

# SUMMARY THE TWELFTH NATIONAL ECONOMIC AND SOCIAL DEVELOPMENT PLAN

(2017-2021)

Office of the National Economic and Social Development Board Office of the Prime Minister Bangkok, Thailand

#### Foreword

The Twelfth National Economic and Social Development Plan (2017-2021) was formulated during a period when the world was experiencing rapid change and becoming even more integrated, whilst Thailand itself was undergoing reforms. Since the Ninth Plan, the principles of the "Sufficiency Economy Philosophy" have been and continue to be a vital element of development strategy as they underpin the promotion of moderation, reasonableness, and resilience. These principles have significantly contributed to balanced and sustainable development in Thailand.

In formulating the Twelfth Plan, the Office of the National Economic and Social Development Board (NESDB) adhered to the 20-year National Strategy framework (2017-2036), the country's Sustainable Development Goals (SDGs), the Thailand 4.0 Policy, as well as other reform agendas. In order to set out development directions and strategies to achieve the objectives of "Security, Prosperity, and Sustainability", the NESDB regards participation by a broad cross-section of society to be a crucial principle in the drafting of this Plan.

The National Strategy is to be translated into action through the five-year National Economic and Social Development Plans, commencing with the Twelfth Plan. Each strategy within the Twelfth Plan lays out development agendas as well as flagship projects which need to be accomplished in order to prepare human capital, society, and the economy for future challenges. Clear implementation mechanisms as well as monitoring and evaluation procedures are also identified to bring about genuine development that is effective, beneficial, and sustainable for all.

Office of the National Economic and Social Development Board

Office of the Prime Minister

### Summary of the Twelfth National Economic and Social Development Plan (2017-2021)

The National Economic and Social Development Plans have steadily directed Thailand to reach higher levels of development: for example, a larger economy, outstanding and robust production and service bases, and a greater level of bilateral and multilateral international cooperation. Deepening collaboration within sub-regional and ASEAN frameworks has provided Thailand with significant opportunities in both trade and investment. Moreover, the infrastructure network has been developed to cover a much larger area of the country. Social services coverage has become comprehensive. These advancements have contributed to economic opportunities, poverty reduction, a higher income per capita, as well as an improvement in living standards.

However, since the Thai economy has become even more interconnected to the global economy, Thailand's economic structure has inevitably become sensitive to external changes. The country's international competitiveness has demonstrated only slow improvement due to a minimal utilization of scientific knowledge, technology, and innovation to expand value chains in agriculture, manufacturing, and the service industries. This has been paralleled by low productivity in the agricultural, manufacturing, and service sectors. Additionally, the country is still facing qualitative challenges in terms of human resource, education, public service, and healthcare provision. Inequality in Thai society remains high in most aspects and these result in social disunity.

Furthermore, there has been rapid environmental degradation, an overflowing of waste in the cities, and an unsystematic water management network. The growing intensity of climate change has increased the level of risks and impacts, leading to stricter rules and regulations with regards to natural resource usage. All of these challenges are partly the result of inefficiency and fragmentation in public administration. Finally, legal reforms have not been carried out in a timely manner.

Over the period of the Twelfth Plan, it is therefore necessary to prepare the country to accommodate a form of long-term development that aims to build on existing

strengths and confronts underlying weaknesses, delivering continuous development within the 20-year National Strategy framework (2017-2036). The Plan is summarized as follows;

#### 1. Overview of the Twelfth Plan

#### 1.1 Principles

Important development principles in the Twelfth Plan include the "Sufficiency Economy Philosophy", "Sustainable Development", and "Human-Centered Development", all of which have been included and adhered to in the past Ninth to Eleventh Plans. It should be noted that these development principles give emphasis to economic growth that helps reduce inequalities. They also support development that is based on local wisdom and innovation utilization in order to increase productivity.

The Twelfth Plan shares the vision of the 20-year National Strategy, which is "Thailand as a developed country with security, prosperity, and sustainability in accordance with the principles of the Sufficiency Economy Philosophy". The targets and indicators of the Twelfth Plan have been set according to the targets of the 2017-2036 National Strategy, and are also in line with the economic, social, and environmental objectives which have been developed by the international organizations, such as Sustainable Development Goals (SDGs). The development guidelines of the Twelfth Plan have incorporated the policies and key development objectives of the 37 Reforms agenda and the Thailand 4.0 Policy.

The Twelfth Plan's formulation process, implementation, monitoring, and evaluation all emphasize a process of public participation, which includes the public sector, private sector, civil society, and the academic sector across the country. It is a "Pra-Cha-Rat" mechanism, which is the platform of combining power of public sector, private sector, and citizens. It encourages all walks of life to participate in the process of setting targets, establishing guidelines and identifying the flagship programs/projects of the Twelfth Plan. The Plan can thereby serve the needs of people in different social landscapes and successfully solve their problems in an appropriate way during the 5year implementation period.

#### 1.2 Turning Points of the Twelfth Plan

The Twelfth Plan will be the first plan and implementation mechanism under the 20-year National Strategy. The Plan sets goals and indicators that need to be accomplished in order to achieve the stated development outcomes and successes. It has also established development guidelines by identifying flagship programs/projects and key integrated development challenges which will be translated into action during the first five years of the National Strategy. Accordingly, the budget allocation system, the management of public finances, public administration planning, monetary and fiscal rules and regulations, and the monitoring and evaluation system for public agency performance, together with the Twelfth Plan's own monitoring and evaluation system, will be affected and changed significantly.

Additionally, the Twelfth Plan provides guidelines for provincial, regional and urban development by identifying the sectors of production and services which are the targets of regional and urban development. These development targets will serve as action guidelines for directing and driving development on the ground in provincial, regional and urban areas to achieve results that are in line with the country's overall development goals. Moreover, the Plan has established guidelines to support the implementation of the reform plan proposed by the National Reform Council and the National Reform Steering Assembly, which urgently needs to be accomplished in the next five years.

#### 1.3 Key Integrated Development Issues in the Twelfth Plan

Although Thailand has taken measures to improve good governance, increase investment in the infrastructure network, and in research and development, Thailand's competitiveness ranking has not made much progress compared to many countries. This is because of a lack of quality human resources, minimal investment in research and development, limited quality infrastructure, weak public governance, as well as outdated and deficient laws and regulations. When faced with global economic crisis and natural disasters, the Thai economy becomes volatile and its growth rate has been lower than its potential for many years.

Moreover, intense globalization and a borderless world have caused Thailand to face more stresses and risks. Free mobility of people, financial capital, information,

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technologies, goods and services have intensified the level of competition in the global market, and also led to an increase in economic integration. Emerging economies such as China, India, Latin America and Vietnam are more competitive due to their lower labor costs and enabling measures deployed to attract foreign direct investment. Advanced information communication technology which draws the world closer together can also bring threats and risks, such as terrorism, epidemics, transnational crime, and problems with foreign workers.

At the same time, Thailand faces challenges from the country's changing demographic structure, with an aging society, a contraction of the working age population, and more senior citizens with health problems and who live alone. Poverty is still concentrated in the northern and northeastern regions of Thailand, and the income of the richest group was 34.9 times higher than that of the poorest group in 2013, due to inequality of development opportunity. Natural resource management occurs in a top-down manner and lacks public participation, which leads to conflicts between citizens and the public sector, and among various groups of people. Environmental problems have grown in association with the growth of the economy and the expansion of urban areas. The higher intensity of climate change has brought about extreme natural disasters, and has had more effects on the Thai economy and society than in the past.

Under these domestic and foreign economic, social, natural, and environmental circumstances, Thailand must adjust itself wisely to cope with the resultant risks and challenges. From now on, a dramatic improvement is needed to solve fundamental problems which are its accumulated weaknesses and threats. Meanwhile, proactive strategies should be implemented which make use of the country's strengths and advantages. Therefore, in order to implement the Twelfth Plan successfully, it is essential to focus on interconnected issues which will be crucial factors in the country's budget allocation. The significant integrated issues are as follows:

### 1.3.1 Innovation Development and Commercialization to Enhance Thailand's Competitiveness

The focus is on using creativity and innovation development to generate economic value-added in the production process, product design and services. The focus of the National Research Agenda must be clear, specific and in line with the development targets of the strategic sectors. An innovation strategy will be used to integrate research and development (R&D) and innovation development in commercial operations.

### 1.3.2 Promotion of Advanced Science, Technology and Innovation Development

This focuses on the promotion of research and development, and hopes to foster intelligent technology and develop technopreneurs' skills. Furthermore, in order to utilize research results for commercial purposes, connectivity between major production sectors - such as small-scale farming, small community enterprises, small and medium enterprises (SMEs) – and research institutes and the academic sector will be encouraged. There is also a need to leverage existing infrastructure and capital, especially human capital in Science, Technology, Engineering, and Mathematics (STEM), to engage the fast-changing world of technology. Development strategies will be encouraged to support collaborative working networks between research institutes, the academic, public and private sectors, and citizens in order to develop social innovations. It is also crucial to improve the country's research and development system.

### 1.3.3 Preparation of the Workforce and Capacity Enhancement of People of All Ages

The focus is to help develop Thai citizens in all aspects and at each stage of the life cycle in order to nurture high potential human capital. This includes cultivating good social values, ethics, discipline, well-being and public awareness among Thais. In addition, the Plan aims to increase the knowledge and skills of the Thai people at every stage of the life cycle with the aim of enhancing the qualities of Thai citizens in the future, in particular labor market skills that are needed for living in the 21st Century. The supply of a skilled workforce in the fields of science and technology to address future challenges will be a priority. The development of the education sector to become a source of excellence, and promoting a healthy population by encouraging healthy behavior and reducing environmental risks that could harm people's lives should also be embraced.

#### 1.3.4 Creating a Just Society and Reducing Inequality

Emphasis is placed on the quality of public services, including education and healthcare, for the disadvantaged and those living in remote areas. The fair allocation of arable land must be adopted, along with support for job and income creation, as well as productivity enhancement for the disadvantaged, women, and the elderly. Moreover, the distribution and coverage of public services should be improved in terms both of quantity and quality. The strengthening communities to support development should be fostered through the promotion of community entrepreneurship and vocational training centers, the encouragement of communities to provide their own welfare programs, and the creation of land distribution and management system. The key goal is to raise the income levels of the 40 percent of population with the lowest incomes.

### 1.3.5 Production Restructuring and Economic Opportunities at Each Stage of the Value Chain

The focus is on strengthening fundamental factors of production and economic capital in order to realize the full potential of the present production and income base. Also, there is a need to improve the value chain by deploying technology and utilizing R&D as a means of creating environmentally friendly and innovative forms of production which respond to the needs of the market. Conditions should be created whereby social entrepreneurs are able to gain the business skills needed to keep pace with technological change. The development of new economic zones and potential economic border gateways will support Thailand's drive to become a high-income country in the future.

#### 1.3.6 Adjustment of the Agricultural Production System to Comply with Climate Change Commitments and Land Use Potential

In order to add value to agricultural products that are safe for health and have no negative effects on the quality of life and the environment, it is important to build capacity in cognitive, academic, and agricultural science in support of knowledge creation and innovation in agriculture and the utilization of bio-based natural resources. The strategy focuses on developing systems of sustainable agriculture while expanding opportunities for farmers to access arable land. To achieve economies of scale, individual farmers are encouraged to collaborate with each other in the forms of cooperatives, partnerships and commercial companies.

#### 1.3.7 Enhance the Potential of the Existing Production and Service Base and Create New Products and Services Utilizing Intensive Technology and Innovation

The focus is on strengthening existing competitive production and service sectors to become more technology-intensive and innovation-driven. In parallel, the establishment of future industries will also be the focus of industrial development strategy. Development priorities will include preparing the human resource supply and infrastructure, as well as setting up strong and efficient mechanisms and networks for the collaborative linkage of businesses in clusters.

#### 1.3.8 Reinforcement of the "New Economies"

These include the Digital Economy, Bio-Based Economy, and the Creative and Cultural Economy. Furthermore, social entrepreneurship where start-ups and social enterprises can flourish shall be promoted in order to develop further the production base of goods and services.

### 1.3.9 Competitiveness Enhancement in the High-Potential Service Sectors and Tourism, and in Support of the Manufacturing Sector

The focus is on amending laws to achieve a balanced and sustainable development in the tourism industry by giving more careful consideration to the carrying capacity of ecosystems in evaluating an area's potential for tourism development. The strategy will also prioritize the creation of economic added value in all dimensions of the sports industry.

#### 1.3.10 Strengthening of Connectivity in the Manufacturing Sector

Linking production networks and utilizing R&D to create a variety of products that respond to market demand should lead to an increase in economic valueadded, a stronger production chain as well as an expansion of the economic base. In order to enhance systems efficiency and lower costs, connectivity in transportation, logistics and telecommunications within the following sub-regional cooperation frameworks must be promoted: the Greater Mekong Subregion (GMS), Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS), Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), Joint Development Strategy for Border Areas (JDS), as well as cooperation within the Association of Southeast Asian Nations (ASEAN).

### 1.3.11 Small and Medium Enterprises (SMEs), Community Enterprises and Social Enterprises Development

The strategy aims to expand grassroots economic development to cover a larger number of communities across the country. It is essential to create economic opportunities for various groups in society in conjunction with promoting an entrepreneurial society.

### 1.3.12 Natural Resource Stock Security and Environmental Quality Enhancement

This strategy aims to preserve and restore the natural resource base. Accordingly, it is important to optimize the efficiency of water resource management, foster green growth, and accelerate the reduction of environmental pollution caused by production and consumption. Simultaneously, it is essential to build an environmental management system that is both fair and transparent, as well as promote sustainable consumption and production. In terms of climate change, it is necessary to accelerate preparedness to enhance greenhouse gas mitigation, raise adaptive capacity whilst reducing the risk of natural disasters.

### 1.3.13 Restoration of Basic Security is a Key Factor in the Country's Economic and Social Development

The focus is on building a society based on the peaceful coexistence of different opinions and ideologies and on the basis of a democratic regime with the King as Head of State. The country must also be prepared to deal with transnational crime, which may have a significant impact on the economic and social development of the country in the next 20 years.

### 1.3.14 Improved Public Sector Management, Corruption Prevention and Establishing Good Governance

This strategy emphasizes the promotion of good governance in the public sector which is aimed at tackling public administration and personnel challenges in a concrete manner. Transparent, effective, and accountable public administration will also be encouraged. The decentralization of power, coupled with greater public participation and a fair distribution of responsibilities among national, regional, and local actors, will also be promoted.

1.3.15 Infrastructure and Logistics Development to Extend the Country's Competitiveness, Improve Service Quality to Support the Expansion of Cities and the Main Economic Areas, and Raise the Quality of Life Among all Social Groups To achieve this, the government plans systematically to increase connectivity within sub-regional frameworks and ASEAN, strengthening domestic networks that connect with transnational economic corridors. There is also a need to improve administrative and monitoring systems to become more in line with international standards, to ensure fair access to public services, and to guarantee consumer protection. Additional strategy guidelines include the development of downstream industries which can create new economic opportunities, and the promotion of entrepreneurship in the field of logistics with potential to do business abroad.

## 1.3.16 Accelerated Development of Regional, Urban and Core Economic Areas

Key activities to be undertaken in a timely manner are the strengthening of existing production and service bases, creating new production and service activities to generate more income for people in each region, and supporting high quality growth in urban areas. Other activities include restoring and developing the Eastern Seaboard areas to accommodate future industrial expansion; enabling the sound management of border economic areas to achieve sustainable growth and strengthen competitiveness; and enhancing the efficiency of urban and regional development implementation mechanisms to yield optimal outcomes.

### 1.3.17 Enhancement of International Cooperation to Deliver Favorable Development Benefits

This strategy focuses on defining and streamlining institutional linkages and regulations at the operational and implementation levels, particularly in border zones; reducing non-tariff barriers on trade and investment; advancing infrastructure development within the country and with neighboring countries; highlighting Thailand's creative role within global forums; and supporting the country's efforts to achieve its Sustainable Development Goals (SDGs).

#### 1.3.18 Expanding Thai Outward Investment

This strategy emphasizes the enhancement of Thai entrepreneurs' business skills in order to increase business cooperation with neighboring countries, investment in human resources, technology, and innovation, improving the business environment, and supporting the work of business councils under various cooperation frameworks, as well as providing Thai entrepreneurs with access to financial capital and in-depth knowledge regarding overseas production bases for Thai entrepreneurs.

#### 1.3.19 Making the Thai Financial Sector More Efficient and Competitive

There is a need for government to amend financial sector rules and regulations in order to enhance competitiveness, improve efficiency and strengthen fairness in service provision for consumers and the private sector. Furthermore, it is necessary to bolster monitoring mechanisms to avoid the potential risks resulting from intensified financial connectivity and the changing dynamics and greater volumes of capital movements. The strategy will also emphasize the expanded utilization of financial technology, the development of financial tools for funding investment in mega projects, as well as the expansion of accessibility to financial services at reasonable cost.

#### 1.3.20 Fiscal and Budgetary Reforms

Major reforms will include a broadening of the tax base; an adjustment of the budget proposal process; improvement of the budget allocation system; integrating budgeting considering both development issue-based and area-based aspects; the monitoring and evaluation of budget spending; the decentralization of taxes and fees collection to Local Administrative Organizations (LAOs); and a reduction in the duplication of social welfare benefits. There is also a need to establish the sustainable public financing of the social protection system, including improvement of the retirement savings system and the health insurance system in order to minimize financial dependency on revenues from the government.

#### 2. Assessment of the Development Situation

#### 2.1 External Situation and Trends

#### 2.1.1 The Global Economic Situation and Outlook

There are several emerging markets with a strong influence on the global economy. The global financial market has become borderless as a result of technological development and financial innovations which have evolved at a dramatic pace, leading to the emergence of new financial instruments. Economic integration is taking a variety of forms, resulting in more trade liberalization. These provide excellent opportunities for Thailand's development.

2.1.2 A Leap Forward in Research and Development in Science and Technology

This is a key factor for the development of the economy, society, and environment, and for changes in people's lifestyles. It should help generate new industries and services which can incorporate modern technology of various forms. People can have almost limitless access to information and knowledge. The labor market faces competition due to a rapid rise in demand for technology-proficient and multi-skilled personnel. Meanwhile, this may give rise to several forms of inequality, such as a disparity in access to new technologies, etc.

#### 2.1.3 The Global Social Situation and Trends

An aging population will inevitably have impacts on both the economy and people's lifestyles. It will generate various opportunities, especially among elderly people residing in developed countries who will constitute a major consumer group with potential to increase demand for certain goods and services. Conversely, such demographic change can also create challenges, especially among the highly-skilled working age population who will become increasingly sought after, particularly in countries experiencing shortages of skilled workers. Furthermore, global migration flows can lead to increasing cultural diversity as world cultures blend with local cultures, affecting people's way of life and the process of cultural evolution, which can be problematic if proper screening processes and judgments are not in place.

#### 2.1.4 The Global Environmental Situation and Outlook

The 2030 Agenda for Sustainable Development has become the world's main post-2015 development agenda, consisting of 17 goals and 169 targets. The Paris Agreement, within the United Nations Framework Convention on Climate Change (UNFCCC), is now in force and will shape Thailand's future development agenda. Moreover, climate change impacts and natural disasters are becoming more frequent and severe, resulting in challenges for agricultural production as well as food and water security.

#### 2.1.5 The Global Security Situation

The superpowers will have a tendency to use economic and military power to intervene in the internal affairs of other countries. There will also be international conflicts between states over land and territory, overlapping maritime claims, and geopolitical pressure for both natural resource exploitation and protection. Moreover, terrorism, transnational crime, and cyber-crime will intensify, using ever more sophisticated methods.

#### 2.2 Internal Situation and Trends

#### 2.2.1 The Thai Economic Situation and Outlook

Between 1961-2015 the Thai economy grew at an average rate of 6.1 percent, giving Thailand a global economic growth ranking of 22<sup>nd</sup> over this period. Income per capita increased as a result, allowing Thailand to achieve the status of Upper Middle Income Country in 2010. Thailand's economic structure has steadily shifted away from agriculture towards manufacturing and services. There has been a continuous accumulation of knowledge and technological progress. Thailand has a diverse production base that has achieved global standards. The country's overall competitiveness ranking has improved, and its economy has returned to a position of strength and stability relative to other countries at a comparable development stage. Nevertheless, during the past 8 years the Thai economy has grown at a slower rate than its potential. Thai exports have declined in both agriculture and manufacturing. Such a decline is due to a number of key weaknesses, including structural problems, global economic conditions, compounded by domestic policies and economic management.

#### 2.2.2 Development of Science, Technology, Research, and Innovation

The country's ranking in science, technology etc. is low by international comparison. There is a lack of management and integration of R&D, be it at the policy, funding or research institution level, and this has contributed to a lack of clarity regarding the direction of science, technology, research and innovation. Furthermore, it has resulted in overlap in the operations of the organizations involved. Not only has this constrained some key ingredients of the country's development, it has also slowed the process of technological development and innovation, which now lag behind other parts of the world. Moreover, the commercialization of research and technology outputs for the benefit of the economy and society is a complicated and challenging process.

#### 2.2.3 Status and Dynamics of Thai Society

Demographically, Thailand will be an aged society by the end of the Twelfth Plan in 2021. The size of the Thai workforce reached its peak in 2014 and has steadily declined thereafter. By and large, the Thai population faces some significant problems, such as the comparatively low quality of education and learning, the rising number of Thai citizens diagnosed with Non-Communicable Diseases (NCDs) which is the nation's leading cause of death, and the rising cost to the government of health care for the elderly. Additionally, a significant number of Thai citizens are deficient in regard to ethical and moral values, and lack awareness of the importance of discipline, honesty and public-mindedness.

#### 2.2.4 Condition of Natural Resources and the Environment

The natural resource base has continued to decline and degrade due to overexploitation beyond the resilience capability of ecosystems. Water resource management still lacks adequate public participation, and there is a lack of effective environmental, social, and economic impact assessment prior to the initiation of projects. Meanwhile, access to and the allocation of natural resources remains unfair, leading to inequality, conflict, and disputes among different groups, including the government sector, private sector, and communities. Pollution affects human health, the quality of life and incurs economic costs, exhibiting that existing production and consumption patterns are unsustainable.

#### 2.2.5 The Growth of Regions, Cities, and Core Economic Areas

The concentration of economic activities in Bangkok and the Central Region has caused disparity in income distribution between regions. Development mechanisms at provincial level have failed to integrate the operations of the agencies involved. Because necessary infrastructure development cannot adequately accommodate rapid urbanization in the different regions, the high level of economic expansion within and radiating from the key economic areas has therefore tended to have negative impacts on sustainability and stability, and on the spatial pattern of development.

#### 2.2.6 Internal Security

The major national institutions have been affected by internal conflicts which stem from differences of opinion, and from social and economic inequality. The situation in the Southern border provinces of Thailand continues to create situations where the lives of government officials are in danger. Furthermore, there are continued risks of cyber-crimes, including tendencies to attack the systems of large corporations which can have serious impacts and cause very costly damage.

#### 2.2.7 International Cooperation and Connectivity for Development

The linkages between Thailand and other countries, especially countries in the sub-regions and in Asia, have become closer, strengthening Thailand's bilateral and multilateral cooperation with other countries in the fields of economy, trade, transport, human resources development, and information and technology.

#### 2.2.8 Weakened Public Governance

The size of the public sector has grown, and the current budget expenditure of the government rises continuously. Public administration has been inefficient and lacks effective mechanisms to allow integrated engagement with other agencies and stakeholders. Many public services have failed to achieve international standards. Issues of corruption and misconduct are prevalent within the public, private, and civil society sectors. Moreover, various laws and legislative procedures do not meet international standards due to being outdated and on account of weaknesses in the process of law formulation. The legal process is inefficient and unable to equally access to justice system.

#### 3. Objectives and Development Targets of the Twelfth Plan (2017-2021)

#### 3.1 Objectives

3.1.1 To lay a foundation for a good value-system by encouraging Thais to be ethical, disciplined, happy, healthy and smart. They should have good social values, public mindedness, close family ties, and be capable of continuous self-development through every stage of their lives.

3.1.2 To provide economic and social security as well as fair access to resources and quality social services. To enhance the capabilities of the disadvantaged. To encourage communities to be strong and self-reliant.

3.1.3 To promote and economy that is strong, competitive, stable, and sustainable. To strengthen existing production and service bases as well as develop new ones by using intensive innovation. To strengthen the grassroots economy, and foster energy, food, and water security.

3.1.4 To preserve and restore natural resources and environmental quality in order to support green growth and enhance the quality of life of Thai citizens.

3.1.5 To improve public administration by enabling it to become more efficient, transparent, modern, and able to work in an integrated manner with various development partners.

3.1.6 To distribute prosperity across different regions through urban and regional development by supporting existing production and service bases and developing new ones.

3.1.7 To strengthen the connectivity between Thailand and other countries at the sub-regional, regional, and international levels. To promote Thailand as a leading actor in trade, services, and investment within sub-regional, regional, and international collaboration frameworks.

#### 3.2 Overall Targets

To pursue these objectives, the main targets of the Twelfth Plan are determined as follows:

**3.2.1 The Thai people should have a good value-system**. Thai people should possess discipline, attitudes and manners according to the norms of society. They should also be receptive to learning, practical, well-informed, responsible, physically and mentally healthy, spiritually refined, self-sufficient, and able to represent Thainess.

**3.2.2** Income inequality and the level of poverty should be reduced. The foundations of the economy should be strengthened. Every Thai should have fair access to resources, job opportunities and social services. The 40 percent of the population with the lowest incomes should see their income levels rise by at least 15%.

3.2.3 The Thai economy should be strong and competitive. The structure of the economy should be transformed to one that is based on services and digital technologies. Thailand should foster a new generation of entrepreneurs and social entrepreneurship. Small and medium enterprises (SMEs) with high potential should improve their products and services through innovation and technology. Existing production and service bases should generate higher value-added. There should also be investment in knowledge-based production and services, which is both localized and environmentally friendly. Production and service bases should be distributed to different regions across the country in order to reduce inequality. The Thai economy should grow at an average annual

rate of 5%. The driving factors for this growth should include logistics, energy and investment in research and development programs which support the expansion of the manufacturing and service sectors.

3.2.4 Natural capital and environmental quality should be able to support green growth. Thailand should have food, energy, and water security. The proportion land under forest should cover 40% of the country in order to underpin a balanced ecological system. Greenhouse gas emissions in both the energy and transportation sectors should be reduced by at least 7% by 2020, compared to current emission levels. The proportion of solid waste that is disposed within the sanitation system should be increased. Water and air quality in critical areas should be improved to reach acceptable health standards.

3.2.5 National sovereignty, security, safety, reconciliation and the country's confidence should be improved. Social ideological conflicts, crimes, and losses from piracy and the smuggling of goods and human trafficking should be reduced. Preparedness to protect citizens from terrorism and natural disasters should be strengthened. Thailand, alongside other countries, should collaboratively determine and set international norms, and become a vital partner in sub-regional, regional, and international cooperation. Transportation, logistics, and value chains should be interconnected. The rate of investment and exports from Thailand to sub-regional, regional, and ASEAN countries should increase.

3.2.6 Public administration should be efficient, modern, transparent, accountable, decentralized, and welcome public participation. The public sector should reduce its role in providing services in areas where the private sector can do better. The use of digital services should be increased. The level of corruption should be reduced. The Local Administrative Organizations should be more flexible. The ranking of public administration efficiency, according to the International Institute for Management Development (IMD) and the Ease of Doing Business ranking, should be raised. Public spending and the budgetary system should become highly efficient. The tax base should be improved. Public sector officers should become proficient in and highly adaptable to the technologies of the digital age.

#### 4. Development Strategies

The Twelfth Plan is an action-oriented plan set within the 20-year National Strategy (2017-2036). Six out of the Twelfth Plan's ten strategies directly serve the National Strategy. The remaining four are critical supporting strategies. Flagship projects/programs are identified in each strategy in order to support the implementation of the Plan. The development strategies and flagship projects/programs are as follows:

#### 4.1 Strategy for Strengthening and Realizing the Potential of Human Capital

The human capital quality of Thai people is a challenge that needs to be tackled. The educational outcomes of school-age children are relatively low, and there is a mismatch between the knowledge and skills of the workforce and the requirements of the labor market. Meanwhile, a not insignificant number of Thai people have been unable to filter out inappropriate elements of culture, which has negatively affected their values, attitudes, behavior and social norms.

The strategy for human capital development should therefore prioritize laying the foundations for people's advancement. In order that Thai people may have attitudes and behavior that are more in accordance with societal best standards, they will receive a quality education that meets international standards, be able to develop continuous self-learning capabilities, and will enjoy better well-being. Thai people of all ages will have higher levels of essential skills, knowledge, and capabilities, and social institutions will be strengthened to play an important role in the country's development.

Key development pathways will consist of: (1) promoting Thai values such as good public morality and ethics, discipline, public sensitivity, and desirable behavior. For instance, schools should entrench moral and ethical values and public-mindedness in teaching and learning activities both inside and outside the classroom; (2) realizing Thai people's potential to develop skills, knowledge and capabilities that will increase their quality of life. For example, school-aged children should develop cognitive skills from early childhood, and adolescents should develop analytical and systematic thinking skills; (3) increasing the quality of education and life-long learning. For example, adjust the system of education management and rationalize the allocation of resources for small schools, including making the community a source of quality learning; (4) minimizing health risks and increasing the contribution of all parties in the improvement of health and well-being. For instance, promoting activities which enhance age-specific health and nutrition standards, and adjusting rules and regulations, as well as taxation, in order to impose controls over products that negatively impact people's health; (5) enhancing the efficiency of administration and management of the public health service system, and improving its fiscal viability. For example, hospitals under all jurisdictions in particular fields of health should adopt resource sharing in their administration and system management; (6) improving the care system for elderly people and create an environment that is suitable for an aging society. For example, establish legislation that supports the long-term care for elderly people; (7) encouraging social institutions to participate collaboratively in strengthening the nation's development. For example, establish proper measures for the purpose of looking after vulnerable families, and promoting education institutions to become a centers of academic knowledge that is accessible to all people.

### 4.2 Strategy for Creating a Just Society and Reducing Inequality via Three Major Policy Directions

Thailand's development to date has advanced the country in many regards, but progress in rectifying inequality and promoting social justice has been rather slow. Many dimensions of inequality continue to provide policy challenges. These include income inequality between population groups, disparities in the quality of public services, and limited access to justice and technology by the disadvantaged groups and people living in remote areas.

Therefore, development in the coming period should emphasize reducing income inequality across socio-economic groups, tackling poverty, enhancing access to basic social services, and strengthening the capacity of communities and the grassroots economy to become more self-reliant and inclusive.

Key development directions are: (1) enhancing opportunities for the 40 percent of the population with the lowest incomes to access quality public services and have decent jobs. For instance, strengthening disadvantaged children's access to a quality education through the holistic provision of assistance covering income-creation for their families, support with travel expenses, and scholarships for higher education; (2) promoting a more equal distribution of quality public services, for example by expanding the coverage of quality public health services by improving patient transfer systems at the provincial, regional, and national levels; (3) fostering communities' capacity for economic development, and strengthening microfinance based on the Sufficiency Economy Philosophy (SEP), so that communities can become self-reliant and more capable of managing their own land and human capital. For instance, providing communities with financial management knowledge, restructuring communities' financial organizations toward becoming fully-functioning locallevel financial institutions, and setting up microfinance networks with the Government Savings Bank (GSB) and the Bank for Agriculture and Agricultural Cooperatives (BAAC) as hosts.

### 4.3 Strategy for Strengthening the Economy, and Underpinning Sustainable Competitiveness

Thailand's economic growth has remained unsatisfactory for several consecutive years. This is the result of a global economic downturn, domestic limitations that have hindered improvement of the country's productivity and competitiveness, and the slow growth of the country's basic economic foundations.

Developments in the next five years will therefore emphasize the realization of the country's economic potential, and building stability. Exports have the potential to expand to become an important mechanism for driving the Thai economy. Thailand's productivity should increase, and both public and private investment, and public-private partnerships in particular, should grow continuously. More citizens and entrepreneurs should be included in the tax base. Thailand's economic competitiveness should be increased. Strong growth will be emphasized in each economic sector. The agricultural sector will focus on sustainable farming and improving farmers' incomes. Industrial areas should move towards becoming eco-industrial towns. Thailand's income from tourism and its international competitiveness should be increased. SMEs should play a greater role in the economic systems, and the financial sector should become more efficient.

Key development guidelines are: (1) overall macroeconomic management to support economic growth by enhancing the efficiency of fiscal policy management, including efficient program and project management, budget allocation, and monitoring the budgetary process. Moreover, emphasis will be placed on increasing the efficiency of monetary policy management, such as by up-grading the financial system and institutions in both the monetary and capital markets, in order to support economic growth; and (2) enhancing production and service sector competitiveness by strengthening supply chain linkages across the agriculture-industry-service-trading sectors. The key focus will be on enhancing the standards of agriculture-based products, strengthening industry's potential to leverage more advanced technologies, building up a competitiveness foundation for future industries, enhancing business capabilities in the service sector, revamping rules and regulations for building a level playing field for manufacturing, and facilitating trade and investment.

#### 4.4 Strategy for Environmentally-Friendly Growth for Sustainable Development

At present, the deterioration of natural resources and environmental quality are becoming a weakness in maintaining the foundations of production, services and sustainable living. These problems have been caused by the depletion of the forests, soil has become infertile, biodiversity has been threatened, and there are signs of a future risk of water shortages. Environmental problems have increased along with economic growth and urbanization. The effects of climate change and natural disasters have become more volatile and severe. International agreements on climate change have intensified and will have an influence on the country's development.

Therefore, development in the coming period should aim at conserving and restoring the stock of natural resources, building water security and managing both surface and underground water resources efficiently, creating good environmental quality, reducing pollution and minimizing the impacts of environmental pressures on public health and ecosystems, reducing greenhouse gas emissions and enhancing the capacity for climate change adaptation, increasing the efficiency in disaster risk management and reducing the loss of life and damage of properties due to public hazards.

Key development approaches are: (1) conserving and restoring natural resources as well as creating a balance between conservation and sustainable usage in an equitable manner; (2) increasing efficiency in water resource management to achieve security, balance, and sustainability; (3) solving the critical problem of environmental pollution; (4) promoting sustainable consumption and production; (5) promoting greenhouse gas (GHG) reduction and raising adaptive capacity to climate change; (6) managing disaster risk reduction; (7) developing management systems and conflict resolution mechanisms for natural resource and environmental issues; and (8) fostering international environmental collaboration.

### 4.5 Strategy for Reinforcing National Security for the Country's Progress towards Prosperity and Sustainability

The changes arising from globalization and technological progress are likely to have a multi-dimensional influence on the security and stability of the entire Kingdom of Thailand. These include external threats coming from the expanding influence and increasing role of foreign powers in different regions of the world; territorial conflicts between claimant states; transnational crimes and terrorism; threats to the economy from cyber-crime; domestic threats wherein the major institutions of the country are affected by the divergent opinions, ideas, and ideologies of the Thai people; and the situation in the Southern Border Provinces.

Therefore, the steps towards development in the coming period will emphasize defending and glorifying the monarchy as the core institution of the country, thereby building solidarity within society. People with different opinions, ideas and ideologies can live together in peace and harmony. Public participation should be promoted to prevent and resolve national security issues. People in the southern border provinces must have security of life and property. There should be an increase in opportunities for education and employment in order to generate more income. Thailand will collaborate and co-operate on security matters with ASEAN member states, allied countries, and various other countries in preventing threats of many kinds and in maintaining national interests. Thailand will stand ready to combat both traditional military threats and non-traditional security threats. Security plans will be integrated in accordance with the National Security Policy, as well as economic, social, natural resources and environmental policy.

Key development guidelines are: (1) maintaining internal security in order to ensure peace in society and protect core national institutions; (2) strengthening national defense to respond to both traditional and non-traditional threats; (3) promoting international collaboration and co-operation on defense and security for the benefit of society and the economy, and for protection against transnational threats; (4) protecting national security and national maritime interests to preserve sovereignty and maritime sovereign rights; and (5) managing security for development by achieving harmony between relevant programs with public participation.

### 4.6 Strategy for Public Administration, Corruption Prevention, and Good Governance in Thai Society

An inefficient system of public sector management is a significant obstacle to the country's development. Some public services are below international standard, law enforcement is ineffective, the management of local public services lacks transparency, the judicial process and system is unequal and unfair, and corruption is a critical national problem.

Development over the coming period should therefore hasten the reform of public administration, reduce expenditure on personnel, increase the efficiency of public services and management as well as the competency of national business practices, improve standards of governance in Local Administration Organizations (LAOs), raise the country's scores in the Corruption Perception Index (CPI), and reduce the number of lawsuits which wrongly convict individuals.

Major development guidelines are as follows: (1) the restructuring of public organizations, revising their roles, responsibilities, and increasing human resource potential, so that public sector organizations will display greater transparency, modernization, flexibility, cost-effectiveness, as well as appropriate scale; (2) improving the budgeting process and establishing fiscal and monetary monitoring systems to enhance efficiency in budget allocation and expenditure; (3) strengthening and enhancing the efficiency of public services in order to attain international standards, delivering quality and consistent services which meet the needs of the public and private sectors; (4) improving the efficiency of LAOs in order to provide well-organized and comprehensive service to the public; (5) suppressing corruption and promoting corruption controls to build a disciplined, transparent, and fair society; and (6) supporting the process of legal reform and modernizing the justice system to enhance fairness, and to meet international standards and agreements.

#### 4.7 Strategy for Advancing Infrastructure and Logistics

In the past, Thailand has faced problems of continuity in the development of infrastructure and logistics systems, with deficiencies of the coverage and quality of infrastructure, and poor operational management compared to international standards. This, in turn, has hindered the country's development in fields which appropriate infrastructure and efficient logistics could help to advance.

Hence, during the Twelfth Plan, development strategy will emphasize reducing Thailand's energy usage intensity and logistics costs, increasing the proportion of freight transportation that uses railways and waterways, raising the proportion of passengers using public transportation systems in urban areas, expanding the capacity of airports in Bangkok and other provinces to meet the increasing volume of passengers, improving Thailand's logistics competitiveness and the efficiency of trade facilitation, increasing the share of alternative energy as a proportion of final energy consumption, reducing the dependency on natural gas for electricity generation, developing the digital economy, and improving the water supply system.

Key development guidelines include: (1) up-grading transportation infrastructure by promoting the rail system to be Thailand's main transportation mode for passengers and cargo, as well as improving road, air, and water transportation systems; (2) strengthening the supporting components of Thailand's transportation system, such as by encouraging the growth of transportation-related industries and advancing the managerial and regulatory components of the transportation sector; (3) improving logistics by raising the caliber of logistics and supply chain management practices to match international standards, as well as improving trade facilitation practices; (4) pushing the energy sector forward by increasing the country's regulatory capacity in alternative energy, ensuring energy security and sufficient energy supply, and promoting the production and use of clean energy; (5) promoting the digital economy by improving the quality and accessibility of telecommunications infrastructure, as well as encouraging businesses to use digital technology to increase their value-added; and (6) advancing the water utilities systems by ensuring country-wide access to water supply facilities, improving efficiency in water consumption, and encouraging related innovations.

### 4.8 Strategy for the Development of Science, Technology, Research, and Innovation

The previous phase of Thailand's economic development has largely depended on the country's pool of labor, stocks of natural resources, and ready-made technology imported from abroad rather than using collective knowledge in order to develop its own technology. This has allowed the foreign providers of technology to benefit from the valueadded by technology, and to gain market share. Research and development (R&D) investment in Thailand has been insufficient to drive innovation within the country.

Therefore, the development strategy in the ensuing period will emphasize strengthening Thailand's science and technology sectors, and increasing the capability to apply scientific knowledge, technology, and innovation in order to enhance competitiveness in the agricultural, industrial, and service sectors, and improve the quality of life of citizens. Key development guidelines are: (1) accelerating R&D investment and expediting the commercial and social utilization of technology benefits, particularly technology that Thailand has potential to develop by itself, and both technology and social innovation which can leap-frog the economy and generate economic growth, reduce inequality and promote a better quality of life; (2) developing entrepreneurs to become technopreneurs by strengthening the capacity of businesspeople to be key players in innovation and technology development, in design innovation, in technology business management, and in setting the direction of technological development; and (3) creating an environment conducive to the promotion of science, technology, research, and innovation, particularly in the development of R&D human resources. This includes accelerating the training of high-caliber R&D personnel especially in the STEM subject areas to match market demands, as well as enhancing the technology knowledge and skills capabilities of researchers.

#### 4.9 Strategy for Regional, Urban, and Economic Zone Development

During the Twelfth Plan, Thailand needs to utilize the geosocial potential and attributes of each locale, as well as adopt a proactive strategy to focus on enhancing the particular strengths of each region and province, in order to reinforce the foundations of manufacturing and services. The growth of population in urban areas will provide an opportunity to spread prosperity and improve people's incomes. With appropriate forms of urban development, in addition to infrastructure and logistics improvements, urban centers can potentially be developed to become livable cities with the capacity to accommodate increasing levels of trade and investment, whilst helping to alleviate development concentration in Bangkok and the Central Region. Furthermore, as a member of the ASEAN Economic Community, Thailand will also have opportunities to develop new economic zones along the border areas to enhance cross-border trade and investment.

Therefore, the next step in the process of development should be to improve income distribution among regions, creating more livable cities for all, increasing investments in new economic zones along the border areas, and nurture highly efficient and environmentally-friendly production systems in the core economic areas.

Key development paths are: (1) Regional Development for Equal Distribution of Economic Opportunities: (1.1) for the Northern Region to become an economic base for the high-value creative economy; (1.2) for the Northeastern Region to move out of poverty towards self-sufficiency; (1.3) for the Central Region to be a base for first-rate economic activity; and (1.4) for the Southern Region to diversify income sources; (2) Urban **Development:** (2.1) for the city centers of each province to be classified as Livable Cities; (2.2) enhance the integrated management of the urban environment to include participation from the central government, local government, civil society, and the private sector; and (2.3) for public transportation in urban areas to be improved; and (3) Economic Zone **Development:** (3.1) for the Eastern Seaboard to be revived as the main industrial center, with balanced and efficient growth; and (3.2) for the border areas to be sustainably developed as new economic zones and commercial gateways to neighboring countries.

#### 4.10 Strategy for International Cooperation for Development

Thailand's strategy to advance international cooperation under the Twelfth Plan is based on the principles of free-thinking, liberalization, and the creation of opportunities to expand and intensify economic, social and security cooperation with partner countries. This builds on the strategy to enhance sub-regional and regional connectivity under the Eleventh Plan by promoting liberalized, open, and transparent trade and investment policies to ensure a conducive business environment, implementing a proactive strategy to identify new markets, encouraging Thai entrepreneurs to invest overseas, and promoting collaboration with countries in the sub-region, region, and beyond.

Therefore, development in the coming period will focus on building inclusive linkage networks along economic corridors to mobilize their full potential benefits; increasing sub-regional and ASEAN value chains; helping Thailand to become a major economic, trade, and investment base in the sub-region, region, ASEAN, and Asia; and expanding sub-regional economic corridors to cover ASEAN, East Asia, and South Asia, with Thailand becoming a crucial development partner in all levels.

Key development approaches include: (1) expanding cooperation on trade and investment with partner countries and seeking new markets for Thai products and services; (2) promoting connectivity in transport, logistics, and telecommunications under various subregional frameworks, namely GMS, ACMECS, IMT-GT, BIMSTEC, JDS, and ASEAN, to ensure lower logistical costs and greater convenience; (3) developing and promoting Thailand as a distinct business, services, and investment base in the region; (4) encouraging outward investment among Thai entrepreneurs; (5) opening trade gateways and advancing cooperation with neighboring countries as Thailand's strategic partners at the sub-regional and regional levels; (6) building development partnerships with countries in the sub-region, region and beyond; (7) entering into international cooperative partnerships in the creative industries; (8) promoting regional and international cooperation to ensure security in all aspects which contribute to the well-being of the people; (9) integrating the missions for international cooperation and international affairs; and (10) promote significant domestic changes to complement the country's international strategy.

#### 5. Translating the Twelfth Plan into Action

#### 5.1 Principles

5.1.1 Driving national development by using the Twelfth Plan as the main framework for translating strategies into action at all levels, taking socio-geographic conditions into consideration.

5.1.2 Distributing the benefits of progress to geographic areas by using the Area-Function-Participation (AFP) approach. In this case, provinces will be the main arenas for development and the focal points for linking local and national development.

5.1.3 Utilizing knowledge, technology, innovation, and creativity as the key tools to drive development at all levels.

5.1.4 Employing the instruments of development of all stakeholders in an integrated manner to propel the Plan into action effectively. Networks and clusters should be created to tackle local challenges and respond to local areas' development potential.

5.1.5 Enhancing the Plan's implementation system to operate coherently and harmoniously. At the strategic level, the Twelfth Plan will connect national economic and social development objectives with specific action plans, and the budget allocation system will comply with integrated development, area development, and continuous development. The monitoring and evaluation system will function in line with the key development issues, development objectives and intended development outcomes.

#### 5.2 Guidelines for the Implementation of the Twelfth Plan

5.2.1 Create a common understanding among all development partners to recognize the importance of the Plan and participate in making it work. The Office of the

National Economic and Social Development Board (NESDB) will foster mutual understanding with all development partners through communicating on activities, issues, and instruments as appropriate for each development stakeholder. Workshops at the regional and community levels will be held in order to engender mutual understanding of the tasks and responsibilities incumbent in the Plan, and may provide a beneficial mechanism for the Plan's implementation through area participation and networks.

5.2.2 Link the Twelfth Plan with the National Strategy, government policies, specific plans, and operational plans by designating the key strategic issues of the Twelfth plan. These should lead to the formulation of plans and projects, resource allocation, and integrated guidelines for all development partners. Specified development issues are addressed in an integrated manner to help formulate investment plans and specific development plans which support the Twelfth Plan's multi-dimensional development strategies. These should help to establish a firm basis for development towards the targets set in the Twelfth Plan, and close the country's development gap in each phase of implementation.

5.2.3 Formulate a participatory budgeting strategy. The targets, indicators, and development guidelines of the Twelfth Plan are to be used by central government agencies (such as the NESDB, Bureau of the Budget, Office of the Public Sector Development Commission) as instruments for establishing the priorities of programs/projects/tasks in annual budget allocation. To achieve the objectives of the Plan effectively, these actions should be undertaken through public participation.

5.2.4 Encourage the private sector to incorporate the important development objectives of the Twelfth Plan when formulating their business investment plans. This should help generate public-private development partnerships while also promoting the Joint Public-Private Consultative Committee on Economic Problems (JPPCC) as a key mechanism for linking the public and private sectors. The JPPCC will have to delegate more responsibilities to provincial groups and joint committees, and consider national strategies as they link to local needs.

5.2.5 Enhance stakeholders' ability by providing an enabling environment for development. The main factors will be adjusted so they become instruments of development, such as using education and research as essential tools to propel the nation's

development in all dimensions, and amending rules, regulations, and laws by using appropriate regulatory impact assessment tools in order to facilitate the efficient execution of the Plan at every level.

5.2.6 Optimize the efficiency of development methods to improve performance at the local, regional, and national levels. For example, urge existing national committees to coordinate with each other, and encourage them to use the development strategies as frameworks for implementation, and use the provinces as the focal point for translating the Twelfth Plan into action, and evaluating its effectiveness.

### 5.3 Monitoring and Evaluation of the Twelfth Plan, Encompassing the Following Concepts, Principles and Guidelines:

5.3.1 The concept and principle of participatory monitoring and evaluation emphasize the importance of providing an opportunity for stakeholders to engage in the Plan's monitoring and evaluation process. It is an integrated evaluation system which aims to identify the outputs, outcomes, and impacts of implementation. It is also a self-evaluation system which creates a learning and monitoring process for all stakeholders, together with enabling independent organizations to evaluate implementation. The monitoring and evaluation guidelines and indicators used are clear, transparent, and impartial.

### 5.3.2 Guidelines for the participatory monitoring and evaluation of the Plan's implementation are as follows;

(1) Establish a monitoring and evaluation system which comprises exante, on-going, and ex-post evaluations;

(2) Create a monitoring and evaluation system for ministerial projects, including those that require cooperation between ministries, and also seek to link the indicators used in the ministry's/ministry clusters' action plans with the development targets of the National Strategy, as well as the targets and key development issues of the Twelfth Plan;

(3) Establish an implementation and evaluation system for local and provincial projects, and also seek to link the provincial and provincial cluster action plans with both the Twelfth Plan and the National Strategy;

(4) Create research centers, training courses, and standard-checking systems for monitoring and evaluation. This aims to universalize and modernize the monitoring and evaluation system, improve training procedures, techniques, and approaches, as well as provide guidelines for ex-ante, interim, and ex-post evaluations;

(5) Enhance collaboration between the NESDB, the Office of the Public Sector Development Commission (OPDC), the Bureau of the Budget, and other relevant public institutions of both central and local government. This will lead to an efficient and effective participatory monitoring and evaluation system;

(6) Establish an independent monitoring and evaluation organization that is efficient, professional and dependable for all parties. This will create a universal, reliable, and accurate monitoring and evaluation system that will help facilitate the government's decision-making;

(7) Bring indicators and joint Key Performance Indicators (KPIs) more in line with international standards in order to evaluate more objectively the level of implementation success of the Plan as well as the National Strategy. The gap between achievements and set objectives can be indicated by using KPIs for outputs, outcomes, and impacts;

(8) Establish a public forum in which stakeholders are able to discuss openly and freely debate implementation issues. The forum should be organized in a way that encourages two-way communication and active participation between parties, for instance policymakers and target groups;

(9) Present monitoring and evaluation results to all involved parties, which include the public concerned, policy-makers, implementation agencies, funding agencies, and the general public; (10) Develop databases and applications of technology in order to optimize the evaluation process through establishing information systems, supporting information accessibility and analysis, and enhancing the effectiveness of the evaluation process. This will also encourage the proper utilization of information to inform policy options and stimulate management innovation.