



Action Plans of Water Management and Infrastructure Development

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Deputy Secretary General

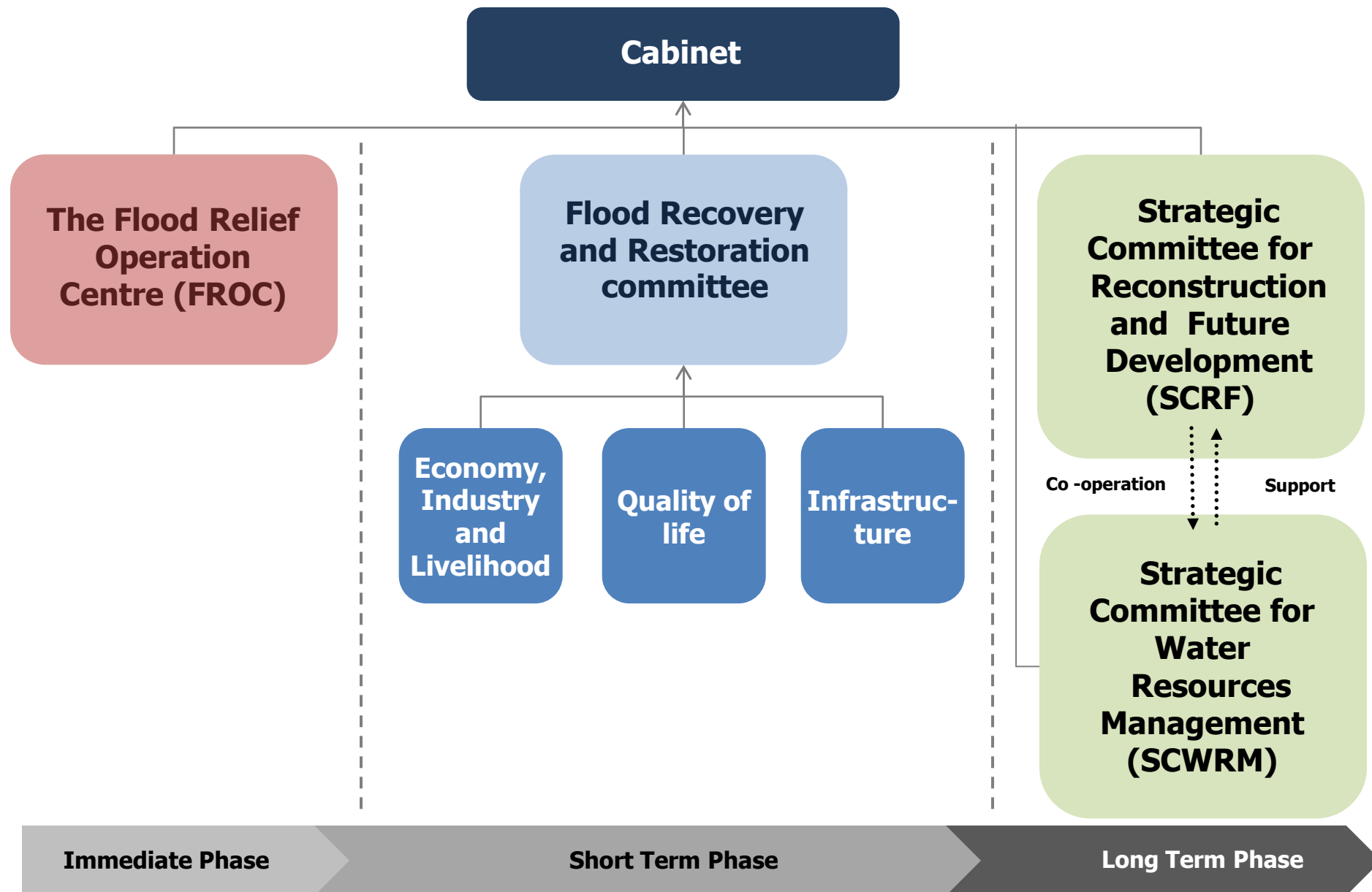
Office of the National Economic and Social Development Board

Thailand and Sweden Seminar on "Reconstruction and Future Development"

The Sukhothai Hotel (Ballroom) Bangkok

23 February 2012 09.30-10.00 AM

Thailand Flood Relief, Rehabilitation and Prevention Mechanisms



Strategic Committee for Reconstruction and Future Development (SCRF)

Chairman: Dr. Veerapong Ramangura

Prepare policy recommendation on long term development plan including:

- **Strategic plan on rebuilding country**
- **Financing Source**
- **Rebuilding citizen and investor confidence**
- **Disaster Management Scheme**

Strategic Committee for Water Resources Management (SCWRM)

Chair: Prime Minister

Advisor: Dr. Sumet Tantivejkul

Prepare short term and long term strategic plan on water management including:

- **Review current water management Policy**
- **Pin point the current bottleneck and possible solution both in short term and long term**
- **Prepare an investment package on water management**

Main Tasks of SCRF

1

Create Confidence

Reassuring the confidence of investors and manufactures through public investment to prevent effects from future floods, especially in risky and highly economic and social-impacted areas.

2

Create Competitiveness

Maintaining the leading positions of the highly competitive production and service sectors and increase competitiveness of key potential sectors.

3

Create a Sustainable Future

Developing the country based on good foundation to prevent and mitigate risks from future natural disasters and other crises. In addition, the country's infrastructure shall also be upgraded to a higher standard and the collaboration with all parties in the country's development will be enhanced.

Short-term target:

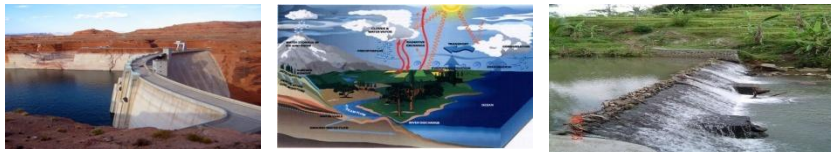
To ensure the public and investors that before next rainy season the robust system for water resource management will be settled and the adequate investments will be put on developing important infrastructures

Long-term target:

To develop the country towards the direction of sustainability to reduce risks and mitigate negative effects from floods

5 Strategies for Reconstruction & Future Development

1 Water Resource Management



2 Production & Service Sector Restructuring

- Prevent real sector from risks of natural disasters & crises
- Enhance major industries towards sustainable competitiveness



3 Spatial Development for New Economic Areas

- Distribution of economic prosperity of the country & regions
- Develop economic corridor at the sub-regional level
- Create cluster with neighboring countries and Southeast Asia Region (EWEC/NSEC/SEC/GMS)
- Develop border economic zones and border towns
- Enhance connectivity with neighboring countries based on mutual benefits



4 Infrastructure Development (2012 – 2020)

- Enhance current transport network (land, air and marine)
- Enhance energy security of the country
- Develop telecommunication infrastructure
- Upgrade public utility infrastructure for industries and people

5 Insurance System Development


- Create confidence & awareness of insurance system
- Establish standards and service system of claiming rights for insurers in all sectors
- Reform rules and regulation of insurance system
- Set up an Insurance Pooling Fund



Financing Source for Reconstruction and Future Development

Strategy	Amount (million USD)	Financing Source
1. Water Resource Management	10,067	2012 annual budget / Royal Decree on Investment Loan for Water Resource Management and Future Development
2. Restructuring of the production & service sectors	317	Royal Decree on Investment Loan for Water Resource Management and Future Development
3. Development strategy for new economic areas		
4. Infrastructure development	72,064	Annual Budget / SOEs revenue/ Loan / PPP
5. Insurance system development	1,587	Royal Decree on Insurance Pool Fund
Total	84,032	

Financing source for Reconstruction and Future Development

- 
- **Royal Decree on Investment Loan for Water Resource Management and Future Development (350 Bil. Baht ~ 11.1 Billion USD)** to invest in the water management system and in Thailand's future development.
 - **Royal Decree on Adjusting Debt Management of Financial Institutions Development Fund (FIDF)** to address the standing debt burden from the financial crisis in 1997. In order to preserve our financial discipline (I) no money shall be printed to service the loan and (II) no change to be made with country's reserve and its management system.
 - **Royal Decree on Soft Loan for Flood-Affected people (300 Bil. Baht ~ 9.5 Billion USD)** to assist the affected people in their recovery. The loans will go directly to the people who suffered from the flood.
 - **Royal Decree on Insurance Pool Fund (50 Bil. Baht ~ 1.6 Billion USD)** to establish an "Insurance Funds" as a legal entity to assist the insurance industry from insurance claim over natural disaster.

Strategy 1: Water Resource Management

Master Plan on Water Resource Management

1. Restoration and conservation of forest and ecosystem
2. Management of major water reservoirs and formulation of water management plan
3. Restoration and efficiency improvement of current and planned physical structures
4. Information warehouse and forecasting & disaster warning system
5. Preparation plan for emergency situation in specific areas
6. Selecting water retention areas and recovery measures
7. Improving water management institutions
8. Create understanding, acceptance, and participation for large-scaled flood management from all stakeholders



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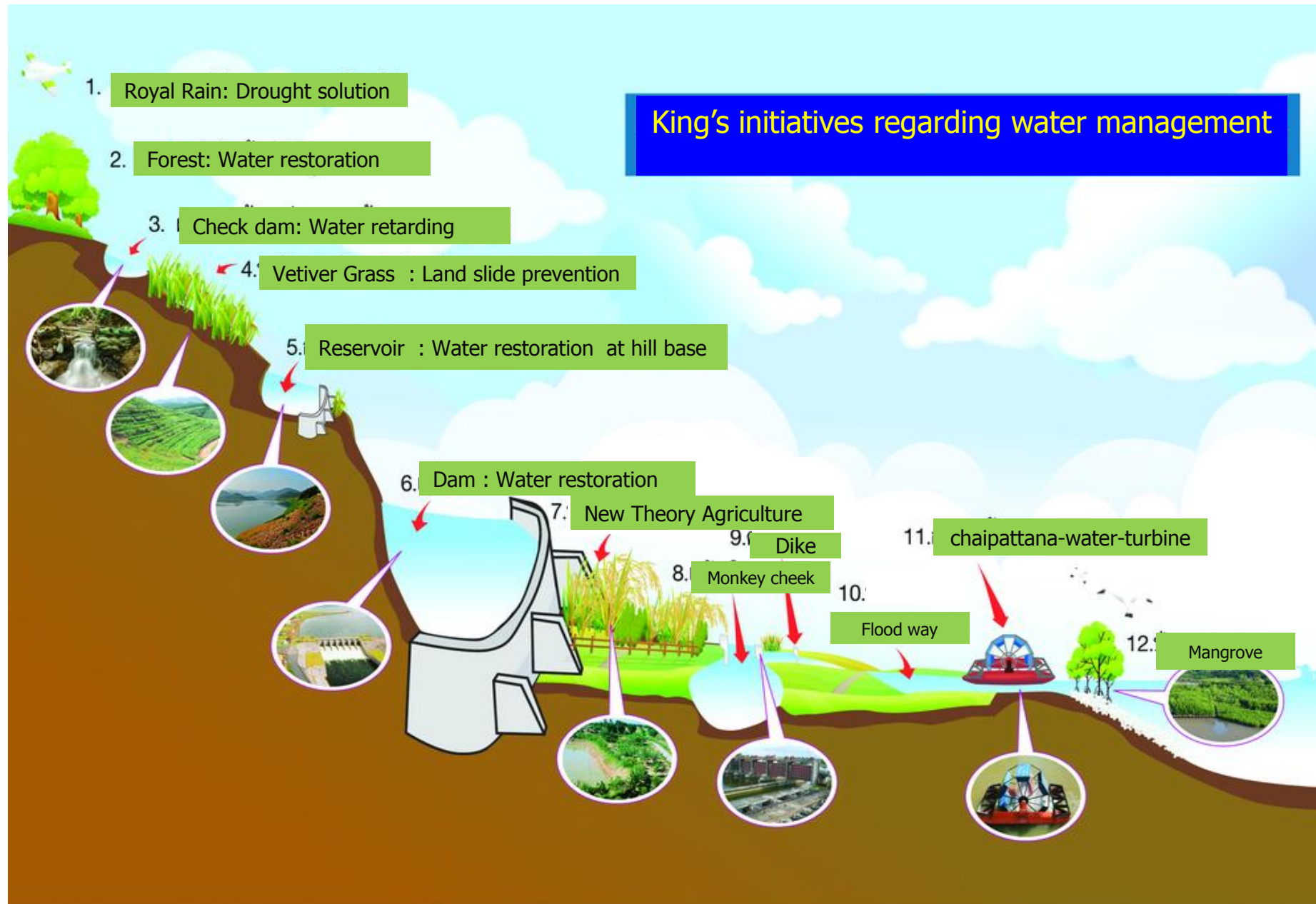
Action Plan of Water Management for the Urgency Period



2

Action Plan of Integrated and Sustainable Flood Mitigation in Chao Phraya River Basin

Strategy 1: Water Resource Management



Action Plan of Water Management

1

Action Plan of Water Management for the Urgency Period

focuses on the operations in restoration and efficiency improvement of existing physical structures in 6 work plans with total budget of 18,110.34 Million Baht in 2012 and 4,515.70 Million Baht in 2013 detail as follows;



Unit : Million Baht

Work plan	2012	2013	Time frame
1. Work Plan for Management of Major Water Reservoirs and Formulation of Water Management	-	-	Report progress to SCWRM by Jan. 2012
2. Work Plan for Restoration and Efficiency Improvement of Current and Planned Physical Structures <ul style="list-style-type: none"> - Renovation of dikes, dams, check dams and water drainage system for capacity increasing - Renovation of water drainage channel, digging canals, clearing canals and water drainage channels - Increasing capacity in water drainage and water run-off management - Strengthening dikes and carrying tasks recommended by King's initiative 	12,610.34 7,062.82 1,695.27 2,984.05 868.20	4,515.70	Projects finalised by Jan. 2012
3. Work Plan for Information Warehouse, Forecasting and Disaster Warning System <ul style="list-style-type: none"> - Formulate Data Bank Plan/Set-up National Data Centre - Formulate Forecasting System Upgrading Plan - Formulate Warning System Development Plan including Setting up CCTV System - Set up Water-Gate Remote Controlling System and Control Room 	4,500		Mar. 2012

Action Plan of Water Management

1 Action Plan of Water Management for the Urgency Period (cont.)



Unit : Million Baht

Work plan	2012	2013	Time frame
4. Work Plan for Response to Specific Area <ul style="list-style-type: none"> - Develop flood protection system in important areas - Set up tool storing system - Formulate evacuation plan in case of flooding - Formulate plan for tackling polluted water from flood - Formulate plan for rehabilitation effected people 	1,000	-	Mar. 2012
5. Work Plan for Assigning Water Retention Areas and Recovery Measures <ul style="list-style-type: none"> - Identify monkey cheek reservoirs in upper and lower Chao Phraya Water Basin - Formulate plan for channelling water to monkey cheek reservoirs - Identify measures of compensation to effected people 	-	-	Mar. 2012
6. Work Plan for Improving Water Management Institutions <ul style="list-style-type: none"> - Arrange meeting between SCWRM and SCRFD to propose work plan for revising organization for water management - Set up task force committee to monitor operation according to Action Plan of Water Management for the Urgency Period 	-	-	Jan. 2012
Total	18,110.34	4,515.70	

Action Plan of Water Management

2

Action Plan of Integrated and Sustainable Flood Mitigation

in Chao Phraya River Basin includes 8 work plans under the Action Plan of Water Management for the Urgency Period with total budget of 300,000 million Baht (from Royal Decree on Investment Loan for Water Resource Management and Future Development) as follows;



Unit : Million Baht

Work Plan	Budget	Time frame
1. Work Plan for Restoration and Conservation of Forest and Ecosystem Sample projects; - Soil improvement and conservation in the upper river basin by reforestation and rehabilitation of forest areas in the river basin in Ping, Wang, Yom, Nan, Sakae Krung, Tha-Chin and Pa Sak - Reservoir construction in Yom, Sakae Krung, Nan, and Pa Sak water basin	60,000	2012 onwards
2. Work Plan for Management of Major Water Reservoirs and Formulation of Water Management - Formulation of water management plan in major dams and water management in various scenarios, as well as dissemination related information to the public	-	2012 onwards
3. Work Plan for Restoration and Efficiency Improvement of Current and Planned Physical Structures Sample projects; - Construction of flood ways or water channels roads, and dams and improvement of water dike, reservoir, water drainage and water gateway in order to deviate waters from Pa Sak and Chao-Praya rivers to the East or East and West efficiently. - Land use zoning and land utilization including setting up area protection system. - Improvement of quality of water in the main water channels and the remaining dikes.	177,000	2012 onwards
4. Work Plan for Information Warehouse and Forecasting and Disaster Warning System Sample project; Establishment of the database system, forecasting system, and warning system as well as setting up the institution, rules and regulations and enhancing the public participation.	3,000	2012 onwards
5. Work Plan for Response to Specific Area - develop the system of flood prevention and mitigation in the important areas - set up the system of instrument and tool warehouse - negotiation with flood affected communities - treatment of polluted water due to flooding	-	2012 onwards

Action Plan of Water Management

2

Action Plan of Integrated and Sustainable Flood Mitigation in Chao Phraya River Basin (Cont)



Unit : Million Baht

Work plan	Budget	Time frame
6. Work Plan for Selecting Water Retention Areas and Recovery Measures Project example - Improving/adapting irrigated agricultural areas into retention areas (Monkey cheek reservoirs) of around 2 million rai to be able to grow second rice crop comprising of irrigated agricultural areas in Phitsanulok, Ramsar Site and Greater Chao-Praya Project.	60,000	2012 onwards
7 Work Plan for Improving Water Management Institutions - setting up the Task Force Committee for action plan management during urgency period. - setting up permanent integrated water management organizations.	-	2012 onwards
8. Work Plan for Creating Understanding, Acceptance, and Participation in Large Scale Flood Management from all Stakeholders. - Increasing public awareness of the progress in water management carried out by the public sector as well as encouraging people participation on water management.	-	2012 onwards
Total	300,000	

Strategy 2: Production & Service Sector Restructuring

Two Dimension of Restructuring Policy Framework

Restructuring for preventing real sector from risks of disasters and crises

- ☐ Supporting the business sector, particularly key industries to set up a system that can efficiently prevent, respond and be resilient to disasters and crises.
- ☐ The approach of Business Continuity Management (BCM) shall be applied to minimize risks and maintain operations of industries' supply chains in the crisis

Restructuring for enhancing competitiveness of the production and service sectors towards more advanced technology and higher value creation

- ☐ Continuously promoting eco-industrial town development and environment revival in major industrial areas as well as supporting industrial cluster development
- ☐ Encouraging the development of modern industry based on creativity, local wisdom and innovation
- ☐ Developing enabling factors to promote efficiency and standard and support the application of STI in creating high-value added manufacturing products
- ☐ Encourage and support production linkages between large and local industries and widen industrial development in regions through linkages between SMEs / OTOP entrepreneurs and large industrial companies

Strategy 3: Spatial Development for New Economic Areas

GMS Economic Corridors



1. The land use policy shall focus on promoting the distribution of economic prosperity of the country and throughout all regions based on the difference in capability of each area
2. The development of international transport and logistics networks under the existing and future development plan and integration of the linkages within the sub-region and between sub-regions, as well as the cooperation under the Master Plan on ASEAN Connectivity
3. Development of Thailand's regions shall be pursued to connect with neighboring countries and Southeast Asia. The major development schemes include the EWEC, NSEC, and SEC under the GMS Scheme
4. Development of border economic zones and border towns shall be undertaken to serve as an economic gateway connecting with neighboring countries.

Regional Connectivity Situation

GREATER MEKONG SUBREGION ECONOMIC CORRIDORS



Trilateral Exchange in Traffic
Right between Thailand –
Laos PDR – China and 4th
Mekong River Crossover
Bridge



Border Economy Development



Deep Sea Port and Dawei
Industrial Estate Development



Political-
Security
Community

ASEAN

Economic
Community

Socio-Cultural
Community



- Thai – Laos – China
High-speed Train
- Train connecting sub-region
Singapore - Kunming



Hat Yai – Sadao Motorway

Strategy 4 : Infrastructure Development

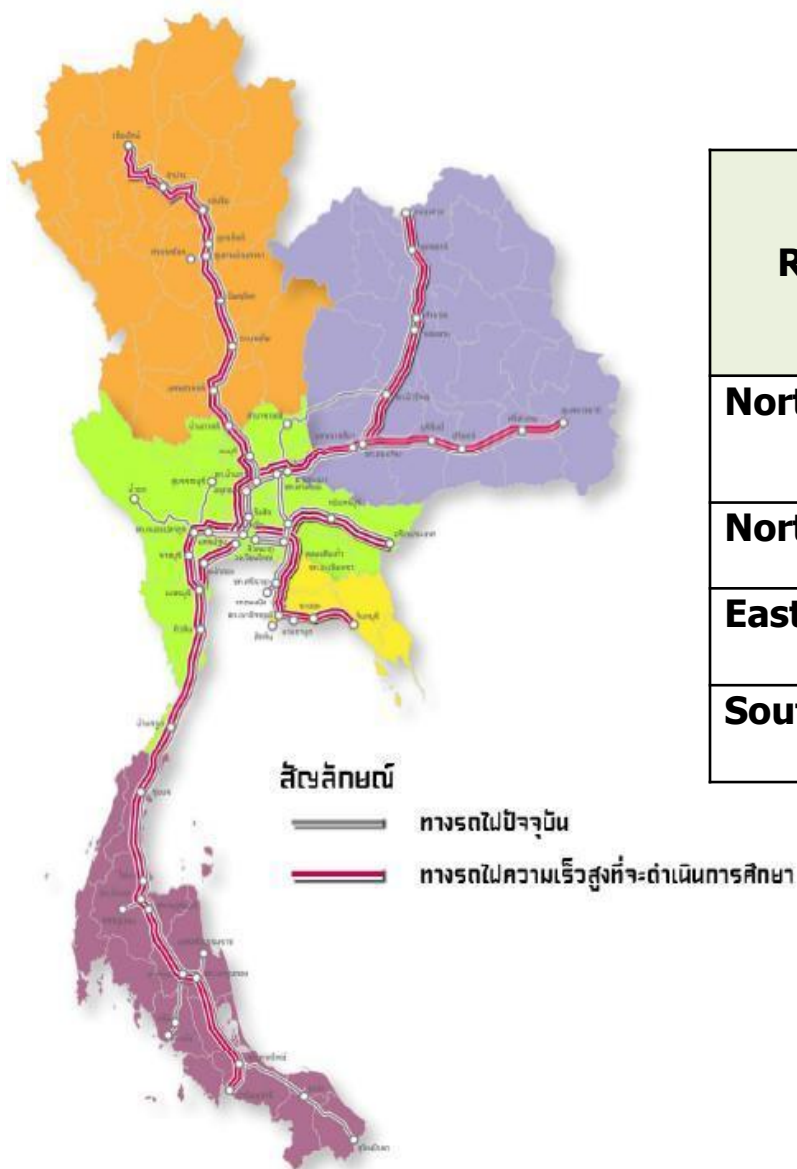
Investment Plan for Infrastructure Development

Sector	Amount (million USD)	Share (%)
1. Land Transport	46,662	65
2. Air and Marine Transport	4,714	6
3. Energy	15,855	22
4. Telecommunication	1,117	2
5. Utility	3,716	5
Total	72,064	100

Financing source	Amount (million USD)	Share (%)
1. SOEs and Loan	22,905	32
2. PPP	13,124	18
3. Government	36,035	50
Total	72,064	100

Infrastructure development

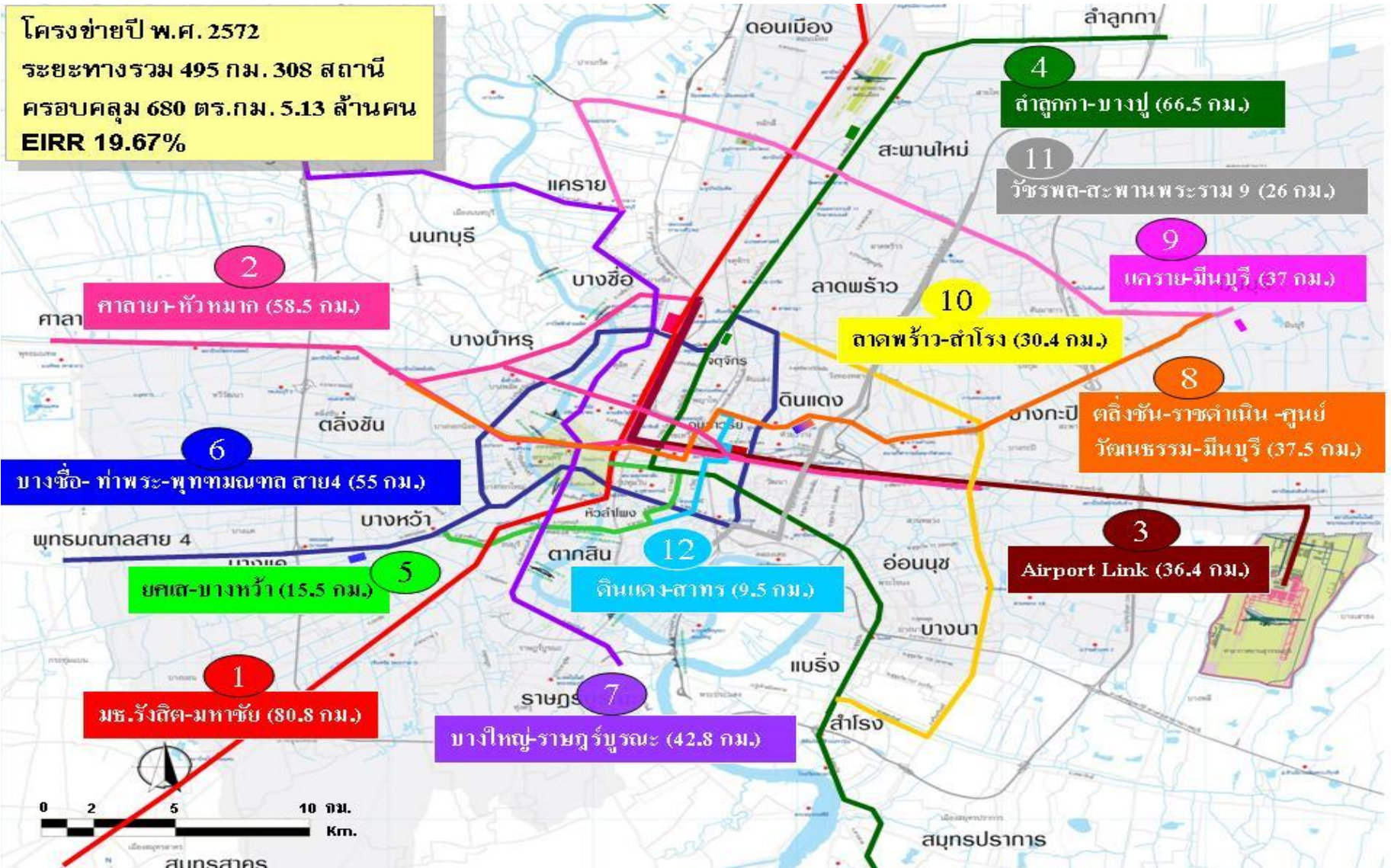
High Speed Train



Route	From	To	Distance (KM)	Amount (Mill. USD)
North	Bang Sue	Chiang MAi	745	7,300
North-East	Bang Sue	Nong Kai	615	3,100
East	Makkasan	Rayong	330	2,300
South	Bang Sue	Huahin	225	2,600



Metropolitan rail system



Express way between major cities



- ครม. มีมติอนุมัติ 22 เมษายน 2540
- 13 เส้นทาง
- ระยะทาง 4,150 กิโลเมตร
- ค่าก่อสร้าง 472,360 ล้านบาท (มูลค่าปี 2540)
- ค่าจัดกรรมสิทธิ์ที่ดิน 65,600 ล้านบาท
- ระยะเวลาดำเนินการ 20 ปี (2540 - 2560)

โครงข่ายทางหลวงพิเศษที่แล้วเสร็จ และเปิดให้บริการแล้ว



ทางหลวงพิเศษ สาย กรุงเทพฯ - ชลบุรี
ระยะทาง 82 กม., เปิดให้บริการ ปี 2542

วงแหวนรอบนอก กทม. ด้านตะวันออก
ระยะทาง 64 กม., เปิดให้บริการ ปี 2542

แผนพัฒนาทางหลวงพิเศษระหว่างเมือง ช่วงปี 2550 - 2554

ทางหลวงพิเศษระหว่างเมือง หมายเลข 6



สาย บางปะอิน - สระบุรี - นครราชสีมา

ลักษณะโครงการ

- ทางหลวงพิเศษ สาย กรุงเทพฯ - นครราชสีมา
- จุดตัดทางแยกทางหลวงพิเศษ สาย กรุงเทพฯ - นครราชสีมา
- เส้นทางสายพิเศษจากทางหลวงพิเศษ สาย กรุงเทพฯ - นครราชสีมา
- ระยะทางสายพิเศษ 4.6 กิโลเมตร, ระยะทาง 199 กม.

สถานะโครงการ

- ศึกษาความเป็นไปได้ และออกแบบเบื้องต้นแล้ว
- ศึกษาสายพิเศษจากทางหลวงพิเศษ สาย กรุงเทพฯ - นครราชสีมา
- อยู่ระหว่างดำเนินการขออนุญาตเวนคืนที่ดิน
- รอเงินอุดหนุน จาก 4.6 กิโลเมตร, ระยะทาง 199 กม.

ทางหลวงพิเศษระหว่างเมือง หมายเลข 81



สาย บางใหญ่ - บ้านโป่ง - กาญจนบุรี

ลักษณะโครงการ

- ทางหลวงพิเศษ สาย กรุงเทพฯ - กาญจนบุรี
- จุดตัดทางแยกทางหลวงพิเศษ สาย กรุงเทพฯ - กาญจนบุรี
- เส้นทางสายพิเศษจากทางหลวงพิเศษ สาย กรุงเทพฯ - กาญจนบุรี
- ระยะทางสายพิเศษ 4 กิโลเมตร, ระยะทาง 98 กม.

สถานะโครงการ

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- รอเงินอุดหนุน จาก 4 กิโลเมตร, ระยะทาง 98 กม.

ทางหลวงพิเศษระหว่างเมือง หมายเลข 7



สาย ชลบุรี - อโยธยา - มานตาพฤก

ลักษณะโครงการ

- ทางหลวงพิเศษ สาย กรุงเทพฯ - อโยธยา
- จุดตัดทางแยกทางหลวงพิเศษ สาย กรุงเทพฯ - อโยธยา
- เส้นทางสายพิเศษจากทางหลวงพิเศษ สาย กรุงเทพฯ - อโยธยา
- ระยะทางสายพิเศษ 4 กิโลเมตร, ระยะทาง 89 กม.

ช่วงที่ 1 ชลบุรี - อโยธยา

สถานะโครงการ

- ศึกษาความเป็นไปได้ และออกแบบเบื้องต้นแล้ว
- ศึกษาสายพิเศษจากทางหลวงพิเศษ สาย กรุงเทพฯ - อโยธยา
- อยู่ระหว่างดำเนินการขออนุญาตเวนคืนที่ดิน
- รอเงินอุดหนุน จาก 4 กิโลเมตร, ระยะทาง 89 กม.

ทางหลวงพิเศษระหว่างเมือง หมายเลข 8



สาย นครปฐม - สมุทรสงคราม - อยุธยา

ลักษณะโครงการ

- ทางหลวงพิเศษ สาย กรุงเทพฯ - สมุทรสงคราม
- จุดตัดทางแยกทางหลวงพิเศษ สาย กรุงเทพฯ - สมุทรสงคราม
- เส้นทางสายพิเศษจากทางหลวงพิเศษ สาย กรุงเทพฯ - สมุทรสงคราม
- ระยะทางสายพิเศษ 4 กิโลเมตร, ระยะทาง 134 กม.

สถานะโครงการ

- อยู่ระหว่างดำเนินการขออนุญาตเวนคืนที่ดิน
- รอเงินอุดหนุน จาก 4 กิโลเมตร, ระยะทาง 134 กม.

ทางหลวงพิเศษระหว่างเมือง หมายเลข 5



สาย บางปะอิน - นครสวรรค์

ลักษณะโครงการ

- ทางหลวงพิเศษ สาย กรุงเทพฯ - นครสวรรค์
- จุดตัดทางแยกทางหลวงพิเศษ สาย กรุงเทพฯ - นครสวรรค์
- เส้นทางสายพิเศษจากทางหลวงพิเศษ สาย กรุงเทพฯ - นครสวรรค์
- ระยะทางสายพิเศษ 4.6 กิโลเมตร, ระยะทาง 180 กม.

สถานะโครงการ

- อยู่ระหว่างดำเนินการขออนุญาตเวนคืนที่ดิน
- รอเงินอุดหนุน จาก 4.6 กิโลเมตร, ระยะทาง 180 กม.

Dual Track Train

From - To	Distance (KM)	Amount (Mill. USD)
Chachoengsao – Kaeng Khoi	106	360
Lop Buri - Nakhonsawan	118	420
Map Kabao – Thanon Chira Junction	132	370
Thanon Chira Junction - Khonkaen	185	410
Nakhonpathom - Hauhin	165	530
Prachuap Khiri Khan - Chumphon	167	500



Energy Security



New sources of energy, both domestic and international, need to be sought and developed, especially through the collaborations in the area of energy resource development with potential neighboring countries on the west of Thailand (Dawei), aiming at strengthening the nation's energy security

Strategy 5: Insurance System Development

- ☐ **The focus is on developing the insurance system to be a key mechanism, which provides economic and social security and handles the risks from natural disasters.**
- ☐ **An Insurance Pooling Fund, with the initial capital worth 50,000 million baht, has already been set up in accordance with the Royal Decree on Insurance Pool Fund 2012.**
- ☐ **The objective of this law is to establish an “Insurance Fund” as a legal entity to assist the insurance industry in providing insurance coverage for various natural disasters, particularly in the event of flood.**
- ☐ **The Ministry of Finance has been given the authority to borrow both in local and foreign currencies, with a ceiling of 1.5 billion US dollars to support such objective. This fund will enable the insurance industry to provide an insurance coverage worth 50 billion US dollars.**

THANK YOU

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Back up

