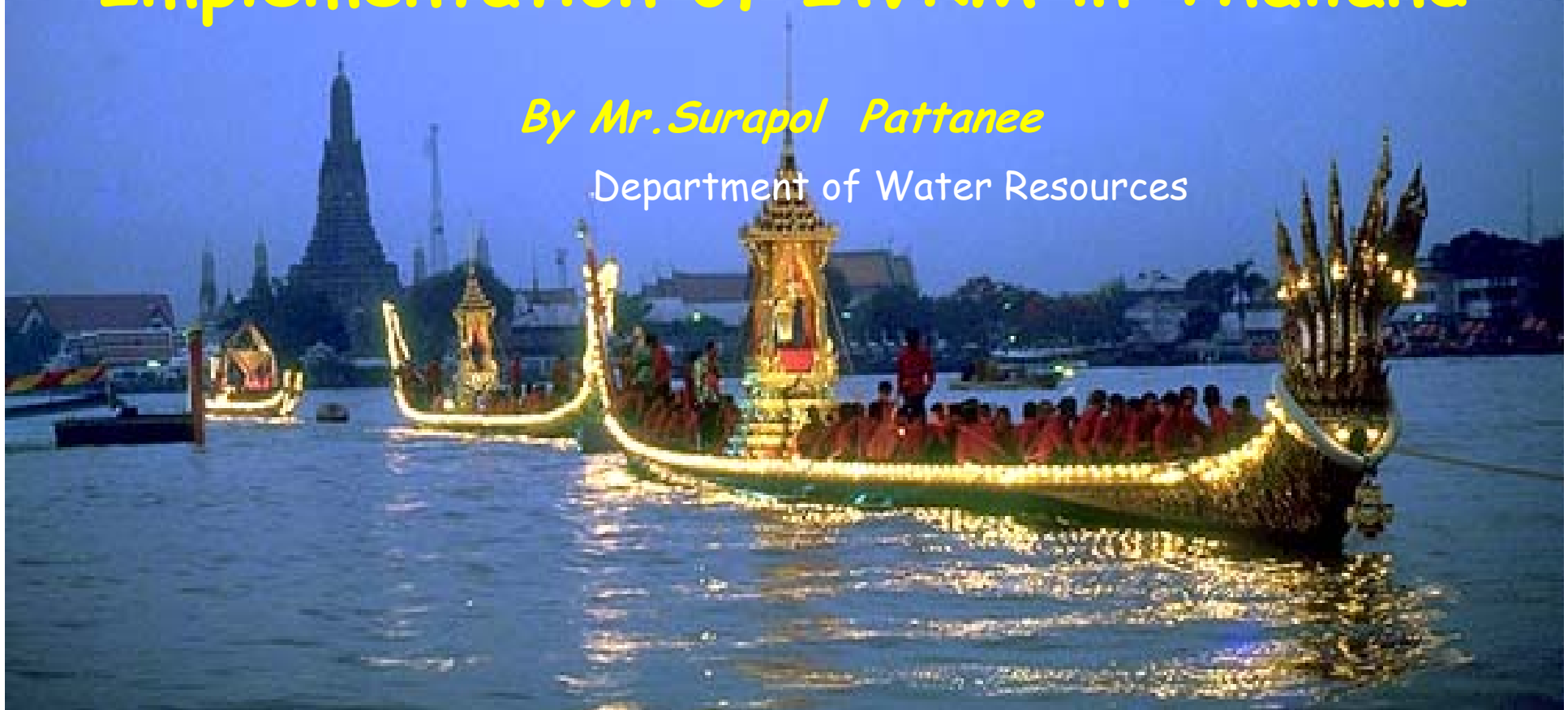


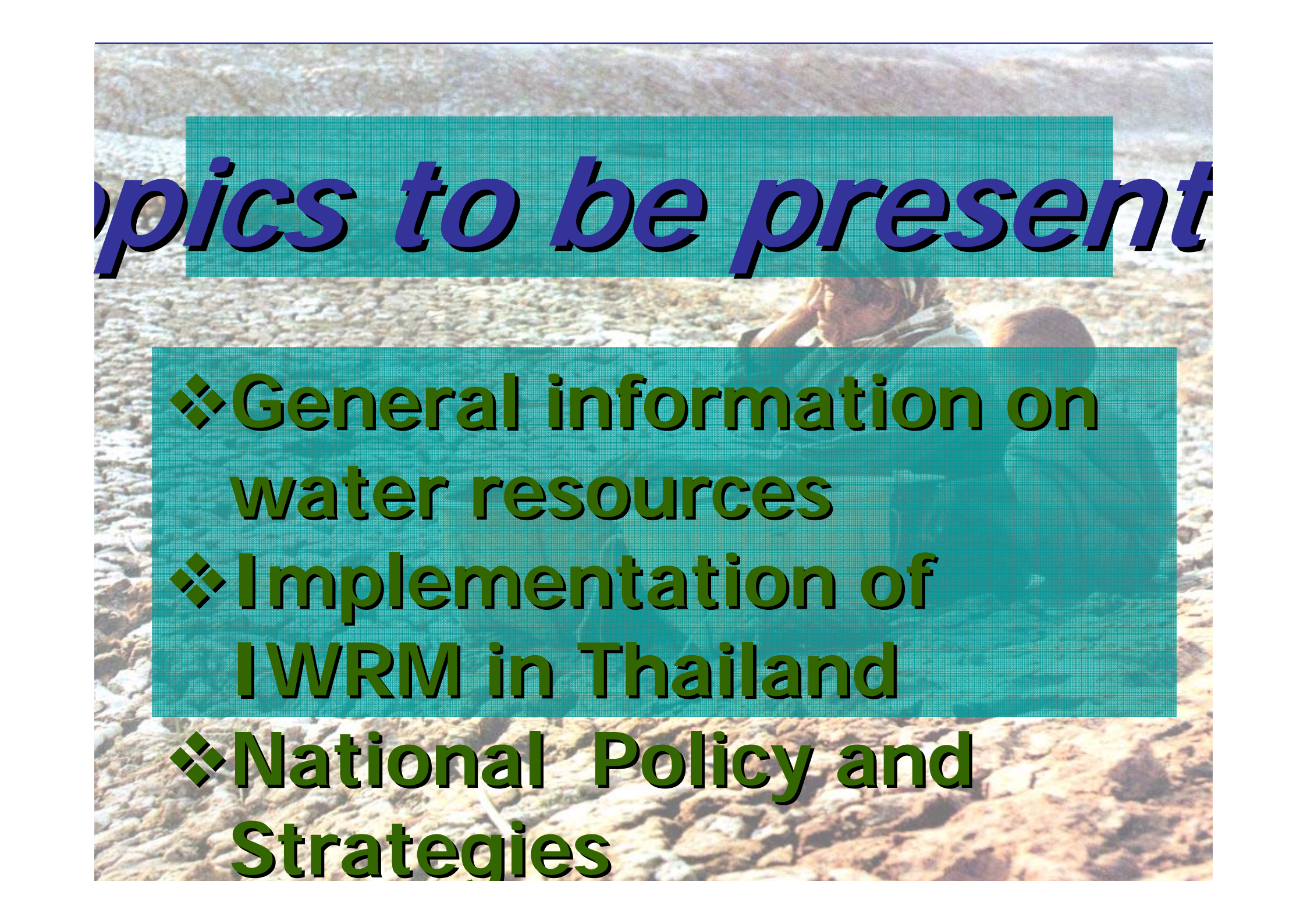
BDP Stakeholder Consultation
12 - 13 March 2008, Vientiane, Lao PDR

Implementation of IWRM in Thailand

By Mr. Surapol Pattanee

Department of Water Resources





Topics to be presented

- ❖ **General information on water resources**
- ❖ **Implementation of IWRM in Thailand**
- ❖ **National Policy and Strategies**

Circle of water in Thailand

Rainfall 1,573 mm.

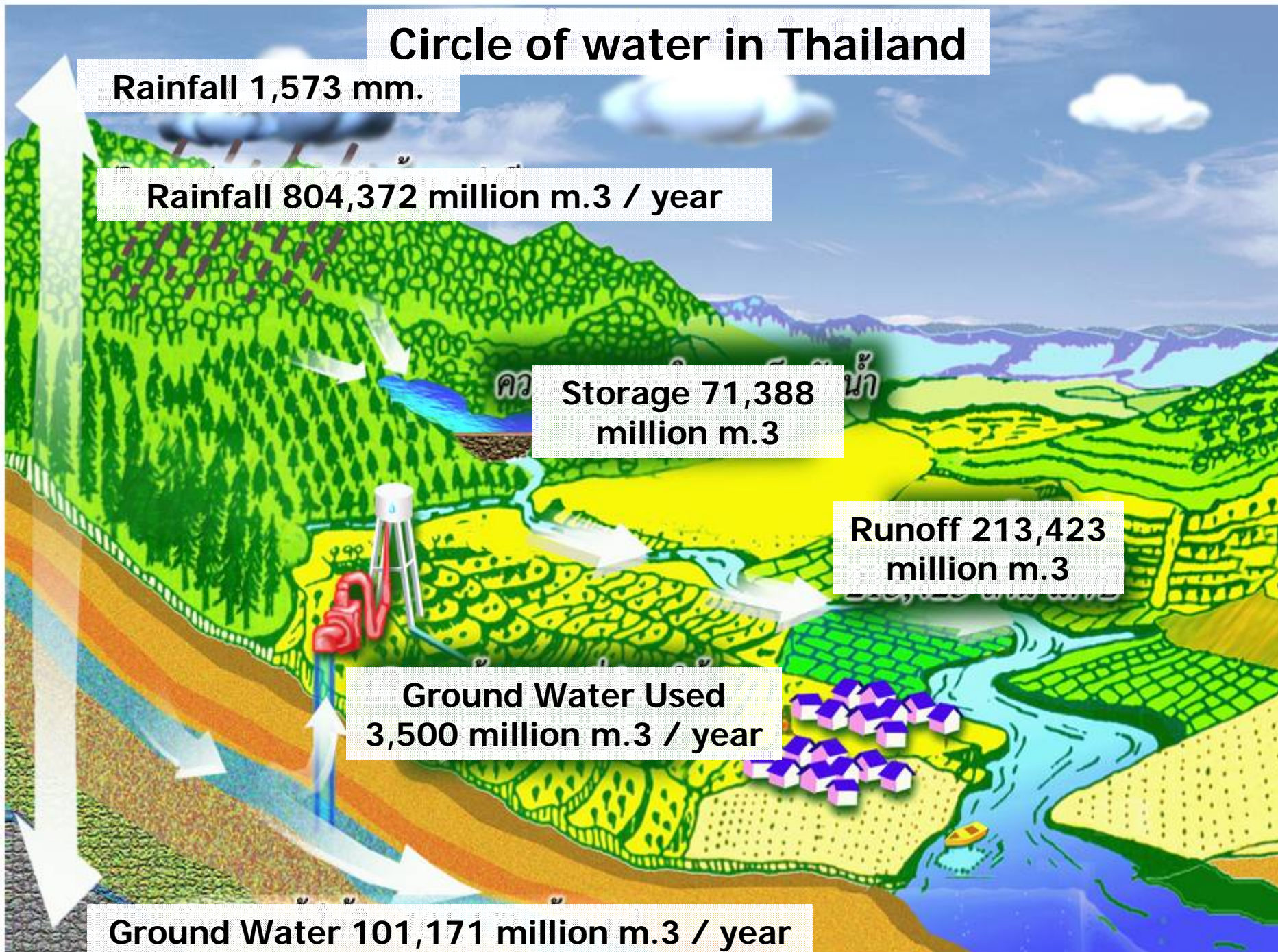
Rainfall 804,372 million m.3 / year

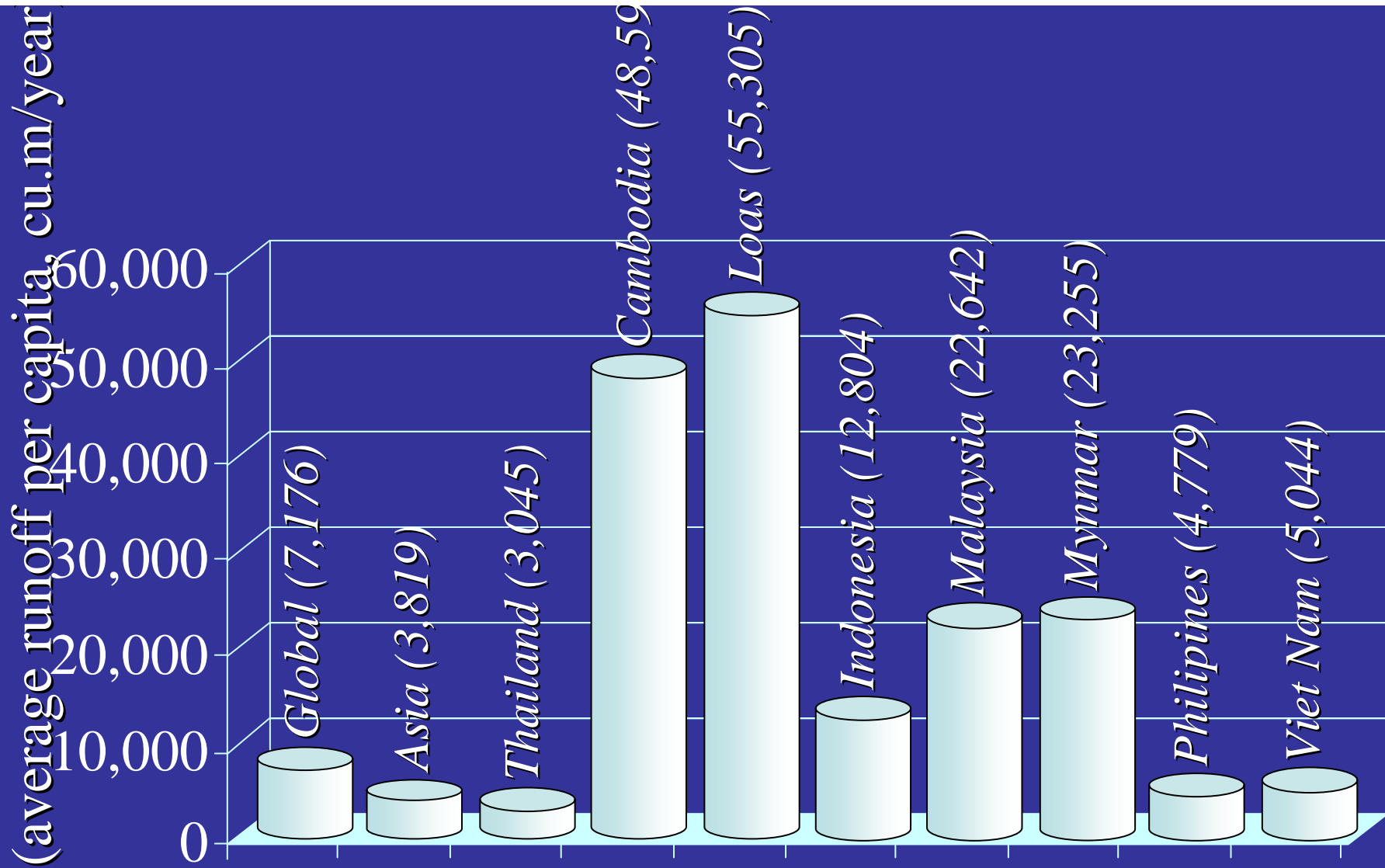
Storage 71,388 million m.3

Runoff 213,423 million m.3

Ground Water Used 3,500 million m.3 / year

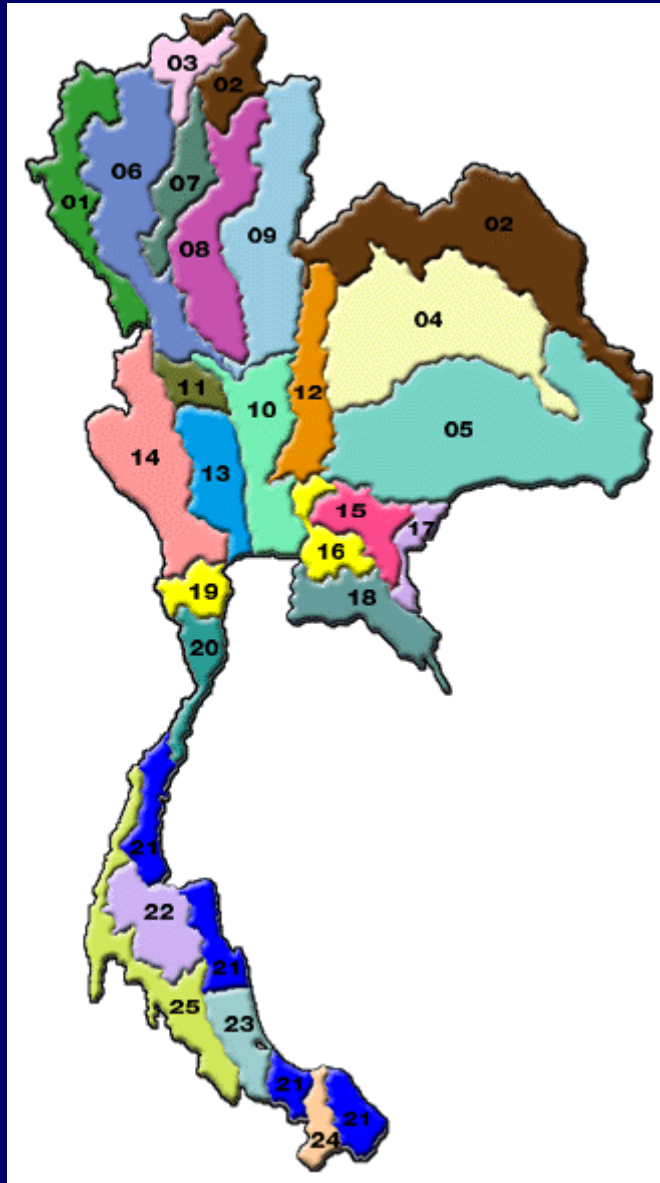
Ground Water 101,171 million m.3 / year





**Average annual runoff per capita
in Southeast Asia**

25 River Basins in Thailand



Basin No. Name of River Basins Catchment Area (sq.km.)

01	Salawin	17,920
02	Mae Khong	57,422
03	Kok	7,895
04	Shi	49,477
05	Mun	69,700
06	Ping	33,898
07	Wang	10,791
08	Yom	23,616
09	Nan	34,330
10	Chao Phraya	20,125
11	Sakaekrang	5,191
12	Pasak	16,292
13	Thachin	13,682
14	Mae Klong	30,837
15	Prachinburi	10,481
16	Bang Pakong	7,978
17	Tonglesap	4,150
18	East Coast	13,830
19	Phetchaburi	5,603
20	Prachuap Khiri Khan coast	6,745
21	South East Coast	26,353
22	Ta Pi	12,225
23	Songkhla Lake	8,495
24	Pattani	3,853
25	South West Coast	21,172

Problems Faced in Water Resources Management

➤ National Level

- Policy and Plan
- Institutional Framework
- Budgeting
- Legal Framework
- Available Information

Problems Faced in Water Resources Management

➤ Basin Level

- Fragmentation of agencies concerned
- Lack of proper management mechanism.
- Inadequate Participation of stakeholders.

Initiating the Implementation of IWRM in Thailand

- **Recognizing the three basic components of IWRM, i.e.,**
 - 1. enabling environment**
 - 2. institutional roles**
 - 3. management tools**
- **Thailand started the process by building consensus among various stakeholders – including government officials, academes, private sector, various water user groups, and NGOs**

Implementation of IWRM in Thailand

National Level

- 1989** The National Water Resources Committee
- 1994** First Draft of National Water Law submitted to the Cabinet
- 1999** The National Water Vision was a product of a stakeholder workshop in July
- 2000** The National Water Vision Endorsed by the government in July
- 2000** Subsequently the National Water Policy endorsed by the government in October
- 2007** National Water Resources Strategic Plan was developed

National Water Resources Committee (NWRC)

Composition :

- Prime Minister as the chairman of the committee
- Minister, permanent secretaries, director-general, head of state enterprises, representatives of water users organizations of all sectors, technical experts, qualified persons, representatives of non-government organizations.
- Director-General of DWR is a member and the committee secretary

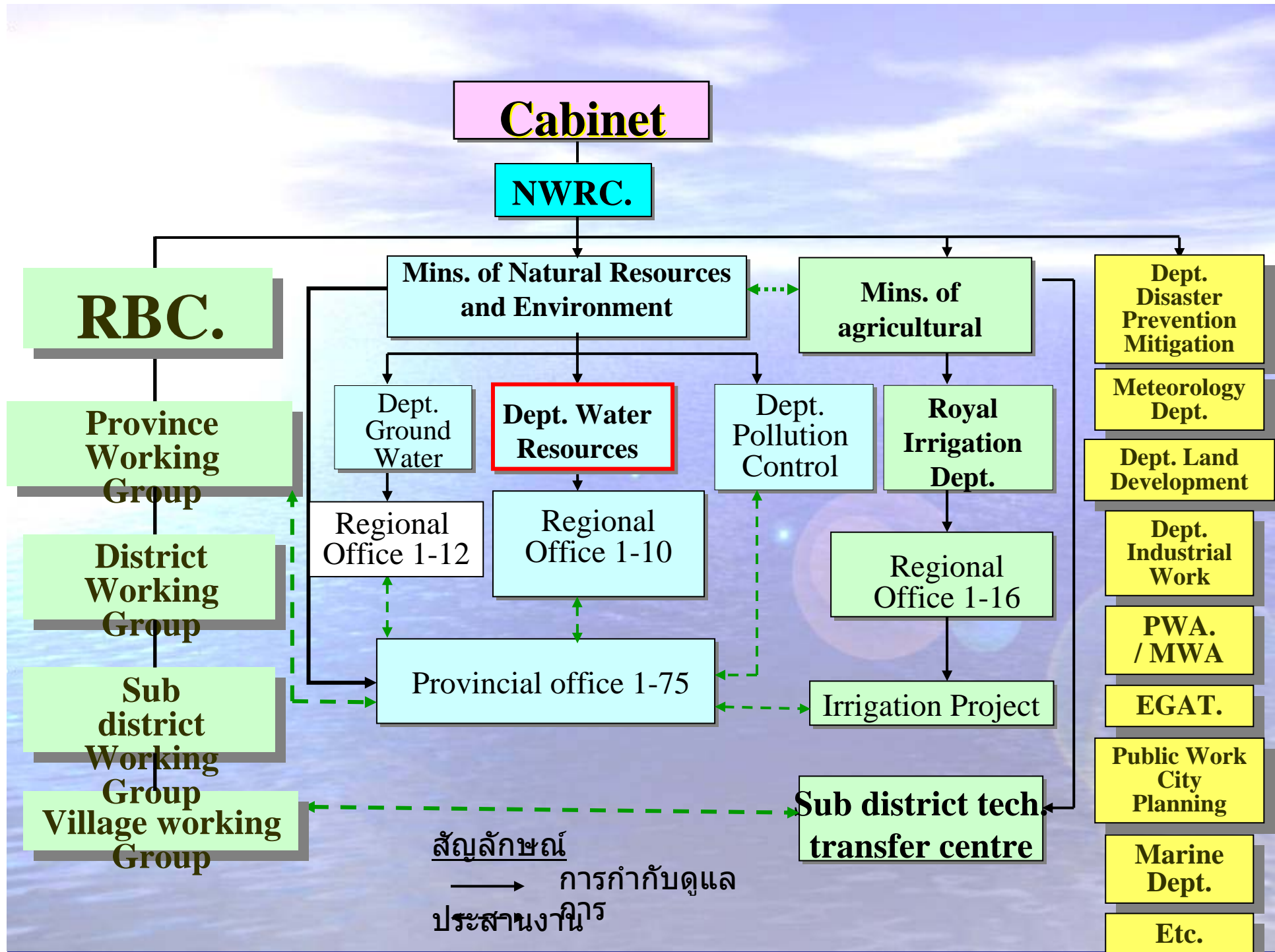
National Water Vision

By the year 2025, Thailand will have sufficient water of good quality for all users through an efficient management, organizational and legal system that would ensure equitable and sustainable utilization of its water resources with due consideration on the quality of life and participation of all stakeholders.



National Water Policy

1. Accelerate promulgation of **Water Act** as the framework for national water management
2. Create water management **organizations** both at national and river basin levels with supportive legislation
3. Emphasize suitable and equitable **water allocation** for all water use sectors
4. Formulate clear directions for raw **water provision** and water sources **development**
5. Provide and develop raw water sources for **agriculture purpose**
6. Develop and include water related topics at all levels of **educational curriculum**
7. Promote and support **participation** of the public, non-government and government organizations
8. Accelerate preparation of plans for **flood and drought** protections
9. Provide sufficient and sustainable **financial** support for action programs in line with the national policy

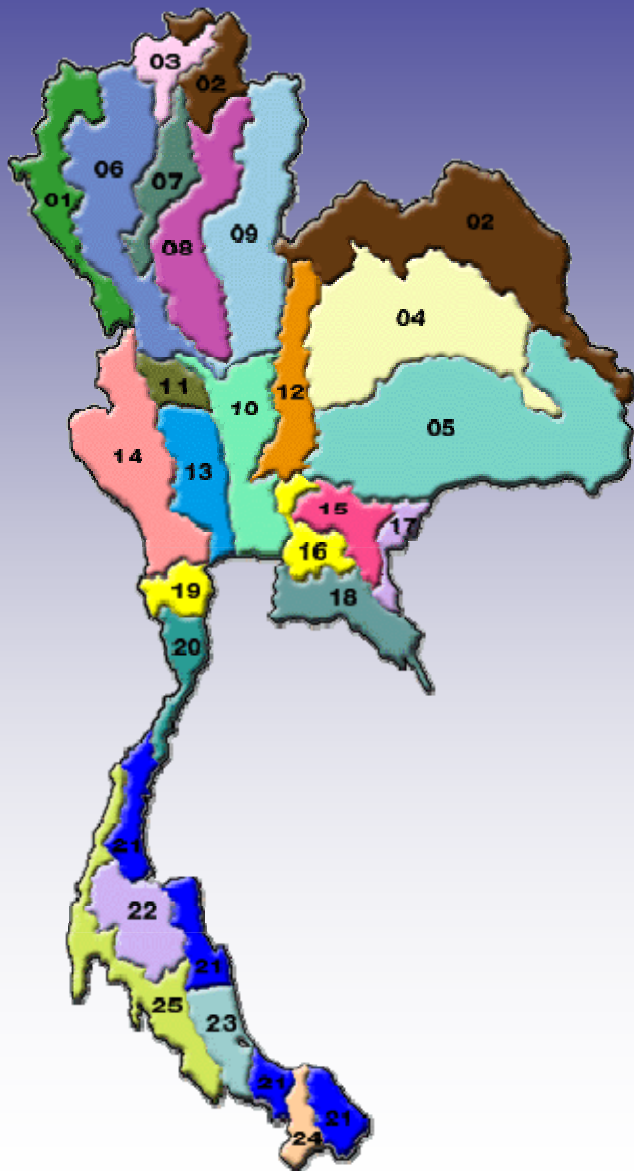


Implementation of IWRM in Thailand

Basin Level

- 1999** Establishing pilot River Basin Committee in Ping and Pasak and covered 25 River Basins in 2004
- 2001** Integrated Basin Management Plan in Ping and Pasak started and covered 25 River Basins in 2006
- 2002** Government approved the river basin proposed budgetary procedure in June
- 2006** Establishing pilot sub-basin management

Implementation of IWRM in Thailand



Integrated Basin Management Plan

2001 : Ping Pasak

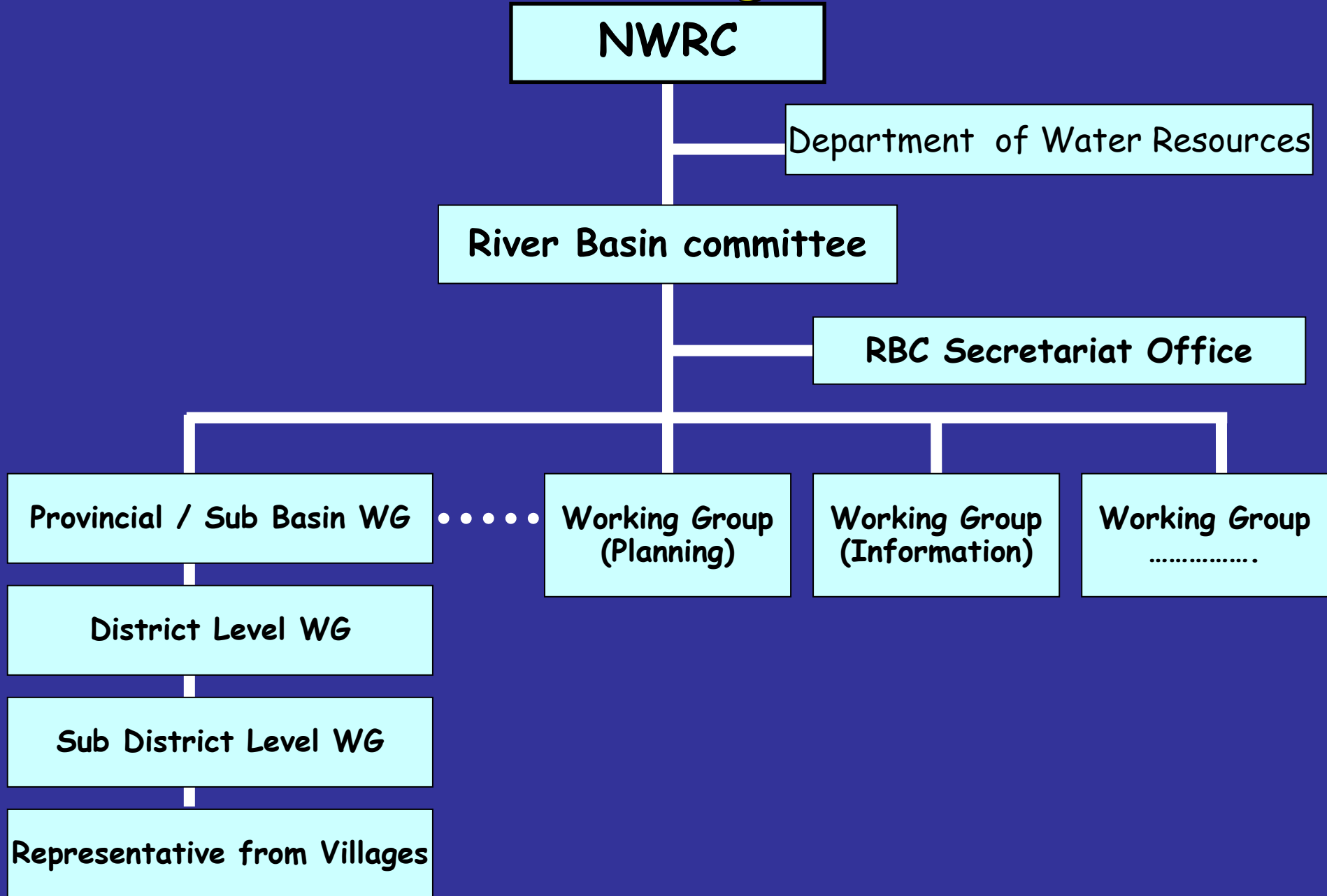
2002 : East Coast , Tolesap
Bang Pakong , Prachinburi

2003 : Yom, Nan

2004 : Wang, Khong , Chi , Mun
Thachin, Sakaekrang,
Chao Phraya

2005 : Cover 25 River Basins

River Basin Organization



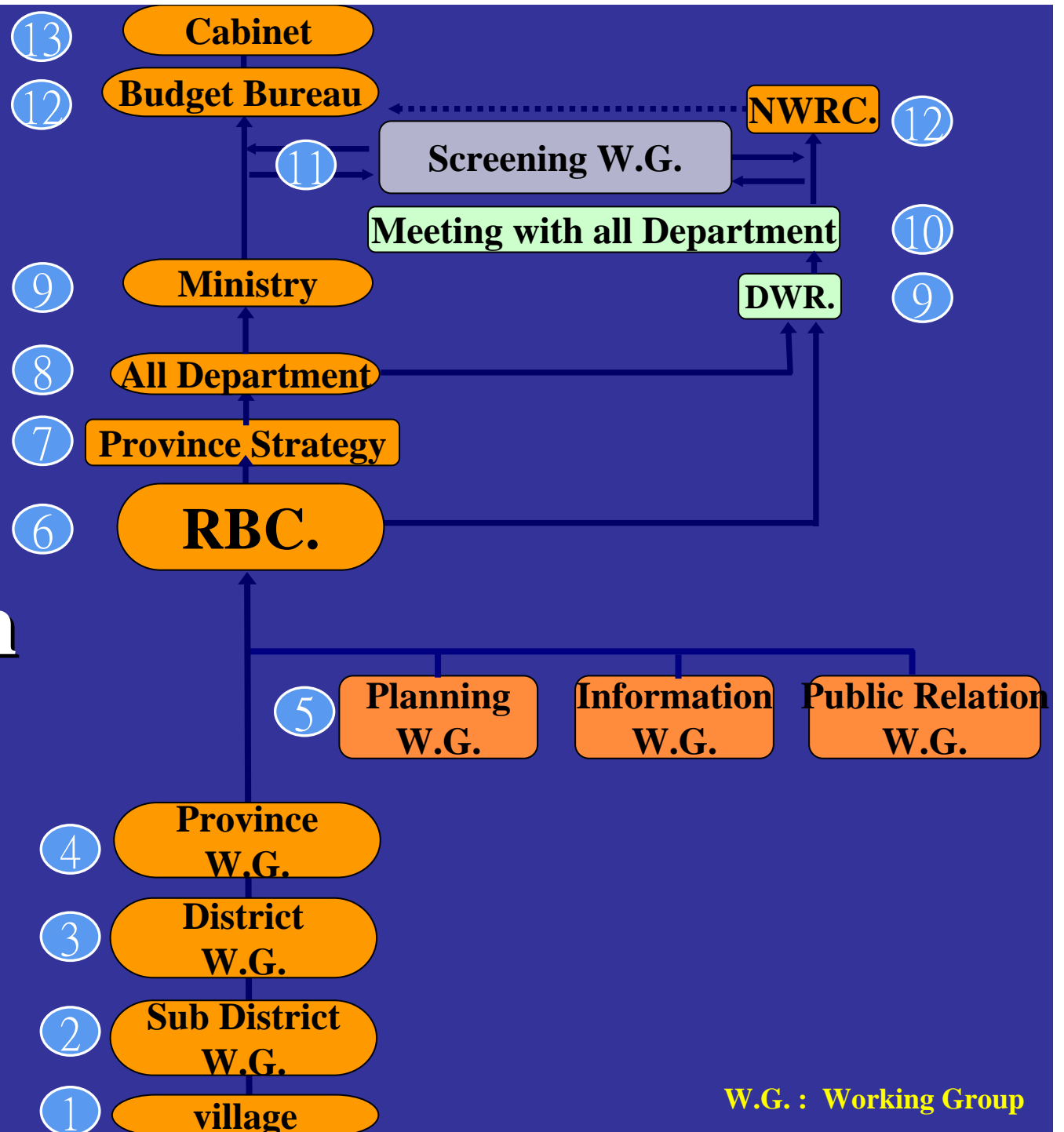
Composition of River basin Committee

- Government Agency 15-18
- Stakeholder 15-18
 - Water user
 - Local Administration
- Academic, Researcher, NGO's 3-6

Integrated Basin Management Plan



River basin proposed budgetary





National Strategies

- 1 Protect & rehabilitate upstream
- 2 Rehabilitate water resources, water way, wetlands
- 3 Develop & improve water resources, drainage system & diversion
- 4 Manage land use & flood protection for economic area
- 5 Improve agricultural pattern & use agricultural area as retarding pond
- 6 Flood management

Flood

Management

Drought

- 1 Increase Water Provision
- 2 Water Distribution
- 3 Increase efficiency of Water Supply System
- 4 Water Management

- 1.Promulgation of water act
- 2.Water organization reform
- 3.Promulgation of sub provisions
- 4.Enhance & strengthen RBC
- 5.Establishment of management organization
- 6.National water resources information center
- 7.Water resources fund
- 8.Water resources sustainable management research project

Wastewater

- 1 Rehabilitate water quality in critical basin & urgent
- 2 Oversee & control the waste and wastewater disposal
- 3 Enhance the participation of local authority & people

Road Map for Drought Management (2008-2012)



- 2008**
- Repaired village water supply = 5,000 villages
 - Increased village water supply = 4,900 villages

- 2009**
- Increased village water supply = 2,579 village
 - Repaired village water supply = 5,000 villages
 - 80% of industrial estate having water
 - 90% of tourism sites having water

- 2010**
- Water supply are available in all villages
 - Repaired village water supply = 5000 villages

- 2011**
- Repaired the water supply in all villages

- 2012**
- Comprehensive Water supply are available for all villages
 - Sufficient water for industrial estate
 - Sufficient water for all tourism sites
 - Sufficient water for irrigated agriculture as planned

Road Map for Flood Management (2008-2012)



2012

2011

2010

2009

2008

- Increased flood protection in 6 main cities
- Increased flood warning for flood plain 9 basins, 4 million people
- Increased flood & land slide warning 380 villages

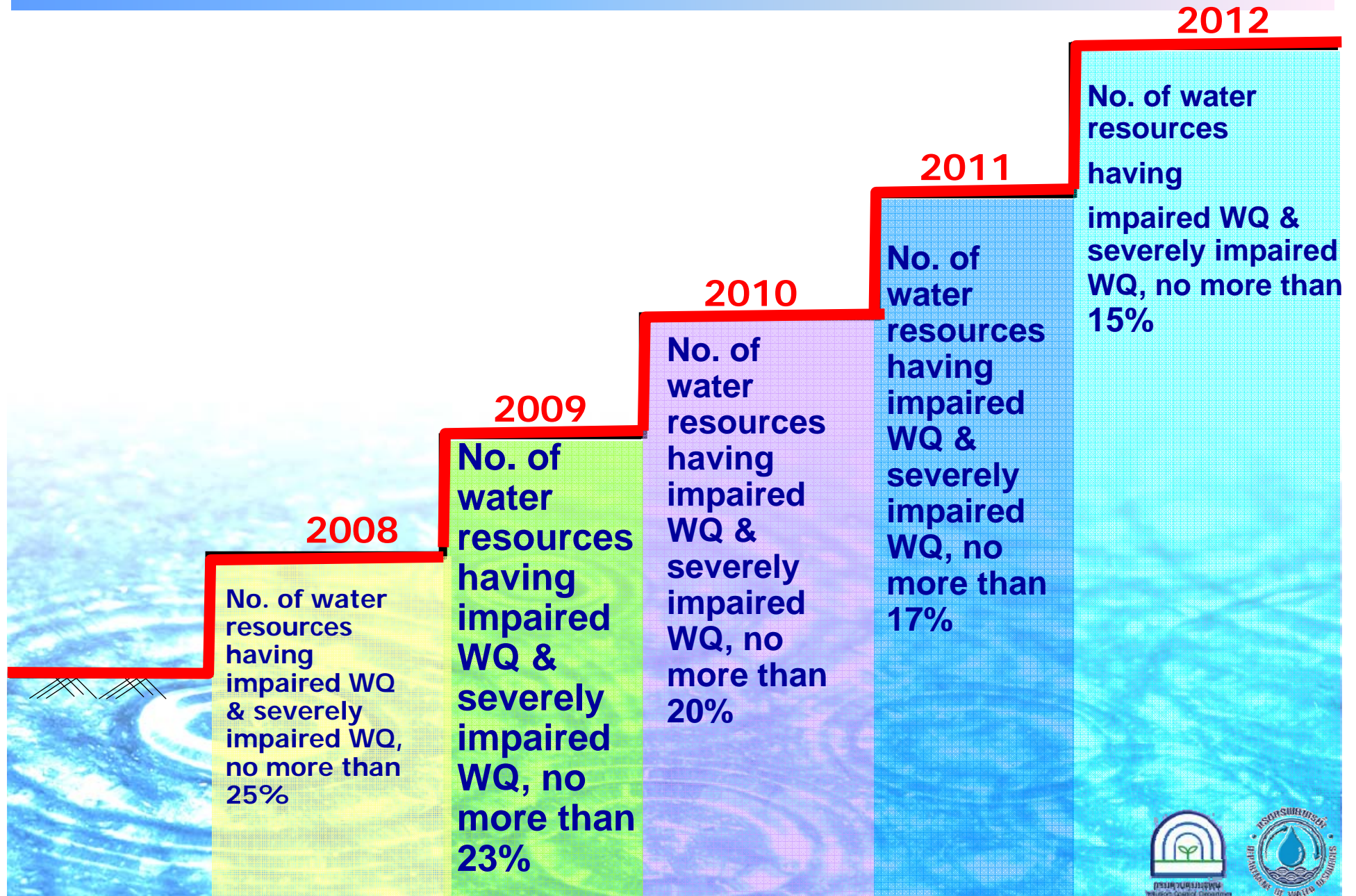
- Increased flood protection 8 main cities
- Increased flood warning for flood plain 11 basins, 6 million people
- Increased flood & land slide warning 380 villages

- Increased flood protection 6 main cities
- All basins received flood warding for flood plain
- Increased flood & land slide warning 380 villages

- Increased flood protection 4 main cities
- Increased flood & land slide warning 432 villages

- Flood protection for main cities = 70%
- Flood warning for flood plain in all basins
- Flood & land slide warning for high risk area completed 2,370 villages

Road Map for Wastewater Management (2008-2012)



Road Map for Management (2008-2012)



2012

Societies have water for domestic use with efficiency, equity & sustainability

2011

Societies have reconciliation on inter-basin water utilization

All sectors participate in sustainable utilization & conservation of water

2010

Having water resources management with fast action & accuracy

2009

National Water Resources Information Center established with efficient operations

2008

- Promulgation of Water Act
- Establishment of Water Resources Fund
- Water resources Management Organization having efficient functions for critical case

Thank You