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

1 Introduction

From the First to the Tenth of Thailand's national development plans, the development paradigm of national development plans has evolved in the context of global and domestic changes. A significant shift in the country's development planning has taken place since the Eighth Plan (1997-2001) from a growth-oriented approach to the new model of holistic "people-centered development". In order to ensure a more balanced development, priority was given to broad-based participation, and to actively engaging civil society, the private sector and academia, in the formulation the national development plan. Furthermore, economic mismanagement, which led to the 1997 Asian crisis, prompted the adoption of the Philosophy of Sufficiency Economy as a main guiding principle in the Ninth Plan (2002-2006), with its practical applications becoming 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 Thailand's 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 "Happiness Society".

During the Tenth Plan, the Philosophy of Sufficiency Economy was applied extensively in Thailand's development, resulting in greater resilience in various aspects of Thai society, enabling Thailand to cope effectively with the impacts of the 2008 global economic crisis. This achievement was well reflected in the Green and Happiness Index (GHI) of 65-67 percent, with contribution from strong economic performance, high employment, strong communities and family ties. However, major obstacles remain, such as political unrest, environmental and ecological degradation, low quality of education, and severe drug problems. The evaluation of the Tenth Plan also indicated improved economic foundations for development and increasing quality of growth. Quality of life has improved with better access to various economic and social security measures and gains in poverty reduction. It is, however, essential to emphasize the development of human capital and human security, promotion of good governance and fair competition, and 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 which present both opportunities and

threats to national development. Thus, it is necessary to utilize the existing resilience of Thai society and economy, and to prepare both individuals and society as a whole to manage the impacts of such changes and pave the way toward well-balanced development under the Philosophy of Sufficiency Economy.

2 Situation, Risk and Resilience

2.1 Significant changes

Thailand has continued to face major global and internal changes which may either pose threats to 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 the areas of trade, investment, finance, and environmental and social matters. Reformed rules and regulations 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 a growing concern about obligations and agreements on climate change, and trade measures regarding global warming issues. In addition, there is increasing emphasis on social rules and regulations, particularly on human rights in line with human dignity. These rules and regulations including international environmental agreements, human rights and good governance, however, could also be used as non-tariff barriers. Therefore Thai entrepreneurs have to improve production processes and business practices in order to enhance their competitiveness. In line with this, corporate social responsibility (CSR) and fair competition must also be incorporated.

2) Multi-polar world 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. In particular, open trade policies of China and Russia, dynamic growth of Brazil and India, and the growing middle-class in Asia will contribute toward the expansion of global purchasing power. In addition, various economic cooperation initiatives in the region such as ASEAN-China-Japan-India Free Trade Agreement, ASEAN Economic Community (AEC) in 2015, and Asia-Pacific Economic Cooperation 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. Changing demographic structure toward an ageing society in many countries will affect international migration and the diversification of cultures. Meanwhile, the structure of production will change drastically from being labor-intensive to knowledge- and technology-intensive. Responses to this trend will focus on development of appropriate knowledge and skills of human resources to meet emerging challenges, together with development of necessary technology to replace the shortage of labor supply. In addition, public health expenditures will increase at the expense of other investments.

4) Global warming has some effects on climate change all over the world. Global temperature has increased on average of 0.2 degree Celsius per decade over the past 30 years, and has caused unpredictable climate changes as well as frequent and severe natural disasters such as earthquakes, landslides, volcanic eruptions, floods, storms, droughts, and forest fires. Ecosystems in many areas have become vulnerable, resulting in the loss of flora and fauna. The earth's surface has undergone physical changes, including coastal erosion and sea level rise that are resulting in forced migration of coastal communities, and damages to infrastructure, tourist areas, and high-investment coastal industrial zones . In addition, epidemics of many diseases and insect pests will cause harm to human life and damage agricultural products, threatening world food security. Moreover, poverty, migration and fights for resources have occurred.

5) Global security of food and energy under severe threat. Rising demand for food and energy is due to significant increase in the world's population, whereas the supply of raw materials has been constrained by limited arable lands, technology, and climate change. This situation is likely to lead to increasing conflicts over food and energy in the future. Consequently, the supply of food on the world market will decline and cause high prices, especially in the poor countries, likely leading to a world food crisis.

6) Vital role of advanced technology in economic and social development. Advanced technology, including information and communication technology (ICT), biotechnology, nanotechnology as well as cognitive science can be regarded both as opportunities in reducing inequality and enhancing Thailand's competitive edge, and threats to the country's development. Relying primarily on technology imports the country will be unable to compete in the world market and achieve sustainable development. In addition, unequal access to technology by various groups in society will exacerbate economic and social disparities. Thailand, as a net technology importer, needs to shift its position toward that of a technology creator.

7) International terrorism has been a threat to the world community. Transnational terrorism and crimes tend to spread across the world and are

increasingly violent. In addition, their patterns and networks are more complicated and have affected security at the national level. It is imperative that Thailand bring the critical factors influencing terrorism under control, and cooperate with the international community to protect its national interests.

2.1.2 Major internal changes

1) 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, while the linkages between the domestic and international economies have resulted in many economic activities, especially in trade and investment. Foreign direct investment has remained critical factor for economic expansion. However, the world economic depression and a decline in the country's competitiveness have affected domestic investment. In addition, some critical enabling factors, in particular, science and technology, quality of infrastructure, and rules and regulations are weak and have become obstacles to economic restructuring.

2) Social aspect

Thailand is becoming an ageing society due to changes in population structure, characterized by the increase of older persons while the size of younger population and workforce decrease. Although potential development opportunities are provided for all Thai people, issues related to education quality, child intelligence, risk behaviors for health, and low labor productivity have remained major concerns. Various types of social protection and social welfare have covered increasing numbers of people. However, some disadvantaged groups have lacked access to social services. Income inequality and access to resources are continuing challenges. Thai society has confronted a crisis of declining ethical and moral values and greater cultural diversity in society, as well as a widespread use of drugs and gambling, particularly by young and adolescent groups. At the same time, Thai people are increasingly active in politics and pay more attention to social responsibility and governance.

3) Natural resource and environmental aspect

Natural resources have been depleted; and the environment degraded. Moreover, climate change has exacerbated the problems of natural resources and the environment, which have affected agricultural production and poverty. Management of natural resources and the environment has not been effective, and has revealed the conflict between environmental conservation and economic development. Nonetheless, Thailand's

food security remains favorable despite facing challenges from climate change and increasing demand for fuel crops.

4) Administration aspect

Thai people are more active in politics and ready to express different opinions. At the same time, political conflicts and unrest in the southernmost provinces have continued. These have impacts on daily life, including declining happiness, and confidence in Thai society. The overall performance of the government sector has improved, but the capacity for addressing corruption needs to be strengthened. Even though decentralization is in progress and local government has more tax revenue, the allocation of responsibilities between the local and central governments have remained unclear.

2.2 Risk assessment

Thailand will encounter risks and has to enhance societal resilience in order to effectively meet challenges in the following six areas.

2.2.1 Public administration is ineffective. Government sector is unable to effectively carry out policies and missions. Administrative authority is occasionally distorted while the gap between government agencies and the public in general in some areas has widened. Some segments of the government sector are inefficient, and law enforcement is ineffective. Though public forums have involved a high level of participation, people have less opportunity to participate in policy decision-making. The implementation of policies, to some extent is perceived not to be transparent, leading to inequality and lack of fairness in the economic, social and political areas. These undermine trust and confidence of the country.

2.2.2 Economic structure remains vulnerable. Thai economy is subject to the uncertainty in the world economy. In the past, the economy relied mainly on foreign investment and exports based on financial capital and low-wage labor, which then became constraints for increasing competitiveness. Rate of return for employees in the agricultural sector is relatively low. Most of the farmers are poor and in debt. While demand for energy is increasing, the country has depended heavily on imported energy.

2.2.3 Demographic structure has changed with older persons increasing, while the younger and working populations have decreased. Thailand will be an ageing society in 2025. Proportion of young and working age population has continuously declined and will affect the supply of labor in the future. Shortage of skilled labor is a critical concern. Moreover, health expenditure will increase and become a burden on the public finance, household expenditure and social security.

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

2.2.5 Natural resources have been depleted, and the environment degraded. The severe problems are resulting from geographical changes and over-utilization. Climate change has intensified both the current situation and future challenges, especially shortage of water. Moreover, the exploitation and inefficient use of natural resources as well as increasing waste have led to the risk of biodiversity loss and continuing coastal erosion. Natural disasters tend to occur frequently, threatening agricultural production, food and energy security, health and quality of life.

2.2.6 National security is still critical. Various problems of national security have been increasing at an alarming rate due to political unrest, terrorism, economic crisis and international competitions. Moreover, severe natural and man-made disasters are likely to have greater impacts in the future. These are challenges for the country's risk management, emergency preparedness, and the 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 as follows:-

2.3.1 Thailand is a constitutional monarchy. Thai monarchy has been considered the heart and soul of the nation. His Majesty King Bhumibol Adulyadej is a role model for living under the Philosophy of Sufficiency Economy. His life reflects the middle path – avoiding extremes; it is “sufficient” in its demands on resources, and his work and example has led to benefits for all Thais.

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

2.3.3 Thai society maintains good values and culture. These factors contribute toward social cohesion and reduce the negative influences of modernization and conflicts in Thai society. Thai people have applied the Philosophy of Sufficiency Economy to

their daily lives. Thai families have raised the younger generations to recognize Thai values and identity.

2.3.4 Agriculture is the main source of income and food security. It generates various benefits such as being the source of job creation and food security, preserving the traditional way of life, alleviating poverty and reducing global warming effects.

2.3.5 Local community is an effective mechanism for management and participation in better quality of life and welfare society. It is the main force for developing the country's foundation. Self-reliant communities lessen local economic, social, natural resource and environmental problems.

3 Concept and Direction of development

3.1 Main concepts

The country's future development will be inevitably affected by many significant internal and external changes so that effective development strategies are required. However, past development experience has revealed structural problems in broad areas such as the economy, society, environment and administration, thus hindering sustainable development. Therefore Thailand's resilience must be enhanced under the Philosophy of Sufficiency Economy in order to successfully adapt to changes.

The main concept of the Eleventh National Economic and Social Development Plan derives from the Eighth to the Tenth Plans' guiding principles. The Eleventh Plan has adhered to the Philosophy of Sufficiency Economy and that 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 including at the level of the family, community and the nation. People-centered development and participation are applied throughout the national development process.

3.2 Direction of development

In order to set the direction of Thailand's development, situations and risks arising from domestic and global changes are to be analyzed. Rapid fluctuations and their impacts, in particular in the economic and energy sectors and climate change, have both positive and negative effects on the country's development. Therefore, the direction of development administration which adheres to the philosophy of Sufficiency Economy, is to optimize benefits from the country's strengths and its potential for long term sustainability. In order to both strengthen and stabilize the domestic economy, the agricultural base and SMEs will have key roles to play in the development process. Meanwhile, Thailand has to increase its connectivity to the regional and the 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, knowledge, science and technology, innovation, and creativity will become powerhouse of the country's future development.

Development is intended to generate resilience in each dimension of Thailand's development for balance and sustainability by strengthening and utilizing capital endowment. First, **empowering of social capital** (human, social and cultural aspects) is concentrated on human and social development toward social quality. Resilience must be created at individual, family and community levels. People can adapt themselves to changes and have the opportunity to access resources and gain fair benefits from development. Second, **strengthening of economic capital** (physical and financial aspects) concerns strengthening the domestic economy through application of wisdom, science, technology and creativity. Environmentally friendly production and cooperation in regions are promoted. Lastly, **restoring natural resource and environmental capital** has focused on community, natural resource and environment security, as well as a low-carbon and environmentally friendly economy and society. National preparedness is intended to cope with effects of climate change and natural disasters. Thailand plays a greater role in global forums, while resilience in trade, subject to environmental obligations, is enhanced.

Meanwhile, fairness in national administration is promoted through good governance with the emphasis on the improvement of 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 people participation should be developed. People have fair access to the judicial process and public resources while democratic values and good governance have been promoted.

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

The Eleventh Plan is an indicative medium-term strategic plan aimed at achieving the vision of the year 2027 which was set out by all parties in Thai society, that is "Thai people are proud of their national identity, in particular 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 process is environmentally friendly, and food and energy resources are secure. The economy is based on self-reliance and increasing linkages

and competitiveness on the global market. Thailand actively contributes to the regional and world communities 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, vision and missions are set as follows:-

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

4.1.2 Missions

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

2) To develop people with integrity, knowledge and skills appropriate to their ages, and to strengthen social institutions and local communities for 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, reforming the structure of the economy and consumption to be environmentally friendly, and strengthening relations with neighboring countries in the region for economic and social benefits.

4) To build a secure natural resource and environmental base by supporting community participation and improving resilience to 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 with physical, mental, intelligence, emotional, ethical and moral development through social institutions.

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

4) To preserve natural resources and environment to be sufficient for maintaining the ecology and a secure foundation of development.

4.2.2 Main targets

1) Thai society becomes a better place characterized by harmony and well-being of its people, inequality is decreased, the number of people under the poverty line is reduced, and the Corruption Perception Index is not lower than score of 5.0.

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

3) Thai economy is expected to provide inclusive growth with moderate pace based on its potential by upgrading total factor productivity (TFP) not lower than 3 percent per annum, improving Thailand's competitiveness rank, and increasing the SME's contribution to be not lower than 40 percent of GDP.

4) Environmental quality is improved to meet international standards, reduction of green house gas emission is more efficient, and forest areas have been expanded for a more balanced ecological system.

4.2.3 Key indicators

1) Overall national development: Main indicators are Green and Happiness Index, the Peace Index, the proportion between income groups of the highest 10 percent and the lowest 10 percent, the poverty line, ratio of workers in informal sector have access to social protection, and the Corruption Perception Index.

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

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

4) Natural resource and environmental aspects: Various indicators are quality of water and air, the proportion of conservation forest areas to total land area, and ratio of green house gas emissions per capita to GDP.

5

Development Strategies

Thailand will promote a peaceful society, with quality growth and sustainability. In dealing with a fast-changing, complicated and unpredictable environment, a set of development strategies are designed for better risk management and improved resilience in utilizing the country's economic and social capital. Together with this, the quality of human

resources will be developed through better access to resources and through a fair distribution of development benefits. To create and utilize economic opportunities, knowledge, technology and creative ideas will be crucial factors for environmentally friendly production and consumption, leading to sustainable development. Key development strategies are as follows:-

5.1 Creation of the just society. Development guidelines include:-

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

5.1.2 Provide social services for all in accordance with basic rights, emphasize self-resilience of individuals, and encourage participatory decision-making in the country's development process. The quality of public services will be improved, and access to such services increased, particularly to housing and public utilities for low income groups. Social welfare will be developed to have high quality and efficiency. At the community level, grass-roots finance and various types of savings will be improved for mobilizing resources. Positive attitudes toward gender equality will be encouraged for increasing participation in decision making. A database system will 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 politic activities with dignity. People will have freedom to think and act creatively. Capacities of communities will be strengthened to efficiently manage their own problems, while the formation of occupational groups will be promoted and based on communities' potentials. Roles of the private sector, civil society, and local government will be synergized in social development. Consumer protection will be improved to meet high standards, along with increasing access to information and knowledge about rights and the protection of consumer's rights. Women will be promoted to managerial and decision-making positions at local and national levels for greater contribution to the country's development.

5.1.4 Enhance social interaction among people in society for having shared values and public benefits, and reinforce effective, transparent, and

accountable public administration. Mutually recognized new values will be created and based on trust and social cohesion. Good governance in politics will be promoted to embrace genuine democracy together with reforming the entire political system to pioneer genuine democracy. Efficient public administration has to be enhanced with a thorough system of checks and balances, while professionally capable, ethical, and responsible government officials will be developed. Judicial system will ensure impartiality, providing more access to submit complaints and allow for remedies for affected victims. In addition, use of social media both at local and national levels will be supported to reinforce development.

5.2 Development of the lifelong learning society. Development guidelines include:-

5.2.1 Adjust the population structure with appropriate population distribution. Fertility at the current rate should be maintained and the distribution of population, as well as housing and resettlement will be supported in accordance with the carrying capacity and opportunity of areas and natural resources in the region.

5.2.2 Develop human resources aimed at increasing resilience for change. Quality of Thais at all ages will be increased. Skills for lifelong learning will be developed focusing on knowledge, innovation, and creativity, and based on the development of five minds—disciplined mind, synthesized mind, creative mind, respectful mind and ethical mind in order to be capable of working in various jobs over a lifetime, relevant to the changing labor market. People will be instilled with the values of social responsibility, respect for the law, human rights, environmentally friendly production and consumption, and learn to cope appropriately with climate change and disasters.

5.2.3 Promote the reduction of risk factors in health. People will have physical and mental well-being, as well as knowledge and skills in health care at the individual, family and community levels. They will participate in formulating public policies for health care. Public health services will be improved for better quality and coverage, together with the promotion of alternative medicines. Supply of health personnel will be redistributed, while national health database will be developed. Monetary and fiscal measures for health care will be managed in efficient and sustainable manners.

5.2.4 Promote lifelong learning. Learning habit will be instilled in all Thais from an early stage in life. Roles of development partners will be promoted as sources of creative learning. Alternative education relevant to needs will be encouraged with the promotion of a learning society and factors conducive to lifelong learning.

5.2.5 Reinforce roles of social institutions. Social institutions will be strengthened to develop human resources. National pride and acceptance of cultural

heterogeneity will be encouraged to reduce ideological conflicts and increase social cohesion. International cultural cooperation, especially in the ASEAN community, will be built to create cultural exchanges by sharing knowledge in order to promote mutual understanding in history and culture.

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 for agricultural production base. Productive arable lands will be conserved and small farmers will be supported to own or have rights to farmlands. Land will be redistributed equitably as well as using tax measures to increase efficiency of land utilization. Moreover, land management mechanism will be improved. Natural resources for agricultural production will be restored while good agricultural norms and practices will be promoted for supporting sustainable farming.

5.3.2 Increase agricultural productivity. Research and development will be emphasized while agricultural production will be adjusted appropriate to socio-geographical conditions. Imported chemical fertilizers and pesticides will be controlled and their farm uses will be inspected to meet clear standards. Agricultural practices for preserving biodiversity will be encouraged to be suitable for the climate and the environment, while basic services for agricultural production will be improved. Science and technology for agriculture will be developed, including support for using technologies for production friendly to the environment.

5.3.3 Increase value of agricultural commodities along supply chains. Local products and services will be supported to create added value including in agricultural products, food and energy. Collaboration between local educational institutes and the private sector will be encouraged for research and development while farmers and entrepreneurs will be supported to apply knowledge, technologies and innovations that are environmentally friendly. Quality and standards of food and farm products in line with production systems will be upgraded to meet international standards. Markets and future markets for agricultural commodities will be strengthened, and the participation of the private sector, community organizations and agricultural institutes will be encouraged in managing the commodity and food system. In addition, the efficiency of logistic management in the agricultural sector will be improved.

5.3.4 Create job and income security for farmers. An income insurance system together with crop insurance will be developed to cover all farmers. Fairness for farmers and stakeholders in the contract farming system should be encouraged. Farmers

should have better quality of life while the youth, new generations and skilled labor should be induced to engage in agriculture. Agricultural institutes and community enterprises will be major mechanisms for supporting self-reliance. At the same time, small farmers affected by free trade agreements will be empowered in order to maintain their living conditions.

5.3.5 Enhance food security and develop bio-energy at household and community levels. People and communities will be encouraged to plant trees in households and public areas. Farmers will be encouraged to utilize sustainable agriculture following the Philosophy of Sufficiency Economy. Knowledge management in agriculture and food production will be widely and continuously disseminated. Appropriate consumption behavior at individual and community levels, and creation of production and consumption networks among communities nearby will be promoted. Application of zero waste approach in agriculture will be encouraged in order to utilize farm residues to produce renewable energy at the community level. Infrastructure will be developed in order to help systematically enhance food security for farmers and communities.

5.3.6 Establish bio-energy security to strengthen the agricultural sector and support the national development. Management system for food and energy crops will be set up, while research and development for increasing productivity of bio-energy production from energy crops will be promoted. Efficiency in bio-energy production and utilization related to manufacturing and service sectors will be increased. A mechanism for regulating price structure of bio-energy will be created and public awareness of efficient energy use will be raised.

5.3.7 Improve public management to enhance food and energy security. Farmers, local scholars, the private sector and local communities will participate in agricultural development planning, while actions among government agencies both at central and local levels will be streamlined and integrated. Food and energy database systems will be developed ranging from production, marketing to consumption. Laws and regulations related to agricultural development will be improved. International cooperation at bilateral and multilateral levels, particularly in the ASEAN community, will be encouraged in order to secure food and energy.

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

5.4.1 Utilize science, technology, innovation and creativity as fundamental factors for economic restructuring. This strategy will be achieved through an adjustment of trends in trade and investment to appropriately respond to emerging markets in Asia, Middle East and Africa as well as to the domestic market. The service sector will be restructured to allow for higher value creation and to become more environmentally friendly, based on innovation and creativity. Creative economy will be promoted with the

focus on creative business, creative cities and creative industries. Moreover, 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 and technology, and creativity to promote quality and sustainability in the industrial sector and to move Thailand's development toward becoming increasingly knowledge-based and environmentally friendly.

5.4.2 Develop Science and Technology, Research, and Innovation as driving forces for sustained and inclusive growth. Economic restructuring will emphasize research and development, technology transfer and applications to result in commercialization of innovation, and improvements in the quality of life. There will also be a focus on the development and application of creative thinking and local wisdom. The public and private sectors will cooperate to create an improved enabling environment to facilitate value creation through the provision of appropriate infrastructure and facilities, thus encouraging technology development and innovation.

5.4.3 Enhance the country's competitiveness with a freer and fairer competitive environment. The country's competitive edge will be strengthened through the development of financial and capital markets, along with the improvement of the workforce, in order to facilitate the economic restructuring. It is essential that the development of science and technology, innovation and creativity is promoted to become key elements in economic restructuring. Moreover, the effective employment of intellectual properties and the development of an efficient intellectual property system will facilitate further research and development, knowledge transfer and application to commercial purposes, generating benefits for communities and for society as a whole. In addition, the development of high quality infrastructure and logistic systems will strengthen the efficiency of domestic and international connectivity consistent with international standards. The issue of energy security will be vital, requiring that more clean energy is used and alternative energy developed, leading to an overall improvement in energy efficiency. Reform of the business legal framework, relevant rules and regulations will also be essential in order to facilitate healthy competition and to enhance efficiency in a manner compatible with global changes and trends.

5.4.4 Achieve stability through sound macroeconomic management. Priority will be given to financial management under appropriate and timely monetary policy. The role of the capital market will be promoted consistent with development in the global financial sector. A surveillance mechanism for economic fluctuations, and a comprehensive warning system will 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 will also be crucial in preventing fiscal risks and enhancing the operational efficiency of state-owned

enterprises. Private sector will be encouraged to participate more in investment in infrastructure and public service provision. Fiscal capacity of local government will also be improved.

5.5 Create 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 will be achieved through the development of efficient transport and logistic services meeting international standards. Improvement of relevant rules and regulations on transportation of goods and people will also be undertaken. Moreover, the capacity of human resources in transport and logistic businesses will be enhanced. Economic connectivity along the border areas/economic zones will be increased, while ensuring connectivity with domestic production bases.

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

5.5.3 Prepare for ASEAN Economic Community. Preparation will be made through strengthening public-private cooperation in developing human resources in all economic sectors. There will also be a need to enhance the capacity of public and private educational institutions to meet internationally recognized standards. Moreover, labor skill development, and minimum standards of 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 will be achieved through maintaining an active role of Thailand in developing strategies of relevant cooperation frameworks. It is necessary for the country to seek a balance in relations with existing and emerging superpower economies.

5.5.5 Create regional economic partnership on human capital development, labor migration and support provision for Thai labor in foreign countries. This will be pursued through accelerating the cooperation of international labor standards, and facilitating regional labor mobility. Support will be given to Thai entrepreneurs in undertaking investment abroad, especially in neighboring countries. In addition, protection of the rights and interests of Thai people and labor abroad will be provided.

5.5.6 Contribute to the international community's efforts in improving the quality of life and in the fight against terrorism, international crimes, drug

trafficking, natural disasters and epidemics. Improvement of capacity and preparedness for preventing and resolving international terrorism, drug trafficking, and illegal migration will be undertaken. There is also a need for capacity improvement and enhanced regional cooperation in coping with natural disasters, emergencies, and collaborating in the prevention of infection and spread of emerging and re-emerging diseases.

5.5.7 Promote constructive international cooperation to support economic growth in ethical and sustainable manner, including cooperation with non-profit international organizations. Agreements under regional environmental cooperation frameworks will be adhered to through the promotion of green production, consumption and services that will lead to a reduction of GHG emission. The role of non-profit international organizations will be promoted and facilitated, with Thailand as an operational base for development cooperation in this region.

5.5.8 Accelerate the utilization of currently effective free trade agreement. Knowledge will be provided to the business sector, particularly those affected, both positively and negatively, in order to enhance their capacity and opportunity for benefiting from free trade agreements. In particular, support and assistance will be provided by the government to SMEs that are unable to adapt themselves and handle the aforementioned effects in a timely manner.

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

5.5.10 Strengthen domestic development partners at the community level. This will be pursued by empowering the capacity of communities and local governments in preparing for international and domestic changes. The development mechanism will be strengthened for formulating strategies at the provincial level and provincial clusters, especially in border provinces, for cross border cooperation. Support will also be provided for the enhancement of technical capacity and networks of Thai academic institutes in order to create close collaboration with other countries in this region.

5.6 Managing natural resources and environment toward sustainability. Development guidelines include:-

5.6.1 Conserve, restore and create security of natural resource and environmental bases by safeguarding and restoring forest and conservation areas. A database system and knowledge management will be developed to serve as tools for planning and management. Meanwhile, the management system of land ownership as well

as marine and coastal resources will be reformed. Integrated water resource management will be also urgently pursued. In addition, effort will be made to improve and restore water resources to increase water supply. It is necessary to promote more efficient use of water, which will require a master plan of water infrastructure for systematic management of water consumption. Encouragement will be given to conservation and sustainable utilization of biodiversity.

5.6.2 Shift the development paradigm and direct the country to low-carbon and environmentally friendly economy and society. The country's production and consumption behavior will be restructured to prepare for a transition toward a low-carbon and environmentally friendly economy. To this end, energy efficiency in transportation and logistic sector will need to be enhanced in order to reduce greenhouse gas emissions. Development of eco-cities will also be important, with emphasis on urban planning which integrates cultural, social and ecological aspects.

5.6.3 Upgrade capacity in adaptation to achieve climate-resilient society. This will be achieved through enhancing knowledge and management tools for handling and responding to challenges from climate change. Improvement of community capacity and preparedness to cope with climate change will also be necessary.

5.6.4 Ensure preparedness for natural disaster response. Maps and priority list of areas under risk will be prepared at the national, regional and provincial levels. Efficiency of disaster management will have to be improved. Furthermore, database system and telecommunication network will have to be developed. It is necessary to provide support for the development of science and technology in disaster management. The national volunteer work system will have to be developed to meet international standards. Moreover, encouragement will be given to private sector, enterprises, schools and local authorities to be well-prepared, and to develop action plan for disaster response.

5.6.5 Foster resilience toward trade related measures associated with environmental conditions and climate change impacts. Efforts will be made for surveillance and monitoring measures related to environmental conservation that may have effects on international trade and investment. Measures will be introduced to cope with anticipated effects from trade measures and international agreements on environment and climate change. It will also be essential to conduct research on their effects, and to develop strategic plans along with alleviating measures for relevant products and businesses. Encouragement will be given to exporters to provide carbon footprint information. Together with this, incentives will also be provided for new industries to facilitate sustainable development.

5.6.6 Enhance role of Thailand in international arenas related to environmental framework agreements and international commitments. There is a need to study these agreements in detail to ensure their thorough understanding and to monitor the status of negotiations and the positions of other countries. It is also significant that the negotiation skills and techniques for government officials are strengthened. Moreover, cooperation within ASEAN and with major trading partners will be enhanced. Support will be given to the implementation of international agreements and commitments on natural resources and the environment.

5.6.7 Control and reduce pollution. It is necessary to reduce the amount of air pollutants. Efficiency of solid waste disposal and community waste water treatment will have to be improved. In addition, there is a need for a management system for hazardous, electronic and infected wastes. Development of warning system and response system for toxic accidents is needed.

5.6.8 Enhance the natural resource and environmental management system to be more efficient, transparent and equitable. Support will be given to empower communities and to advocate their rights to gain access to and utilize natural resources. Amendment of relevant legislations to address inequality among communities in access to and utilization of natural resources and changes in government investment policies are needed to facilitate conservation and restoration. The collection of environmental tax will be encouraged to provide incentives for efficient use of natural resources and pollution reduction. Ways and means to generate revenue from biodiversity will be explored. Moreover, database as well as monitoring and evaluation systems will be developed. Support will also be given to research for establishing 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 will 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. Apart from ministries and departments at the central level, agencies at provincial level are also key actors in driving the six strategies. At the regional level, the province is playing critical role, synchronizing national agenda with area-based development and local agendas. In this regard, the provincial plan is expected to tackle problems and capitalize on potential at the area and local levels.

In 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 will collaborate through the cluster approach, responsive to problem solving and area development. Implementation guidelines are as follows.

6.1 Promoting awareness among development partners of their roles in collaboration in the development process. Communication will be emphasized to ensure a common understanding and commitment among all relevant partners, including the political segment. In this respect, a handbook for plan translation will be detailed for implementation.

6.2 Collaborating on the Eleventh Plan with government policies, national administration plan and other plans. Significant development issues in the plan will be incorporated or integrated into government policies, national administration plan, specific plans and operational plans. Along this line, the Eleventh Plan will need to link closely 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 administration plans, provincial plans and provincial cluster plans. The provincial sector is also encouraged to take major development issues and guidelines into account, in particular in their investment plans.

6.3 Providing enabling environment to enhance stakeholders' capacity. To increase overall productivity and improve quality of life, research and development will be an important tool for driving the country's development. Implementation of relevant rules and regulations will facilitate better management of the Plan. Moreover, information technology will be used for facilitating communication and developing 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 address the Plan's development issues and guidelines in their agendas. Provincial organizations will serve to link, coordinate and act as clearing houses for top-down and bottom-up development issues for the private sector and other agencies to collaborate in the implementation process.

6.5 Strengthening the stakeholders' capacity to efficiently contribute to the development agenda at every level. All stakeholders' potentials will be tapped and developed so as to take part effectively in the development process. In this connection, communities and local authority will be empowered in order to strengthen their resilience toward any changes. Academic institutes will play key roles in working with community, local government, and provincial authority while the role of the private sector will be enhanced for economic and social development. In all respects, government authorities need to adjust their mindset to play meaningful role as change agents 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 planned development process, continuous monitoring and evaluation will focus on objectives and targets set in the overall and individual development strategies of the Plan. The monitoring

and evaluation systems will be developed to monitor both overall results of the Plan and area based development issues. People will be encouraged to play a part in the public agenda with emphasis on efficiency and transparency. Databases at provincial and local levels will be developed and linked with central databases and other relevant databases.