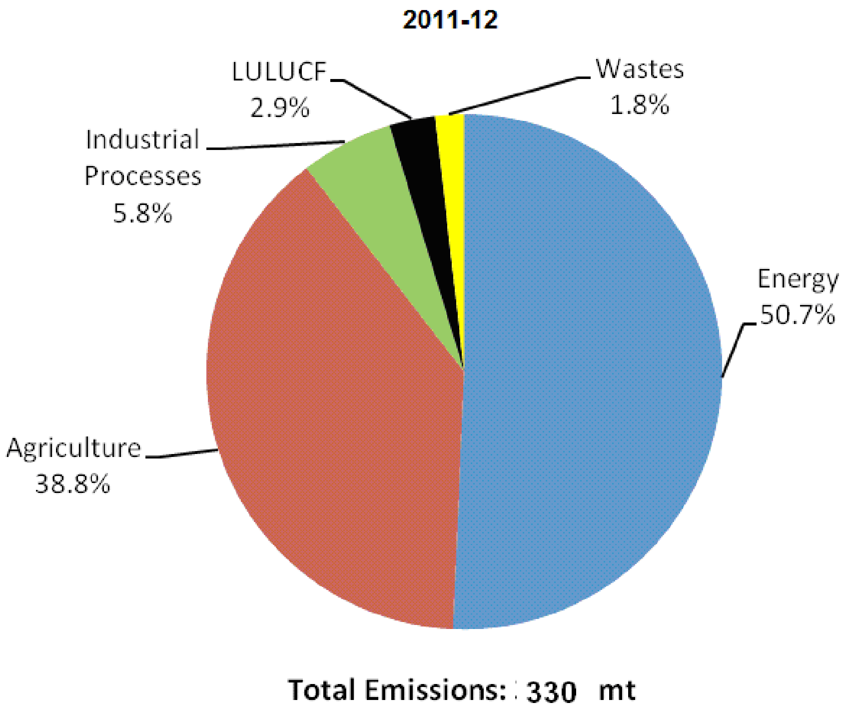
Objectives

The primary aims are to

- ensure sustainable economic development in different sectors of economy through appropriately addressing mitigation and adaptation challenges posed by the climate change, in particular, the threats to Pakistan's water, energy and food security
- make full use of new developments in science and technology for effectively addressing climate change issues
- contribute to the international efforts to check climate change by controlling Pakistan's own GHG emissions to the maximum extent feasible, and
- build the capacity of relevant institutions, and establish effective national and international linkages for adequately addressing the issues

Situational analysis

Pakistan's total GHG emissions in 2012 amounted to 330 million tonnes of Carbon dioxide (CO_2) equivalent, comprising about 54 per cent CO_2, 36 per cent Methane, nine per cent Nitrous Oxide and one per cent other gases. The biggest contributor is the energy sector with 50 per cent share, followed by the agriculture sector 39 per cent, industrial processes six per cent and other activities five per cent (Figure 1.1). Pakistan is a small GHG emitter globally as it contributes only about 0.8 per cent of the total global GHG emissions. On per capita basis, Pakistan with 1.9 tonnes per capita GHG emissions stands at a level, which corresponds to about one-third of the world average, one-fifth of the average for Western Europe and one tenth of the per capita emissions of the United States, putting it at the 135th place in the world ranking of countries on the basis of their per capita GHG emissions. Though Pakistan's per capita energy consumption and CO_2 emissions are low, its CO_2 emissions per unit of the GDP production are relatively high, and the living standards are on the rise. This, coupled with the high rate of growth in population (the current population of 180 million may be doubled in the next few decades), will increase energy demand manifold. To meet this growing energy demand, Pakistan will have to make use of its thermal and coal potentials; thereby increasing the GHG emission levels. Hence, it will become essential to adopt more stringent energy conservation and efficiency improvement measures as well as massive afforestation. The carbon sinks are degrading fast as the country has low forest cover (5.2 per cent) with a high rate of deforestation of about 0.2–0.4 per cent per annum. The global warming is having a visible impact on the survival, growth rate, and health of forests.



Sectoral shares in the GHG emissions in 2011

During the last century, average annual temperature over Pakistan increased by 0.6°C, in agreement with the global trend, with the temperature increase over northern Pakistan being higher than over southern Pakistan (0.8°C versus 0.5°C). Precipitation over Pakistan also increased on the average by about 25 per cent. Studies based on the ensemble outputs of the several Global Circulation Models (GCMs) project that the average temperature over Pakistan will increase in the range 1.3-1.5°C by 2020s, 2.5-2.8°C by 2050s, and 3.9-4.4°C by 2080s, corresponding to an increase in average global surface temperature by 2.8-3.4°C by the turn of the 21st century. Precipitation is projected to increase slightly in the summer and decrease in winter with no significant change in annual precipitation. Furthermore, it is projected that the climate change will increase the variability of monsoon rains, and enhance the frequency and severity of extreme events, such as floods and droughts.

The climate change affects almost all the sectors of our society, particularly water resources, energy, health, biodiversity, with a major impact on agricultural productivity. This is due to changes in temperature, adverse effects on land and water resources and enhanced frequency and intensity of natural hazards, such as droughts and floods. Dry land areas, such as arid and semi-arid regions, are most vulnerable to these changes. These regions are already facing significant water shortages, and temperatures are already close to their tolerance limits. The increasing temperatures alter bio-physical relationships by changing growing periods of the crops, altering scheduling of cropping seasons, increasing crop stresses (thermal and moisture stresses), changing irrigation water requirements, altering soil characteristics, and increasing the risk of pests and diseases; thus badly affecting the agricultural productivity. Water demands are met by the Indus River System that is fed by glaciers in the Hindu Kush-Karakoram Himalaya ranges, which are generally believed to be receding under influence of climate change and global warming. The melting of these glaciers due to global warming will result in increased water flows for a few decades (which need to be harnessed through building more dams in the catchment areas), followed by reduced river flows as the glaciers get depleted (needing again higher reservoir capacity to reduce flow of water into the sea during flood periods).

The adverse impacts of global warming in Pakistan are also showing up in the form of extreme climate events. The country faced severe drought from 1998-2001 and intense floods in 2010, 2011 and 2012, which had serious consequences for life and property of the people. It is estimated that greater precipitation and melting of glaciers will increase waters in our rivers by as much as 20 per cent initially, suggesting the benefit of increasing capacity for water storage. However, the spatial variation can result in greater risk of drought for areas far from the sea. The climate change will also have an important impact on wildlife and their habitat. Rangelands, forests and their types, and biodiversity will be under even greater threat. This requires major programmes for increasing the forested areas with plantation suited against the looming climate change. It will be essential to build the capacity for multidisciplinary studies and modelling for reliable climate forecasting and analysis of the corresponding socio-economic impact. This will require sustained regional cooperation as well as monitoring of our entire environment from the North to the South.

Major issues

The most serious challenges for Pakistan are threats to its water, food and energy securities, owing to

- possible drastic shifts in weather patterns, both on temporal and spatial scales, in particular increased variability of monsoon
- likelihood of increased frequency and severity of extreme events such as floods, droughts and cyclones
- increase in sediment flow due to increased incidences of high intensity rains resulting in more rapid loss of reservoir capacity due to siltation
- rapid recession of the Hindu Kush-Karakoram-Himalayan (HKH) glaciers, causing reduction in the capacity of natural reservoirs and affecting the magnitude and pattern of water inflows into the Indus River System (IRS)
- increased incidences of high altitude snow avalanches and GLOFs (glacial lakes outburst floods) generated by surging tributary glaciers blocking main un-glaciated valleys
- increased degradation of surface water quality due to increase in extreme climate events
- severe water-stressed and heat-stressed conditions in arid and semi-arid regions, leading to reduced agriculture productivity due to increased heat-and water-stress as well as more frequent and intense floods and droughts and power generation
- abundance of insects, pests and pathogens in warmer and more humid environment, particularly after heavy rains and floods
- reduced productivity and fertility of livestock due to heat-stress
- degradation of the rangeland and further deterioration of the already degraded cultivated land areas such as those suffering from water erosion, wind erosion, water-logging, salinity, etc.

- adverse impact on power generation capacity due to irregular river flows and more frequent and intense floods and droughts
- increased health risks (heat strokes, pneumonia, malaria and other vector-borne diseases)
- increase in deforestation, land erosion and soil degradation
- risks to fragile marine, mountainous, and coastal area ecosystems
- loss of biodiversity
- increased upstream intrusion of saline water in the Indus delta, adversely affecting coastal agriculture, mangroves and breeding grounds of fish
- threat to coastal areas, including the city of Karachi due to sea level rise and increased cyclonic activity due to higher sea surface temperatures
- limited technical expertise in the country for the climate change research, and
- low adaptive capacity to adverse climate change impacts due to lack of technical know-how and low financial resources

Policies and plans

Mitigation and adaptation

Pakistan, already being a low GHG emitting country, requires relatively fewer efforts to carry out mitigation measures. On the other hand, being underdeveloped and poor, it requires concerted efforts to adapt to the adverse impacts of climate change. The Plan envisages supporting all possible mechanisms devised to combat climate change through mitigation and adaptation efforts including market-based mechanisms. A number of measures are planned to address both mitigation and adaptation aspects of climate change through enhancing various ongoing efforts and initiating new activities.

Mitigation policies and Plan

The Plan will support ongoing efforts for climate change mitigation by undertaking the required measures on sustainable basis. Pakistan’s emissions are bound to increase considerably as the country climbs over the development ladder and strives to provide adequate amount of energy to support its growing socio-economic developmental needs. Still, as a responsible member of the international community, Pakistan will like to contribute to the global GHG mitigation efforts without compromising on its basic minimum energy and food needs consistent with its socio-economic developmental requirements, energy security considerations, and financial and technological constraints.

Energy efficiency and GHG emissions reduction sector

The major mitigation measures envisaged in this sector are: Energy efficiency will be improved at all levels in the energy system chain through energy conservation measures and use of energy-efficient devices, large scale use of various renewable energy technologies as well as expansion of nuclear power programme. At the same time, efforts will be made for rapid development of hydropower resources, acquisition and adoption of clean coal technologies such as Coal Bed Methane Capture (CBMC), Integrated Coal Gasification Combined Cycle power generation (IGCC), and CO2 Capture and Storage (CCS). Moreover, development of mass transit systems in large cities and greater use of CNG and LNG as fuel for urban transportation will be pursued.

Agriculture sector

Not much attention has been paid to address the GHG emissions from the agriculture and livestock sector. Now, it is planned to develop and adopt: (i) new methods of rice cultivation with lower methane emissions, (ii) new methods for reducing Nitrous oxide releases from agricultural soils, (iii) new breeds of cattle more productive in terms of milk and meat, but have lower methane production from enteric fermentation, and (iv) new economical feeds that reduce methane production activity of cattle besides providing them with better nutrition.

Afforestation and reforestation

Forest sector: It is envisaged to increase forest cover from 5.2 per cent in 2013 to six per cent by 2018. In addition to the ongoing development of forestry resources projects and mass awareness activities, afforestation and reforestation efforts will be promoted to the maximum possible extent for rehabilitation of damaged and waste areas; thus reducing emission from deforestation.

CDM activities

Intensive effort will be made to promote the Clean Development Mechanism (CDM) projects with a view to reduce carbon footprint of various industrial, agricultural products and energy services. It will include: appropriate strengthening of the CDM Cell in the Ministry of Climate Change and its capacity-building through international support, enhancement of national capacity for designing and implementing CDM projects so as to take full advantage of international CDM financing and acquire Advanced Clean Fuel Technologies; expeditious approval and implementation of projects designed for earning carbon credits.

Adaptation policies and Plan

Adaptation is particularly important in the vulnerable countries, like Pakistan and it will provide quicker solution to vulnerable communities. Besides, gradual improvement in our understanding of the impacts of climate change and associated risks warrants flexibility in the adaptive approach for new investments within the management framework. Some of the planed measures include:

Water resource

There is a need to construct a series of large hydropower projects to add 18 MAF of new storage capacity by 2030 to the existing 12.5 MAF capacity, which is decreasing by 0.2 MAF annually (due to silting). The approval has already been accorded for the construction work of 4,500 MW hydropower plant at Bhasha with 6.4 MAF water storage capacity. Complementing the large storages by a comprehensive programme of small and medium dams as well as measures for recharging underground reservoirs, investigations for using groundwater aquifers as water storage facilities, lining the water channels for which a major programme is already underway, continuous monitoring of the glaciers and glacier lakes in northern Pakistan; keeping a strict watch on temporal changes in the HKH glaciers through RS-GIS techniques and physical measurements and monitoring the corresponding impact on IRS flows, addition of sufficient reservoir capacity on the IRS rivers so that even during high flood years, no water flows down Kotri in excess of what is necessary for environmental reasons, provision of regulated flows down Kotri to conform to minimum necessary environmental flows. Besides, local rain water harvesting and building of surface and sub-surface storages for agriculture and other local needs will be carried out. It will be ensured that stringent demand management and efficiency improvement measures are adapted in all water-use sectors, particularly in the supply, distribution and use of irrigation water along with reuse of marginal quality irrigation effluent.

Agriculture and livestock

It is planned to: (i) develop through biotechnology, heat-stress resistant, drought-and flood-tolerant, and water-use efficient high yielding crop varieties, (ii) increase irrigation water availability by reducing losses in the irrigation water supply network, (iii) increase milk and meat production (a) by developing animals breeds, which are more productive but less vulnerable to climatic changes, and (b) by improving the quality of animal feedstock. The new breeds of crops of high yield, resistant to heat stress, drought tolerant, less vulnerable to heavy spells of rain, and less prone to insects and pests will be developed,(iv) Also, efforts will be made to improve crop productivity per unit of land and per unit of water by increasing the efficiency of various agricultural inputs, in particular the input of irrigation water. (v) Moreover, improvement of farm practices by adopting modern techniques, such as laser land levelling, crop diversification, proper cropping patterns, optimised planting dates will be carried out. Additionally, development and introduction of better varieties, etc.; and (vi) implement the 'More Crop per Drop' strategy through improved irrigation methods and practices, water-saving techniques in combination with the use of high yielding and water-efficient crop varieties.

Coastal areas and Indus Deltaic region

The regulated flows down Kotri, to conform to minimum necessary environmental flows, will be provided for restoration and protection of mangroves. Besides, proper engineering structures (like dikes and seawalls) to protect beaches and other facilities along the coast will be constructed. Additionally, capacity of relevant institutions to deal with natural disasters such as cyclones, floods will be developed.

Forests and other vulnerable ecosystems

It is planned to undertake aggressive afforestation and reforestation programmes with plantation suited against the looming climate change will be carried out. Also, biological control of forest pests by maintaining viable populations of predatory birds and insects through restricted use of chemical insecticide will be ensured. More importantly, preservation of rangelands through proper rangeland management, increase of grasslands using appropriate varieties of grass in saline and waterlogged zones to prevent their degradation will be stressed along with planting of genetically impoverished species or those that have important ecosystem functions by providing natural migration corridors. For preserving genetic diversity and conserving species, use of gene banks, seed banks, zoos and botanical gardens will be practiced.

CDM and Adaptation Fund

The CDM Cell in the Ministry of Climate Change will be further strengthened as its Institutional Capacity for Addressing Climate Change. There are several organisations in the country, which can make useful contribution towards addressing climate change. It is planned to: (i) an enhanced capacity will be build through national and international support for effectively contributing towards approval and implementation of projects earning financial resources through carbon credits. National capacity for designing and implementing CDM projects will be enhanced so as to take full advantage of international CDM financing and acquire Advanced Clean Fuel Technologies. Besides, there is another opportunity available through the Adaptation Fund. All efforts will be made to access due share from this fund, which is being exclusively dedicated to the funding of concrete adaptation activities in developing countries. The MoCC will develop its capacity to facilitate preparation and approval of environment related projects for funding through the adaptation fund.

Institutional capacity

There are several organisations, which can make useful contribution towards addressing climate change. It is planned to: (i) enhance capacity of all such organisations, (ii) introduce climate change related scientific disciplines in Pakistan's leading universities so as to ensure a regular supply of trained manpower, and (iii) establish a National Data Bank for climatological, hydrological, agro-meteorological and other climate change related data to cater to the needs of all relevant institutions. Also, core groups will be developed for climate change adaptation at the national, provincial and local levels.

Adequate national resources will be allocated for combating serious consequences of climate change and for conducting R&D on issues such as changes in precipitation patterns, cyclones, droughts, floods (including flash floods), glacial melt and GLOFs. The development of partnerships will be encouraged by bringing together multiple sources of funding. This includes availing opportunities and processes for accessing donors support and other resources for climate change projects and interventions that increase resilience to face the adverse impacts of climate change in the country.

Climate change is likely to have adverse impacts on mountain ecosystems, which are not only important watersheds, but also support livelihoods of millions of families. According to the Millennium Ecosystem Assessment, the climate change is likely to become one of the most significant drivers of biodiversity loss by the end of the century. Biodiversity can support efforts to reduce the negative effects of climate change. Ecosystem-based adaptation, which integrates the use of biodiversity and ecosystem services into an overall adaptation strategy, can be cost-effective and generate social, economic and cultural co-benefits and contribute to the conservation of biodiversity.

Programmes and projects

Implementation of the climate change programme will be carried out through coordinated efforts of the relevant ministries to secure ample resources and their effective utilisation, that is, Economic Affairs Division (EAD), Ministry of Climate Change and Planning Commission at the federal level. The MoCC will perform an overarching role of policy formulation, research and development, and national and international coordination and facilitation. The EAD will facilitate negotiations with donors, bi/multilateral funding agencies, UN agencies, banks, etc., and the Planning Commission will determine impacts of climate change on the national economy and, accordingly, the Plan will help implement programmes and projects in different sectors, mostly through international support and assistance to mitigate and adapt these effects and impacts to minimise economic impact.

The following areas will be targeted through mitigation and adaptation measures as well as studies to enhance our understanding for Pakistan-specific needs:

- Data and information on Climatology

- Reducing climate change induced risks and vulnerabilities from the Glacier Lake Outburst Floods (GLOF) in the Northern mountainous region of Pakistan
- Enhancement of capacities to harness opportunities under the CDM and Adaptation Fund
- Studies to enhance our understanding for the Pakistan-specific mitigation and adaptation needs and measures will be carried out in the following areas:
- Climatology
- Water Resources
- Agriculture and forestry
- Health impacts
- Impacts on the coastal areas
- Disaster risks resulting from extreme events, in particular floods, droughts, cyclones and the GLOF
- Biodiversity conservation for preserving fragile ecosystems, watersheds and livelihoods
- Fragile ecosystems: mountainous areas, rangelands, degraded lands (affected by water-logging, salinity, soil erosion, etc.)
- Clean Development Mechanism
- Economic Impact Assessment of climate change-related vulnerabilities

The financial framework to actualise these programmes and projects is given in the following tables with the understanding that a considerable international support and assistance will be tapped for the purpose.

Table 1: Environmental indicators and targets

S.#	Environmental indicators	2012-13 benchmark		Plan targets	
1	Forest cover including state-owned and private forest and farmlands (as percentage of the total land area)	5.2%		6%	
2	Area protected for conservation of wildlife (as %age of total area)	11.6%		12%	
3	Access to sanitation (national)	72%		90%	
4	Access to clean water (national)	87%		93%	
5	Number of continuous air pollution monitoring stations	7		14	
6	Percentage of Sulphur (by weight) in high-speed diesel	0.6		0.50 to 0.05	
7	Sanitary landfill in major cities	0		6	
8	Air Quality Improvement Reduction in suspended Particulate Matter PM2.5	Islamabad Lahore Karachi Peshawar Quetta	72 ug/m3 122 53 79 47	Islamabad ug/m3 Lahore Karachi Peshawar Quetta	60 80 40 60 40
9	Noise Control Reduction in overall Noise levels in major cities	Noise level: (Leq*) Islamabad Lahore Karachi Peshawar Quetta *Leq: Equivalent noise level	 59-85dB 53-95 61-99 56-92 50-86	Noise level will be reduced by 25%	
10	Protection of water resources Increase cluster and combined wastewater treatment plants in the industrial estates River waters quality improve Harbour and coastal water quality improvement	Punjab Sindh KPK BOD mg/1 River Ravi River Swat D.O: BOD: NH3:	01 01 0 9.0 12.0 5.0 82-200 100-1000	Punjab Sindh KPK BOD mg/1 River Ravi River Swat D.O: BOD: NH3:	04 04 01 4.0 4.0 9.0 >20 60
11	Vehicular emission control establishment of vehicle inspection/Emission Testing Centres in major cities			Islamabad Lahore Karachi Peshawar Quetta	10 20 05 03 01
12	Institutional Strengthening Programme (ISP)	The Punjab has established district-level offices.		The EPAs will establish offices at the district level.	

The PSDP share in the environment and climate change sectors of the federal fiscal outlay

Climate Change Division

(Rs million)

S#	Sub-sectors	2013-14	2014-15	2015-16	2016-17	2017-18	Total
1	Pollution control	208	275	380	338	515	1,716
2	Forestry and natural resources	52	33	32	36	36	189
3	Drinking water	260	128	116	267	127	899
4	Sanitation	26	47	43	-	-	115
5	Energy conservation and efficiency	78	58	158	200	382	876
6	Knowledge management and institutional strengthening	52	41	13	7	9	122
7	Disaster management	52	61	53	134	127	427
8	Climate Change: Adaptation and mitigation measures, R&D, capacity-building	104	118	72	132	204	630
	Total	**833**	**761**	**866**	**1,115**	**1,400**	**4,975**

Annexure-I

Summary of environmental issues, gaps, strategies and actions

Major issues and gaps	Strategies	Action plan
Air, water, and environmental pollution. Rivers, water bodies and marine environment are polluted by increasing untreated discharge of industries and municipalities. About 50 per cent of population has inadequate sanitation cover; most of the piped and surface water being used for drinking is contaminated.	A holistic and integrated approach to combat water and air pollution with knowledge-based capacity-building Undertake integrated coastal zone, marine and inland water resources management planning A sanitation policy catered to enhance the coverage and control water contamination will be implemented by provinces.	Implementation and monitoring of clean air and water pollution programmes The national programmes on pollution control, clean-up of rivers and other water bodies will be implemented. The catchments areas will be protected through better watersheds management. On-going clean drinking water programme will be scaled up.
Access to quality drinking water Inadequate and poor sanitation effects on health	Availability and access to clean water for citizens will be facilitated, especially for the poor, through effective implementation of national drinking water and sanitation policies and national programmes through devolved provincial governments.	Effective implementation of national drinking water and other related policies developed in consultation with stakeholders The media, communities, and schools will be targeted for mass awareness regarding environmental challenges, as well as the roles and responsibilities of different stakeholders
Water scarcity accompanied by land degradation, soil erosion, deforestation; and high vulnerability due to flash floods, landslides and desertification	Adopt sustainable management of water resources, desertification control and rehabilitation of degraded lands through promotion of sustainable land management policies, plans and programmes	Implementation of integrated NRM, watershed and land management programmes A national-level advisory, advocacy, awareness and good practices campaign will be launched for sustainable land management, water conservation, recycling and reuse of water.
Ineffective management and disposal of around 60,000 tonnes of solid waste generated every day due to absence of scientifically established landfill sites and waste-to-energy generation arrangements Contamination of industrial wastewater with all kinds of toxic chemicals and biological contaminants	Introduction and strengthening of integrated waste management programmes under the public-private partnership Conversion of combustible waste to energy through use of the latest technologies Treatment of wastewater before its disposal to human friendly level of contamination	Installation of composting plants and scientific landfill sites Projects for promotion of generation of energy from waste Urban waste water treatment plants for its reuse will be encouraged through the public-private partnership. Bio-remedial measures will be adopted for the wastewater treatment.
Lack of incineration and other treatment facilities for 250,000 tonnes of hazardous hospital	Improvement of integrated hospital waste management programme	Sustainable monitoring and implementation of hospital (hazardous) waste management

waste per annum, which contains 20 per cent infectious waste. Inappropriate and limited capacity of the EPAs for enforcement of hazardous waste	Institutional strengthening of the EPAs for handling such programmes	policy and programme Installation of incinerators for handling hospital waste under the public-private partnership Institutional strengthening of the EPAs will be targeted for achieving results.
Inadequate institutional capacity in harnessing opportunities under the Multilateral Environmental Agreements and Protocols	Strengthening and capacity-building of national institutions, civil society, academia and international NGOs Improve knowledge management and networking	Enhanced focus on capacity-building of institutions in earlier half of the Plan period for improved delivery in the later half The media, community and academic institutions will be targeted for mass awareness regarding environmental challenges, and the roles and responsibilities of stakeholders.
Depletion of forest cover by over-grazing and inefficient use of forest resources Inadequate management and unsustainable levels of fuel wood consumption, encroachment of forest lands and loss of biodiversity Urban and amenity forestry is ignored in town planning and management and green cover of majority of cities is shrinking.	National and provincial Forest policies will focus on integrated and participatory forest resources management. Land be set apart and marked as forest land and protection be granted under the law New species of forest to be grown to meet the demand of wood in the country	Implementation and execution of the national and provincial forest policies Forest cover will be increased through massive plantation along with a focus on urban greening, rehabilitation of rangelands with participatory forest resources management models. Involvement of the private sector and NGOs, academia and community in specific relation to the public-private partnership for effective and efficient conservation and management of natural forest resources. Increase in forest cover will be advocated through awareness campaigns and media programmes.
Lack of governance and implementation capacities on environmental programmes and projects, and Environmental Impact Assessment	Efficient monitoring and evaluation of programmes at all levels of execution and interventions	Capacity-building to implement the rules and regulations, and undertaking the Environmental Impact Assessment of all projects
Energy use inefficiency (lack of awareness, commitment and approach)	Reduce dependence on non-renewable forms of energy, mainly fossil fuels via piloting of eco-friendly and green city concept	Environment-friendly energy generation by renewable energy technologies through dissemination of wind, solar and bio fuels Optimal use of available natural resources
Surge in number of vehicles and inefficient automotive technology, use of unclean fuels, uncontrolled emission of industrial units, burning of garbage and presence of loose dust has polluted the air. Smog, haze, dense fog and suspended particles have	Policy for old, unreliable and inefficient vehicles to be taken off the road New efficient mass transportation systems to be introduced with the involvement of the private sector and other stakeholders New vehicles to comply with	Implementation of energy efficient, environment-friendly mass transit programme in big cities The Pak-II Emission Standards for new vehicles will be enforced and cleaner fuels for vehicles encouraged along with an effective network of vehicle inspection and emission testing system.

affected visibility in cities and lead to respiratory diseases. Control on trans-boundary pollution from city-to-city and from across the borders	strict energy efficiency and emission rules	
Absence of Pay-for-Environmental-Services mechanism	Policy framework on the polluter-pays-principles for the environmental fiscal reforms	Seminars and workshops will be organised to develop and disseminate environmentally effective ideas and knowledge.
Impact of climate change causing irrevocable harm on water, energy, health, and biodiversity due to changes in land and water resources, enhanced frequency and intensity of natural hazards such as droughts and floods, and glacier melt Lack of insight about the dangers of climate change as well as mitigation and adaptation gaps	The economics and impacts of climate change be deliberated Mitigation and adaptation, including clean development mechanism projects, be undertaken	Mitigation and adaptation measures to combat climate change impact, including capacity-building and human resource development will be initiated. Preparedness for the impacts of climate change with respect to mitigation and adaptation programmes will be ensured. Environment-related policies will be translated into on-ground actions.

PILLAR-V

PRIVATE SECTOR AND ENTREPRENEURSHIP-LED GROWTH

Chapter 24

MANUFACTURING AND MINERAL SECTORS

The industrial sector is a major driver for economic growth since it generates higher income, enhances better-paid employment opportunities, absorbs modern technologies and creates a base for diversified and value-added exports. Due to divergent reasons, the global demand for our industrial products is unstable, and resultantly, we are losing our share in the international market. The policies, creating a rent-based inefficient industrial structure, need to be reviewed for improving productivity and competitiveness.

Manufacturing sector

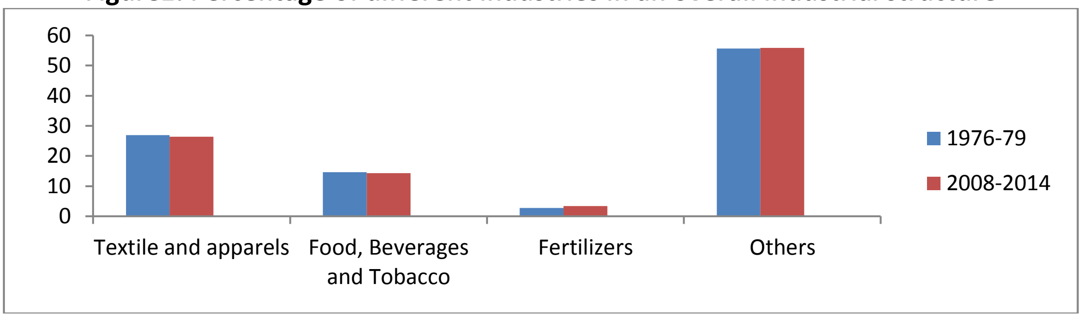
This sector accounts for13.5 per cent of the GDP and 13.8 per cent of the total employed labour force. The Large Scale Manufacturing (LSM) – at 10.6 per cent of the GDP – dominates the sector since it accounts for 81 per cent of the sectoral share, while the Small Scale Manufacturing (SSM) – at 1.6 per cent of the GDP – has 11.8 per cent share.

Situational analysis

After a brisk start in the 1960s, performance of the manufacturing sector has been disappointing in the later decades. In the 1970s, contribution of this sector to the GDP hovered around 16 percent, and presently, it is around 14 percent.[1]

Also, the structure of this sector did not opt for more dynamic elements since the industrial structure of Pakistan is generally similar to that of the developing countries in their novice stages of the industrialisation – it is dominated by industries producing textiles, beverages, food, and a few types of construction material. Unfortunately, this has not changed substantially over the last two decades. The following figure shows share of top three manufacturing industries remained almost the same over the last four decades, except fertilizers improved to a little extent.

Figure1: Percentage of different industries in an overall industrial structure



Source: *Pakistan Economic Survey* (various issues)
Others include *automobiles, pharmaceuticals, chemicals, engineering products, and etc*.

[1] Ginning was previously part of the LSM, but now it is included in agriculture.

This suggests that the country requires a pragmatic, but vigorously-practised policy to diversify its industrial base if it has to gain significant results within an acceptable time frame. The need for such a policy is more urgent because of rapidly increasing globalisation, and progress made by some of the neighbouring countries. Pakistan's prosperity would be seriously compromised if some concerted efforts were not made to secure its due share from the international market.

Deindustrialisation can be attributed to multiple divergent factors, which include: flawed economic policies, deteriorating energy situation, failure to diversify industrial production due to rent-seeking incentive structure, devastating floods, severe droughts and war on terror. Consequently, food, beverages and textiles averaged at about 49 percent of value-added in manufacturing between 1980 and 1989, and currently, their contribution is still at 48 percent. There is a lack of innovation and technological up-gradation in these industries that inhibit the growth of labour productivity and Pakistan's ability to climb up the technology ladder.

Exports

Structure of any industry determines its quantity of exports. Adverse effects of negligible diversification are compounded because key manufacturing exports tend to be such products, which are not dynamic in terms of the growth of world demand. The world trade in food, beverages and textiles – account for more than 70 percent of Pakistan's total exports – are growing much more slowly than trade in electronics, automotives, engineering products and chemicals. Thus, Pakistan's industrial structure acts as a hurdle to the growth of exports. Table 1 shows the loss of Pakistan share in the world's exports between 1980 and 2011.

Table 1: Pakistan's share in world exports – 1980-2013 (percent)

	1980	1990	2000	2013*
India	0.43	0.57	0.70	1.71
Malaysia	0.74	0.94	1.61	1.25
Thailand	0.37	0.74	1.13	1.24
Pakistan	0.15	0.18	0.15	0.13

Source: *Biller and Sanchez-Triana (2013); *WTO statistics*

Furthermore, the range of exported products is narrow and the value-addition is relatively low. Only a small proportion of the exports, mainly chemicals, has good international prospects. The international demand for pharmaceuticals is rising, but Pakistan's share in exports is declining. Generally speaking, a large number of exports comprise products whose share is declining in the world market.

The Plan strategy for enhancing export competitiveness is to increase the number of products in the export-base and decrease dependence on two major sectors, that is, textiles and rice, presently which account for 70 percent of exports.

Industrial productivity

Manufacturing growth has been driven predominantly by growth of inputs, that is, labour and capital. The contribution of total factor productivity in aggregate manufacturing growth has remained low though it was impressive only in the 1980s, and then to a lesser extent in 2001-05. The policy framework for industry, during the Plan period, seeks to improve total factor productivity by encouraging more efficient use of resources.

In the recent years, larger firms have registered higher productivity relatively to medium and small-sized firms. Larger firms not only enjoy scale economies, but also have access to relatively modern and efficient production techniques resulting in the productivity differential. Various firm-level productivity constraints are:

- Inadequate up-gradation of technology
- Longer shipping and higher freight costs – inadequate logistical support
- Too expensive electricity and its inconsistent supply – infrastructure constraint
- Scarcity of trained workers, technicians and engineers hampering productivity
- Non-integrated Mills, Small and Medium Enterprises (SMEs) limited access to finances
- Weak allied and supporting industry
- Low productivity – Inadequate upgrading of technology
- Non-compliance to requisite certification measures
- Inadequate system of quality assurance and health safety standards
- Insufficient testing facilities and scattered small farms
- Non-availability of skilled workers to shift to more mechanised, precision-based and robotic production technology

The Plan seeks to identify opportunities for public and private initiatives for addressing the above-mentioned productivity bottlenecks.

Strategy

The Plan aims to achieve industrial growth by improving the industrial competitiveness. In order to improve industrial competitiveness, the strategy addresses three critical areas of reforms. First, the industrial policy would be formulated, and the previous incentives regime, which has created the rent-based, inefficient and low value-added industrial structure, would be reformed. This requires paying particular attention to weeding out Statutory Regulatory Orders (SROs) that discriminate in favour of particular sectors or enterprises. Second, the Plan aims to move out of a protectionist industrial regime and target export-led industrial growth. Third, economic competitiveness would be improved by investing in the economic infrastructure, and human and technological resources that would enable our firms to compete in international markets.

Improving competitiveness

Pakistan currently does not have a very bright outlook of its economic competitiveness. The Global Competitiveness Index (GCI) 2013-14 ranks Pakistan at 133rd out of 148 countries, and its dismal performance continues in some of the most critical areas of competitiveness, which include economic infrastructure, human resource and technological resources. It is estimated that the opportunity cost of poor transport facility and electricity outages is more than Rs500 billion annually. Similarly, the country is also lagging behind many developing countries in technology and human resources development. According to the GCI, Pakistan is ranked at 137th and 118th in education and in leveraging information and communication technologies (ICT) respectively.

Addressing the issue of economic infrastructure is a key priority of the Plan, and this would be of particular benefit to the manufacturing sector. The Plan aims at improving transport and logistics by investing in physical infrastructure such as rails, road transport, intra-city transport and sea freight, and services such as packaging, delivery, storage, and trade logistics. Similarly, on the energy front, the Plan is not only focused on meeting the supply-demand gap for uninterrupted provision of electricity, but it also ensures affordable and secure energy. The share of cheap and less expensive heads of energy such as coal, hydro, and renewable sources would be increased in the overall generation of electricity.

However, today the industrial competitiveness needs adequate infrastructure, skilled labour and liberal economic policies. It requires a stable base of human and technological resources, which must support enterprises in handling, adapting and improving on new technologies and selling the output to the demanding global markets. The Plan realises the importance of human resource capital and technology. To have a vibrant and competitive workforce, the Plan commits additional allocation of resources towards education and technology.

Apart from the industrial policy, we would also strengthen our institutional structure for creating a business-friendly environment in Pakistan. The successful market economy depends heavily on institutional structure that provides secure property rights, efficient judicial system, enforcement of contracts and business-friendly regulatory system. This Plan aims at making Pakistan a business-friendly country so that it would ensure high returns on investment and become an attractive place for private sector development.

The World Bank's Ease of Doing Business Ranking (based on the average of 10 sub-indices) covers regulations on yearly basis in 189 economies, and Pakistan was ranked at 128 in 2014. The Plan seeks proactive government interventions, policy actions and public-private partnerships to improve Pakistan's ranking.

Industrial policy

An absence of a clear strategy for manufacturing and discrete policies over several decades has generated a patchwork of incentives, a haphazard distribution of import protection and sporadic subsidies. Without the articulation and implementation of a clear strategy, the country's industrial sector would remain mired in the production of items that sit low on the value-chain and not moving into more sophisticated products.

An industrial policy can either be *Laissez-Faire* or 'Picking the Winners'. Both these concepts have shortcomings. Nevertheless, there is seldom a stark choice between pristine models of *Laissez-Faire* and picking winners — a middle way is possible. One approach would be to provide a generally level playing field to all firms within a given industry and furnish some strictly time-bound incentives to industries towards which it is desired to tilt the industrial structure. Many of the directions in which the government could encourage industry would not, in fact, bear an untoward amount of risk. Measures would include moving up the value-chain in textiles, supporting the development of the dairy industry, strengthening the engineering sector to produce the equipment required by a more mechanised agriculture, building the machinery required by many of the SMEs; manufacturing a substantially larger number of the requirements for the motorcycle, automobile, and truck industries, and fabricating components required by the energy sector – particularly those used in the production of electricity from coal. It would be worthwhile taking the rather small risk of adopting this mixed, but deliberate approach to industrial policy, because it is likely that the much slower growth of incomes and employment resulting from a policy of 'business as before' would impose far greater economic and social costs on the country.

Export-oriented industrialisation

Competing with international firms would be the best way through which we can enhance our industrial competitiveness. So far our industrial planning remained highly protectionist. It gave incentives to produce for the domestic use rather than for the international market. Due to the absence of international competition and the presence of high Effective Rate of Protection (ERP), Pakistani firms did not find sufficient incentives to improve their efficiency and competitiveness. In Pakistan, import-substituting industries – tobacco, beverages, motor vehicles and accessories, and vegetable oils and fats – show very high ERPs. Much of the protection is provided by exemptions and high duties on inputs. A World Bank study elaborates: "Sectors with high ERPs tend to have low value-added, or conversely there is a higher incentive to produce low value-added goods. That sectors with higher ERP's tend to be domestically-oriented demonstrates the inherent bias against export-competing sectors."[2]

The Plan's growth strategy will correct the policy bias against export-oriented industries to improve their competitiveness. Furthermore, the Plan ensures a competitive exchange rate policy that strengthens competitiveness of the country's tradable sector.

Small and Medium Enterprises

Pakistan's firms, on average, are very small by international standards. About 95 percent of the 3.5 million economic establishments in Pakistan employ between one and five persons each, while another four percent employ 6–50 each. Manufacturing establishments show a slightly higher employment size, but even in this sector, over 90 percent of the establishments employ one to five persons each, nine percent recruit six to 50 persons each, and only 1122 firms employ over 50 workers.[3]

The low-level of productivity of smaller firms is primarily a consequence of financial constraints. Smaller firms are credit-rationed due to the lack of available collateral and information asymmetry present in the formal credit market (commercial banks). Micro enterprises and SMEs thus find it difficult to grow in size and scale, and enjoy access to improved technologies for higher productivity.

The challenges to the micro and cottage sectors are: (i) limited financial penetration, (ii) inadequate human resources, especially, management capacity (at the senior, middle and field levels), (iii) sustainability problems because of limited outreach, and (iv) low efficiency, resulting in high operational costs. The Plan aims a more focussed effort to develop strategies for addressing these problems, including a more conducive State Bank regulatory framework.

Action plan

- Sufficient availability as well as an easy access to finance for entrepreneurial activities
- Business development services

[2] Reis *et al* (2013).
[3] Investment Climate Assessment II, 2007

- Strategic initiatives and infrastructure development, like industrial estates, parks, industrial zones, trade corridors, and others
- Institution building and networking
- Promotion of entrepreneurship through advisory services

Mineral sector

The nature has endowed Pakistan with vast natural resources of economic significance, and mining is an important industry in Pakistan, which has a number of mining zones hosting metallic minerals, industrial minerals, and precious stones. Some of these are explored and mined, while some are still unexplored. Pakistan has deposits of several minerals including coal, copper, gold, chromites, mineral salt, bauxite and several other minerals. A variety of precious and semi-precious minerals are also mined. These include peridot, aquamarine, topaz, ruby, emerald, rare-earth minerals bastnaesite and xenotime, sphene, tourmaline, and many varieties and types of quartz.

Currently, around 56 minerals are mined and processed in Pakistan (details are at Annexure-I). Balochistan is the richest province in mineral resources, while the Khyber Pakhtunkhwa is rich in terms of gems and Sindh in the coal deposits. Coal is found in very large quantities in Thar, Chamalang, Quetta and other sites. Thar reserves are estimated to be 850 trillion cubic feet. In Reko Diq (Balochistan), deposits of copper and gold are present in large quantities. According to a report of the Geological Survey of Pakistan (GSP) ‘Mineral Potential of Pakistan’, Reko Diq has reserves of more than five billion tonnes, which includes 0.54 per cent copper content and 0.24 gram per metric tonne of gold.

There are also copper deposits in Daht-e-Kuhn, Nokundi, located in Chaghi district of Balochistan. Iron ore is found in various regions of Pakistan including Nokundi and Chiniot, while the largest deposits are in Kalabagh, Haripur and Northern Areas. A number of precious stones are mined and polished for local as well as export purposes. The centre point of this operation is the Khyber Pakhtunkhwa. The variety of precious stoned mined include actinolite, hessonite, rodingite, agate, idocrase, rutile, aquamarine, jadeite, ruby, amazonite, kunzite, serpentine, azurite, kyanite, spessartine (garnet), beryl, marganite, spinel, emerald, moonstone, topaz, epidote, pargasite, tourmaline, garnet (almandine), peridot, turquoise, grossular, quartz (citrine and others) and vesuvianite.

Situational analysis

Though on a small scale, currently around 52 minerals are under exploration. Major production is of coal, rock salt, and other industrial and construction minerals. Value-addition in the mineral sector is mainly concentrated on five principal minerals, that is, limestone, coal, gypsum, sulphur, crude oil and natural gas. Realising the vast potential of major reserves, there is a great opportunity for multinational companies to invest in this sector, which will be beneficial for the economy and the investors in the long-run. Furthermore, exploration of new gold and crude oil fields in Pakistan has got the attention of many foreign multinational companies. Production of lead and zinc concentrates is expected to increase gradually. Development and mining of coal resources in Thar and in other areas of Sindh is expected to proceed. Mining of metallic minerals, including bauxite, chromites, copper and iron ore, is also showing an upward trend. The country produced lead and zinc concentrates for the first time in 2009, which was from the Duddar Mine, Balochistan.

Policy action

The government has announced the National Mineral Policy (NMP-2013) to pave the way for expansion of the mining activity and improve investment. This new policy serves as a clear and detailed representation of country's objective of improving the international competitiveness of our mineral sector. The NMP-2013 seeks to provide the basis for addressing challenges faced by the sector and respond to important government priorities and commitments. For example, policy provisions to cater for research and development enhancement, human resource development, promotion and marketing etc. The NMP provides government with the direction and decision-making tools that will help generate growth in the mineral industry. The Policy seeks to address main challenges, which revolve around following four broad themes to ensure:

- Enhanced economic contribution of the mining sector to Pakistan's economy through more private investment
- Competitive economic environment to attract foreign investment in this sector
- Smooth operational and effective coordination between federal and provincial institutions in the implementation of the regulatory and legislative regime for the mining sector
- Exploration, development and production of Pakistan's mineral resources are environmentally sustainable and encourage small scale mining and local private participation

Issues

- Law and order situation is eroding foreign direct investment in the mineral sector also. The Foreign Direct Investment (FDI) has a key role in the growth of this sector since most of the mining activities are carried out by foreign companies, and these companies are shying away from down-country fields, which is hampering the growth prospect of this sector. To harness fully the mining potential, we must ensure a secure and stable economic environment.
- Due to the lack of release of the operational funds for public sector organisations, the new field projects could not be started. Long delays in the release of funds results in extension of implementation period of projects.
- Inconsistency in policies, rules and procedures further aggravate the situation.

The mineral sector also suffers from lack of investment in machinery, skills and processes resulting in poor efficiencies and substandard products. This is more visible in the marble sub-sector where primitive methods lead to large wastage, smaller size blocks and poor quality material.

Strategy

- Large amount of iron ore is imported for the local industry, such as the Pakistan Steel Mills (PSM), which increases the cost of production. Since iron ore is rife in Nokundi and Dilband area of Balochistan, indigenous iron ore will be preferred and utilised for the PSM and other local industries, which will not only decrease the cost of production, but will also play its due role in growth of the economy.

- Industry and academia linkages will be developed to foster innovations and to develop industrial products and processes.
- Improved storage and warehousing facilities for minerals will be developed in various regions of Pakistan.
- Local manpower would be trained in creating innovation and value addition in mining processes, so that the value-added final goods could be exported for higher foreign exchange earnings.
- Feasibility study for commercial mining would be conducted to ascertain production targets from the mines as per market demand, since unplanned mining activities result in the erratic and unsustainable supply of minerals to the industry and market.
- Capacity-building of the public mining institutions will be integrated in a broader framework.
- To enhance productivity and production of the existing coal mines, mine equipment renting, leasing and selling shops will be established to reduce dependence on obtaining loans for capital goods from financial institutions.
- Public Private Partnership (PPP) and joint venture between local and foreign partners will be encouraged.
- Physical infrastructure, roads, rails, telecommunications, utilities etc. in the mineral producing and mineral bearing areas will be established.
- Necessary control and treatment of effluents resulting from underground coal mining and surface mining of natural stones and limestone will be encouraged.

Action plan

- Attracting foreign direct investment
- Capacity-building of the institutions in remote sensing (RS), geographic information system (GIS) and satellite data.
- Revising curricula of the technical institutions
- Conducting jobs-specific trainings
- Extracting commercially-viable stones
- Encouraging the private sector
- Disseminating the scientific data
- Developing the infrastructure
- Establishing the Export Processing Zones
- Engaging relevant communities for sustainable development
- Exporting Pakistan branded stones

Table 4: Five-year projections of the federal PSDP and provincial ADP

(Rs million)

Mineral sector	Projections					Total Five Years
	2013-14	2014-15	2015-16	2016-17	2017-18	
Federal PSDP	20	20	130	200	300	670
Provincial ADP	2,500	2,519	2,906	3,396	3,784	15,105
Total national development outlay	2,520	2,539	3,036	3,596	4,084	15,775

Annexure-I

Projected mineral production

(Units in metric tonnes)

Sr. No	Mineral	2013-14	2014-15	2015-16	2016-17	2017-18
1	Antimony	90	99	109	120	132
2	Argillaceous Clay	4,965,188	5,461,707	6,007,788	6,608,666	7,269,532
3	Ball Clay	313	344	379	417	458
4	Barytes	128,360	25,672	28,239	31,063	34,169
5	Basalt	228	251	276	304	334
6	Bauxite	23,633	4,726	5,199	5,719	6,291
7	Bentonite	28,160	30,976	34,073	37,480	41,228
8	Brine	54,656	10,922	12,014	13,216	14,537
9	Calcite	616	677	745	819	1,715
10	Chalk	891	980	1,078	1,185	1,304
11	Coal	3,012,128	602,425	662,668	728,935	801,828
12	Chromite	129,685	142,654	285,305	288,158	316,974
13	Conglomerate	94	104	114	125	138
14	China Clay	22,925	25,217	27,739	30,513	33,564
15	Clay	6,059	6,665	7,332	8,065	8,872
16	Copper Blister	10,038	11,042	12,146	13,361	14,697
17	Dolomite	226,000	248,600	273,460	300,806	330,887
18	Diorite	6,527	7,180	7,898	8,687	9,556
19	Feldspar	736,494	743,858	818,244	900,069	990,076
20	Fire Clay	50,216	55,237	60,761	66,837	73,521
21	Fluorite	14,655	16,120	17,732	19,506	21,456
22	Fuller's earth	4,684	5,153	5,668	6,235	6,859
23	Gabbro	143	157	173	190	209
24	Granite	29,327	32,259	35,485	39,034	42,937
25	Gypsum	1,379,363	32,259	35,485	39,034	42,937
26	Graphite	8,676	9,544	10,498	11,548	12,703
27	Gneiss	63	70	77	84	93
28	Gravel	457,053	914,106	1,005,517	1,106,068	1,216,675
29	Haematite	495	544	598	658	724
30	Iron Ore	427,941	470,735	517,808	569,589	626,548
31	Laterite	364,453	400,898	440,988	485,087	533,595
32	Lime stone	43,428,676	47,771,544	52,548,698	57,803,568	63,583,925
33	Lead	141	156	171	188	207
34	Lake salt	32,675	65,350	71,885	79,073	86,981
35	Marble Onyx	57,937	63,730	70,103	77,114	84,825
36	Marble Ordinary	2,325,096	2,557,605	2,813,366	3,094,702	3,404,173
37	Magnesite	772	849	934	1,027	827
38	Manganese	495	544	598	658	724
39	Ordinary stone	3,624	3,986	4,824	5,306	5,837
40	Ochres	41,545	45,700	50,270	55,297	60,827
41	Pumice	1,082	1,190	1,309	1,440	1,584

42	Phosphate	144,047	158,451	174,297	191,726	210,898
43	Quartz	73,811	81,192	89,311	98,242	19,648
44	Quartzite	84	93	102	112	124
45	Red Oxide	3,709	4,080	4,488	4,936	54,306
46	Rock Salt	1,175,714	1,293,285	1,422,614	1,564,875	1,721,363
47	Rhyolite	45	49	54	60	66
48	Shale	1,553,644	3,109,009	3,419,910	3,761,901	4,138,091
49	Shale Clay	2,023,369	2,225,706	2,448,277	2,448,277	2,693,105
50	Sand Stone	123,962	136,358	149,994	164,993	181,493
51	Silica Sand	394,944	434,438	477,882	525,670	578,237
52	Slatestone	446,585	491,244	540,368	594,405	653,846
53	Soapstone	117,187	128,906	141,796	155,976	171,574
54	Serpentine	1,597	1,756	1,932	2,125	2,338
55	Trona	66	72	79	87	96
56	Reti/Bajri	2,035	2,238	2,462	2,708	2,979

Source: *Ministry of Petroleum & Natural Resources (Mineral Wing)*

PILLAR-VI

DEVELOPING A COMPETITIVE KNOWLEDGE ECONOMY THROUGH VALUE-ADDITION

Chapter 25

KNOWLEDGE AND TECHNOLOGY-BASED DEVELOPMENT

The knowledge and technology-based economy will provide a platform to sustain a rapid rate of THE economic growth and enhance international competitiveness so as to achieve the objectives of the Vision 2025. It will also strengthen Pakistan's capability to innovate, adapt and create indigenous technology and design, develop and market new products; thereby providing the foundation for local growth. In addition, the knowledge and technology-based economy will complement and accelerate the change from an input-driven to a productivity-driven growth strategy, which is a major policy thrust initiated under the Plan. This transition is dependent on the performance of the higher education and science and technology sectors. Institutions of the higher learning will play a leadership role through the production of skilled, innovative and enterprising knowledge workers. Research organisationswill also come up with solution based and innovative research in collaboration with the industry and academia for fruitful results.

Situational analysis

The changes in science, technology, innovation and higher education are creating a multidisciplinary area in which institutions of many countries act together to achieve desired economic outcomes. All these sectors will contribute, which will lead towards the desired economic growth.

Unlike developed and many developing countries, the importance of knowledge-based economic development was not a priority in Pakistan. However, since the start of the 21st century, focus and investment have been given to the higher education sector for production of scientists and technologists, who will lead to an eventual technological development.

The birth of the Higher Education Commission (HEC) in 2001-02 and investment in the infrastructure development of the universities as well as production of the PhDs helped in injecting fresh blood to the ailing academic, and Research and Development (R&D) institutions. The HEC came up with a Medium-Term Development Framework known as MTDF HE-1 (2005-10). The HE-1 identified quality, access, and relevance as the key challenges facing the sector at that time. Programmes were launched to support original research at universities, align the academic programme structure to three-tier bachelor, master and doctoral programme structure implemented in the rest of the world, and ensure adherence to the internationally benchmarked quality standards and processes. The investment in the sector provided means for improving overall infrastructure and faculty. In the MTDF HE-II (2011-15), the HEC focus has been on sustaining gains in faculty development, quality improvement, and maximising opportunities for acquisition of the quality higher education.

Despite remarkable improvement compared to the past, Pakistan still needs to improve access to tertiary education, quality of university education and its relevance to national needs. The number of Pakistani universities in top 500 is still merely in a single figure, while the availability of the PhD faculty in universities and R&D organisations is still much less than the global standards, that is, still less than 30 per cent of the total faculty, which will reach 40-50 per cent by the end of the Plan period. The HEC has persuaded the universities to establish the Quality Enhancement Cells (QECs), which are bound to submit quality report periodically to the Quality Assurance Division ofthe HEC. Some universities still need to accomplish this task, but all universities will have the QECs before 2018. One of the good steps taken for quality enhancement was the introduction of a search committee for appointment of vice chancellors, which has helped in minimising political influence.

It is estimated that less than seven per cent youth, aged between 17-23 years, have access to higher education, which is next only to the sub-Saharan countries. Pakistan will improve this to 10-12 per cent during the Plan period. Of course, this needs provision of access through setting up new universities, establishing sub-campuses of the universities and enhancing enrolment capacity of the existing universities. Keeping in view this policy, many new universities have been established in far-flung areas as well as metropolises, while establishing women universities to address gender imbalance in the tertiary education and introduction of disciplines more relevant to women, like social sciences, media, fine arts, textile designing, home economics, etc. The role of distance learning universities cannot be ignored for the higher education. Two distance learning universities, the Allama Iqbal Open and Virtual, are expanding their reach and need to do so more during the Plan period.

The next important aspect is relevance of research to the national needs. This covers sub-areas, like revamping and standardisation of the curricula, commercialisation of research, innovation, promotion of entrepreneurship and establishing centres of excellence in priority areas of research. In the last five years, many universities have established the Office of Research, Innovation and Commercialisation (ORIC) and by the end of the Plan, every university will have this office. Standardisation of the curricula for various disciplines is being done by the HEC in collaboration with other stakeholders, and will be a continuous phenomenon during the coming years. Some universities have also set up business or technology incubators. However, there is no science park in the country, which will be a major area of focus in the Plan. Centres of excellence in many disciplines of engineering and sciences have already been established and some more will be set up during the Plan period.

Universities and R&D organisations will develop strong linkages with the industry and produce meaningful research. This has been a weak link as the R&D organisations have done research mostly in isolation. The R&D organisations associated with or working under the Ministry of Science and Technology (and those outside) have some linkages to the local industry and they provide testing, pilot scale product development and other facilities. However, there is a large room for improvement. Enhancing the linkage of academia, R&D, government and industry will remain the central area of the Plan.

Despite facing many challenges like energy shortage, deteriorating law and order situation, security concerns, natural disasters and price hike of essential commodities,Pakistan has managed to remain afloat as a dynamically pluralistic society comprising various ethnicities. The economic growth has been steady and improvement of the security situation, enabling environment, and committed and facilitating leadership can drive the country towards new horizons of development.

Pakistan is ranked 146th out of 186 countries in terms of the Human Development Index. Likewise, the Technology Index of Pakistan has been reported to be 83, Growth Competitiveness Index 97, Public Institutions Index 115, production of Scientists and

Technologists Index 60 and 124th position for higher education and training *(Human Development Report 2013)*.

At the international level, the Global Competitiveness Index (GCI) is used as a matrix to measure a nation's competitive edge, economic development with respect to innovation and state of tertiary education. The GCI integrates the macroeconomic environment, public institutions, technology and innovation, which define the current sustainable level of economic activity, and where wealth is actually created. Pakistan is ranked 129th on the GCI in 2014-15, which was lower compared to several other developed and developing countries (Table-1). It is also important to note that Pakistan was ranked 133rd in 2013-14, so the ranking has improved to some extent; however, compared to 2012-13 it is still lower. Regional security situations, internal political instability, energy crisis, impact of terrorism and low rate of the economic growth have been the major contributors for change in overall unstable ranking. Pakistan needs to and will work on war footings to be competitive at the regional and global levels. Pakistan has been investing heavily in the higher education sector for over a decade, and the results of this investment have started to materialise. There is a considerable improvement in its capacity to innovate, availability of scientists and engineers and quality of scientific research institutions as compared to the previous rankings.

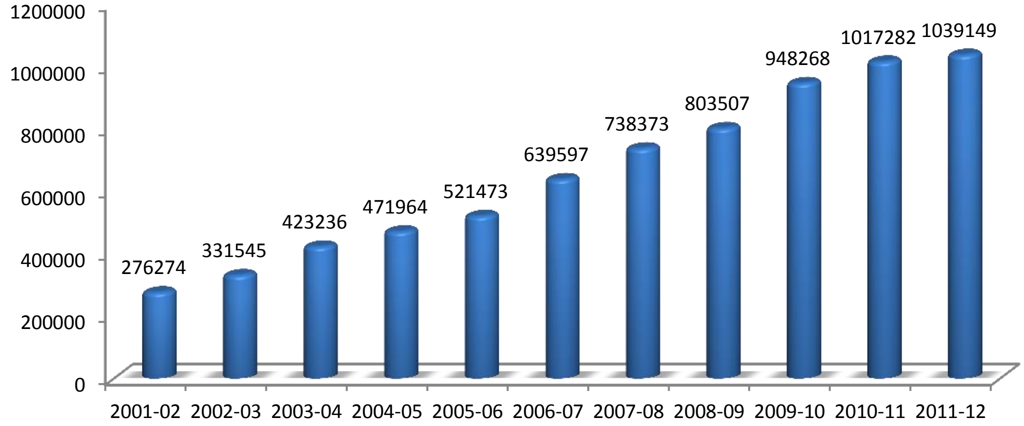
Table 1: Comparing parameters of the CGI 2014-15

Parameters	GCI 2014-15 Score (Scale of 1-7, 1=very poor, 7=very good)							
	Pakistan	**China**	**India**	**Korea**	**Malaysia**	**Turkey**	**USA**	**UK**
Technological readiness	2.8	3.5	2.8	5.4	4.2	4.3	5.8	6.3
Capacity for innovation	4.0	4.2	4	4.7	5.2	3.7	5.9	5.3
Higher education and training	2.8	4.4	3.9	5.4	4.8	4.7	5.8	5.5
Availability of scientists and engineers	4.3	4.4	4.4	4.4	5.2	4.2	5.3	5.2
University and industry collaboration in R&D	3.2	4.4	3.9	4.6	5.3	3.7	5.8	5.7
Company spending on R&D	2.9	4.3	3.8	4.5	4.9	2.9	5.5	4.8
Quality of scientific research institutions	3.4	4.3	4	5	5.2	3.9	6.1	6.3
Overall ranking	129	28	71	26	20	45	3	9

Source: *Global Competitiveness Index Report 2014-15*

Growth in the number of public and private universities and degree awarding institutions over the previous few years was significant. This increase in the number of institutions was also accompanied by a significant increase in the number of campuses of the public sector universities. Total enrolment in the higher education in 2014 stood at almost 1.206 million students (514,450 in public and private universities, about 324,800 in distance education, and 367,200 in affiliated colleges) representing about five per cent of the age cohort of 17-23-year-old in the country. While this shows significant increase of over 2.6 per cent in 2002, it compares dismally to more than 10 per cent of 17-23-year-old having access to the higher education in India and more than 20 per cent having access in Malaysia. Student enrolment is projected to grow at 15 per cent, private university student enrolment at 18 per cent, while distance education is expected to grow at 12 per cent. The rapid increase in enrolment in the higher education sector, during 2002-2012, is reflected in the graph (Figure1).

Figure 1: Enrolment in the higher education sector during 2002-2012



Issues and challenges

The pattern of science and technology and higher education sectors development in Pakistan has been inconsistent over the years. The major issues and challenges hindering the technological development are:

- Low enrolment in higher education (6-7 per cent) compared to the region
- Poor state of the infrastructure
- More focus on assembling and import instead of transfer of technology
- Lack of applied and solution-based R&D for local problems of various sectors
- No or minimal career guidance to the students at various levels of education
- Weak information support system for technological forecasting and assessment
- Poor quality and marketability of the higher education
- Inadequacy of research and its relationship to the technology development, innovation, enterprise and management
- Poor appreciation and involvement of the private sector in the R&D
- Weak linkages among universities, research institutions, industry and government
- Low investment in research and development by public as well as private sectors
- Inadequate system of commercialisation of technologies
- Poor or no protection of intellectual property rights and patents
- Low fund generation and user charge recovery by universities
- Less focus on social sciences and humanities
- Inadequate testing and lab facilities to meet demands of the market

- Gender imbalance in the tertiary education and subsequent employability
- Shortage of the PhD faculty
- Minimal national and international collaboration and linkages of universities and R&D organisations
- Lack of recognised testing and quality assurance, standards of labs and institutes as well as internal quality assurance cells in universities and R&D organisations

Objectives

The objectives to be achieved during the Plan period are:

Access and equity

- Raise enrolment in the higher education of the 17-23 year age group from the present about seven per cent to 10 per cent by the end of the Plan period
- Significantly enhance quality of education
- Ensure equitable access to the higher education
- Promote provision of quality of distance education
- Promote the private sector for provision of quality higher education

University linkages

- Promotion of university – society links
- Promotion of university – industry and R&D linkages through research capacity buildings of universities
- Make higher education system more competitive globally, while reforming and restructuring universities in Pakistan through international linkages
- Significantly enhance funds being given to universities through philanthropy, industry-sponsored research and other non-government sources
- Support research projects of universities related to alternative energy, national management, security, water, poverty reduction, infrastructure building, etc.

Quality

- Enhance quality of education, research and university management procedures to meet international standards
- Increase PhD faculty of universities
- Increase the number of globally ranked Pakistani institutions
- Build a 'culture of evidence' in the higher education linking objective assessment and performance of institutions of the higher learning
- Ensure development of support services at universities to achieve excellence in teaching and research

Economic development

- Promotion of harmony between university and social goals through constant dialogue
- Promotion of research and development activities in universities with special emphasis on areas of economic relevance to the country
- Active involvement of the university faculty in enhancing export competitiveness of industry, especially in the sectors of engineering, IT and software, chemicals and pharmaceuticals
- Promotion of linkages between university and technical and vocational institutions, especially for faculty development in subjects pursued at the Technical Education and Vocational Training Authorities (TEVTAs)
- Establishment of the business incubators in selected public universities
- Encouragement of research and innovation in areas of relevance for the economy and society, particularly by promoting close and productive interaction between private and public institutions in science and technology, while special importance be given to key leverage technologies, such as biotechnology, material sciences, electronics, space sciences, oceanography, and others
- Engage scientific and technological experts in the decision-making of the development initiatives and budgets to
    - involve vigorously the private sector in research and development
    - promote lifelong learning in the higher education institutions by allowing faculty to upgrade their skills at regular intervals for responding to diverse demands
    - effectively leverage Information and Communication Technologies (ICT) to deliver high quality teaching and research support in the higher education both on-campus and using distance education
    - share expertise and facilities among universities though national and international partnerships for supporting socio-economic regeneration and growth, and
    - reorganise, strengthen and establish new industrial development corporations to encourage applied R&D, innovation and technology development

Strategy

In order to realise these broad objectives, it is essential to spell out an implementation strategy, which will enable classification of specific plans and programmes with clearly defined tasks, approximation of necessary resources and time bound targets.

Access to higher education

The enrolment in the tertiary education has increased from 0.276 million in 2001-02 to 0.738 million in 2007-08 and in excess to a million since 2010-11. This enrolment has come with a significant increase of female students. The gender-wise studies show that the gap between male and female students has lessened from 63:37 in 2001-02 to 54:46 in 2010-11.

Enhancing equitable access to the higher education will remain a key objective of the higher education strategy. Specific emphasis will be given to equity in access to the higher education for ensuring that students, from under-represented areas and groups, are able to acquire higher education. Additional strategic options for enhancing equity to be pursued are:

- Opening of universities and sub-campuses in the disadvantaged regions
- Provision of full need-based scholarships
- Promotion of quality distance learning
- Financial aid for needy students, and student loans

The student enrolment projections of the HEC have been given in the following table.

Table 2: Enrolment projections for the Plan period

(Thousands)

Institutions	Per cent increase	Projected enrolment					
		2013	**2014**	**2015**	**2016**	**2017**	**2018**
Public universities	15	408	469	540	621	714	821
Private universities	18	106	125	148	174	206	243
Distance learning	12	325	364	407	456	511	572
Colleges	8	367	396	428	462	500	540
Total		**1,206**	**1,355**	**1,523**	**1,714**	**1,930**	**2,176**

Academic reforms

These reforms will focus on:

- Improve quality of the higher education through the modernisation of syllabi, increased research, networking of universities and departments and increased allocation of funds
- Promoting innovations in teaching and for pursuing high quality research
- Providing opportunities and means to the universities and institutes to interact across geographical boundaries of institutions, integration of teaching, research and evaluation, and mutual collaboration and cooperation for optimum utilisation of available resources
- Making university accreditation process more transparent, time-bound and be progressively freed of government regulations and control leading to a situation when the whole procedure will be based on a system of the public appraisal and acceptance
- Encouraging universities to revisit the fee structures and gradually decrease the subsidy in the tertiary education. However, this will not compromise right of poor students for quality higher education. Universities will also be encourages for income generation by other means like by involving alumni, donations, endowment funds, international cooperation, etc.

Faculty development

The major objective of the faculty development is to increase number and percentage of faculty members with terminal degree, attracting talented faculty by initiatives, like Tenure Track System, providing PhD training facilities to talented youth and faculty, rewarding excellence in all modes, and incentivise faculty development. This is envisaged to be done by taking the following steps.

- Human resource development through indigenous and foreign scholarship programmes
- Initiating split PhD programmes in collaboration with the developed countries
- Merit-cum-need-based scholarships
- Special scholarships programmes for less developed areas, like FATA and Balochistan
- Special scholarships for weaker and new universities
- Post-doctor fellowships for the existing faculty and researchers
- Short trainings of six months to one year for students and faculty
- Hiring of foreign and expatriate Pakistani faculty for medium (six months) and short(up to one month) periods to meet immediate faculty needs
- Continuing with the Tenure Track System for attracting faculty
- Incentivising establishment of the Continuous Professional Development Centres (CPDC)
- Supporting universities to launch joint degree programmes in collaboration with the foreign premier universities

Quality assurance

The main aim of quality assurance is to place a mechanism for assessing quality of the product, programmes, the institutions and infrastructure. Most of the universities already have in place the QECs. The HEC also has its own Quality Assurance Division. In order to sustain the quality, the following steps have been proposed.

- All the universities should have QECs during the Plan period.
- The Quality Assurance Division at the HEC should make sure that all universities submit periodic quality assurance reports and the same are also physically verified. The outcomes should also be published for information of the public.
- Develop proper mechanism for assessing quality of higher education institutions
- Implementation and evaluation of the Institutional Performance Evaluation Standards
- Liaison with the international QA bodies for sharing the best practices and experience in the areas of mutual interest
- Improving accreditation and regulatory system for various disciplines at the universities

Professional development

While academic faculty represents the most important entity of any university, the provision of university services requires efficient support staff and systems for carrying out the myriad of tasks in a modern higher education institution. Our public institutions will have to be provided necessary IT hardware, software for campus management, HR management, financial management, procurement, etc., as well as training for personnel to change current systems and introduce modern techniques. The establishment of these key offices in every university, provision of necessary equipment and software as well as training of personnel will be vigorously pursued during the Plan period.

Leadership, governance and management

Improvement in the quality of education and research imparted in universities requires the availability of professional management, well-versed with modern university governance and management principles. Universities are expected to be community leaders. The evolution of our institutions of higher learning into such community leaders will require training of the university leadership (vice chancellors, deans, department chairs and heads of support service programmes) as well as the availability of the governance structures in these institutions facilitating this transformation. Modern universities today operate with the paradigm of the shared governance, and it is necessary for the Pakistani university leadership to embrace this paradigm and practice it as well. Universities can no longer afford to operate in isolation of their community and society.

Indigenous technology development and Triple Helix System

Collaboration among government, academia and R&D institutions and industry brings each stakeholder to the table talent, resources and differentiated perspectives that together create a robust whole in addressing the problems. The academia and R&D-industry-government linkage is also being known as the Triple Helix relations. The challenge lies in aligning the institutions of the higher learning, S&T research institutes and industrial players to work synergistically towards enhancing competitiveness of the goods and services industry and addressing all challenges that will arise in this endeavour. The steps are:

- Improving laboratories and equipment facilities of the R&D organisations and universities
- Ensuring availability of the locally trained manpower as per needs of the industry
- Develop Triple Helix Centres in the science and technology policy research institutes and centres to additionally work on this aspect of technology development
- Ensuring a public procurement policy that gives preference to indigenous products
- Steps for enhancing share of the cottage industry in the economy
- Motivating big industrial units to establish R&D cells and increase spending on the R&D and support universities and S&T organisations
- Technical support for the SMEs from academia and S&T organisations for enhancing quality of their products.
- Prioritising industries to be focused for economic development and their support and help in establishing linkages with the R&D and academia

Promoting research, innovation and tech entrepreneurship

Efforts will be directed to produce a research sector, which is dynamic as well as responsive to the changing research environment and market needs. On the other hand, innovation and promotion of entrepreneurship are keys for sustainable economic growth. The following steps need to be taken for promoting these aspects.

- Ensuring that the academic programmes offered in engineering, science, humanities, and arts are relevant to the industrial and societal needs.
- Continuous development of the physical infrastructure and facilities at universities and R&D organisations
- Research grants for faculty, especially newly-appointed PhD faculty
- Equal importance to research in humanities, arts and social sciences as to science and engineering
- Establish Offices of Research, Innovation and Commercialization (ORICs) in all universities
- Establish business and tech incubators at universities, and science and technology parks in major cities
- Establishing academic think tanks and policy institutes
- Incentivising private sector and industry for spending on the R&D
- Innovation fund
- Venture capital and equity funds

Role of the private sector universities and institutions

The government has a limited pool of resources and cannot shoulder the burden of providing higher education all by itself. The private sector must rise for provision of quality higher education to the masses. However, it is quite alarming that only a few private sector institutions have been maintaining quality standards. It is necessary to bring private institutions to the centre stage in order to contribute significantly to the higher education.

Thrust areas

The following thrust areas have been identified for their development to help economic growth.

Metrology, Standards, Testing and Quality

Pakistan has set up a nascent MSTQ system with three organisations, namely Pakistan Standards and Quality Control Authority (PSQCA), National Physical and Standards Laboratory (NPSL) and Pakistan National Accreditation Council (PNAC), as its components. However, these have not been able to perform as expected due to various reasons. The following is being proposed to strengthen the MSTQ system.

- Strengthening of the existing MSTQ organisations
- Clearly redefine functions of each organisation so as to remove conflicts on jurisdiction
- Capacity-building of the staff of these organisations
- Making sure international accreditation and recognition of these organisations as well for acceptance of their certificates

- Increasing the number of mandatory standards and their enforcement on imported goods lest the local market gets flooded with sub-standard foreign goods
- Harmonising the federal and provincial laws on standards
- Increasing the number of ISOs and IEC accredited laboratories and certification bodies

Energy education

Keeping in view the current energy crisis, there is a need to use technological solutions in resolving the crisis and enhancing efficiencies of the existing processes. The focus will be on:

- introduction of the energy-related academic and training programmes at universities,
- incentivising the private sector for manufacturing the renewable energy products, components and systems, and
- development of the pilot projects and their large-scale dissemination based on the existing technologies, such as solar water heaters, biogas plants, photovoltaic, etc.

Food technology

Food technology is the application of food science to the selection, preservation, processing, packaging, distribution, and use of safe, nutritious, and wholesome food. At present, Pakistan is not well-equipped to respond to the existing and emerging food safety and quality standards due to lack of technical infrastructure. Investment will be made to resolve the food technology issues for providing safe and high quality food to the domestic and international markets.

Leather technology

The leather industry, being the second largest export-earning sector of Pakistan after textile, includes leather garments, gloves and footwear. It is contributing about $800 million a year, but has the potential to multiply volume of exports with the improvement of quality and diversification in different range of products, especially garments and footwear. Universities and R&D institutes need to work in collaboration of the private sector to identify gaps of trained manpower, solution-based R&D, development of new processes and adopting global standards.

Space science

Space technology is one of the most important technologies of the future. Over the years, its applications have increased in many fields like communication, meteorology, telecommunications, defence, resource exploration, environmental protection, land management, infrastructure development, R&D in exploitation of telemedicine, distance education, disaster monitoring and many other fields. The steps are:

- Promote R&D efforts by all relevant R&D and higher education institutions to develop indigenously built satellites, double stage solid fuelled propelled Satellite Launch Vehicles, robust Intermediate Range Ballistic Missile (IRBMs)
- Facilities for the Satellite Environmental Validation and Testing (EVT), Satellite Dynamic System Testing and Satellite Assembly Integration and Test (SAINT) to be developed to keep pace with other countries
- Produce trained manpower in space, and science and technology

- Promoting use of remote sensing and other satellite data for important aspects, like communication, mapping, survey, land disputes and other such important aspects

Material sciences and nano-technology

Material sciences play a pivotal role in determining and improving economic performance and quality of life. Progress in the technologies critically depends on the development of new and tailor-made materials with improved and novel properties, like new biocompatible materials for medical applications, and opto-electronic materials for computers and communication devices. Unfortunately, Pakistan lags behind in this area and nothing promising has so far been achieved in this regard. The steps will be:

- Focused research for material sciences to develop materials of the future
- Setting up centres for research on material sciences at universities
- Involving strategic S&T organisations for defence-related new materials
- PhD level training of the manpower in material sciences
- Exploiting technology transfer option for this important field
- Establishment of a National Material Science Research Institute

Nanotechnology is the ability to fabricate devices at nano-scale (one billionth of a metre) for practical applications. Nanotechnology has been labelled as enabling technology creating new applications in medicine, energy, industry, foods and consumer goods. Pakistan is lagging behind despite having a good infrastructure. Certain pockets of expertise exist because of the earlier funding by the HEC and Ministry of Science and Technology, but these are scattered. A National Commission on Nano-Science and Technology (NCNST), constituted in 2003, is now defunct.

- Revitalise NCNST with a task to develop the National Nanotechnology Initiative, and bring all the stakeholders of the public and private sectors on board to develop a roadmap
- Exploiting applications of the nano-technology in energy, environment, agriculture, health and other sectors
- Developing institutes of nanotechnology at selected universities and equip them with the state-of-the-art equipment and requisite manpower
- Asking the private sector to contribute in the research funding of the projects directly or indirectly related to industry (on the lines of the ICT R&D Fund)

Marine resources

Pakistan has a coastline of 990 kilometres, extending from the Indian border in the East to the Iranian border in the West. The Exclusive Economic Zone (EEZ) of Pakistan is about 250,000 square kilometres. Under the 'Commission on the limits of the Continental Shelf', Pakistan stands to annex an additional area of about 60,000 square kilometres. As such, this maritime zone of Pakistan will be over 30 per cent of the land area. The area is characterised by distinctive oceanic phenomena and features, which are capable of producing rich fisheries, mineral, oil and gas resources. Extensive survey, data collection and research are required to understand the processes and features having a direct bearing on locating the living and non-living marine resources and their sustainable development and conservation. The marine resources have so far remained unexploited and concerted oceanographic research will be undertaken.

Electronics

Electronics is considered to be one of the world's fastest growing industries with global revenue worth trillions of dollars per annum. Unfortunately in Pakistan, the electronics sector is still in infancy and never became a major revenue-generating industry. The electronic industry in Pakistan mostly revolves around consumer electronics, with activities confined to assembling of the conventional TV sets, radios, and other allied consumer electronic products from Complete Knocked Down (CKD) or Semi Knocked Down (SKD) kits imported mostly from China, Malaysia, Korea, and other countries.

It is, thus, imperative that a coherent strategy is put in place to develop this sector with a view to increase the country's growth potential as well as achieving self-sufficiency by reducing dependence on foreign sources of products, materials, components and equipment. Pakistan will encourage local manufacturing and curb import of the finished electronic goods, facilitate import of the Printed Circuit Board (PCB) manufacturing plants, automated component stuffing, focusing on micro-electronics, robotics and soldering equipment.

Automotive engineering

The automobile industry has been an active and growing field in Pakistan for a long time but it is not as much established to figure in the prominent list of the top automotive industries of the world. The total contribution of the auto industry to the GDP in 2008-09 was 2.8 per cent, which has increased to about 4.5 to 5 per cent in 2013-14. There are 500 auto-parts manufacturers in the country, which supply parts to original equipment manufacturers.

A strategy, that would greatly help in strengthening the automotive industry, is building gainful partnerships with the leading players in the global auto industry (like Germany, Japan, etc.) to enable and facilitate the technology transfer to assemble plants setup in Pakistan. There is also a need to develop compatibility to shift the auto industry to use alternate fuel technologies, like Ethanol, as Brazil is using.

Information Technology

The inherent strength of Information Technology as an agent of change, transformation and growth of economies around the world, has made it a corner stone of the futuristic vision of countries to become dynamic, knowledge-based and highly developed competitive nations. The IT includes computer technology, communication technology and robotics. The IT industry is probably one of the most exciting and dynamic sectors in the country today with nearly all major global IT companies of the world have a presence in Pakistan. The need of the hour is to have quality IT faculty in universities to produce quality IT manpower, encourage development of the IT incubators and build world-class companies through mergers, acquisitions, joint ventures with foreign software houses, etc. The Internet City and Knowledge Village will be established to achieve critical mass of high technology companies.

Biotechnology

As agriculture is the vanguard of our economy, so it is required that this is developed as the core-competency, and for this, biotechnology can play the role of a catalyst. It can be used in the following areas:

- Medicine, food production and fertilizers
- Plants, animal health, vaccine production, bio-diagnostics, and pharmacogenomics
- Strengthening of the existing institutes working on biotechnology and introducing this programme in selected universities
- Developing biotechnology-based products, their testing at pilot scale and subsequent commercialisation

Engineering and manufacturing

The engineering products and services are the most tangible objects of development activity. The products are also the ones where the role of knowledge and technology is the most obvious. The existing industrial infrastructure has enormous potential of export earning, but is marred by multifarious problems of management, innovation, energy supplies, unfavourable local and international regulations, high interest rates, etc.

The engineering sector is an ensemble of various other sectors, which benefit from it, include agriculture, textiles, leather industries, materials, chemical process industry, engineering goods, electronics, energy, telecommunications, Information Technology, construction and housing, and transport. Hence, these will be the focus of research and education of engineering as well as the sector itself.

The government is committed to transform the manufacturing sector to support high-value innovative and export-led economy. The sector is heavily dependent on imported technologies, as largely based on imported raw materials and spares with insufficient operational practices and lack of quality control and R&D. Pakistan needs to invest in new technologies, and R&D, and also improve exports of this field. The manufacturing-related programmes will be introduced as subjects at university level.

Action plan

The objectives and strategy will be implemented by the HEC and universities.

Strategy	Action and programmes	Financial Impact
Access to higher education	• Universities in far-flung areas and sub-campuses in small cities are being established. • Women universities at Lahore, Rawalpindi, Peshawar, and sub campuses at Jhang and other districts • AIOU and Virtual University will enhance their reach to cover almost the whole country through distance learning.	Rs36.5 billion will be spent on ongoing and new universities, sub-campuses, enhancing distance learning and financial support to needy students.

Faculty development	• Indigenous and overseas scholarships programmes, Second phase of the Pak-US need-cum-merit based scholarships, US Fulbright scholarships, MS leading to PhD scholarships • Short training programmes to continue • Post-docs fellowships programme to continue • Hiring of faculty on regular contracts as well as for short-term and Tenure Track System to continue	Rs 42 billion have been allocated for the Plan period to cater for faculty development and HRD-related initiatives.
Research enhancement	• Chairs in foreign universities and local universities • Collaboration with universities in developed countries, SAARC and other regions • Student, faculty and scientists exchanges • Establishing 25 incubation centres and three S&T Parks • Revamping of curricula at all levels • Establishing QECs in all universities • Thematic research grants	More than Rs12 billion will be spent during the Plan period on such initiatives.
Focusing on thrust areas	• Establishing centres of excellence in relevant fields • Focusing on important initiatives, like launch of Pakistan Remote Sensing Satellite (PRSS), Establishment of National Electronic Complex (NECOP), centres of excellence in Energy, Food Security and water, Cluster Councils for local industries, Institutes of Nano-Technology, Wind/solar based research, S&T projects for MSTQ, etc. • Research grants to the faculty and students • Trainings in relevant fields • Enhancement of R&D output, like research papers, patents, pilot scale product development, commercialisation, and collaboration with industry • Revamping IPO, patent registration and other relevant areas • Establishing and strengthening of existing quality control labs, testing labs, standard organisations and accreditation bodies • Strengthening of regulatory framework in higher education, and science & technology	Rs35 billion will be spent in the Plan period on the relevant initiatives.

Institutional arraignments

The Planning Commission will coordinate and facilitate the implementation of knowledge economy. Its multi-sectoral membership, which includes representatives from other line departments, business and industry, and the academia, enable it to oversee the implementation of the Plan. The HEC, Ministry of Science & Technology, universities, R&D Organisations, private sector and Industry will be the other important players, which will directly or indirectly play an important role. The Planning Commission will forge partnerships and networking among different players through the creation of technical working groups to steer and oversee particular knowledge economy programmes and projects. It will act as the think tank and resource bank for the government, with forecasting through policy research units, which will be strengthened and augmented. Indicators will be prepared for monitoring implementation and progress of projects and facilitation mechanisms.

Parameters for measuring knowledge and technology-based development

Development indicators
• Rankings in the Global Competitiveness Index (GCI)
• Rankings in the Technological Index (TI)
• Percentage of total education and R&D expenditures to the GDP
• Value-added in high technology exports
• Technology's balance of payments
• Investment in high technology areas
• Number of science and technology parks and incubators
• Number of international accredited laboratories
• Number of R&D personnel per million population
• Number of PhD in science and engineering per million population
• Share of private sector in R&D expenditure
• Number of publications in the international science citations

Capital outlay

The total investment for the knowledge and technology-based development has been proposed as Rs136.6 billion (that is, Rs114.2 billion for the higher education and Rs22.5 billion for science and technology sectors). Major areas for investment are the higher education, HRD and R&D in cutting-edge technologies for promoting knowledge and technology-led development to provide the path of fast track economic growth. The programmes in these sectors will have to be prioritised, and the targets and goals of the Plan will be difficult to achieve with this level of investment. Detail allocations of the higher education, and science and technology sectors are given at Annexure-I.

The government will continue to intensify efforts towards innovation, R&D in key areas and knowledge-based development to meet the requirements of a knowledge-based economy. The private sector will need to keep pace with the technology advancements in the global world, and expand their capacity in the R&D to complement the efforts of the government.

The challenges lie in developing a competitive edge at the global level. This will be determined by our ability to create, acquire and use knowledge and technology-based development for socio-economic development. The HEC and Ministry of Science & Technology have to play a very important role in the transition towards a knowledge driven development. The acquisition of high technology and its use as a strategic tool as well as the immense transformative power of technology and innovation and the need of appropriate policy and plans for harnessing this power, which can improve all different aspects of the lives of people, and help Pakistan attain its development potential.

Annexure-I

Knowledge and technology-based development (Plan 2013-18)
(Financial outlay)

(Rs billion)

S. No.	Area/ Sector		Total allocation
A.	**Higher and professional education**		
	Human Resources Development		34.2
	Teaching and learning		11.4
	Research enhancement		10.2
	Infrastructure		29.7
	Access to information/equipment		17.6
	Office equipment and others		11.1
		Sub-Total (A)	**114.2**
B.	**Science & Technology**		
	Science and Technology Policy Research		0.5
	Science Talent Farming		0.7
	Technology Innovative Development Fund		2.4
	Academia-Industry-Government linkage		1.4
	Technology assessment & development organisation		1.0
	Biotechnology		1.4
	Food technology		1.0
	Leather goods		0.7
	Space sciences		1.2
	Material science and nano-technology		1.4
	Marine and water Research		1.4
	Electronics		1.4
	Automotive engineering		1.0
	Information Technology		1.0
	Energy and renewable Energy		4.8
	Engineering and Manufacturing		1.0
		Sub-total (B)	**22.5**
		Total	**136.6**

Chapter 26

INFORMATION AND COMMUNICATION TECHNOLOGIES

The paradigm shift from the industrial to knowledge-based societies, which began in the early 21st century, is transforming the overall fabric of the socio-economic framework. In this transformation, the Information and Communication Technologies (ICT) is playing the central and multi-dimensional role. It is now considered as an enabler of the societal change, a driver of economic growth and a facilitator in better governance.

This extraordinary capacity of the ICT to drive growth and innovation, enhance productivity, efficiency, transparency and facilitate good governance can be utilised in handling challenges encountered amidst global economic crisis. Hence, while it is basic to pursue strategies for overcoming short-term challenges, then there will be an approach to avail longer-term opportunities for achieving sustainable high-growth of economy. Living examples of countries having adopted Information Technology as the main driver of growth are known to us. Therefore, the ICT policies will be skilfully formulated and implemented with full zeal for actualising the future being aspired.

The ICT sector is now at the take-off stage and as such, it needs to be nurtured and encouraged to expand at a highly-accelerated pace in the next five years to become a real enabler and facilitator of development. The potential IT areas, which can increase growth, are identified as follows:

- IT industry, particular emphasis on software development
- Software and IT workforce export
- In-country employment opportunities
- E-governance for an effective service delivery
- M-governance and smart monitoring
- FDI for IT and Telecom hardware production
- Technology incubators and support for entrepreneurs
- Business promotion through e-commerce
- E-Learning and e-education
- Business Process Outsourcing (BPO)

Situational analysis

Led by the private sector, the IT sector has reasonably grown during the last decade. At a take-off stage, there is a tremendous potential in this sector to accelerate its contribution significantly to the national economy. Based on the Global Information Technology Report

(2014), the following is a synopsis of Pakistan's standing in the IT sector with a special focus on the issues and challenges hindering massive growth of this sector:

Education, creation of human capital and capacity for innovation

The dwindling quality of the education system is one of the major reasons for under-achievement in developing the IT sector. Pakistan's ranking for 'Quality of the Educational System' stands at 84, which is well below India (33) and China (54).One of the serious concerns is dismally low spending on education as compared to other regional countries. An efficient and focused educational system needs to be put in place for encouraging and promoting thinking, innovation and creativity among students by revising the curricula.

IT exports

Pakistan's IT exports are about $600 million, which is very low as compared to other countries such as India ($49.5 billion), China ($15.4 billion) and Malaysia ($2 billion) (*Source: UNCTAD Handbook of Statistics, 2014*). Pakistan can benefit from off-shoring and outsourcing industry as being done by the leading destinations. Furthermore, Pakistan's computer hardware industry requires more attention to make it a vibrant sub-sector of the overall IT industry. The Silicon Valley USA, Multimedia Corridor Malaysia and Internet City Dubai are examples of the leading IT industrial success stories, which will be replicated in Pakistan as well.

E-commerce and IT security

E-commerce is a key driver of the knowledge economy, whereas in Pakistan, e-commerce is still a long way to be seen at a recognisable level. In this regard, many issues will have to be addressed, which include: expansion in connectivity infrastructure, introduction of the Public Key Infrastructure (PKI), implementation of laws related to electronic transactions, data protection and cybercrimes; so that confidence is built for doing business using this medium. At present, Pakistan is ranked at 122 in the index of 'Laws relating to use of IT', whereas India is ranked at 54 and China at 52. To increase the use of e-commerce, applications and services need to be made available to the business community, especially the SME sector.

E-government

Emphasis on e-government continues since 2000 when an independent Ministry of Information Technology was established. The e-government needs to be steered towards the right direction. In this regard, various issues, like weak institutions for implementation, incomplete infrastructure, incomplete software projects, lack of beneficiary participation, non-observance of the codal formalities and lack of retention of IT professionals due to uncertainty, lucrative salaries in the private sector and absence of the career path, etc., have to be addressed in true spirit. A citizen-centric e-government initiative can act as a catalyst for improving perception of the citizens about better governance.

Promotion of Urdu language in IT

As long as the masses do not use technology, benefits of the IT revolution will remain elusive. For this, it is perceived that unless computing is not in the language they understand, it would not happen. A simple barometer of the pervasiveness of using IT in daily life can be gauged from the internet usage. Pakistan, ranked at 124, still has a very low level of internet usage as compared to Singapore (29), Korea (15) and Finland (7). Availability of software in Urdu, conversion of the electronic knowledge sources from other languages to Urdu and research and development activities are some of the areas where huge potential exists, and appropriate investments will be made for this.

IT industry – software exports and BPO, IT-enabled services

In order to increase competitiveness of the IT Industry in the international market, the Pakistan Software Export Board (PSEB) initiated programmes for the Pakistani companies to improve software processes by adopting ISO 9000 standards, Capability Maturity Model (CMM), ISO27001, COPC, etc. As a result, companies which achieved the CMMI certification are two CMMI Level-5, four CMMI Level-3 and eighteen CMMI Level-2. Also, 110 companies got ISO-9000 certified, while 11 got ISO 27001.

Quality of IT education and human resource development

In the human resource development area, programmes were initiated to expand the base of qualitative human resource for the IT industry. Also, programmes for short-term trainings were introduced to create greater awareness and use of computer technology. Under the programme to equip public sector schools with computer labs and computer science teachers, 1098 secondary and high schools and inter-colleges were equipped with 17,500 Personal Computers (PCs) for the benefit of about 44,000 students of matriculation and intermediate. The National ICT Scholarship Programme provided opportunity to about 7,300 students from non-metropolitan areas to get foundation training and scholarships to about 3500 students for 4-year bachelor's degree IT or Computer Science programme in various universities country-wide.

E-governance

The e-governance gained importance in the last five years. Some of the major initiatives undertaken during this period were: Machine Readable Passport, Machine Readable Visa Project, Government of Pakistan Web Portal for facilitating citizens to access public services through the internet, Development and Replication of e-Office (Basic Common Applications) in the federal government to enable government to have computer-based workflow for common functions, which include: electronic file movement (less paper office), finance and budgeting, human resource management, procurement, inventory and project management. All modules of e-office software have been tested, and are being implemented.

An important initiative, which directly benefits citizens, is the Land Revenue Records Management System for the Punjab, and is aimed at having efficient management of land records, and the people to access records at an affordable cost. Also, the Telemedicine Centres were established at each of the three major hospitals, which served four rural healthcare centres (total 12 in Attock, Khushab, Pindi Gheb, DG Khan, Gujrat, Sahiwal, Rajanpur, Jhang, Shikarpur, Gambat, Mirpurkhas, Jacobabad) to provide quality healthcare at the doorstep of people living in the rural areas. Also, the Health Management Information System was implemented at the Children Hospital of the Pakistan Institute of Medical Sciences (PIMS), Jinnah Post-Graduate Medical Centre Karachi and Sheikh Zayed Medical Complex, Lahore.

Issues and challenges

The following are the problematic areas:

Issue 1: Dearth of trained human resource having marketable skills and capacity to innovate

Constraints

- Producing low-value human resource by the university education system (Only about 10-15 per cent universities produce quality graduates)
- Lack of specialised training and quality vocational institutes (centres of excellence) to produce skilled personnel compliant to regional and international standards
- Lack of access to computing and internet facilities at schools
- Weak linkages between domestic Industry, research and academia resulting in absence of the research ecosystem within the country
- Low priority for an effective utilisation of the National ICT R&D Fund and Universal Services Fund (USF)

Issue 2: Low volume of IT exports

Constraints

- Few CMMI level 5, 3, 2, ISO 27001 certified software companies
- Small-sized and dispersed software companies with little overseas presence
- Lack of institutional expert guidance for young entrepreneurs, that is, very few IT incubators and also limited-structured mentoring opportunities for innovators and start-ups
- Lack of access to venture capital, angel funding and crowd-funding

Issue 3: E-government initiative still in the preliminary stage with very little emphasis on e-services

Constraints

- Weak e-governance implementation institutions require restructuring and strengthening
- Lack of incentives framework for retention of the IT professionals in the public sector
- Financial constraints for completion of the basic IT infrastructure projects
- Low priority being given to implementation of the public sector e-services due to insufficient back-office automation
- Lack of legal framework for the e-governance to sustain its implementation in the long-run
- Absence of standards for procurement of hardware and software in the public sector

Issue 4: Very small usage of IT in the domestic trading and commerce

Constraints

- Non-existence of E-Payment Gateways for free and open e-trading

- No PKI available for mass level e-trading activity
- Cyber-laws not complying to the internationally accepted standards for electronic financial transactions; thus hindering mass adoption of the e-commerce
- Lack of applications and web-based content in local and regional languages for facilitating understanding and boosting productivity

Issue 5: Negligible computer hardware manufacturing industry

Constraint

- Infeasible business proposition for manufacturing computer hardware components and telecom equipment

Strategy

The ICT is a very attractive sector for young entrepreneurs. However, they are required to be groomed for producing high-value innovative products and services. This sector is an enabler and facilitator in improving productivity and efficiency in all development sectors of the economy. The ICT education and training can work as a catalyst by providing highly-paid jobs employment to the youth, which will help in alleviating poverty and improving socio-economic conditions of individuals as well as communities. The ICT is a field, which rewards creativity and innovation with very little investment. This strength will be used for realising high growth of the economy by getting even a small share out of large international market of $4 trillion. In accordance with the Vision to increase the ICT industry size to $20 billion by 2025, it is planned to have an $8 billion ICT industry by 2018. For leveraging the ICT to transform the socio-economic environment and create enabling environment for knowledge economy, the following steps will be taken:

- Provide access to universal education, learning and knowledge sources with special focus on quality ICT education
- Move forward from being a 'follower' to 'leader'
- Policy shift from the government-centred to the private sector-centred policy
- Focus on quantitative expansion and qualitative improvement
- Creating demand for the local ICT products and services
- Formation of an IT cadre for sustainable public sector services
- Implementation of the cyber laws for improving trust and security of the e-transactions

Action plan

The following steps will be ensured.

- Creation of entrepreneurial eco-system to promote tech-entrepreneurship and exploiting the existing academic and TVET system for the purpose
- Establishing an IPR framework to encourage investment and innovation
- Focusing on the software exports and outsourcing

- Encouraging domestic use of indigenous software products and IT-enabled Services (ITeS), and expansion of broadband and web-hosting infrastructure within the country
- Strengthen software industry by encouraging internationally recognisable brands of the Pakistani software products and arranging discounted advance arrangements with media for small and skilled software companies
- Provide incentives for achieving CMM Level 5,3,2, ISO certifications 9001, 27001, and Certification Program for Individuals (PMP, PRINCE2, etc.) and other soft skills
- Establish internet city and knowledge village to achieve critical mass of high technology companies under the PPP
- Encourage establishment of software development companies in smaller cities (other than Karachi, Lahore and Islamabad)
- Encourage local companies to produce international standard software for local and domestic market
- Promote use of Urdu and other local languages by encouraging availability of the IT content and applications in Urdu to help increase adoption of technology among the masses; collaborating with the software market leaders for making their software products available in Urdu and regional languages; conducting R&D for availability of content in local languages, and development of the e-services and software applications in Urdu and other local languages in collaboration with the private sector
- Ensure implementation of laws related to electronic communication and transactions, acceptance of the electronic documents and signatures, and privacy of information
- Attract foreign investment and transfer of technology for the manufacturing of the IT equipment and components; pioneer MNCs in the IT, network, mobile and security devices equipment manufacturing sector to be offered investment insurance and guarantees to cover security risks and carry out study on investment insurance for the MNC investments (linked to company performance) in Islamabad, Lahore and Karachi
- Encourage mergers, acquisitions, joint ventures with foreign software houses to build world-class companies and provide interest free financing for such deals
- To encourage e-business and proliferation of e-services, a legal framework to be developed for creating a trusted and secure communication environment
- Encourage growth of the Certification Authorities (CAs), establishment of e-commerce payment gateways, and deployment of the Pakistan Internet Exchange
- All procurement by the government and its attached bodies to be done through e-procurement
- Provide incentives for international best practices in information security such as the Computer Emergency Response Team
- Setting up regulatory and accreditation bodies to ensure quality IT education at all levels of educational and vocational institutes
- Enhancing quality of IT-related human resources by introducing domestic as well as international certifications such as PMP, OCP, MCP, etc.

- Upgrade teaching and IT skills of teachers and trainers of the primary and secondary education, and develop and introduce specialised courses in colleges in line with the ITeS and BPO industry needs
- Establish centres of excellence – also to act as regulatory bodies – for enhancing training and skills of the IT professionals to design curriculum as per requirement of the software industry and international standards
- Introduce compulsory courses for all public sector employees, including the armed forces, and making it mandatory for induction into service
- Provide scholarships and grants for education and vocational training in niche areas and skills, new and emerging software technologies, research, participation in conferences and workshops, technical certifications
- Provide scholarships to brilliant students of the under-served areas
- Launch of an e-services programme in collaboration with the private sector to improve public service delivery
- Online access points (tele centres) to be established at public places for an easy access to the internet and services at affordable cost, and incentives be given for extension of infrastructure for provision of the internet to the rural areas
- Establish a single focal point for all IT initiatives and enforcing standards for having seamless interoperability among all departments of the government
- An IT cadre to be created for attracting competent IT professionals in the public sector

Strategic areas

The following strategic areas will be under focus during the Plan period.

Important initiatives	
Education Integrated Educational Boards Network Smart School Management System Access to e-Content and e-Learning Initiative Integrated College and University Admission System (Smart Apps for students)	**Health** Hospital Management Information System at government hospitals Medicine Inventory System for all health facilities (up to the BHU level) Establishment of tele-medicine clusters Smart system for disease surveillance and tracking
Judiciary Witness biometrics at courts Court Cases System Automation of courts at the district level	**Security** Smart Traffic Control System Smart Applications for Public Transport Monitoring and Checking Prison Management System E-Policing System Provincial Dashboard for Crime Investigation and Reporting
Agriculture Digitalisation of Masavi and computerisation of the land records Agricultural Information Services Network Smart Applications for Agriculture (Pest Control, Crop Reporting, Weather Forecasting, Soil	**Governance** Public Sector Centralised HRMIS Provincial Grievance Redressal System Local Government level Service Request System National Digital Repository of GIS and GPS Emergency and Disaster Reporting System

Conditions, Commodity Prices, Livestock, etc.) National Digital Dashboard for Improved Water Courses	Infrastructure for G-Cloud and Big Data
Internet Data Centres Establish 3 enterprise-level, 6 mid-level and 12 small-level Internet Data Centres through the public and private arrangement in cities where these do not exist Academic Institutions Connectivity Programme to provide high speed fibre or satellite connectivity among universities and other educational institutions by establishing 15 large, 50 mid-sized and 12 small data centres for universities, colleges and schools	**Internet Traffic Exchange Points (IXPs)** At least three international level IXP's in Pakistan where all the carriers interconnect to allow for seamless and smooth flow and delivery of the Internet Traffic (IP Traffic) National Broadband Satellite Communication System

Financial outlay

In order to launch and actualise various initiatives and programmes, Rs63 billion are required for the entire Plan period. However, major portion will be invested by the private sector. This has been summarised below.

Summary of the financial outlay

S.No.	Sub-sectors/areas	Estimated cost (Rs Million)
1	Software exports, STP,BPO/ITeS, e-business, IT security, hardware	13,496
2	High-value IT human capital and skills development	14,294
3	E-governance	9,894
4	Provincial programmes for the LRMIS	7,207
5	Localisation programme	721
6	Broadband and domestic infrastructure	4,952
7	Internet data centres	3,803
8	International bandwidth and alternate connectivity	7,013
9	Secure communication and other telecom programmes	1,623
	Grand total	**63,002**

Chapter 27

TRANSPORT AND LOGISTICS

The Plan proposes a thematic change to the traditional definition of the ‘transport and logistics sector’. Firstly, it will not be just confined to physical infrastructure such as rails, roads and transport, sea trade and related freight, but will also include services such as packaging, delivery, storage and trade logistics. Secondly, factors like high freight, insurance, longer delivery times and renewal costs, will be considered as important additional costs, which require careful review. Thirdly, the aggregate transport and logistics costs—including opportunity cost, service standards and trade facilitation—ultimately determine the efficiency of the transport and logistics Sector, and also represent the cost of doing business in Pakistan. Hence, these will be featured prominently in reform efforts, and a comprehensive but effective plan is being developed for the sector. This will help make the country more competitive economically, which is the central theme of the Five Year Plan.

Sustainable economic development of Pakistan is dependent on a robust and low-cost transport and logistics sector. Enhanced export competitiveness also depends on the efficient performance of the sector. Despite economic slowdown, the sector has maintained positive growth trends. Signs of the economic recovery are already visible and the GDP growth rate is likely to rise further during the Plan period. In line with the country’s expanding economic activity, the current levels of inland traffic by road and rail – estimated at 433 billion passengers-kilometre (BP-km) and 269 billion tonnes-km (BT-km) respectively– is likely to increase to 614 BP-km and 381 BT-km by 2018 (Annexure-A). At present, the sector provides approximately three million jobs, and these are expected to increase to about 3.6 million during the Plan period.

The government is aware of the vital role of the sector in the overall economic development and in improving the competitiveness in exports. It is, therefore, committed to implement a comprehensive development initiative for modernising the sector through a continuous process of reform supported by focused investments in all of its sub-sectors. The sector claims 25 to 30 per cent share of the annual Public Sector Development Programme (PSDP), but this level of investment is not enough to meet the growing needs. Approximately two to three times more investment is required to enable the sector to perform in harmony with the needs arising from the expansion of economic activities. Concerted efforts will, therefore, be made to promote the public private partnerships for leveraging higher investments from the private sector.

Major issues

Diverse in composition, the transport and logistics sector comprises railways, roads, ports and shipping, aviation and logistics services. Roads and road transport dominate the mix and carry 93per cent of all passengers and 94 per cent of the freight traffic. The Pakistan Railways, once much cheaper and effective, has lost its competitiveness to road transport, and now handle only six per cent of the freight traffic. This modal imbalance is not only over-burdening road systems, causing congestion, creating pollution and damaging roads, but also contributes towards high cost of transportation due to imported fuel. It is estimated that 35 per cent of fuel is consumed by the transport sector. The declining freight business, coupled with subsidised passenger traffic, has adversely affected financial health of the railways. Consequently, it is perpetually running at a loss.

The bulk of imports and exports (95 per cent) are handled through Karachi and Qasim ports, while the former handles three-quarters of the total volume. Because of the limited infrastructure development, these ports are congested and lack capacity to handle the ever-growing port traffic. Though ship handling charges have declined recently, but still there is a need for an efficient infrastructure to keep them sustainable.

Pakistan has a total of 46 airports, including 10 international, to conduct commercial operations. Out of these, 42 are owned and operated by the Pakistan Civil Aviation Authority (CAA). At present, 13 are being used for both international and domestic operations; 11 are for domestic operations and the remaining 22 have been either scaled or closed down for operations due to various reasons. Out of the four private airports, one, situated in Sialkot, is being used for international and domestic operations, while the rest three are only for chartered aircraft operations.

The Pakistan International Airline (PIA) carries most of the passenger and freight traffic (87 per cent), whereas two private airlines handle the remaining traffic. Although the economy has been expanding, the passenger and freight traffic by air has registered only a nominal increase. High freight charges, coupled with inadequate cargo facilities at airports, have aggravated the situation. Procedures of the Customs are considered to be cumbersome despite introduction of some reforms. The local logistics industry is under-developed and does not provide integrated logistics services, and the gap is being filled by a few international companies.

The country has an elaborate canal system, which was primarily based on five rivers, but inland water transport is almost non-existent. A concerted effort will be made during the Plan period to explore inland waterways for transport and logistics.

While the cost of transport and logistics services is decreasing worldwide due to global competition, these are generally higher in Pakistan as compared to the region because of the numerous inadequacies (discussed above). Consequently, high transport costs are badly affecting the export competitiveness of the country, and resultantly it also has a negative impact on investment for the export-oriented industries. Since the private sector participation is limited to some sub-sectors only, the transport and logistics sector puts significant pressure on the public sector funds. In the PSDP, there are a large number of schemes with specified allocations, leading to a throw-forward, which slows down the pace of implementation.

Plan

Objectives

Firstly, development of the infrastructure projects through the private sector on the Build Own Operate (BOO) and Build Operate Transfer (BOT) bases is to be worked out. In addition to the PSDP, infrastructure building and financing institutions will be encouraged through the public-private partnerships to expedite infrastructure development.

The establishment of the Bureau of Infrastructure Development (BID) has been proposed, which will coordinate and oversee the programme for the private sector participation in infrastructure development. The BID will be a single window for the development of infrastructure projects, which will provide a mechanism for mobilising commercial equity and debt financing. An important objective of the BID will be to improve transport and communication by constructing national trade corridors and provide mass transit facilities in all major cities.

For meeting goals of the sustainable economic growth and global export competitiveness under the government's new initiative Economic Trade Corridor Programme (ETCP), the objectives of the transport and logistics sector are to:

- develop an integrated inter-modal transport and logistics sector that efficiently meets requirements of the growing population and expanding economic activities
- modernise management to ensure harmony and coordination among different transport systems, that is, ports, railways, highways, inland waterways, and airways, and reduce costs to the economy
- make a sustained effort to achieve world class transport infrastructure and logistic services to facilitate domestic and international trade through the private sector participation, and
- support research and development for its sustainable progress.

Strategies

China-Pakistan Economic Corridor

Recognising importance of transport for the economy, besides making large investments to improve road, rail, air and port infrastructure, the government has planned to support trade and logistics services through development of the Economic-Trade Corridor (ETC) to connect Gwadar with

China-Pakistan Economic Corridor (CPEC)

A composite transport system of ports, rail, road and airways – aligned between Karachi and Peshawar along which bulk of local and foreign trade of the country moves– is known as the Economic Trade Corridor. To achieve a coherent performance of the system in support of the economic stabilisation, sustained growth and global competitiveness, a reform initiative supported by investments, especially through the Chinese government and other international funding agencies, has been launched by the government of Pakistan, called the China-Pakistan Economic Corridor (CPEC). The initiative aims to:

- provide connectivity through Khunjrab up to Kashgar with a link to China and other Central Asian countries
- modernise transport infrastructure and streamline policies, procedures and practices to promote international trade
- improve port handling capacities, reduce charges and reforming port management
- bring delivery of the rail services at par with international standards and privatisation of commercial operations of the Pakistan Railways
- modernise the trucking industry and reduce the cost of transportation, highway damages and environmental pollution
- develop a sustainable, efficient, safe and reliable system of highways and motorways
- ensure safe, secure, economical and efficient operations of the civil aviation
- enhance export of perishables through a modern cold chain system through public-private partnership arrangement
- develop economic zones along the proposed corridors to support industrialisation and business development
- establish inland water transport in canals and rivers in phases
- develop and strengthen institutional capacity-building and sector efficiency

Khunjrab up to Kashgar, and developing further east and west links besides establishing economic trade centres and zones at potential locations.

The Plan will also stress on the improvement of trade and logistics services, bringing these to international standards through the world-class ETC. This initiative is a flagship programme, aiming at development of both physical and supporting institutional infrastructure of the transport and logistics sector.

The development work along with the ETC will be implemented through the China-Pak Economic Corridor Support Project (CPECSP). The investment will of China and its financial institutions in addition to Pakistan's own resources.

The framework of the reforms takes an integrated approach to reduce the cost of doing business in Pakistan by improving the trade and transport logistics chain and bringing it at par with the key international standards. Several studies will be undertaken in various sub-sectors, examining how to carry out reforms and make these more competitive.

During a visit of the President of China to Pakistan in April 2015, both countries have signed financial agreements worth $46 billion under the CPEC. Out of this, agreements worth $28 billion are to immediately kick-start early harvest projects, which are expected to be completed by the end of 2018. Projects worth $17 billion, which are in the pipeline, will follow as soon as required studies, processes and formalities are completed. The ground-breaking and signing of the financial agreements has demonstrated that there is a strong will on both sides to implement the CPEC as early as possible to help Pakistan meet its energy needs through the Chinese investment in the Independent Power Projects(IPPs). Beijing will inject about $33.8 billion into energy projects and $11.8 billion into infrastructure schemes. Beijing considers the CPEC as an opportunity to expand its trade and transport links and boost economic influence across the Central and South Asia. The major chunk of $33.8 billion is the Chinese investment in the IPPs, whereas $11.8 billion will be the Chinese concessional loans for infrastructure development like roads, ports and railways, etc.

Under the infrastructure development, financing agreements include: construction of the Karachi-Lahore Motorway (KLM) Multan-Sukkur section costing about $2.6 billion, Karakoram Highway (KKH) Phase-II, Thakot-Havelian section ($920 million), Gwadar East-Bay Expressway ($140 million), Gwadar International Airport ($230 million), expansion and reconstruction of the existing main railway line (ML-1) from Peshawar to Karachi, including construction of a dry port at Havelian and $1.63 billion for the Orange Line Metro Train Lahore.

Another component of the CPEC is development of the Gwadar Port, which has already been given to the Chinese with operational control for 40 years. The Chinese government will construct a container handling facility, a major highway and an international airport. Control over Gwadar brings China closer to Europe and Africa. The cost of shipping from the Western Europe to China is almost double the cost of shipping from Pakistan.

The Chinese people and government will also benefit from it immensely. The project creates an easy outlet for the western region of China to the Gwadar seaport; thus bringing China close to the Middle East. A ship takes just one day from Dubai to reach Gwadar, whereas it can take about two weeks to reach Shanghai. It also cuts costs hugely as the per container cost from the United Arab Emirates to Pakistan is about $250, while the same for China could be up to $1500.

Once completed, the distance of goods transported from Urumqi (Xinjiang) to Dubai via the Gwadar Port will be 5,772 kms, with reduction in distance by 11,061 km compared with the old route via Shanghai. And the distance from Urumqi to London will be cut by 10,884 kms. This will make Gwadar a primary gateway for trade between China, and Middle East and Europe as well as making Xinjiang a transit hub for China.

To provide intellectual leadership and overall policy guidance on the CPEC, a Project Management Unit (PMU) has been set up in the Planning Commission and functional units in the PM office and line ministries. The CECP PMU will take on-board all relevant ministries and organisations, including Ports and Shipping, Railways, Communications, IT and Telecom, Board of Investment, Information Broadcasting and National Heritage, Economic Affairs Division, Petroleum and Natural Resources, Federal Board of Revenue, National Highway Authority, CAA, international development partners and the private sector to work together in achieving the desired objectives.

Sub-sector strategies and programmes

Ports and shipping

Issues

Two main ports of the country, that is, Karachi and Qasim handle 95 per cent of the national imports and exports. The Gwadar Deep Water Port is the third port of the country which has recently started operations. The traffic at these ports has been growing at an annual rate of over eight per cent. By type, it is dry bulk cargo which is expanding at a much higher rate 12 per cent per year as compared to containerised traffic and general cargo. With increasing traffic and inadequate cargo handling capacity, the ports are becoming congested; the dwell time for containers is still on the higher side. The pace of work on infrastructure improvements, including access channel conditions, design depths at berths and better equipment, is slow and the ports are becoming increasingly unsuitable for receiving larger carriers.

While the nature of traffic has changed to containerised cargo, the ports tariffs have not been fully restructured. The tariffs are high for container cargo and relatively low for bulk and general cargo. Physical improvements at the ports, being carried out to meet the requirements of increasing containerised traffic, are generally inadequate. Dedicated container terminals have only recently been created at the ports. The major container terminals are: Pakistan International Container Terminal (PICT), Qasim International Container Terminal (QICT) and Karachi International Container Terminal (KICT). However, in spite of these steps, the dearth of container berths at ports still persists. Ports are becoming commercial in management, but at a slow pace. The Port Qasim has been operating as a landlord port, but the Karachi Port Trust (KPT) is yet to make significant progress in this direction.

The shipping industry in Pakistan has not flourished. The fleet of vessels is now reduced to nine. Almost the entire trade of the country is dependent on foreign ships. The recent changes brought in the regulatory framework for shipping, that is, better aligning it to international practices have not significantly improved the prevalent situation. Due to financial constraints, it has not been able to take any major initiative to acquire vessels to capture dry cargo and containerised trade.

Strategy

Making ports attractive: The sector strategy will aim at maximising the support of the ports to external trade by reducing ports and ship handling charges, and developing port facilities that allow all types of ships to call at the country's ports. The investment will focus on the improvement of physical infrastructure at three ports, improvement of shipbuilding and repair facilities, procurement of additional ships by the Pakistan National Shipping Corporation (PNSC) and the private sector, while the latter will also be encouraged for investment.

Reforms and programmes

The reforms and programmes proposed in the port sector, to be implemented during the Plan are: i) continuation of landlord port strategy, ii) corporatisation of ports, iii) preparation of ports business Plans and their implementation, iv) preparation of ports master plan; v) full application of paperless transactions for ports and customs procedures, vi) complete outsourcing of the port services, vii) contracting out dredging and using performance-based contracts for capital and maintenance works; viii) resolving draught issues to accommodate larger ships, and ix) setting up a Maritime Task Force in the Ministry of Ports and Shipping – comprising highly technical in nature, a think tank of maritime professionals – and x) promoting public-private partnerships.

The proposed reforms envisioned under the Plan will comprehensively tackle the impediments, which have stalled progress of the shipping sector. These reforms include: i) improvement in legislation by incorporating modifications in the existing Merchant Shipping Ordinance 2001, ii) finalising recommendations to revamp port facilities, iii) procurement of ships by the private sector and reduced dependence on foreign ships, iv) deepening of the navigational channels at all ports as per requirement, v) development of the private terminals, ship building, ship repair, container manufacture and repair, etc. vi) initiation of pilot project for inland waterways, vii) revamping of the Karachi Shipyard and Engineering Works (KSEW), viii) facilitation of direct foreign investment, public-private partnerships and commercial financing, and ix) tapping of network resources in Pakistan's maritime exclusive economic zone. With the implementation of these reforms during the Plan period, it is expected that country's shipping sector will substantially improve.

The following programmes have been envisaged for the sector.

- **Karachi Port Trust:** Major projects planned are: i) construction of Pakistan Deep Water Container Port east of Kemari Groyne, ii) construction of port bridge-cum-Karachi Harbour Crossing, iii) construction of a cargo village in the Western Back Waters and deepening of the navigation channels, and iv) reconstruction of old jetties and facilities and procurement of additional floating craft.
- **Port Qasim Authority:** Major projects planned and being executed are**:** i) second container terminal, ii) grain fertilizer terminal, iii) coal, clinker and cement terminal, iv) LNG terminal on the BOT basis, private sector projects, and vi) deepening and widening of the navigation channels and night navigation, to be undertaken on self-financing basis, and vii) Capital dredging to increase channel depth to accommodate large ships.
- **Gwadar Port Authority:** Major projects envisaged are: i) construction of the main port access road, namely East Bay Expressway, ii) Mullaband land for development of port facilities and other allied paraphernalia. In addition, the GPA plans upgradation and paving backup areas, further equips multipurpose berths with modern craft and

equipment, development of the free zone for warehousing and other port facilities, and construction of additional container terminals.

- **Shipping:** Programmes to be given priority are: expansion of the PNSC's shipping fleet, and promotion of the private ships operating under Pakistan's flag.

Trade facilitation and logistic service

Issues

A number of steps have been taken by the government to reduce long and cumbersome customs clearance procedures. These include procedural obstacles, for example, 'up to 36 signatures and 62 controlled steps required for clearance and 100 per cent physical inspection of containers. Some improvements have been witnessed in trade facilitation targets, which are: i) port dwell time reduced from 11 days to six days, ii) customs clearance time at the KICT reduced from four days to less than one day for exports and one to two days for imports, iii) ports storage period reduced from nine days to five days, and iv) adoption of the National Trade Facilitation Strategy 2008. However, these reforms are not enough and the country is still far away from meeting the regional averages. The local freight-forwarding industry is predominantly undeveloped. It is not capable of providing integrated and value-added services, which are features of any advanced and modern logistics industry. These services include: tracking and tracing, cross-docking, vendor managed inventory, global door-to-door delivery, etc. Integrated logistics services are being provided by a few international chains, which have opened local branches in the country.

Strategy

Development of modern and efficient trade facilitation and logistics services: The focus of the proposed plan will be to facilitate efficient distribution of production to the domestic and international markets. This will be achieved by streamlining and modernising procedures, practices and policies relating to the transport and logistics sector. Development of logistic hubs in the private sector, integrated into the existing industrial estates, industrial parks, export processing zones and others, will be carried out on pilot basis in all the provinces.

Reforms and programmes

Two major reforms have been partially accomplished to set in motion a process of improvements in trade facilitation, namely: i) preparation of the Trade Facilitation Strategy, and ii) development of the Pakistan Automated Custom Systems. During the Plan period, these reforms will be further spread across the country at ports, dry ports and border terminals. Additionally, the implementation of the following reforms will further improve the existing standards, which include: i) development and finalisation of a trade facilitation strategy, ii) implementation of important international treaties and conventions, particularly accession to the International Road Transit (IRT), iii) upcountry licensing and registration of freight forwarders, iv) adoption of transparent pricing and reduced private sector port charges, vi) implementation of a Pakistan electronic trading platform, vii) streamlined role of the commercial banks in trade facilitation, viii) establishment of a modern multi-agency transit station at Jamrood, x) development of border terminals at Taftan, Chaman, Khokhrapar and Wagha for composite facilities, xi)establishment of a training institute for freight forwarders, and xii) development of logistic hubs overlaid to important industrial estates across the country.

The Pakistan Customs is in the process of developing an integrated web-based and paperless arrangement 'Web-based one customs system'. It will be tested first at Karachi, and subsequently rolled out to all other stations in the country. The system will be operated in the public sector, and will provide one-stop shop for all commercial, industrial and other transactional requirements of various stakeholders. The end-users will include importers, exporters, regulatory authorities, tax collectors, logistics service providers, carriers, terminal operators and banks, etc. The system is expected to significantly reduce the custom clearance time from two days (current) to a few hours, and add efficiency to facilitate trade immensely.

Cold chain system

Issues

In Pakistan, the post-harvest losses of the perishable goods, that is, fruits, vegetables, meat and dairy products, are estimated to be very high (about 35 per cent). One important reason is the absence of appropriate transport logistics, comprising pack houses, cold storage facilities, reefer containers and reefer yards for marketing perishable goods produced domestically and internationally.

Strategy, reforms and programmes

Development of a well-integrated Cold Chain System (CCS) will be an important logistics service, which will be developed to enhance export volume of the perishable goods. The Pakistan Horticulture Development and Export Corporation (PHDEC) has been assigned the task of developing CCS infrastructure using public-private partnership modalities, so as to realise the enormous potential of the horticulture sector in the international market. A comprehensive feasibility study has been planned to launch a chain of initiatives, such as pack houses, cold storages, reefer containers, reefer yards and testing labs in the country. Similar arrangements are also underway for dairy, meat and fisheries products by the Livestock and Dairy Development Board (LDDB). The private sector will be responsible for creating assets through dedicated businesses and delivery of services. The public sector will create an enabling environment through supportive policies and regulations.

Roads and bridges

Issues

The national road network (national and provincial roads) comprises 260,000 kilometres of roads, of which 68.4 per cent is of high-type. Network expansion has been rather modest, which is at a rate of about 2,211 kms per year (1996-2009). The focus had been on consolidation of the existing network and upgradation of low-type roads to high-type. The road spread, which facilitates economic activity in many ways, is rather low, that is, at 0.33 km of road length per sq. km of land area. It is relatively high in the Punjab (0.51) and Sindh (0.57), but low in Balochistan (0.12) and Khyber Pakhtunkhwa (0.30). In the neighbouring countries, the road spread ranges from 2.1 km/km^2 in Bangladesh and 1.1 km/ km^2 in India. In order to upgrade the road density to 0.50 km/km^2, it is estimated that approximately 138,000 kms road length (based on surface area of 796,096 sq. km) will have to be added to the network, which appears unattainable through the public sector investment alone; hence concerted efforts will be required to leverage the private sector funding to achieve the target.

The National Highway Authority (NHA) looks after the construction and maintenance of the national highways system linking the centres of population and economic activity to ports and neighbouring countries. The highways system extends over 12,000 kms, which caters to 80 per cent of the inter-provincial passenger and freight traffic in the country. The remaining road network is maintained by the provincial and local governments. For development works, the NHA receives funds through the federal PSDP – on average about Rs50 billion to Rs60 billion annually – which are often short of their annual requirements. Maintenance costs are primarily met through toll receipts, which are often low (Rs17 billion per year) as compared to annual requirements (Rs27 billion per year).

Strategy

Achieving faster and reliable national highways: During the Plan period, efforts will be made to improve the country's export competitiveness and promote regional trade by developing highway infrastructure, which is capable of providing faster and more reliable transportation facility for passengers and freight.

Reforms and programmes

The national highways will be under focus since being an important component of the CPEC. For this, major reforms are: i) preparation of the NHA business plan, ii) establishment of performance monitoring indicators and benchmarks, iii) implementation plan for limited access motorways, iv) integration to optimise multi-modal transportation plans, v) integration with all intercity feeder systems of the network including local road network, vi) termination of interventions and check-posts on the highways, vii) conversion of the NHA's existing debts into equity and restructuring of the future financing, viii) recruitment of professionals on market-based packages, ix) reduction in fatal accidents through preventive measures and strict enforcement of rules, x) reduction in travel time by 50 per cent, ix) reduction in transport costs by 10 per cent, xi) enhanced toll receipts, and xi) focus on Research and Development (R&D) to design most economical roads pavements according to the soil and climate.

The on-going projects to be completed and new projects to be initiated during the Plan period are at Annexure-C.

In addition to the PSDP, projects will also be undertaken using public-private partnership modalities. These include: i) Tarnol Interchange at Rawalpindi, ii) Rawalpindi Bypass Expressway, iii) Shahdarah Flyover, iv) Multan–Muzaffargarh–DG Khan Section of N-70 with VGF 30 per cent, v) provision of overlay on the entire length of Islamabad–Lahore Motorway M-2, and vii) conversion of 4-lane Pindi Bhattian–Faisalabad Motorway (M-3) into a 6-lane Motorway.

Under the provincial programme, besides construction of new roads, 9,610 kms of the existing roads will be rehabilitated and improved. This includes: 3,500 kms in the Punjab, 750 kms in Sindh, 4,260 kms in Khyber Pakhtunkhwa and 1,100 kms in Balochistan besides allied facilities.

In the Special Areas, 630 kms of new roads will be constructed and 1,410 kms of the existing roads will be improved and rehabilitated. This includes: construction of 480 kms in the AJ&K and 150 kms of new roads in Gilgit-Baltistan and improvement and rehabilitation of 1,200 kms in the AJ&K and 210 kms of the existing roads in G-B besides allied facilities.

Trucking industry

Issues

The expanding economy requires a fast and reliable road freight industry, something which the country's trucking industry in its current state cannot provide. The trucks manufactured locally are open-type, have small capacity and under-powered. These trucks are not compatible with containerised traffic arriving at the ports. The containers have to be unpacked and cargo stuffed into open trucks, which lead to wastages and delays. It is important to replace these old models with large-capacity international standard trucks.

Due to high competition within the local market, tariffs are low. To enhance their revenue, transporters resort to overloading, which causes damage to roads, reduces speed and leads to frequent vehicle breakdowns. The delivery of freight becomes uncertain and is usually delayed. In 2005, a survey revealed that there were 35 check points maintained by various organisations and agencies on N-5 between Karachi and Lahore, which are also a source of interruptions and delays in the smooth flow of the vehicular traffic.

Strategy, reforms and programmes

Modernising trucking industry: The principal objective will be to reduce the external cost of the existing trucking sector to the economy and business by modernising the trucking industry and organising it to offer integrated road transport and logistics services of the international standards.

The principal reform initiated in the sub-sector has been the preparation and approval of the Trucking Policy 2008. The implementation of some reforms is already underway through the sponsors, that is, Ministry of Industry. These reforms are in conformity with the Trucking Policy, and their implementation will continue during the Plan period. These reforms include: i) establishment of performance monitoring indicators and benchmarks, ii) reduction in overloading of trucks to 15 per cent or less (currently at 43 per cent), iv) 25 per cent of the truck fleet to be modernised (currently less than 5per cent), v) diesel with lower sulphur contents to be made available in the market to enable usage of the Euro-specs Turbo Diesel engines, vi) provision of the trucking facilities along the national highways, vii) further rationalisation of truck import tariffs to increase availability of prime-mover trailer combination in long-haul freight by 50 per cent, viii) revamping of the Motor Vehicle (MV) registration and examination systems, ix) enforcement of axle load control plan, x) launching of truck financing schemes, xi) establishment of truck driver training facilities, xii) capacity-building of truckers associations, xiii) increase in number of formal truck operators by 25 per cent, xiv) delinking and corporatisation of the National Logistics Cell's trucking units to lead trucking modernisation, xv) revision of the national truck specifications for two, three and multi-axle prime movers, and xvi) establishment of the trucking terminals.

Railways

Issues

The Pakistan Railways (PR) is the sole government agency responsible for rail transport. It has a network of 7,791 route kms, but two-thirds of this is of non-commercial value and consists of branch and strategic lines. The remaining one-third of the network carries most trains and handles the bulk of rail-based passenger and freight traffic, that is, 85 per cent. In comparison to road-based freight traffic, the rail network has gradually lost its competitiveness. It has become a passenger-handling network and carries only six per cent of the total freight traffic. Comparatively more revenue earned by freight traffic is often used to subsidise passenger tariffs rather than to improve infrastructure for freight transportation.

The financial health of the PR has deteriorated with the gradual decline in rail-based freight traffic. This has prevented it from making any substantial investment in infrastructure and rolling stock, which has become old and requires replacement. Freight is increasingly becoming containerised, but the Railways has inadequate infrastructure and capacity to handle it. Its organisation lacks commercial orientation, innovative marketing and effective coordination with other modes of transport.

Strategy

Promoting commercial railways: The principal objective will be to restore the historic role of the PR as an economical and quality service provider, both for passenger and freight traffic. The strategy adopted for this will be to restructure the Railways management and its operations on the commercial lines. This will be done through appointment of independent and professional Railway Board. Programmes include: upgradation and doubling of the remaining sections of the main line – Shahdarah to Peshawar and Shahdarah to Faisalabad – in a phased manner, procurement of new rolling stock, improvement of the signalling system with state-of-the-art new computerised signalling system, privatisation of the railways operations with particular reference to track access and improvement in its systems and processes.

Reforms and programmes

A number of reforms have been identified for revitalisation of the PR during the Plan period. A few are already in the process of completion, which include: i) Business Plan, ii) track access policy, and iii) linking of the private freight forwarders and truckers for door-to-door services (Karachi, Lahore, Multan and Faisalabad). Several other reforms are in progress and will be completed during the Plan period. These include: i) establishment of performance monitoring indicators and benchmarks (freight business), ii) rail restructuring plan, including provision for an autonomous Railway Board, iii) corporatisation and appointment of a professional Chief Executive Officer (CEO), iv) financial restructuring, v) introduction of corporate accounts, specifically for freight and passenger services, vi) commercialisation of the PR land, vii) establishment of a separate holding company for non-core activities and land assets, viii) introduction of the private sector management and investment in the freight sector, ix) procurement of more locomotives and flat-bed wagons, x) closure of the loss-making lines and trains (strategic exceptions to be made after carrying out studies), xi) PR to deliver 20 per cent of all long-haul freight (currently at five per cent), and xii) promotion of the public-private partnerships.

In support of the reforms outlined above, the major projects to be initiated and completed during the Plan period are at Annexure C. Besides the PSDP funding, some of the projects will be considered for implementation on public-private partnership basis. Revival of the Karachi Circular Railway (KCR) project, 43 kms long, through 93.5 per cent Japanese financing of the total cost of \$2.60 billion, and the project will be implemented through the Karachi Urban Transportation Corporation (KUTC). Development of the infrastructure for uninterrupted coal supply chain from Karachi to various coal fired power plants destinations and major component of this initiative will be provision of locomotives and rolling stock.

Civil Aviation

Issues

While the economy has expanded, the aviation sector has not been able to gain benefits of the economic growth. Growth of the international passenger traffic, for example, between 2001 and 2005, has been only about nine per cent. The PIA is the flagship carrier and accounts for over 73 per cent of domestic air passenger traffic (2008), while the private airlines has the remaining share of 27 per cent. The growth of passenger as well as freight traffic by air is slow – less than two per cent per year during 2001-2005. The volume of cargo is also modest, and has been fluctuating at a level of 400 to 425 million tonnes per km over the last five years. As compared to traffic by other modes, it is about four per cent of the freight traffic by rail and 0.2 per cent by road. The financial status of the Pakistan International Airlines Corporations (PIAC) is not very healthy, and it is not earning enough to sustain itself. Too expensive to operate and maintain old wide bodied aircraft are needed to be replaced with medium to small bodied aircraft to economise the expenditure.

The administration of aviation sector is with the CAA, which is responsible for air traffic control, and development and maintenance of airports. The CAA's major income is generated from the charges it recovers from the airlines using its airports and facilities. Its financial status is sound, and it is constructing a few airports from its own resources, including New Benazir Bhutto International Airport (NBBIA) at Islamabad and upgradation of the Multan International Airport. The users' charges at airports need rationalising, as it is being a principal factor, which determines airlines usage of airports, for both transit use and as a destination for services.

Strategy

- **Developing air cargo infrastructure:** The principal objective will be to enhance role of the aviation sector in building-up trade competitiveness in various sectors of the economy, particularly perishable items. This will be done by developing cargo infrastructure such as cargo villages, cold storages, and pack houses at the important international airports. The development programmes will include: a) development of a new international airport at Islamabad, b) improvement of facilities at other international airports, and c) procurement of additional small and medium aircraft.
- Increasing non-aeronautical revenue by establishing cargo villages, airport cities' master plan and changes in any other policy, which can hinder the leasing of the land parcels for commercialisation.
- The old surveillance and communication equipment needs early replacement. The redundancy element is also needed in addition to matching the system with the region as well as for global expediency.
- Development and growth of air transport through trained and skilled human resource
- Promotion of tourist information at all international airports and national airlines

Pakistan International Airlines

As part of the PIA's fleet modernisation, it has been planned to phase out the ageing Boeing 737, Boeing 747 and Airbus A310 aircraft. The replacement will also cater to provide additional support for the future growth. To generate the projected volume of capacity as well to replace the ageing fleet, 34 aircrafts are being considered for induction during 2014-2018.

New avenues have to be explored and policies need to be implemented to generate additional revenues like Maintenance, Repair and Overhaul (MRO). Air transport MRO business in the world was about $40.8 billion in 2006. The Asia-Pacific aircraft and engine MRO market totalled $8.71 billion in 2005, and is estimated to touch $14 billion in 2013. The PIA has already initiated the process for establishment of the MRO Business, which will result into an improved efficiency, reduced maintenance cost and generation of the additional revenue streams.

Reforms and programmes

The reforms and programmes envisaged for the safe and efficient performance of the sub-sector include: i) approval and implementation of the draft National Aviation Policy, which has been reviewed and developed in consultation and coordination with all stakeholders. It is aimed at liberalising air transport regulations, providing level playing field to all the national airlines and paving way for the public-private partnerships in the infrastructure development, ii) preparation of a business plan to increase the aviation business in Pakistan, and encourage international airlines, iii) preparation of the performance indicators and benchmarks, iv) development of in-house expertise on airworthiness matters to reduce reliance on foreign consultants and to enable export of expertise to other countries, v) upgradation of the existing communication and surveillance systems, vi) automation, modernisation and mechanisation of services leading to reduction in the operating cost as practicable, vii) development of airport cities, cargo villages at major international airports with the public-private partnerships and in the private sector, viii)human resource development by developing facilities at the Civil Aviation Training Institute (CATI) at Hyderabad to enhance the quality of training, ix) completing construction of the NBBIA, Islamabad, x) construction of new international airport at Gwadar, xi) development of four cargo villages, trans-shipment hubs to increase cargo handling capacity, xii) establishment of business centres, IT, logistic and retailing centres at airports, and xiii) development of the cold storage facilities at Karachi, Lahore and Multan airports.

An outlay of Rs86,796 million has been proposed on development projects through self-financing of the CAA during the Plan period. The major projects to be implemented are at Annexure-C.

Public-private partnership

Significant investment is required in transport and logistics infrastructure, which is far more than the limited fiscal space available under the PSDP. This necessitates involvement of the private sector. However, infrastructure projects in the transport and logistics sector often require large quantum of funds. Given the inadequate incentives on investment, and the fluid security environment, such projects have not elicited interest amongst the foreign investors. Local enterprises suffer from lack of capacity to fund and manage mega-projects.

Supporting private sector development

The strategy will be to create an enabling environment for development of the private sector in the country for its full participation in infrastructure projects and programmes under the proposed Bureau of Infrastructure Development (BID).

The reforms in a phased manner, to be implemented during the Plan period, are: i) establishment of a BID to strengthen capacity of the already established the Infrastructure Project Development Facility (IPDF) in the Ministry of Finance, and coordinate and oversee the programme for the private sector participation in infrastructure development, ii) capacity-building of the public sector institutions to develop feasible and attractive public-private partnerships projects, iii) introduction of legal, administrative, financial and regulatory measures to facilitate the private sector development, and iv) creation of an enabling framework for the public and private sectors to perform effectively in harmony with each other.

Inland water transport

There is a 30,000 kilometre long network of rivers and perennial canals, which offers an excellent opportunity to establish an economical water transport system. Fuel consumption for the inland water transport can be just 10 per cent of the road transport, and 25 per cent of the rail transport. But it is only recently that a full-scale Inland Water Transport Project, based on link-canals in the Punjab and Sindh as well as some sections of the Indus River, has been given serious consideration and is in the process of research. Based on studies carried out by the private sector, potential exists to invest in developing operational section in a phased manner for eventful access to sea. As per the initial study, it has been found that a section of the Indus River between Nowshera and Kalabagh has the potential for navigation.

Following a detailed feasibility study, a pilot project will be planned during the Plan period to test the technical, commercial and environmental viability of moving commercial cargo on canals in the Punjab and Sindh, and along the Indus River. If successful, the pilot project will be replicated in other feasible waterways in the country.

Supporting research and development

The emphasis will be to revamp and restructure the existing National Transport Research Centre (NTRC), working under the Ministry of Communications, and make it a premier national research and development centre in the transport sector. In this regard, the following measures have been proposed:

- The principal seat of the R&D will be financially supported, and its research faculty will be appropriately expanded.
- The Centre will not only be tasked to lead research studies that can culminate in comprehensive national transport policies, but also develop policy guidelines with reference to which provinces can formulate provincial policies and programmes.
- The Centre will continuously engage itself in carrying out objective research in the sector, which will provide authentic information (traffic data) and analytical underpinnings to the national and provincial policies and reforms.
- It will also be developed into a centre of excellence innovating best practices and piloting model projects.
- Establishment of the Highway Research and Training Centre (HRTC) under the NHA at Attock, through JICA assistance, is at an advanced stage of completion, which will provide research in the field of pavement design, its testing and related training facilities.

Financing

The expected resource requirement for the transport and logistics sector during the Plan period is Rs2,038 billion. About Rs1,581 billion will be made available through the PSDP, while the remaining funds will be arranged by each sub-sector on self-financing basis or through mixed funding arrangements, like BOOT, BOT and BOO. Annexure-B shows proposed budgetary allocations during the Plan period.

Annexure-A

Traffic forecast (Transport and communications)

Sub-sector		Units	2012-13	Targets					ACGR %
				2013-14	2014-15	2015-16	2016-17	2017-18	
Railways traffic									
a)	Passenger	BP-km	29.20	30.35	31.55	32.80	34.09	35.44	3.95
b)	Freight	BP-km	15.30	17.94	21.04	24.67	28.93	33.92	17.26
Road traffic									
a)	Passenger	BP-km	403.31	433.56	466.08	501.03	538.61	579	7.50
b)	Freight	BP-km	253.43	269.90	287.45	306.13	326.03	347.22	6.50
Ports & shipping traffic									
Karachi Port Trust (KPT)									
a)	General and containerised cargo	Million tonnes	23.83	25.96	28.27	30.79	33.54	36.53	8.92
b)	Liquid cargo	Million tonnes	13.68	14.19	14.72	15.27	15.84	16.44	3.74
c)	Dry bulk cargo	Million tonnes	21.52	24.43	27.73	31.47	35.73	40.55	13.51
	Total Cargo	**Million tonnes**	**59.03**	**64.57**	**70.72**	**77.54**	**85.11**	**93.52**	**7.99**
d)	Containers (TEUs)	Nos. (000)	1,960	2,156	2,372	2,610	2,872	3,159	10.02
Port Qasim Authority (PQA)									
(a)	General and containerised cargo	Million tonnes	12.95	13.82	14.75	15.74	16.80	17.94	6.73
(b)	Liquid cargo	Million tonnes	15.23	16.46	17.78	19.22	20.77	22.44	8.06
(c)	Dry bulk cargo	Million tonnes	9.43	11.17	13.22	15.65	18.53	21.94	18.40
	Total cargo	**Million tonnes**	**37.61**	**41.44**	**45.76**	**50.61**	**56.10**	**62.32**	**8.80**
(d)	Containers (TEUs)	Nos. (000)	949	994	1,040	1,089	1,140	1,194	4.70
Gwadar Deep Sea Port									
(a)	General and containerised cargo	Million tonnes	0.77	0.81	0.85	0.98	1.03	1.08	5
(b)	Liquid cargo	Million tonnes	0.05	0.053	0.056	0.060	0.064	0.068	6.26
(c)	Dry bulk cargo	Million tonnes	1.97	2.13	2.31	2.50	2.71	2.93	8.28
	Total cargo	**Million tonnes**	**2.79**	**2.99**	**3.22**	**3.54**	**3.80**	**4.08**	**6.57**
(d)	Containers (TEUs)	Nos. (000)	100	105	110.25	152.09	174.90	201.14	12.50
The containers (TEUs) handling of the Gwadar Port is expected to increase within two years owing to the operations of the Port taken over by the state-run Chinese firm COPHC.									
Total all ports									
A	**Total cargo**	**Million tonnes**	**99.43**	**109.01**	**119.69**	**131.70**	**145.02**	**159.92**	**8.26**
B	**Total containers**	**Nos. (000)**	**3,009**	**3,255**	**3,523**	**3,851**	**4,187**	**4,555**	**7.17**

Air transport traffic									
(a)	Domestic	Million nos.	6.28	6.46	6.64	6.82	7.01	7.21	2.79
(b)	International	Million nos.	8.50	8.74	8.99	9.25	9.51	9.78	2.85
	Total	**Million nos.**	**14.78**	**15.20**	**15.63**	**16.07**	**16.52**	**16.99**	**2.82**
Freight									
(a)	Domestic	Million tonnes	0.060	0.063	0.066	0.070	0.073	0.077	5.15
(b)	International	Million tonnes	0.200	0.21	0.22	0.225	0.234	0.243	4.01
	Total	**Million tonnes**	**0.260**	**0.271**	**0.283**	**0.295**	**0.307**	**0.321**	**4.28**
Inland traffic									
Passenger									
(a)	Railway	BP-km	29.20	30.35	31.55	32.80	34.09	35.44	3.95
(b)	Road	BP-km	403.31	433.56	466.08	501.03	538.61	579	7.50
	Total (Passenger)	BP-km	**432.51**	**463.91**	**497.63**	**533.83**	**572.70**	**614.44**	**6.04**
Modal split for passenger									
	Railway Share		7%	7%	6%	6%	6%	6%	
	Road share		93%	93%	94%	94%	94%	94%	
Freight									
(a)	Railway	BTKM	15.30	17.94	21.04	24.67	28.93	33.92	17.26
(b)	Road	BTKM	253.43	269.90	287.45	306.13	326.03	347.22	6.50
	Total (Freight)	**BTKM**	**268.73**	**287.84**	**308.48**	**330.80**	**354.96**	**381.14**	**6.01**
Modal split for freight									
	Railway Share		**6%**	6%	7%	7%	8%	9%	
	Road Share		94%	94%	93%	93%	92%	91%	
Total all three ports									
(a)	General cargo and containerised Cargo	Million tonnes	37.55	40.59	43.87	47.52	51.38	55.55	6.76
(b)	Liquid cargo	Million tonnes	28.96	30.70	32.56	34.55	36.67	38.94	5.07
(c)	Dry bulk cargo	Million tonnes	32.92	37.73	43.26	49.63	56.97	65.43	12.15
	Total Cargo	**Million tonnes**	**99.43**	**109.01**	**119.69**	**131.70**	**145.02**	**159.92**	**8.26**
(d)	Containers (TEUs)	Nos. (000)	3,009	3,255	3,523	3,851	4,187	4,555	7.17

Annexure-B

Proposed Allocations during 2013-18

(Rs million)

S. No	Ministry / Sub-sector	Five Year (2013-18) allocation			
		Budgetary	Self-financing / Corporation	Public-private /private financing	Total
1	2	3	4	5	6
A	**FEDERAL**				
1	**Ministry of Railways**	**239,383**		**35,000**	**274,383**
2	**Ministry of Communications**				
A	National Highway Authority (NHA)	554,652		66,500	621,152
C	National Highways and Motorway Police (NH&MP)	82			82
D	National Transport Research Centre (NTRC)	282			282
E	Construction Technology Training Institute (CTTI)	876			726
	Total M/o Communications	**555,893**		**66,500**	**622,393**
4	**Ministry of Ports and Shipping**	2,455			**2,034**
5	**Ministry of Defence Production**				
A	Karachi Shipyard & Engg. Works	3,357	5,000		8,357
	Total M/o Defence Production	**5,812**	**5,000**		**10,812**
6	**Ministry of Defence**				
A	New Gwadar Int'l Airport (NGIA)	8,576	250		8,826
B	Pakistan Meteorological Department (PMD)	151			125
C	Airport Security Force (ASF)	**302**			302
D	Maritime Security Agency (MSA)	573			475
E	Civil Aviation Authority (CAA)		150,000		150,000
F	Pakistan Int'l Airlines Corp. (PIAC)		200,000		200,000
	Total M/o Defence	**9,602**	**350,250**		**9,602**
7	**Inland Water Transport**	**60**		**300**	**360**
8	**Others in charge of logistics and urban transport**	**68,557**		**200**	**68,757**
	Total federal programme	**879,307**	**355,250**	**102,000**	**1,336,557**
B	**Provincial road programme**				
	Total provinces	**699,642**			**579,649**
C	**Special Areas**				
A	Azad Jammu and Kashmir	1,207			**1,207**
B	Gilgit-Baltistan	604			604
	Total Special Areas	**1,811**			**1,811**
	Total T&C (A+B+C)	**1,580,759**	**355,250**	**102,000**	**2,038,009**

Annexure-C

Pakistan Railways projects to be completed during the Plan period

S. No.	Names of the projects	Capital cost
1.	Rehabilitation and improvement of tracks from Landhi to Khanpur main line	9,405
2.	Doubling of track from Khanewal to Raiwind (Revised) (Khanewal, Lahore)	12,617
3.	Doubling of track from Shahdarah to Faisalabad (Lahore, Faisalabad)	10,281
4.	Doubling of track from Shahdarah to Lalamusa (Lahore, Gujrat)	13,593
5.	Mechanisation of track maintenance (pilot project in the Lahore Division)	4,055
6.	Procurement and manufacture of 530 high capacity wagons (revised)	4,135
7.	Procurement and manufacturing of 50 Diesel Electric locomotives	19,406
8.	Procurement and manufacture of 75 new DE locomotives	46,810
9	Procurement of 150 DE new Locomotives	55,488
10.	Rehabilitation of 27 (HGMU-30 Class) DE locomotives	6,284
11.	Special repair of 150 DE locomotives to improve availability and reliability	5,005
12.	Rehabilitation of the rolling stock and track	4,000
13.	Rehabilitation of the railway assets damaged during riots of 27-28 December 2007 (Sukkur and Karachi Divisions)	7,856
14.	Reconstruction of assets damaged during the floods of 2010	6,365
16.	Replacement of old and obsolete signal gear from Lodhran-Khanewal-Shahdarah Bagh Mainline Section	18,484
17.	Replacement of three break down and rescue cranes and procurement of five sets of relief train equipment	1,638
18.	Replacement of metal sleepers and track renewal on the Lodhran-Shahdarah Section	2,216
19.	Procurement of 500 high capacity bogie wagons and 40 power vans	11,998
20	Procurement and manufacture of 202 new design passenger carriages	15,890
21.	Rehabilitation, upgradation and conversion of 400 coaches	5,200
22.	Strengthening and rehabilitation of 159 weak bridges	412

Pakistan Railways projects to be initiated during the Plan period

S. No.	Names of the projects	Capital cost
1.	Upgradation of main line 1 from Karachi to Peshawar and development of a dry port at Havelian under the China-Pakistan Economic Corridor (CPEC) initiative	400
2.	Feasibility study for the Peshawar-Jalaladad (Afghanistan) Rail Link	67
3.	Construction of the Chaman-Spinbouldak (Afghanistan) Rail Link	1,378
4.	Feasibility study for dedicated freight corridor for transportation of coal from Karachi to Lahore	391
5.	Improvement of the Signalling System on Lodhran-Khanpur-Kotri Section and provision of the Centralised Traffic Control (CTC) on Shahdarah-Lodhran Section	38,263
6.	Renovation and upgradation of Quetta, Karachi, Lahore and Peshawar Railway Stations	1,000
7.	Special repair of 100 DE locomotives and recommissioning of 19 stabled DE locomotives (15 AGE-30 and 04 RGE-24)	4,883
8.	Upgradation of the terminal facilities at the Marshalling Yard Pipri, Lahore and Peshawar dry ports	200
9	Special repair of 800 coaches and 200 wagons	1,810

NHA projects to be completed during the Plan period

S. No.	Names of the projects	Capital cost
1.	Mossa Pak–Shaheed Bridge	1,988
2.	Construction of a bridge over the River Chenab linking Shorkot and Garh Maharaja	1,603
3.	Construction of a new bridge over the River Sutlej at Emanwala	1,108
4.	Construction of Hassanabdal–Abbottabad–Mansehra Expressway (110 kms)	30,494
5.	Construction of the Faisalabad–Khanewal Motorway(M-4) (184 kms)	28,564
6.	Construction of the Peshawar Northern Bypass (32 kms)	9,003
7.	Upgradation of the Karakorum Highway (KKH) for the Bhasha Diamer Dam project (Mansehra to the proposed Dam site)	
8.	Rehabilitation, improvement and widening of the KKH (Raikot-Khunjerab Section, 335 kms)	30,911
9	Realignment of the KKH at the Barrier Lake, Attabad, Hunza, and Gilgit-Baltistan (17 kms new + 7 kms rehabilitation)	26,477
10.	Construction of the Jhalkhad-Chillas Road (66 kms)	4,017
11.	Construction of the Lowari Tunnel (tunnel excavated)	26,855
12.	Construction of additional carriageway of the Indus Highway (N-55)–Sehwan–Khairpur Nathan Shah–Ratodero section (200 kms approximately)	12,342
13.	Bridge on the River Indus at Larkana with approaches (bridge portion completed) and two other bridges at Nishtar Ghat and Khushhal Garh	9,225
14.	Construction of portion of M-8 from Gwadar-Turbat to Hoshab (200 kms) and Khuzdar to Ratodero (143 kms)	23,168
16.	Construction of the Surab-Basima-Nag-Panjgur-Hoshab Road (454 kms) N-85	22,413
17.	Widening and improvement of the Kararo-Wad section (96 kms) N-25	3,373
18.	National Highway Development Sector Project envisaging improvement, rehabilitation and upgradation of 687 kms along the National Highway road network	49,955
19.	Kalat-Quetta-Chaman section of N-25 (247 kms)	19,140
20	Construction of road from Gharo to Ketti Bunder (90 kms) N-110	3,036
21	Construction of the Lyari Express way.	12,909

Major projects of the CAA to be implemented during the Plan period

S. No.	Names of the projects	Capital cost
1.	New Benazir Bhutto International Airport (NBBIA) Islamabad	85,000
2.	Upgradation of the Multan Airport – runway, apron, terminal building and associated facilities	5,910
3.	New terminal building at Quetta	15,000
4.	Construction of the New Gwadar International Airport (NGIA), Gwadar	7,675
5.	Reconstruction of the Quetta and Faisalabad runways to facilitate operation of 777 type aircraft at these airports	4,000
6.	Reconstruction of the secondary runway and expansion of terminal building of the Allama Iqbal International Airport, Lahore	5,500
7.	New Air Traffic Control (ATC) Tower at the Jinnah Terminal Complex, JIAP Karachi	800
8.	New terminal building at Quetta	15,000
9.	Reconstruction of the primary runway, addition of two satellites along with apron, replacement of old and addition of new Passenger Loading Bridges(PLBs) at the Jinnah International Airport (JIAP), Karachi	30,000
10.	Construction of the new terminal building and extension of apron of the Bacha Khan International Airport (BKIAP), Peshawar	15,000
11.	New Air Traffic Control (ATC) Tower at the Allama Iqbal International Airport (AIIAP), Lahore	500
12.	Airport cities, aviation towers and club complex	10,000
13.	Upgradation, rehabilitation and reconstruction of runways, taxiways and aprons at various airports	18,000
14.	Renovation and expansion of the terminal buildings at various airports	3,250
15.	Replacement of the Primary and Secondary Surveillance Radars (PSRS &SSRS), its allied facilities, and Automatic Dependent Surveillance-Broadcast (ADS-B) System at five locations	2,345
16.	Provisioning and replacement of the Navigational Aid Equipment	2,731
17.	Procurement, replacement and augmentation of power, air field lighting and docking system, etc.	3,345
18.	Replacement of the telecommunication and electronic systems	705
19.	Civil Aviation Training Institute (CATI) Hyderabad (Development)	300
20.	Augmentation of communication equipment	300
21.	IT software and hardware, including infrastructure expansion	538