

Summary of the Eleventh National Economic and Social Development Plan (2012-2016)

1. Introduction

From the First of Thailand's National Development Plans to the Tenth, the development paradigm has evolved in the context of both global and domestic changes. A significant shift in the country's development planning has taken place since the Eighth Plan (1997-2001), a shift from a growth-oriented approach to the new model of holistic "people-centered development." In order to ensure more balanced development, priority was given to broad-based participation that would actively engage civil society, the private sector and academia in formulating the national development plan. However, economic mismanagement, which led to the 1997 Asian Crisis, prompted the adoption of the Philosophy of Sufficiency Economy as the guiding principle in the Ninth Plan (2002-2006), while its practical applications became evident during the Tenth Plan (2006-2011). In order to achieve sustainable development with a people-centered approach, it is necessary to enhance the country's self-resilience by strengthening its economic and social capital and improving risk management in order to effectively handle internal and external uncertainties. This will lead the country toward sustainable development and a "Happy Society."

During the Tenth Plan, the Philosophy of Sufficiency Economy was applied extensively in Thailand's development, and this resulted in greater resilience in various aspects of Thai society and enabled the nation to cope effectively with the impacts of the 2008 global economic crisis. This was clearly reflected in the Green and Happiness Index (GHI) of 65-67 percent achieved through the contributions of strong economic performance, high employment, strong communities and family ties. However, major obstacles have remained, including political unrest, environmental and ecological degradation, low educational quality, and severe drug problems. The evaluation of the Tenth Plan nevertheless indicated an improved economic foundation for development and increasing quality of growth. Quality of life has been improved through better access to various economic and social security measures and gains in poverty reduction. It is, however, essential to place emphasis on the development of human capital and security, promotion of good governance and fair competition, and a more equitable distribution of development benefits in order to reduce social inequality.

During the Eleventh Plan (2012-2016), Thailand will encounter more complicated domestic and external changes, and fluctuations that will present both opportunities for and threats to national development. Thus, it is necessary to utilize the current resilience of Thai society and its economy, and prepare both individuals and society as a whole to cope with the effects of such changes and pave the way toward well-balanced development under the Philosophy of Sufficiency Economy.

2. Situation, Risks and Resilience

2.1 Significant changes

Thailand has continued to face major global and internal changes that may either pose threats or provide opportunities for the country's development.

2.1.1 Major global changes

1) Changes in global rules and regulations have influenced the direction of future development. The 2008 world economic crisis has led to adjustments in global rules and regulations in trade, investment, finance, and environmental and social matters. These reforms in trade and investment have focused mostly on transparency, climate change, intellectual property rights and international cooperation. At the same time, the financial sector has been under close surveillance with tightened supervision. There is also growing concern about obligations and agreements involving climate change and trade measures regarding global warming issues. In addition, increasing emphasis is being placed on social issues, particularly human rights relating to human dignity. These new rules and regulations including international environmental agreements, human rights and good governance, however, are capable of being used as non-tariff barriers. Therefore, Thai firms must improve production processes and business practices in order to enhance their competitiveness. Corporate social responsibility (CSR) and fair competition must also be addressed.

2) A multi-polar economy in the new world order is increasingly important in shaping development. Adjustment to a multi-polar world economy, in which Asia has become an important engine of global growth, is imperative for Thailand. Meanwhile, the BRICs and ASEAN are becoming new economic centers of economic activity. In particular, the opened trade policies of China and Russia, the dynamic growth of Brazil and India, and the growing middle class in Asia will contribute to the expansion of global purchasing power. In addition, various economic cooperation initiatives in the region such as the ASEAN-China-Japan-India Free Trade

Agreement, the ASEAN Economic Community (AEC) in 2015, and the Asia-Pacific Economic Cooperation forum have affected various aspects of economic and social development in Thailand, such as the development of human resources.

3) Many countries are moving toward an ageing society. During the period of the Eleventh Plan, the number of older persons around the world is expected to increase by 81.9 million. The change in demographic structure toward an ageing society will affect international migration and diversification of cultures in many countries. Meanwhile, the structure of production will change drastically from being labor-intensive to knowledge and technology-intensive. Responses to this trend will focus on the development of appropriate expertise and skills to meet emerging challenges, together with the development of technologies needed to replace the shortage in the labor supply. In addition, expenditures on public health will increase at the expense of other investments.

4) Global warming effects climate change throughout the world. Global temperature has increased on average by 0.2 degrees Celsius per decade over the past 30 years, and has caused unpredictable alterations to climate as well as more frequent and severe natural disasters such as earthquakes, landslides, volcanic eruptions, floods, storms, droughts, and forest fires. Ecosystems in many areas have become vulnerable and this has resulted in the loss of flora and fauna. The earth's surface has undergone physical changes, including coastal erosion and rising sea levels that have resulted in forced migration of coastal communities and damages to infrastructure, tourist areas, and coastal industrial zones where heavy investment has occurred. In addition, disease epidemics and outbreaks of insect pests have caused harm to human life, damage to agricultural products and threats world food security. Moreover, poverty, migration and fights over resources have occurred.

5) The worldwide security of food and energy is under intense threat. Rising demand for food and energy is due to a significant increase in the world's population, whereas the supply of agricultural products has decreased due to limited arable lands, technology that has enabled crops to be used for energy rather than food, and climate change. This situation is likely to lead to increasing conflicts over food and energy in the future. Consequently, the supply of food in the world market could decline and bring about higher prices, especially in the poor countries. This would lead to a world food crisis.

6) The vital role of advanced technologies in economic and social development, and human life. Advanced technologies, including information and communication technology (ICT), biotechnology, nanotechnology, as well as cognitive science can be regarded both as tools to reduce inequality while enhancing Thailand's competitive edge, and as threats to the country's development. If the country relies primarily on imported technologies, it will be unable to compete in the world market and achieve sustainable development. Countries that are slow to make technological progress need to import technology. As a result, these countries will have low productivity and lose competitiveness over time. In addition, unequal access to technology by various groups within the society will exacerbate economic and social disparities. Thailand, as a net technology importer, needs to shift its position toward that of a technology producer.

7) International terrorism has been a threat to the world community. Transnational terrorism and crimes are widespread across the world and are increasingly violent. In addition, their patterns and networks are more complicated and have affected national security. It is imperative that Thailand brings the critical factors influencing terrorism under control, and cooperates with the international community to protect its national assets from acts of terrorism.

2.1.2 Major internal changes

1) The economic aspect

Over the past decade, the Thai economy has experienced moderate growth with stability. While the industrial sector has played a major role in production, the agricultural sector remains a key source of income and a base for value added activities. Very recently, the service sector has emerged as an additional engine of growth as linkages between the domestic and international economies have resulted in many economic activities, especially in trade and investment. Foreign direct investment has remained a critical factor for economic expansion. However, the global economic recession and a decline in the Thailand's competitiveness have affected domestic investment. In addition, some enabling factors, in particular, science and technology, quality of infrastructure, and rules and regulations are weak and have become obstacles to economic restructuring.

2) The social aspect

Thailand is becoming an ageing society due to a change in population structure, characterized by an increase of older persons and a decrease in the younger population and workforce. Although potential development opportunities

are provided for all Thai people, educational quality, child intelligence, risk behaviors for health, and low labor productivity have remained major concerns. Various types of social protection and social welfare have been extended to increasing numbers of people. However, some disadvantaged groups have lacked access to social services. Income inequality and lack of access to resources are continuing challenges. Thai society is facing a crisis of declining ethical and moral values, and greater cultural diversity in society. Gambling and drug use are widely seen, particularly among young and adolescent groups. At the same time, the Thai populace is increasingly active in politics and is paying more attention to social responsibility and governance.

3) The aspect of natural resources and the environment

Natural resources have been depleted and the environment has been degraded. Moreover, climate change has exacerbated problems involving natural resources and the environment, and has affected agricultural production and poverty. Management of natural resources and the environment has not been effective and the conflict between environmental conservation and economic development has been made manifest. Nonetheless, Thailand's food security has remained adequate despite challenges from climate change and from increasing demand for fuel crops.

4) The administrative aspect

Thai people now are more active in politics and ready to express opinions. However, political conflicts and the unrest in the southernmost provinces have continued. These have affected the economy, daily life, confidence in Thailand by other countries and peace in Thai society. The overall performance of the government sector has improved but the ability to address corruption needs to be strengthened. Even though decentralization is in progress and local governments have more tax revenue, the allocation of responsibilities between the central governments and local units has remained unclear.

2.2 Risk assessment

Thailand will encounter risks and must enhance the resilience of its society in order to effectively meet challenges in these six areas:

2.2.1 Public administration is ineffective. The government sector is often unable to carry out policies and missions effectively. Administrative authority is occasionally distorted while the gap between government agencies and the public has widened in some areas. Certain segments of the government sector are inefficient and

law enforcement is ineffective. Though public forums have displayed a high level of participation, people still have limited opportunity to participate in decision-making regarding policy. Government officials have not been held accountable, while law enforcement is not strict. This leads to inequality and unfairness in economic, social and political areas, thereby intensifying corruption. These undermine the trust and confidence of the country.

2.2.2 The economic structure is too unstable to assure sustainable development. The Thai economy is subject to the uncertainties of the world economy. In the past, the country's economy relied mainly on foreign investment and exports based on financial capital and low-wage labor that then became constraints for increasing competitiveness. The rate of return for employees in the agricultural sector is relatively low. Most farmers are poor and in debt. As demand for energy increases, the country has had to depend heavily on imported energy sources.

2.2.3 The demographic structure has changed as the older population increases, and those younger and of working age decrease. Thailand will be an ageing society in 2025. The proportion of young and working age citizens has continuously declined and this will affect the supply of labor in the future. The shortage of skilled labor is a critical concern. Moreover, health expenditures will increase and become a burden on public finances, household expenditures and social security.

2.2.4 Social values and traditions have deteriorated. Economic growth and globalization have led to increasing materialism and consumerism. This has weakened Thai values and traditional patterns of behavior. Public consciousness of tradition and hospitality have declined, causing problems of discipline, social cohesion, respect of the rights of others and civic mindedness.

2.2.5 Natural resources have been depleted as the environment has deteriorated. Severe problems have occurred from geographical alteration and over-utilization. Climate change has intensified both the current situation and future challenges, especially regarding water shortage. Further, the exploitation and inefficient use of natural resources, as well as increasing waste, have intensified the risk of loss of biodiversity and continuing coastal erosion. The trend of natural disasters is toward more frequent occurrence, threatening agricultural production, food and energy security, health and quality of life.

2.2.6 National security remains critical. Various problems of national security have increased at an alarming rate due to political unrest, terrorism, economic crisis and international competition. Moreover, severe natural and man-made disasters are likely to have greater impacts in the future. These are challenges to the country's risk management, emergency preparedness, and its capacity to strengthen competitiveness in the global arena.

2.3 Enhancement of resilience

The country must absorb the impacts of changes effectively by strengthening and utilizing resilience:

2.3.1 Thailand is a constitutional monarchy. The Thai monarchy is considered the heart and soul of the nation. His Majesty the King Bhumibol Adulyadej is a role model for living under the Philosophy of Sufficiency Economy. His life reflects the middle path toward sufficiency. His work holds benefits for all Thais.

2.3.2 Thailand must base its future development on knowledge, technology and innovation. Research and the development of science and technology are major driving forces of the country's progress. They have redirected the production system from dependence on natural resources, capital and low productivity labor to knowledge, science and technology with high productivity.

2.3.3 Thai society maintains high values and culture. These factors contribute to social cohesion in Thai society and reduce the negative influences of modernization and conflicts. Thai people have applied the Philosophy to their daily lives, and their families have raised younger generations to recognize Thai values and identity.

2.3.4 Agriculture is the main source of income and food security. It generates a variety of benefits, for example, it is the source of job creation and food security, preserves the traditional way of life, alleviates poverty and reduces the effects of global warming.

2.3.5 The local community is an effective mechanism for management and participation in developing a good quality of life and it links the society together for the welfare of all. It is the main force for developing and preserving the country's foundation. Self-reliant communities would lessen local economic, social, natural resource and environmental problems.

3. Concept and Direction of Development

3.1 Main concepts

The country's future will inevitably be affected by many significant internal and external changes so that effective development strategies are essential. However, past experiences have revealed structural problems in broad areas including the economy, society, environment and administration, thus hindering sustainable development. As a result, Thailand's resilience must be strengthened under the Philosophy in order to successfully adapt to changes.

The main concept of the Eleventh National Economic and Social Development Plan is derived from the guiding principles of the Eighth through the Tenth Plans. The Eleventh Plan has adhered to the Philosophy of Sufficiency Economy and it should be applied to all parties at all levels. Development of people, society, economy, environment and politics are integrated holistically to increase Thailand's capacity for resilience and adaptation, from the level of the family and the community up through the nation. People-centered progress and participation are applied throughout the national development process.

3.2 Direction of development

In order to establish the direction of Thailand's development, situations and risks arising from domestic and global changes must be analyzed. Rapid fluctuations and their impacts regarding the economic and energy sectors and climate change, in particular, have both positive and negative effects on the country's development. Thus the direction by which development is administered, which adheres to the Philosophy, is to optimize benefits from the country's strengths and their potential for long term sustainability. In order to strengthen and stabilize the domestic economy, the agricultural base and SMEs will play key roles in the process. In the meantime, the nation must increase its connectivity to regional and global economies. To be more proactive with respect to the ASEAN Economy Community (AEC) in 2015, Thailand needs to comply with its commitments under various cooperation frameworks and strengthen its resilience through development of its economic and social capital. In this context, infrastructure and logistic systems have to be further developed in tandem with the quality of human resources. In all aspects, the powerhouse of the country's future development will comprise knowledge, science, technology, innovation and creativity.

Development is intended to generate resilience in every dimension of Thailand's progress toward balance and sustainability by strengthening and utilizing its capital endowment. First, **empowerment of social capital** — human, social and cultural — concentrates on human and social development toward a quality society. Resilience must be created at individual, family and community levels. Individuals should be able to adapt themselves to changes and have the opportunity to access resources and gain a fair share of benefits from development. Second, **strengthening of economic capital**, in both physical and financial aspects, is concerned with establishing a strong domestic economy through the application of wisdom, science, technology and creativity. Production that is environmentally beneficial and cooperation in regions are emphasized. Lastly, **restoration of natural resource and environmental capital** is focused on community, natural resource and environmental security as well as a low-carbon economy that is environmentally friendly. National preparedness is designed to cope with effects from climate change and natural disasters. Thailand needs to play a greater role in global forums while resilience in trade, subject to environmental obligations, is enhanced.

Meanwhile, fairness within the national administration is promoted through good governance with emphasis on the improvement of the public sector and the quality of government officials. Decentralization should be pursued more effectively in order to strengthen local administration. Anti-corruption mechanisms and preventive systems with popular participation and input should be developed. People should have fair access to the judicial system and public resources while democratic values and good governance are to be promoted.

4. Vision, Missions, Objectives and Targets of the Eleventh Plan (2012-2016)

The Eleventh Plan is an interim medium-term strategic plan to pursue the vision for the year 2027 that was set by all parties in Thai society. It states that “Thai people are proud of their national identity, in particular their hospitality. They also follow the path of Sufficiency Economy with democratic values and good governance. Quality public services are provided throughout the country. Thai people live in a caring and sharing society in a safe and sound environment. Production processes are environmentally sound, and food and energy resources are secure. The economy is based on self-reliance, and on increasing links and competitiveness in the global

market. Thailand has actively contributed to the regional and world community with dignity.”

4.1 Vision and missions

The Eleventh Plan is the first step toward the long-term vision of 2027. For the next five years, the vision and missions are established as follows:

4.1.1 Vision “A happy society with equity, fairness and resilience.”

4.1.2 Missions

1) To promote a fair society of quality so as to provide social protection and security, to enjoy access to a fair judicial system and its resources, and to participate in the development process under good governance.

2) To develop people with integrity, knowledge and skills appropriate to the age of each, and to strengthen social institutions and local communities to ensure positive adaptation to changes.

3) To enhance the efficiency of production and services based on local wisdom, knowledge, innovation and creativity by developing food and energy security, while reforming the structure of economy so that consumption becomes more environmentally friendly, and strengthening relations with neighboring countries in the region for economic and social benefits.

4) To build secure natural resource and environmental bases through supporting community participation and improving resilience that will cushion impacts from climate change and disasters.

4.2 Objectives and targets

4.2.1 Objectives

1) To promote a fair and peaceful society.

2) To increase the potential of all Thais based on a holistic approach that enables physical, mental, intellectual, emotional, ethical and moral development through social institutions.

3) To develop an efficient and sustainable economy by upgrading production and services based on technology, innovation and creativity using effective regional links, by improving food and energy security, and by upgrading eco-friendly production and consumption toward a low-carbon society.

4) To preserve natural resources and the environment so they are sufficient to maintain ecological balance and a secure foundation for development.

4.2.2 Main targets

1) Thai society will become a better place, characterized by harmony and the well-being of its people, where inequality is decreased, the number of people beneath the poverty line is reduced, and the Transparency International (TI) Corruption Perception Index scores at least 5.0.

2) All citizens will acquire lifelong learning opportunities and better health, while social institutions are strengthened.

3) The Thai economy is expected to provide inclusive growth at a moderate pace based on its potential by upgrading total factor productivity (TFP) to at least 3 percent per annum, by improving Thailand's competitiveness rank, and by increasing the contribution of SME's to at least 40 percent of GDP.

4) Environmental quality will be improved to meet international standards, reduction of green house gas emissions will be more efficient, and forest areas will be expanded to restore balance to the ecology.

4.2.3 Key indicators

1) Overall national development: Main indicators are the Thai Green and Happiness Index, the Institute for Economics and Peace (IEP) Peace Index, the ratio between the highest 10 percent of the population by income and the lowest 10 percent, the poverty line, the ratio of workers in the informal sector having access to social protection, and the TI Corruption Perception Index.

2) Social Aspect: Many indicators are applied, including average years of schooling, the proportion of population with access to communication networks and high-speed internet, the number of R&D personnel per 10,000 persons, the rate of non-communicable diseases, and Thailand's Warm Family Index.

3) Economic Aspect: Important indicators are the GDP growth rate, the inflation rate, TFP, national competitiveness, and the proportion of production (output) of GDP by SME's.

4) Natural resource and environmental aspect: A variety of indicators include quality of water and air, the proportion of conservation forest area to total land area, and the ratio of greenhouse gas emissions per capita to GDP.

5. Development Strategies

Thailand will promote a peaceful society with quality growth and sustainability. In dealing with rapid changes and complicated and unpredictable environmental events, a set of development strategies will be formulated for better risk management and to create a firm foundation for development. In addition, the quality of human capital will be developed through better access to resources and fair distribution of development benefits. To create and utilize economic opportunities, knowledge, technology and creativity will be crucial factors for environmentally friendly production and consumption leading to sustainable development. Key development strategies are:

5.1 Creating the just society. Development guidelines include:

5.1.1 Enhance socio-economic security for all citizens so they are capable of managing risks and creating opportunities in life. The economy should be restructured toward more inclusive and sustainable development while a more diversified and robust grass-roots economy should emerge. Allocation of resources should be made more just by restructuring the tax system to improve income distribution and serve as a tool for fair allocation of resources and ownership of property. Information technology should be utilized in parallel with improving access to information for career development. The private sector should play a greater role in enhancing socio-economic security for all citizens, and social protection should be upgraded and cover all people.

5.1.2 Provide social services for all as a matter of basic rights, place emphasis on the self-resilience of individuals, and encourage participatory decision-making in the country's development process. The quality of public services should be improved, and access to such services should be increased, particularly housing and public utilities for low income groups. Social welfare should be upgraded to a standard of high quality and efficiency. At the community level, grass-roots finance and various types of saving should be improved so resources can be mobilized. Positive attitudes toward gender equality should be encouraged in order to increase participation in decision making. A database system should be developed to ensure the coverage and effectiveness of social protection in accordance with basic rights.

5.1.3 Empower all sectors to be capable of having choices in living and participating in social, economic and political activities with dignity. People should have freedom to think and act creatively. Communities should build their

capacity to manage their own problems efficiently. The formation of occupational groups should be promoted and based on the potentials of the various communities. The roles played by the private sector, civil society, and local government should be synergized in the development of society. Consumer protection should be improved to meet high standards. There should be increasing access to information and knowledge about rights and the protection of consumers. Women should be promoted to managerial and decision-making positions at both local and national levels to add a greater contribution to the country's development.

5.1.4 Enhance social interaction among people within the society to bring about shared values and public benefits, and to reinforce effective, transparent, and accountable public administration. Mutually recognized new values should be created and based on trust and social cohesion. Good governance in politics should be promoted so that it embraces genuine democracy. The entire political system should pioneer genuine democracy as its key reform. Efficient public administration must be enhanced through a thorough system of checks and balances while professionally capable, ethical, and responsible officials should be developed for government service. The judicial system should guarantee impartiality, provide more access for complaints to be submitted and allow for remedies for affected victims. In addition, the use of social media should be supported to reinforce development at both local and national levels.

5.2 Developing a lifelong learning society. Development guidelines include:

5.2.1 Adjust the population structure and its distribution to be appropriate. Fertility at the current rate should be maintained. The distribution of population should reflect the carrying capacity and opportunity of areas and natural resources in the region, and take housing and resettlement into account.

5.2.2 Develop human resources aimed at increasing resilience to deal with changes. The ability of Thais at all ages should be increased. Skills for lifelong learning should be developed by focusing on knowledge, innovation, and creativity, and based on the development of five types of mind — the disciplined mind, the synthesized mind, the creative mind, the respectful mind and the ethical mind — in order to be capable of working in various positions relevant to the changing labor market over a lifetime. Values should be instilled in people for social responsibility, and respect for laws and human rights, as well as for environmentally

friendly production and consumption. Citizens should learn to cope in appropriate ways with climate change and disasters.

5.2.3 Encourage the reduction of risk factors in health. Citizens should have physical and mental well-being. They should also possess knowledge and skills in health care at the individual, family and community levels. They should participate in formulating public policies regarding health care. Public health services should be improved through better quality and coverage, and promote the use of alternative medicines. The supply of health personnel should be redistributed more equitably and a national health database should be created. Monetary and fiscal measures for health care should be managed in an efficient and sustainable manner.

5.2.4 Promote lifelong learning. Learning habits should be instilled in all Thais from an early age. Development partners should be sources of creative teaching. The needs for alternative education should be addressed through the promotion of a society that wants to learn and through techniques conducive to lifelong learning.

5.2.5 Reinforce the roles of social institutions. Social institutions should be strengthened so as to develop human resources. National pride and acceptance of cultural heterogeneity should be encouraged to reduce ideological conflicts and increase cohesion within society. International cultural cooperation, especially in the ASEAN community, should be supported to create cultural exchanges by sharing knowledge that promotes mutual understanding of the history and culture of one another.

5.3 Strengthening of the agricultural sector and security of food and energy. Development guidelines include:

5.3.1 Reinforce natural resources as the foundation of the agricultural production base. Productive arable lands should be conserved and small farmers should be supported and assured of the right to own farmland. Land should be redistributed equitably, and tax policies should be used to increase the efficiency of land utilization. Further, land management mechanisms should be improved. Natural resources for agricultural production should be restored while good agricultural norms and practices should be promoted so as to support sustainable farming.

5.3.2 Increase agricultural productivity. Research and development should be emphasized while agricultural production should be modified according to socio-geographical conditions. Controls on imported chemical fertilizers and pesticides

should be considered and their use on farms should be inspected to assure that they meet standards. Agricultural practices that preserve biodiversity and are suitable for the climate and the environment should be encouraged, while basic services for agricultural production should be improved. Development of science and technology for agriculture is essential, including support for technologies for production whose utilization is friendly to the environment.

5.3.3 Increase the value of agricultural commodities along supply chains. Local products and services in agricultural products, food and energy should be supported to create added value. Local educational institutes and the private sector should collaborate on research and development while farmers and firms should apply knowledge, technologies and innovations that are environmentally sound. Food quality and standards for farm products relative to production systems should be upgraded to meet international standards. Present and future markets for agricultural commodities should be strengthened and the private sector, community organizations and agricultural institutes should participate in managing the food and commodity system. In addition, the efficiency of logistic management in the agricultural sector should be improved.

5.3.4 Create job and income security for farmers. An income insurance system, together with crop insurance, should be developed to cover all farmers. Fairness for farmers and stakeholders in the contract farming system should be encouraged. Farmers should have a better quality of life while the new generations and skilled labor should be induced to make their careers in agriculture. Agricultural institutes and community enterprises should be major mechanisms for supporting self-reliance. At the same time, small farmers adversely affected by free trade agreements should be strengthened in order to maintain their living conditions.

5.3.5 Enhance food security and develop bio-energy at household and community levels. Communities and their citizens should plant trees in around their homes and in public areas. Farmers should utilize sustainable agriculture following the Philosophy of Sufficiency Economy. Information regarding agriculture and food production should be widely and continuously disseminated. Appropriate consumption behavior at individual and community levels, and creation of production and consumption networks among nearby communities should be promoted. Application of the zero waste approach in agriculture should be encouraged by utilizing farm residues to produce renewable energy at the community level. Infrastructure

should be developed to systematically enhance food security for farmers and communities.

5.3.6 Establish bio-energy security to strengthen the agricultural sector and support national development. Management systems for food and energy crops should be established. Research and development to increase the productivity of bio-energy crop production should be promoted. Bio-energy production and utilization related to the manufacturing and service sectors should increase efficiency. A mechanism to regulate the price structure of bio-energy should be created. Raise public awareness of the benefits of efficient energy use.

5.3.7 Improve public management to enhance food and energy security. Farmers, local scholars, the private sector and local communities should participate in agricultural development planning. Actions by government agencies at the central and local levels should be streamlined and integrated. Food and energy databases should be developed that span production and marketing through consumption. Amendments to laws and regulations that affect agricultural development should be considered. International cooperation at bilateral and multilateral levels, particularly in the ASEAN community, should be encouraged in order to make food and energy secure.

5.4 Restructuring the economy toward quality growth and sustainability. Development guidelines include:

5.4.1 Utilize science, technology, innovation and creativity as fundamental elements in economic restructuring. This strategy should be achieved through adjustment of trends in trade and investment to respond effectively to emerging markets in Asia, the Middle East and Africa, as well as the domestic market. The service sector should be restructured to allow for higher value creation and to become more environmentally healthy based on innovation and creativity. An economy based on creativity should be promoted with its focus on creative businesses, cities and industries. In addition, it is necessary to improve productivity in the agricultural sector and to enhance value creation through innovation and green production processes. There is also a need to use science, technology and creativity to promote quality and sustainability in the industrial sector and to move Thailand's development increasingly toward industries that are knowledge-based and environmentally sound.

5.4.2 Develop science and technology, research, and innovation as driving forces for sustained and inclusive growth. Economic restructuring should be

emphasized in research and development, technology transfers and applications that lead to commercialization of innovation and improve the quality of life. Also, focus on the development of creative thinking and application of local knowledge. The public and private sectors should cooperate to create an improved environment that enables value creation by providing appropriate infrastructure and facilities, thus encouraging technological development and innovation.

5.4.3 Enhance the country's competitiveness through a competitive environment that is more free and fair. The country's competitive edge should be strengthened through development of financial and capital markets along with improvement in the workforce that will facilitate economic restructuring. It is essential that the development of science and technology, innovation and creativity should be foremost as key elements in economic restructuring. The effective employment of intellectual properties and development of an efficient system to manage them should enable further research and development, knowledge transfer and application to commercial purposes. This will generate benefits for communities and for society as a whole. In addition, the development of high quality infrastructure and logistic systems should enhance the efficiency of domestic and international connectivity that is consistent with international standards. The issue of energy security is vital, and requires that more clean energy be used and alternative energy sources be developed, leading to overall improvement in energy efficiency. Reform of the legal framework, rules and regulations that govern businesses is also essential in order to bring about healthy competition and enhance efficiency that is capable of meeting global changes and trends.

5.4.4 Achieve stability through sound macroeconomic management. Priority should be given to financial management following a monetary policy that is appropriate and timely. The role of the capital market should be promoted to be consistent with development in the global financial sector. A surveillance mechanism for economic fluctuations and a comprehensive warning system should be established. There is a need to improve efficiency in foreign capital management as well as fiscal management through an improved public revenue collection system. More effective budget allocation and management is also crucial to prevent fiscal risks and enhance the operational efficiency of state-owned enterprises. The private sector should display increased participation in infrastructure investment and providing public services. The fiscal capacity of local government should also be increased.

5.5 Creating regional connectivity for social and economic stability.

Development guidelines include:

5.5.1 Develop connectivity in transport and logistic systems under regional cooperation frameworks. This should be achieved through the development of efficient transport and logistic services that meet international standards. Improvement of rules and regulations governing the transportation of goods and people should also be accomplished. In addition, the capabilities of human resources in transport and logistic businesses should be enhanced. Economic connectivity along border areas and economic zones should be increased, ensuring connectivity with domestic production bases.

5.5.2 Develop investment bases by improving competitiveness in the region. This should be achieved through spatial development that improves connectivity with neighboring countries and South-East Asia, and is based on an integrated spatial development plan for mutual security and stability. It should lead to formation of the basis for development in industry, agriculture, tourism, border economic zones, and border towns.

5.5.3 Prepare for the ASEAN Economic Community. Preparations should be made through strengthening public-private cooperation to develop human resources in all economic sectors. There is also a need to enhance the capacity of public and private educational institutions to meet internationally recognized standards. In addition, labor skill development and minimum standards for goods and services are required in order to prevent the import of low-quality products into Thailand and neighboring countries.

5.5.4 Constructively engage in regional and international cooperation frameworks to provide alternatives in foreign policies in the international arena. This should be achieved by maintaining an active role for Thailand in developing strategies for relevant cooperation structures. It is important that the country seek a balance in relations with existing and emerging superpower economies.

5.5.5 Create economic regional partnerships regarding human capital development and labor migration, and support provisions for Thai laborers in foreign countries. This should be pursued by accelerating cooperation in international labor standards and by facilitating regional labor mobility. Support should be given to Thai firms that undertake investment abroad, especially in neighboring

countries. In addition, protection of the rights and interests of Thai citizens and laborers working abroad should be provided.

5.5.6 Contribute to the international community's efforts to improve the quality of life by fighting against terrorism, international crimes, drug trafficking, natural disasters and epidemics. Capacity and preparedness should be improved to curtail and prevent international terrorism, drug trafficking, and illegal migration. There is also a need for capacity improvement and enhanced regional cooperation in dealing with natural disasters and emergencies, and in collaborating in the prevention of infection and the spread of emerging and re-emerging diseases.

5.5.7 Promote constructive international cooperation to support economic growth in ethical and sustainable ways, including cooperation with non-profit international organizations. Agreements under regional environmental cooperation frameworks should adhere to the promotion of green production, consumption and services that lead to reduction of green house gas (GHG) emissions. The roles of non-profit international organizations should be promoted and the use of Thailand as an operational base for developmental cooperation in this region should be facilitated.

5.5.8 Accelerate utilization of free trade agreements currently in effect. The business sector, particularly those firms that are affected, should acquire knowledge of both positive and negative factors in order to enhance their capacities and seize opportunities to benefit from free trade agreements. In particular, the government should support and assist SMEs that are unable to adapt themselves and deal with the aforementioned aspects in a timely manner.

5.5.9 Use Thailand as a business base for foreign investors in the Asian region, and support non-profit international organizations for regional development. Benefits and assistance shall be provided for Regional Operating Headquarters (ROHs) and non-profit international organizations in order to increase Thailand's role as a business hub and base for cooperation in the region.

5.5.10 Strengthen domestic development partners at the community level. This should be pursued by empowering communities and local governments to prepare for international and domestic changes. The development mechanism for formulating strategies should be strengthened at the provincial and cluster levels, especially at border provinces, for cross border cooperation. Support should also be

provided to enhance technical capacity and networks among Thai academic institutes in order to create close collaboration with other countries in this region.

5.6 Managing natural resources and the environment toward sustainability.

Development guidelines include:

5.6.1 Conserve and create security for natural resource and environmental bases by safeguarding and restoring forest and conservation areas.

A database system to organize information should be developed to serve as a tool for planning and management. Meanwhile, the management system governing land ownership and marine and coastal resources should undergo reform. Integrated water resource management should be urgently pursued. In addition, efforts should be made to restore and improve water resources to increase the water supply. It is essential to promote more efficient use of water. This requires a master plan of water infrastructure to systematically manage water consumption. Encouragement should be given to conservation and to sustainable utilization of biodiversity.

5.6.2 Shift the development paradigm and redirect the country to a low-carbon and environmentally friendly economy. The country's production and consumption behavior should be restructured to prepare for a transition toward a low-carbon and environmentally healthy economy. To this end, energy efficiency in the transportation and logistic sectors should be enhanced in order to reduce greenhouse gas emissions. Eco-cities should be developed that emphasize urban planning and integration of cultural, social and ecological factors.

5.6.3 Upgrade the ability to adapt to climate change. This should be achieved by enhancing knowledge and management tools to handle and respond to challenges from climate change. Community capacity and preparedness to cope with climate changes should be improved.

5.6.4 Ensure preparedness to respond to natural disasters. Maps and priority lists of risk areas should be prepared at the national, regional and provincial levels. Disaster management efficiency should be improved while database systems and telecommunication networks should be developed. Support is also needed to provide for the development of science and technology in disaster management. The national volunteer work system should be improved to meet international standards. Moreover, the private sector, enterprises, schools and local authorities should be well prepared with action plans for disaster response.

5.6.5 Foster resilience toward trade measures associated with environmental conditions and climate change impacts. Efforts should be made for surveillance and monitoring measures that are related to environmental conservation and that may have effects on international trade and investment. Planning should be introduced to deal with the anticipated effects from trade measures and international agreements on environment and climate change. It is essential to conduct research on the effects of these threats and develop strategic plans together with alleviating measures for relevant products and businesses. Firms should consider the carbon footprint for export goods, together with provisions for incentives for new industries that will create an environment for sustainable development.

5.6.6 Enhance the role of the country in international arenas as it relates to environmental framework agreements and international commitments. There is a need to study these agreements in detail to ensure that they are thoroughly understood and to monitor the status of negotiations and the positions of other countries. It is also important that government officials be equipped with negotiation skills and techniques. Moreover, cooperation within ASEAN and with major trading partners should be enhanced. The implementation of international agreements and commitments on natural resources and environment should be supported.

5.6.7 Control and reduce pollution. It is necessary to reduce air pollutants. The efficiency of solid waste disposal and community waste water treatment should be improved. In addition, a management system for hazardous, electronic and infected wastes should be established. Development of warning systems and responses for toxic accidents are needed.

5.6.8 Enhance the natural resource and environmental management system to be more efficient, transparent and equitable. Support should be given to empower communities and to advocate their rights to gain access to and utilize natural resources. Amendments to legislation are needed to address inequality among communities regarding access to and utilization of natural resources. Changes in government investment policies to facilitate conservation and restoration are also needed. An environmental tax should be collected to provide incentives for efficient use of natural resources and pollution reduction. Ways and means to generate revenue from biodiversity should be explored. Databases, monitoring and evaluation systems should be developed. Research should be supported to establish an efficient management system for natural resources and the environment.

6. Translating strategies to implementation

In order to achieve the vision, mission and targets, the implementation of the Eleventh plan should be designed in accordance with national, regional and local agendas. In this connection, the approach of Area, Function and Participation (AFP) has been upheld since its inception in the Eighth Plan. In addition to ministries and departments at the central level, agencies at the provincial level are also key actors in driving the six strategies. At the regional level, the province plays a critical role, synchronizing the national agenda with area-based development and local issues. In this regard, the provincial plan is expected to tackle problems and capitalize on the potential at the area and local levels.

Action, knowledge, technology, innovation and creativity are major tools in driving development plans at all levels and in all segments of the society. Together with this, all development partners should collaborate through the cluster approach, and be responsive to problem solving and area development. Implementation guidelines are as follows:

6.1 Promoting awareness among development partners of their roles in collaboration with the development process. Communication should be emphasized to create common understanding and commitment among partners, including the political community. In this respect, a handbook for plan translation should be designed for implementation.

6.2 Collaborating on the Eleventh Plan with government policies, the Government Administrative Plan and other plans. Significant development issues in the Plan should be incorporated or integrated into government policies, the Government Administrative Plan, specific plans and operational plans. Along this line, the Eleventh Plan needs to be closely linked to the budget allocation strategy and the annual budget plan. Furthermore, it is necessary to link development issues and guidelines addressed in the Eleventh Plan with community plans, local administrative plans, provincial plans and provincial cluster plans. The provinces are also encouraged to take major development issues and guidelines into account, in particular in their investment plans.

6.3 Providing an enabling environment to enhance stakeholders' capacity. To increase overall productivity and improve the quality of life, research and development should be an important tool for driving the country's development. Implementation of appropriate rules and regulations should facilitate better

management of the Plan. In addition, information technology should be used to assist communication and develop database management in order to encourage public participation in the development process.

6.4 Enhancing efficiency of development mechanisms to improve effective plan implementation at local, regional and national levels for better management. National committees and agencies are encouraged to integrate the Plan's development issues and guidelines into their agendas. Provincial organizations should serve to link, coordinate and act as clearing houses for top-down and bottom-up development issues for the private sector and for other agencies that collaborate in the implementation process.

6.5 Strengthening the stakeholders' capacity to contribute efficiently to the development agenda at every level. The potential of all stakeholders should be developed so they may take part effectively in the development process. In this connection, communities and local authority should be empowered to strengthen their responsiveness and adaptability toward any changes. Academic institutions should play key roles in working with the community, local government, and provincial authorities and the role of the private sector should be enhanced for economic and social development. In all respects, government authorities need to adjust their mindset to play meaningful roles as agents of change for the country's development.

6.6 Developing efficient, transparent and participatory systems of monitoring and evaluation at all levels. To allow for the effective adjustment of the development process of the Plan, continuous monitoring and evaluation should focus on objectives and targets set in both the overall and individual development strategies of the Plan. Monitoring and evaluation systems should be developed to measure overall results of the Plan as well as area based development issues. Citizens should be encouraged to participate in the public agenda, with an emphasis on efficiency and transparency. Databases at provincial and local levels should be developed and linked with central databases and any others that are relevant.