From the 11th NESD* Plan to Action: An Integrated Resource Management Approach

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* NESD : National Economic & Social Development
1. The 11th NESD Plan

2. Implementing the 11th NESD Plan: Integrated Resource Management

   2.1 Water Resource Management

   2.2 Agricultural Zoning

   2.3 Urban Green Growth Study
The Eleventh National Economic & Social Development Plan
The Foundation: Sufficiency Economy

Knowledge or Wisdom condition
Accumulating information with the insight to usage with care & prudence

Integrity condition
Virtue, ethical behavior, honesty, tolerance & perseverance

Sufficiency Economy

Self-immunity
Also refers to resilience of the system, i.e. ability to cope with shock from domestic & foreign changes

Reasonableness
Rationale for any action and fully understand the consequences

Moderation
Adequacy in the sense of not too less or too much; self-reliance

Technology & Innovation

Culture & Creativity

Balance and Sustainable Economy, Society and Environment
Vision, Missions & Targets

**VISION**
A happy society with equity, fairness and resilience.

**Missions**
- To promote a fair society of quality
- To develop people with integrity,
  knowledge & skills; to strengthen social inst. & local communities
- To enhance efficiency of production & services
  Based on local wisdom, knowledge, innovation & creativity by developing food security while restructuring economy
- To build secure natural resource & environmental bases thru community
  Participation & improving resilience to lessen impacts from climate change & disaster

**Targets**
- **Inequality decreases; Society is in harmony**
  No. of people under poverty line is reduced; Corruption Perception Index scores at least 5.0
- **All citizens receive lifelong learning opportunity**
  Better health & social inst. strengthen
- **Inclusive growth with moderate pace**
  Upgrading TFP to 3%/yr, improving competitiveness rank, increasing contribution of SMEs to 40% of GDP
- **Environmental quality meets intl. std.**
  Improving efficiency in GHG emission reduction; expanding forest areas to restore ecological balance
The 11th NESD Plan: Overview

Human Development and Learning Society
- Strategy 1: Promoting a Just Society
- Strategy 2: Human Development toward a Sustainable Lifelong Learning Society

Economic Restructure
- Strategy 3: Strengthening the Agricultural Sector, Food & Energy Security
- Strategy 4: Restructuring the Economy toward Quality Growth and Sustainability
- Strategy 5: Creation of Regional Connectivity for Social & Economic Stability

Sustainable Management of Natural Resources & Environment
- Strategy 6: Managing Natural Resources and Environment toward Sustainability
Human Development & High Quality Society

PROMOTING A JUST SOCIETY

- Stable economy and society
- Social services according to fundamental rights
- Participation in decision making process
- Social shared value and benefits

HUMAN DEVELOPMENT TOWARD A SUSTAINABLE LIFELONG LEARNING SOCIETY

- Proper population structure and distribution
- Resilience to change
- Reduction in health risk factors
- Strong community
Economic Restructuring

STRENGTHENING AGRICULTURAL SECTOR, FOOD & ENERGY SECURITY

• Develop the natural resource base to strengthen the agricultural sector
• Create value added for agricultural products throughout the supply chain
• Establish food security and develop bio-energy at the household and community levels

RESTRUCTURING ECONOMY TOWARDS SUSTAINABILITY

• Connect investment with production throughout the whole value chain and new potential markets
• Expand investment abroad
• Promote SMEs to grow with quality
Economic Restructuring

INVESTMENT FOR DEVELOPMENT IN S&T, INFRASTRUCTURE & ENERGY

- Increase R&D expenditure to more than 1 percent of GDP and increase share of R&D by government and private to 70:30
- Provide enabling environment to economic restructuring, especially law & regulation amendment
- Develop infrastructure and logistics
- Provide adequate energy

CREATE REGIONAL CONNECTIVITY

1. Transport & logistic linkages
2. Production development in special economic development zones

- Preparation for ASEAN Community in 2015 focusing on human development
- Participation in creative cooperation
Natural Resource & Environmental Management

GREEN GROWTH & GREEN ECONOMY

Establish security of natural resource and environment base

Towards low carbon economy

POLLUTION REDUCTION

Create resilience from environment trade barriers

Control & reduce pollution

Eco-industrial Town

INSTITUTIONAL MANAGEMENT; LAW & REGULATION AMENDMENT

Integrated Resource Management

Enhance Thailand’s role in international arenas & forums
Strengthening Agricultural Sector, Food & Energy Security

Strategy 3

Develop the natural resource base to strengthen the agricultural sector

Prioritize and improve agricultural productivity

Create value added for agricultural products throughout the supply chain

Generate agricultural employment and income security

Establish food security and develop bio-energy at the household and community levels

Secure bio-energy production and strengthen the agricultural sector

Reform governmental management to strengthen food and energy security
Strengthening Agricultural Sector, Food & Energy Security

Objectives

1. Increase the share of self-sufficient agricultural households to 50 percent by 2016

2. Increase the share of agricultural commodities and agro-industrial products to at least 16 percent of the GDP

3. Ensure that agricultural products and food will meet market demands

4. Secure employment & income for farmers

5. Increase ethanol and biodiesel production by at least 6.2 and 3.6 million liters per day, respectively.

Promote the participation of farmers and local communities

Empower the agricultural sector

Improve the quality of life, job security and income

Targets
Managing Natural Resources and Environment toward Sustainability

- **Restore, conserve & create security for the natural resource base & the environment**
- **Shift the development paradigm toward an environmentally sustainable, low-carbon economy and society**
- **Enhance the adaptive capacity to handle climate change**
- **Prepare & respond to natural disasters**
- **Protect trade subject to environmental conditions & climate change**
- **Enhance the country’s role in international arenas on environmental agreements & commitments**
- **Reduce & control pollution**
- **Enhance natural resource & environmental management systems to be more efficient, transparent & equitable**
Managing Natural Resources and Environment toward Sustainability

**4 Objectives**

- **Enrich abundance of natural resources & biodiversity**
  - Conservation land: 19% total land area
  - Forest reserves: 40% total land area
  - Mangrove reforestation: 5,000 rai/yr

- **Improve efficiency of GHG mitigation**
  - Reduce pollution:
    - Water quality regulated: 80% of main water sources
    - Air quality within standard
    - Total solid waste sanitary disposed: 50% total
    - Recycle waste: 30%

- **Enhance adaptive capacity to meet climate challenges & disasters at community, regional & country levels**
  - Improve entire water management system: to alleviate water shortages, prevent floods, expand irrigation by 200,000 rai/yr

- **Increase efficiency in management of natural resources & environment**

**6 Targets**

- Conserve, restore natural resources & environment
- Promote sustainable production & consumption
- Foster climate change resilience society
- Create fairness in access & use of natural resource
Implementing the 11th NESD Plan: Integrated Resource Management

- Water Resource Management
- Agricultural Zoning
- Urban Green Growth
Integrated Approach

Water resource management of the country needs an integrated approach, with all relevant agencies working together through an efficient management mechanism.

Benefits to people & country

Effects of the projects on people need to be taken into account as people’s relocation, occupation, and income.

Create understanding

Project implementation needs to inform stakeholders about relevant information prior to and during implementation with simple and straightforward language.

Clear direction

Short-term, medium-term, and long-term plans are needed (1-year, 5-year, and 10-year plans) with clearly stated objectives and the activities and implementation in each year, as well as public relations to ensure enough information dissemination.
Policies and Program of Water Resource Management

**Economy**

- Apply agricultural zoning together with reduce water use in plants by R&D in genes & growing techniques
- Reduce water use & increase efficiency in water distribution i.e. water saving technology for cities, reuse of wastewater in industrial sector
- Develop knowledge & tools in flood & drought forecast, risk assessment, evaluation of impacts on economy, society & ecology

**Environment**

- Consider the use of land & building tax to control growth of cities, to prevent land price speculation & misuse of land
- Improve water resource management system of country i.e. increase capacity of dams to alleviate drought & flood
- Enforce land use plan strictly & in harmony with ecosystem to guide the provision of public utility service

**Society**

- Improve quality of life people of all ages & genders in communities can access to water supply equitably
- Enhance public participation in all stages. Responsible agencies need capacity building both at local & national levels; Avoid political interference and rent seeking
Conceptual Framework of Water Resource Management

**Upper River Basin**
- Priority given to slowing down the flow speed of water

**Middle River Basin**
- Priority given to water management i.e. dam management, floodway and detention basin

**Lower River Basin**
- Priority given to speeding up water flows out to the sea

**King’s Initiatives on Integrated Water Resource Management**

1. Royal Rain: Drought solution
2. Forest: Water restoration
3. Check dam: Water retarding
4. Vetiver Grass: Land slide prevention
5. Reservoir: Water restoration at hill base
6. Dam: Water storage
7. New Theory Agriculture
8. Flood detention areas
9. Dike
10. Flood way
11. Chaipattana-water-turbine
12. Mangrove

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Conceptual Idea of Agricultural Zoning

Balancing 4 Objectives

- Secure income of farmers
- Utilize land up to its potential
- Respond to the world market
- Maintain fiscal & financial discipline

Land management to generate optimal benefits according with its potential
Value chain management systematically
Improve efficiency & reduce production costs
Create value added to agricultural products

- Create stability of agricultural product in long term
- Increase competitiveness of agricultural sector system
- Link with development of food industry

Taking into account the strength of agricultural diversification in Thailand
Designing Factors for Agricultural Zoning

**Physical Environment**
- Soil quality
- Irrigated water
- Transport & logistics
- Location of processing factory
- Disaster prone area

**Commodity**
- Demand & supply
- Price, cost, return
- Economic conditions
- Population & preference
- Season & climate
- Farming calendar
- Production Technology
- Etc.

**Human Resource**
- Number of farmers
- Potential & interest
- Knowledge & experience
- Tools & machines
- Information technology
- Network

Zoning
Value Chain Approach of Agricultural Zoning

Up-Stream: Production
- Increase production efficiency
- Produce in response to market

Mid-Stream: Processing
- Increase number of SMEs, cooperatives
- Increase use of raw material
- Create brand
- Develop packaging

Down-Stream: Marketing
- Increase demand in the market
- Create value added, new products, new market
- Public relation
- Marketing information
- Standard for consumer

Standardized Processing
“Urban development towards economic, social and environmental sustainability, whereby such activities utilize resource efficiently as well as minimize waste generation and greenhouse gas emission within carrying-capacity of the nature functioning as a life support system of people and production sectors, while following good governance practice.”

Source: Focus Group Meeting 1, Urban Green Growth Study Project during the 11th NESD Plan (NESDB, 2012)
Selected Cities for Lesson Learned Study

Based on

1. **Location:** 4 regions of the country
2. **Size:** Sub-district, Town, City Municipality
3. **Past Success:** in at least one of 4 aspects
   - Economy
   - Society
   - Environment
   - Management
Urban Green Growth: **Success Factors**

**Leadership**
- Understanding of city leader and administrative staff
- Clear vision of leader who can make any decision for better future of the city
- Policy continuity and local political stability
- Program and projects supporting policy
- Good team work of permanent municipality staff
- Strength of community leader

**Implementation**
- Adequate budget allocation
- Financial support for community development by themselves
- Provide opportunity for public participation
- Build network of institutions involved
- Provide incentives for all relevant parties
- Pass necessary laws and regulations to support policy
- Raise awareness of people in community
Urban Green Growth: Challenging Issues

• City leader focuses more on economic growth policy, ignoring other aspects
• Lack of master plan in urban development in long term
• Lack of long-term land use plan, enforcement of the plan, and public participation

• Weakness of community in group formation and lack of community leader
• Low level of coordination and cooperation among related agencies in and outside city
• Conflicts of laws and regulations at local and provincial levels

• Growth of non-registered population, including migrant workers
• Rapid urbanization
• Other uncontrollable of external factors
Final Reflections on an Integrated Approach

- **Integrated Resource Management** is not a new idea to the NESD Plan. The integrated approach has been adopted since the 8th NESD Plan (1997-2001), also known as the **Area-Function-Participation (AFP)**.
  - Focus on an **area**, where problems have risen, when formulating the action plan, program and project.
  - Designate clear and appropriate **function** to relevant parties involved
  - Provide opportunity for all parties, both public and private, to **participate** in action plan formulation

- **Integrated Resource Management** works with the following conditions …
  - Closed and continuous **coordination** among relevant parties
  - Strong **commitments** from local leaders and supporting agencies
  - Public **awareness and understanding** on issues of concern
Thank You
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