

Agriculture Policy for FATA

(Version as of May 14, 2015)

Policy Period

Ten years (2016-2025)

Government of Pakistan

FATA Secretariat

and the Food and Agriculture Organization of the United Nations

This agriculture policy for FATA applies to all types of agriculture lands, forest lands, range lands and wet lands that produce economic goods and environmental services for the livelihood of people in FATA in sectors of agriculture, livestock, forests, wildlife and fisheries.

I. Background and Context

Federally Administered Tribal Areas (FATA) comprises of seven administrative agencies including South Waziristan, North Waziristan, Orakzai, Kurram, Khyber, Mohmand and Bajaur. Besides these, there are 6 Frontier Regions (FRs) including Peshawar, Kohat, Bannu, Lakki, Tank, and D. I. Khan. It has a total population of 4.3 million with 52 percent male and 48 percent females with annual growth rate of 2.1 percent. The literacy rate is 21.4 percent, with female literacy rate as low as 7.5 percent (MICS 2007). About 60 percent of population lives below the poverty line. FATA has an area of 2.7 million hectares, of which 0.23 million hectares is cultivable, 0.696 2 million hectares is culturable waste while average land holdings per household is 0.716 hectares. Climatically FATA comes under arid and semi-arid zones.

According to the data provided by the, Agriculture Extension and Agriculture Research, Livestock, Fisheries, Irrigation and Forestry Directorates, there is huge gap between the current agriculture productivity and its potential. According to an estimate, the current productivity of the main crops like wheat and maize is three times less than their potential¹.

Livestock is one major livelihood sector in FATA. The total number of livestock including poultry is 15.35million, while the number of large and small ruminants is 2.420 and 5.488 million respectively. Free grazing in range lands is the main source of fodder for the livestock. Small ruminants on average produce 2 kg wool in a life cycle. There are about 200 poultry farms in FATA with an average of 2,000 poultry birds. In addition, there are 28 veterinary hospitals, 253 veterinary dispensaries, 270 veterinary centers and 184 artificial insemination centers. The most common diseases in livestock include Foot and Mouth Disease, PPR, Black Quarter, Enterotoxaemia and new castle. Around 20 to 30 percent outbreak is recorded each year in each disease.

Fishery is another important subsector in FATA where currently there are 2 fish hatcheries and 71 private fish farms. The estimated annual potential production of the fish is 156,710 metric tons. The water resources include 934 kilometers of rivers/streams and 1,450 km of irrigation channels/canals. Similarly 0.06 million quality fish seed of different fish species has been stocked in 16 numbers of dams constructed by irrigation department FATA/WAPDA, having an area of 7886 hectares.

The total forest area in FATA is 529281 hectares, which is about 19.6 percent of the total area. There is a large potential area where the forests can be raised. The total area under rangeland is 1179418 hectares, however, these rangelands are in degraded condition, and potentially the whole area can be rehabilitated and brought back to good condition. The Forest Directorate has planted 57000 hectares area in the last 10 years.² The current forest cover is mainly in South Waziristan, North Waziristan and Kurram agencies. It is utilized for timber, fuel wood, fodder, medicinal plants and other non-timber forest products. Besides the direct products, forests are also ecologically important for water regulation, soil conservation, flood control & conservation and promotion of biodiversity. These forests and rangelands form catchment areas for a number of water courses and thus recovery of vegetation cover will help in re-charging of water table and better availability of water for irrigation.

Climatically, FATA falls under arid and semi-arid zones with an average annual rainfall of 300 mm. The average depth of water table is 60 meters. Prolonged droughts are common and over exploitation of vegetation cover underpin the desertification phenomenon in FATA. Furthermore, low water table level in FATA is also due to low recharge in the catchment areas. The total water availability to the agriculture crop at the moment is 3,986 acres feet, which can irrigate a small percentage of agriculture land. The major sources of irrigation include canals, irrigation channels, small dams, delay action dams, tube wells and dug wells. The irrigated area is about 35.7 percent of the total agriculture land where cereal and vegetables are grown.

¹For potential yield data: National Uniform Yield Trials (NUYT) NARC, Islamabad and Agriculture Research System, Khyber Pakhtunkhwa

²Land Cover Atlas of Pakistan 2012

Agriculture and livestock rearing is the main source of subsistence for about two-thirds of the population. There is high dependency of the local population on the agriculture and its allied sub-sectors including livestock, irrigation, forest, and fisheries. However, the data indicates that the growth of the agriculture sector and the economic returns for the farmers has remained unsatisfactory over the time. This has resulted in the highest levels of poverty, food insecurity and malnourishment in FATA when compared with the national statistics.

The FATA Secretariat was established in 2006 with the objective to make focused efforts on the development agenda for FATA. The secretariat is guided by policy guidelines to ensure strategic and systematic efforts. However, despite the efforts, desired results have not been achieved over the years. Among other reasons, it has been realized that integrated working especially in sub-sectors (green sectors) which are closely linked, is of high importance to be able to complement and supplement the sustainable development efforts. At the moment it is completely lacking. Moreover, there is a need for a community/farmers centered approach which would not only support the farmers in enhancing their production but also increase economic returns in such a way that their vulnerabilities to disaster and hazards are reduced by adopting climatic/environment smart approaches and practices.

2. Major Challenges Facing Agriculture and Food Security

There is high dependency on agriculture sector in FATA with large number of population relying on agriculture and its allied sub-sectors for their livelihoods, food security and nutrition. However, as mentioned earlier, agriculture sector performance has been poor due to number of challenges and constraints. These mainly include farmers' limited access to quality inputs at the local level, coupled with poor purchasing power; limited technical skills and knowledge related to the improved agriculture practices, and limited storage capacities and marketing skills. At the department level there are few technological innovations and advancements under the research component with further limitation in capacity for its dissemination among the farmers. The support to farmers to diversify livelihood opportunities; to improve their economic situation and reduce their vulnerabilities is also limited. The food price fluctuations, indiscriminate use of chemicals and pesticides, lack of micronutrients, and poor post-harvest handling have further affected food security in FATA.

In addition, FATA has been facing complex crises since years and millions of people have remained displaced in other parts of the country. This has further severely affected the livelihoods of the local population particularly related to agriculture, affecting the production of crops, livestock holding and its management, rangelands, orchards, irrigation systems and forests. People who returned did not have the resources to resume their livelihoods or to bring back their production to pre crises situation. Moreover, the unstable security situation in the area has further weakened the already feeble markets.

There are number of other social factors such as poverty, unemployment, low literacy rates and weak economic situation, conservative and strict cultural norms have related a vicious circle in FATA for locals to be able to enhance their production and diversify their livelihoods. In order to break these barriers, there is a need for other social sector policies to play complementary role in enhancing the production capacity of the farmers.

In order to reduce the production gap and shift from subsistence to commercial agriculture, there are number of options that may be considered including the development of niche areas; use of quality agriculture inputs, high efficiency irrigation system; processing/grading/packing of agriculture products; use of high value vegetables; tunnel farming; market demand oriented crop selection; and mixed cropping and intercropping.

Livestock productivity enhancement is mainly constrained due to scarcity of fodder, poor quality animal breeds, poor animal management, lack of public and private partnership, irregular vaccination programs, poor infrastructure, disease outbreak, lack of awareness, and low capacity of staff and farmers. Furthermore, support to value chains and value additions, access to loans, support to-market and control over cross border smuggling is lacking. Due to the poor rangelands condition, there is not enough nutritious feed available for the livestock during the whole year.

Fishery sector has remained a low priority sector although with great potential to generate encouraging results for improving local livelihoods, food security and nutrition. The sector lacks basic information about availability of fish and seed, technical capacity, and capacity to bring awareness to the general public on the significance of fishery sector as a whole.

Forestry sector on the other hand is constrained by arid environment, indiscriminate overcutting of trees, uncontrolled grazing, and continued conflicts on the land proprietorship, and weak supervision by the directorate. Similarly the rangelands are also degraded, and provide insufficient fodder to the grazing animals, on which the local people highly rely in terms of food, nutrition and cash income. According to estimates, current productivity of the rangeland is less than 60 percent compared to its potential. Overgrazing and prolonged droughts are also the contributing factors. Similarly the forestry resource is under heavy pressure for its products and services due to increase in population and lack of management. The Afghan refugees are also a major deteriorating factor for the loss of vegetation cover.

FATA also inhabits a variety of wildlife suitable to various ecological ecosystems. The major threat to the wildlife is the degradation of its habitats and the uncontrolled hunting. The Forest Directorate has

been made responsible for the conservation and management of wildlife, however, less attention been paid to this subsector.

FATA is mostly dry and arid with high dependency on rain-fed agriculture. However, technologies on high efficiency irrigation such as surface water harvesting, soil and water conservation, efficient use of water still needs to be introduced in majority areas of FATA. There is lack of investment in infrastructure and its maintenance, lack of coordination in site identification and shortage of electricity to run tube wells. The use of solar energy will be a step in the right direction. In addition there is less focus on roof and surface water harvesting and water recharging.

In order to systematically understand the key constraints and bottlenecks in the sustainable development of agriculture and its allied subsectors in FATA, the following areas are the key contributing factors;

Low Investment in Agriculture sector

Though the agriculture sector is the major contributing sector for livelihoods, food security and nutrition in FATA, the financial resource allocation to this sector is not at par with the need and scope. This has resulted in limiting the scope of the sector, and the required products, services and functions are not achieved. To get the potential benefits from the sector, the current level of investment needs to be increased substantially with more targeted approach.

Limited and narrow focus on innovations

The current agriculture focus is mainly on routine activities and there is less focus on innovative agriculture. For innovative agriculture, there is need for creating enabling environment, where the various services providers including private sector play their respective roles. Insufficient resource allocation and low capacity of knowledge and skills of the departments are also major hindrance for innovative agriculture. The low adoption of the agriculture research's successful techniques and models also contributes negatively the same way.

Lack of appropriate mechanism for dissemination and adoption of improved technologies

Due to the poor agriculture extension services, and limited interaction with Agriculture Research, there is huge problem of technology dissemination and adoption, which leads to poor agriculture practices. Good agriculture practices/approaches like Farmer Field Schools have not yet been institutionalized.

Limited access to quality agriculture inputs

Quality agriculture inputs like seed, fertilizer, planting material play a key role in increased production. According to estimation, quality inputs contribute up to 35 percent in the overall agriculture production. Unfortunately, in FATA, there is limited access of the farmers to the quality inputs and the main reasons is non-availability of quality inputs at the local level as well as the low purchasing power of the farmers. Thus the use of inferior quality of agriculture inputs leads to poor agriculture production besides other complications.

Lack of supply chain approach

For successful and profitable agriculture production, there is a dire need to understand the value chain approach. In this case special focus should be on the value chain development of the horticulture crops including high value vegetables and fruits.

Post-harvest losses

In FATA, there are substantial post-harvest losses, which contribute to the overall deficiency of the available food. The farmers need to be trained how to avoid such losses.

Pest and disease attack

In FATA, the concept of surveillance, early warning and prevention of pest and diseases on crops and livestock is still new, and is not practiced properly and timely. Resultantly there are big losses.

Water scarcity and inefficient use of irrigation water

In FATA water scarcity is the major limiting factor for agriculture production. On one hand, less water available for irrigation, while on the other hand, the available water is not efficiently used. Less water recharging is also a major contributing factor for sinking water table. Low recharging is linked with the lack of vegetation cover in the catchments. This requires rehabilitation of catchment areas through planting and other soil and water conservation measures like bio-engineering.

Lack of integrated approach

Currently the various subsectors of agriculture work in isolation with negligible interactions with each other. This limits the integrated working, and the related subsectors are deprived from benefiting each other working. The policy will focus on integrated working for bringing more synergies and complementarities amongst the related green sectors.

3. Current Policy Environment and Need for New Policy

The prolonged crisis in FATA has resulted in huge damages to the natural resources. In this regard, government priority of early recovery inbuilt into development agenda has given an opportunity to build back better. The support to the NRM sector may be planned and implemented in a more strategic and systematic manner. The policy document would help guide the planners to design their interventions and investment plans in such a way that they ensure better economic returns to the target groups and improve their resilience to future hazards and disasters.

There has been no agriculture policy in FATA which could guide the long term promotion of agriculture based livelihoods in FATA. Further, devolution process in the country over the years has provided FATA with an opportunity to plan and allocate resources from Federal level to agency level. This provides the end beneficiaries with opportunity to voice their needs and ensure their inclusion in planning and resource allocation process. Moreover, Agency level stakeholders will now have more roles to play in the development of their area. The devolved process at the agency level provides scope for integration to maximize production and economic returns.

The geo strategic position of FATA has attracted attention of number of stakeholders both at national and international level. On one hand, where it has created challenges in its management, it has also created opportunities where these stakeholders develop technical expertise and resources which can be better utilized for the NRM sector development in FATA through compatible strategic and operational planning and implementation.

FATA shares a long border with Afghanistan. Majority of the farmers have more market and informal links with neighboring villages in Afghanistan than they have in KP and Pakistan. At present, an important economic opportunity is lost in form of smuggling of important agriculture, livestock, and forestry products to the neighboring country Afghanistan. However, through market regulations and infrastructural support, this lost opportunity may be converted into beneficial trade with Afghanistan.

Keeping in view the constraints and to cope with the current situation, there is a need for an innovative and dynamic approach to address the issues faced by the green sector in FATA. It has been felt that while all NRM sectors are making efforts to improve productivity, but the impact at the field level is

low. Therefore, there is need for integration of efforts of the sectors to maximize results in terms of productivity enhancement and economic returns for the target groups.

The devolution of powers from federal level is a strong indication that there is a need for more people centered approach to address issues of food security, nutrition and poverty through finding local solutions to the problems. It is therefore, essential to plan and allocate resources in areas which are more relevant to local livelihood opportunities.

4. Vision and Objectives

The vision of this policy is to enhance local food security, nutrition and livelihood opportunities of the local population of FATA through improved productivity and utilization of agriculture, livestock, forestry, wildlife and fisheries products in conformity with the stability of natural environment and sustainable development.

Objectives:

- To ensure local food security and improved nutrition levels;
- To enhance income generating opportunities from agriculture, livestock and NRM;
- To promote viable approaches for climate smart and ecosystem-based adaptations of agriculture, livestock and NRM towards sustainable land and water management;
- To create synergies of development and regulatory interventions amongst various sectors for integrated and people centered outcomes from agriculture, livestock and NRM.

5. Guiding Principles

The guiding principles of this policy will be by their virtue in line with the United Nations Sustainable Development Goals (SDGs) 2015 – 2030 (the follow up of the UN-Millennium Development Goals (MDGs) 2000 - 2015 with regard to the sectors of development and environment and in particular to the following two goals:-

- End hunger, achieve food security and improved nutrition, and promote sustainable agriculture;
- Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

There are some guiding principles to achieve the above goals which need to be adopted for achieving good results in agriculture and other related sub-sectors on sustainable basis. For adoption of good guiding principles inferences have to be drawn from the United Nations biodiversity related multilateral environmental agreements (MEAs), principally the Convention on Biological Diversity (CBD) and Framework Convention on Climate Change (FCCC). Generally the approach to the policy principles will be as follows:-

5.1: Broaden vision/ scope for the agriculture sector development

A major change is also required in the overall vision of agriculture development which should shift beyond simply increasing production to a more livelihood and people-centric approach. Till now the focus is on how to increase production with a high emphasis by the public sector on a few strategically important crops - mainly wheat and maize. There has been little attention to other aspects of agriculture and rural development such as raising incomes and employment, efficient use of scarce inputs such as water and land, environment and climate change issues, equity and how to involve women and vulnerable groups such as share croppers, tenants, landless and transhumant. The issue of food security and nutrition has not been fully understood and requires addressing the hunger and malnutrition, which

is a major issue in FATA. The guiding principle in this regard is to broaden the vision for agriculture sector development. There is also need for more focus on local food security and livelihoods.

5.2 Local community centered approach

Devolution provides opportunity to adopt a people centered approach to support local livelihoods and food security. The multi-stakeholders mechanism would promote farmer centered approach where all stakeholders would provide services in an organized manner to help enhance farm production. In such a set up the line departments will provide technical support through well-functioning extension services and will also monitor and regulate the services of other stakeholders in the form of services providers. The NGOs would give input support and contribute to the formation of farmers' organizations/groups at the grass root level under the overall guidance of the line departments. The private sector would ensure input supply and market linkages to promote market oriented approach for commercial agriculture. Furthermore, the line departments and the private sector will jointly promote applied research and dissemination of new technology to the farmers.

5.3 Multi-stakeholder approach

The policy will promote multi-stakeholders approach to reach out to large number of farmers and enhance farm production. In order to ensure effective implementation, it is important to identify roles and responsibilities of the identified stakeholders, including agriculture and allied departments, FATA administrative departments and institutions, private sector to make the market vibrant. However, it is also of great importance that government creates an enabling environment for the multi stakeholders approach through formulation of rules and regulations especially among public and private sector and farming communities.

5.4 Institutional capacity building of farmer communities

The institutional capacity building of farmers through interest groups formation and strengthening of Farm Services Centers (FSC) and Farmer's Advisory Services Units will be the key priority areas of the policy. The institutional setup at the grass root level will provide a common forum to all relevant line departments to access farmer groups, build their skills and knowledge and to promote input supply and market linkages. In this regard it is essential to take advantage of existing Farm Services Centers by making them multi-purpose and diversified groups. As also requested by the farmers, the FSC will be extended in all tehsils of FATA while its role can be well utilized in the preparation of management plans at village or watershed level and appropriate allocation of resources against those plans. This will also help in the integrated working of the related sub-sectors

5.5 Climate change and disaster risk management

The climate change will affect the agriculture production as well as the natural resources including water, soil and vegetation. In FATA due to the prolonged drought and mismanagement of the natural resources, desertification is a common phenomenon. This situation demands that while planning future programme, this aspects has to be kept in mind in context of exploring drought resistant crop species and technologies; closely linked with climate change and environment protection; and close coordination with academia for research and strong inter linkages in DRM and climate change. FATA like the other parts of the country needs to adapt to the new, more variable weather patterns that are emerging. This will lead to a more climate smart agriculture requiring a series of actions ranging from adjustments in infrastructure; improved water harvesting; better flood management; reduced waste and pollution; and adaptive cropping and farming systems, including new varieties that can adapt to different weather conditions. In addition, options for crop insurance should also be explored to reduce farmers' vulnerabilities and risks to disasters.

5.6 Shifting from subsistence agriculture to commercial agriculture

Farmers' feedback clearly indicates aim for higher agriculture based economic returns. To achieve this aim there are a number of areas where high value crops can be grown. In such areas, the focus should be on the shift from subsistence agriculture to progressive commercial agriculture. Production and marketing of off-season vegetables and fruits will be a good venue for commercial agriculture. In this case there will be a need to promote product pocket approach to create market niche. The policy will also focus on the promotion of number of supplementary actions such as high quality breeds and varieties, promotion of value chains of the identified products, marketing approaches, subsidies to the farmers, construction of farm to market roads, construction of cold storages and cool chain system, mechanization of agriculture practices and take steps to make the local market vibrant and functional.

5.7. Coherence in various stages of development

Short term actions of various projects and programmes should contribute to medium and long term objective of sustainable agriculture to create a sizeable impact

5.8. Gender focus

Due to the limited livelihood opportunities and out migration of young men, women are actively engaged in agriculture activities. However, due to lack of assistance and conservative society, their output remains limited. In order to make their role more efficient and effective, there is need to promote women specific but culturally suitable interventions such as backyard poultry farming, domestic livestock management, and kitchen gardening, private forest nurseries to enhance women's income without much increasing their workload. Moreover, there is also need to enhance women farmers' knowledge and skills through women extension workers. In this regard, there is need to induct female extension workers both in government and non-government sectors. Government will need to play an important role in devising mechanism to ensure female extension workers induction in such projects and their access to female farmers.

6. Policy Focus Areas

Ecologically, FATA lies in arid and semiarid zones, where the rainfall is low and due to the low vegetation cover, the water availability is also low. Thus, agriculture is limited to those areas where there is perennial water flow or there are main canals which irrigate agriculture lands.

Under the policy a two prong approach will be followed; one aspect will be to support the vulnerable groups who either own small portion of the land and livestock or landless who heavily depend upon daily wages or non-farming activities like kitchen gardening, back yard poultry farming, home based forest and fruit nurseries, honey bee keeping and income generation from both on-farm and off-farm activities. Through these interventions some of the basic needs of the poor and vulnerable population would be addressed. It is worth-mention that in FATA majority of the population depends on subsistence agriculture. In response to the bottlenecks identified by the farmers with regard to higher agriculture production, the policy recommends provision of quality essential agriculture inputs, on subsidized rates and skill enhancement trainings to the farming communities through technical and financial assistance under development projects under a regular and systematic approach. The training and skills received by these people will also be utilized in the production of high value crops, livestock, and natural resources by the progressive farmers. In addition, mechanism should be developed that would enable the farmers to utilize seeds from their own crop production instead of the hybrids.

In view of the ecosystem-based adaptation of the land use the second important category of focus will be prioritizing interventions on high value production system utilizing the comparative advantage of different ecological zones. Depending upon the suitability of each zone the following type of interventions will be promoted:-

- High value agriculture crops;
- Quality seed production;
- Fruit plants nurseries and orchards;
- High value natural forests protection against indiscriminate cutting;

- High value timber and fodder trees species in agro-forestry;
- Selection breeding of crops and livestock for multi trait and uni-trait varieties and breeds where appropriate for the livelihood and market demand;
- Non-timber forest products (mazri, medicinal and aromatic plants, mushroom, chalgoza pine etc);
- High value wildlife protection against indiscriminate hunting;
- Range lands protection against overgrazing and fires;
- Critical watershed protection against denudation and soil erosion;
- Sheep and goat rearing (wool processing), dairy farming and poultry farming;
- Fish replenishment and farming in public and private sector;
- Rationalize and minimize the use of pesticides;
- Nature and culture based tourism.

In order to make these agri-based enterprises sustainable, the concept of the entrepreneurship will be introduced by involving the private sector through public-private partnership arrangement. The produce from these enterprises will be marketed at higher prices by adopting supply chain and value addition approach. Strong market linkages development also needs to be emphasized. The private sector will be involved in input and output marketing. This is also required to help farmers adopt alternate crops in poppy growing areas with high economic returns. In this regard, successful example of the Kalam Integrated Development Project (KIDP) and the Project for Horticulture Promotion (PHP) needs to be internalized. For some high value crops, both national and international level markets will also be identified. Provision of quality agriculture inputs will be the key for enhanced quality production. In order to further strengthen farmers' capacities and skills in production, agriculture related enterprises and appropriate marketing techniques, Farmer Field Schools and Farmer Business schools will be used as vehicles for production and marketing. In this regard, research findings on the quality production will also be utilized more intensively by improving the link between agriculture extension and research. Moreover, research stations should be established and arid agriculture Research Techniques should be promoted in FATA. The involvement of the Agriculture University will also be ensured. Quality control measures will be enforced for exportable commercial agriculture commodity so that an ensured market is secured.

Similarly in livestock sector, instead of taking the lead role, government should facilitate the private sector in establishing model livestock farms in FATA. With regard to fish farming, there should be more focus on restocking of existing dams and establishing private fish ponds.

Natural Resource Management

This is another prime area where there will be focus on appropriate management of natural resource especially in the context of climate change and frequent disasters. Due to increased population pressure on the natural resource both by the local communities and Afghan refugees, the productivity and services of various land use like agriculture, rangeland and forests has tremendously reduced. Due to the lack of vegetation cover on the critical watersheds as well as indiscriminate cutting and un-controlled grazing, the water absorption/recharging capacity has been tremendously reduced, which result into heavy flooding and accelerated soil erosion. Linked with this, due to less recharge, the water table is decreasing day by day, which has serious implication for agriculture, livestock, forests and human beings. Drought is a common phenomenon, which combined with other factors lead to desertification.

The vast rangeland resource is currently producing less than 60 percent of its potential. In the same way, the degradation and depletion of the forestry resource is also a concern, which in turn affect biodiversity conservation. Under the policy, an integrated natural resource management approach will be adopted, which will ensure the judicious and balance utilization of the natural resource base as a whole. This will bring more complementarities in actions rather than adopting more isolated working by each subsector.

For the promotion of water resource effective measures will be adopted for rainwater harvesting and efficient use of water. The critical watersheds and catchments will be planted up to enhance it absorptive

and protective capacity. Community participation will be the key pillar for the sustainable natural resource management.

Land Zoning

Due to the lack of agro-ecological zoning, the land use is inappropriate, and the policy will focus on zoning according to the ecological conditions. The land zoning will specify various types of lands for suitable land products under established land use classification system. In this case, the forest land will not be converted into agriculture land, and the same way the agriculture land will not be converted for housing purposes. This will however require a robust public awareness raising campaign and active advocacy and lobbying forum to bring understanding about the usefulness of the land use classification, and the negative repercussions related to non-compliance. In line with the policy, appropriate rules and regulations will also be framed.

Soil and water conservation and on-farm water management

In FATA, there is great need for soil and water conservation. Water is the most limiting factor for agriculture production and afforestation, and there is urgent need to work on a number of fronts. First there should be increased water recharging, surface water collection through water harvesting structures, constructions of irrigation effective and efficient water channels, and efficient use of irrigation water through drip irrigation. This will make possible to grow high value crops. This will be in addition to rehabilitation and maintenance of existing water channels and promotion of alternative sources of energies including solar to increase efficiency of irrigation tube wells. In order to focus on the irrigated agriculture, on-farm water management and water and soil conservation sub-sectors will be established in FATA on the pattern of Khyber Pakhtunkhwa and other provinces.

Climate change and disaster Riskreduction

FATA is a disaster prone zone, where both man-made and natural calamities work in a combined way. The ongoing conflict has negative repercussions on the livelihoods, food security and nutrition especially of the poor segment of the society. This is further compounded by natural hazards like drought and flood. The expected increase in temperature and changed pattern of rainfall will pose a big challenge on the type of agriculture in future. Climate change is currently causing disasters and is posing a threat to crop husbandry. Agriculture research in FATA should be strengthened for coping with climate change threats to crop husbandry to initiate preparations regarding the appropriate crop varieties and the related farming practices. Disease and pest attack on crops, trees and animals with climate change factors is also crucial and have to be taken care in time.

Improved governance through regulatory framework

In FATA currently only few acts and rules and regulations have been extended, while there is a need to extend a number of important legislations and acts to streamline the agriculture sectors. The agriculture sector legislation will be extended to FATA along with the initiation of commercial banking system. The establishment of FATA Investment Bank with micro-credit license will help the farmers and agriculture based entrepreneurs to avail the loan facility.

In addition for the development of the natural resources, the following Acts will be extended to FATA;

- West Pakistan Fisheries Ordinance 1961
- Forest Ordinance KP, 2002
- Wildlife Act KP, 2015
- Pakistan Prevention of Cruelty to Animals Act 1890
- The West Pakistan Animal Slaughter Control Act 1963

The existing as well as the afore-mentioned acts will require appropriate adjustments to make these more relevant to the prevailing conditions and landscape. Under this policy, new acts and rules and regulations

will also be formulated for the betterment of the green sector. These may include plants and animals quarantine mechanism for checking cross-borders disease and animals flow.

7. Implementation

The key element of the implementation of the policy will be the integrated working of all the related subsectors through community participation. A more decentralized approach will be followed, where there will be more power, role and responsibility of the field level staff. The Farmer Services Centers will be used as integrated natural resource management unit, where staff of all the related disciplines will be stationed. This on one hand will encourage interaction amongst the subsectors; while on other hand will also serve as a resource hub for the farmers to receive other essential agriculture inputs.

The basic unit of management will be a valley or a cluster of villages for implementation of this policy. Each department will provide technical support in its area of competence, and multi-disciplinary teams will be established and trained in the policy tenets and objectives as well as in the PRA/ RRA technologies. Similarly, in each management unit, out of the local people, Agriculture and NRM Committee(s) will be established. This committee(s) will be made aware of the tenets and objectives of policy and trained in the methods of data collection and planning. The priorities per valley base will be set by this committee(s) based on the resource and need assessment through established participatory planning tools of PRA and RRA. Based on the joint need assessment by multi-disciplinary team and community committee, a list of prioritized activities will be made and the same will be put in joint work plan. The financial resources will be allocated as per joint work plan on valley base keeping in view the priority and needs. Community based monitoring and accountability will be enforced. The joint work plan will make the cross- sectoral interaction and linkages more strong, which will lead to a positive impact.

8. Steering

The implementation of the policy will be steered through Policy Steering Committee (PSC) at FATA Secretariat level. The mandate of the PSC will be to provide policy and strategic direction, approve work plan, release budget to the agencies, and monitor the progress. At Agency level, there will be Planning and Implementation Committee headed by the Additional Political Agent, the green sector department's representatives as members. This committee will be charged for the operational planning and oversee the implementation. The policy will be regularly monitored to adjust to the emerging needs and challenges of the green sector. Moreover, the follow up of the policy document will be the development of investment/business plan which would guide the need for financial allocation to the sector on annual basis over a period of 10 years. This will result an increase and ensured ADP allocation for the green sector.

9. Policy Period:

This policy will be for ten year period (January 2016-December 2025), however midterm evaluation will be required to adjust and fine tune to the emerging challenges and opportunities in the green sector