

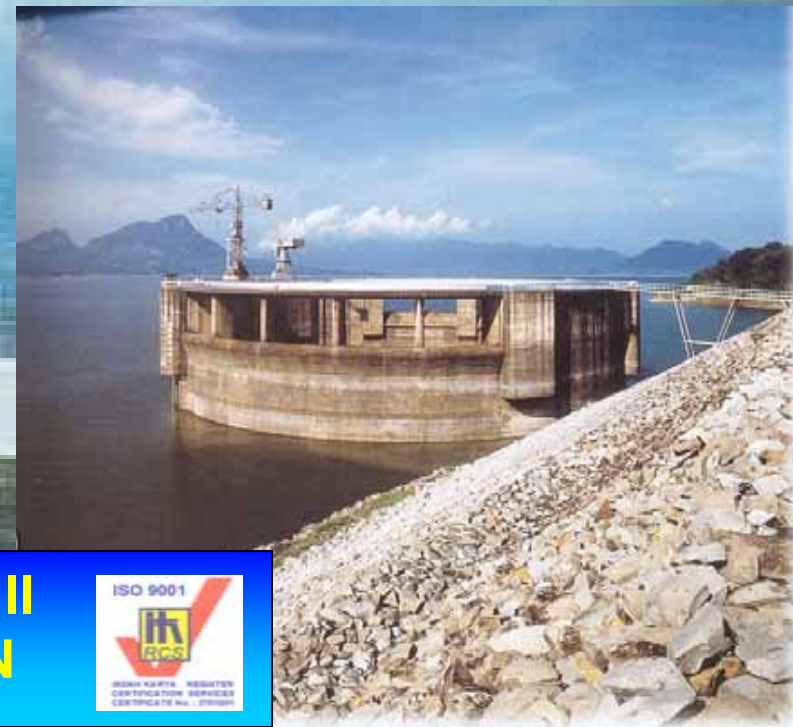
INTRODUCTION OF WATER RIGHT & WATER ALLOCATION SYSTEM IN INDONESIA

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J A S A T I R T A I I
P U B L I C C O R P O R A T I O N



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- Background
- Water resources
- Water right system
- The Legal and institutional framework of water allocation
- Troubles related to water allocation
- Reason of the trouble
- Experience of Drought Management
- Conclusion



Background

SCOPE OF WORKS JASA TIRTA II PUBLIC CORPORATION based on Government Regulation No. 94/1999

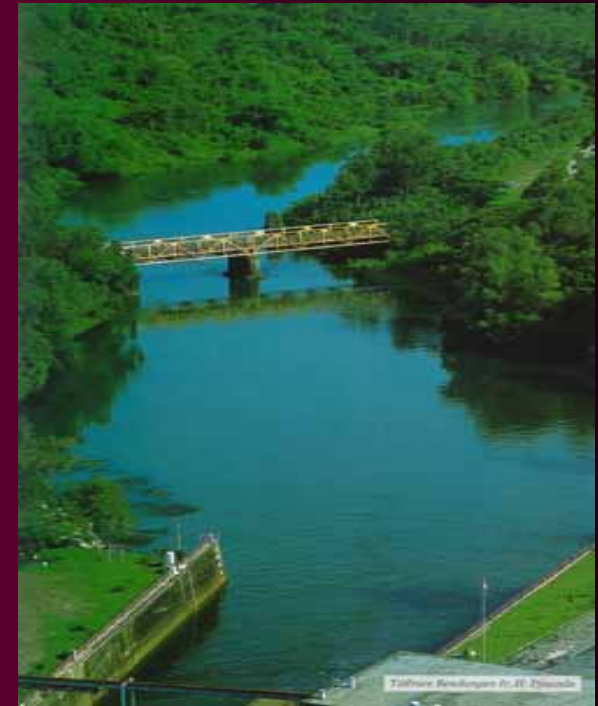


1. **EXPLOITATE AND MAINTAIN** water resources infrastructures and hydro-electric power generation.

2. Water resources and hydro-electric power **UTILIZATION,**

3. **WATERSHED MANAGEMENT,** such as: control, develop, and utilize water resources in Citarum River Basin

4. **REHABILITATE** water resources infrastructures and hydro-electric power plant as well.



Description of Citarum River Basin



- Basin Area : 12,000 km²
- Population (1999) : 8,595 million
- Average Rainfall : 4000 mm/year
- Water Potentials : 12.95 billion m³/year
- River Length : 300 km

Western part of the world



Indonesian Archipelago

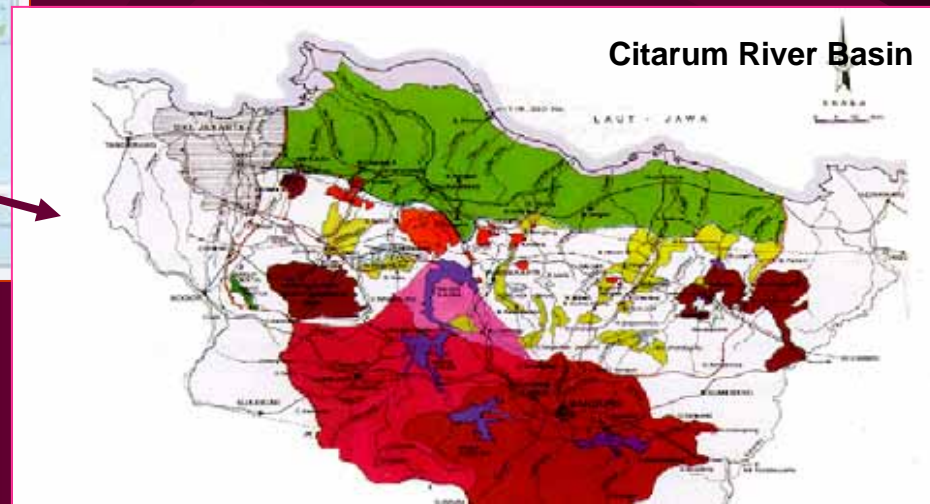
Land Use (2004) :

- Irrigated : 33 %
- Agricultural : 258 %
- forest : 19 %
- settlements : 7 %
- Swamp & fish ponds : 4 %
- others : 9 %



Java island

West Java Province



Citarum River Basin

Water Resources



- Jatiluhur System handles about 80 % of the usable water of 10 billion m³ from the upstream and middle reaches of the rivers
- Reforestation of Block Number 73 is another watershed conservation activity of Jasa Tirta II Public Corporation, aimed at introducing productive forestry in the steep-sloped area which was once denuded to cultivate vegetables.
- The Citarum River is the largest river in western Java, which region contains Jakarta, the capital of the Indonesia.
- The government intends to classify the river basin as a National Strategic River Basin.
- These diversion systems have made possible a cropping intensity of 200 % in the command area of 240,000 ha and this has placed the Citarum River Basin among the prime granary zones of the country.

Water Right System (1)

Background

- Paragraph 6, 7, 8, 9 the Water resources Law number 7/2004 and paragraph 10 : water right regulation that intended in paragraph 7,8 and 9 will be arrange by government regulation

Ownership of water

- Water resources is state property and to be use for public prosperity (paragraph 6

Contents of Water Right (*Local Government Regulation No. 10/2001*)

- Purpose of water use
- Venue of water intake
- The method of water intake (ex. Pump up, gravity flow)
- The amount of water intake
- Drop regarding hydropower generation
- The amount of storage in a reservoir
- Permitted period



Water Right System (2)



- Not necessary if right to use water for principal needed and agriculture populace, for other puposes are necessary to get permission
- **Permitted** : Government is ministry of public work and local government is governor

Limitation of water right holder

- The River Law doesn't provide the limitation of water right holder, but the purpose of water use is investigated by Government strictly from the viewpoint of public interest. Most of water use is occupied by irrigation, water supply, hydropower generation and industrial use

charger for water use

- charger for water use (paragraph 80, art1)

Permitted period

- Permitted period is 2 years

Water Right System (3)

Register of river water use

- Paragraph 14,15, 16 and 17 the Water Resources Law: Government have to prepare the register of water utilization in order to grasp the status of water use in river basins

Compulsory measure

- Any person who intake water without permission for water use from river shall be punished with penal servitude for not more than 3 year or a fine of not more than five hundred million rupiah (Art 3, Paragraph 94)

Procedure of permission for water use

- on the process for Government regulation

Coordination among stakeholders in the procedural flow of permission

- Art 1, 2, 3, 4, and 5 Paragraph 87, The water resources law arrange to coordination in several level (National, Province, Distrik, Village and among level)



Water Right System (4)

Consideration of Environmental flow in granting water right

Art 3, Paragraph 23, 24 : Management of Water Quality for environmental

Transfer of water right

- Art2, Paragraph 7 the Water resources Law: Water right cannot be transferred

Other information 1

- Water right system has not existed with regard to ground water. However, extraction of ground water is restricted from the viewpoint of prevention of ground sink or salt contamination.



The Legal and Institutional Framework of Water Allocation

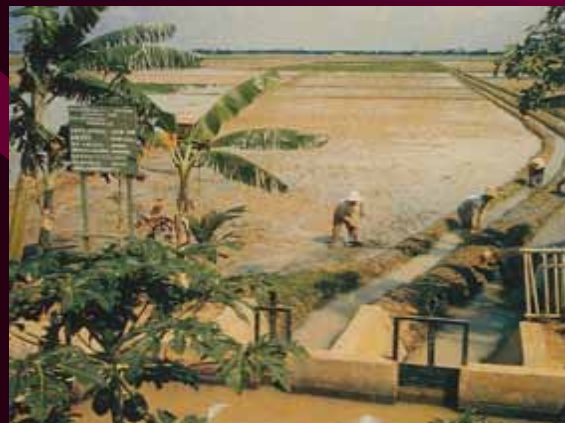
- The government of Indonesia formulated the New Water Resources Law, Law No. 7/2004, in 2004. The Law reflects the Government's policy on water resources management.
- The provided criteria imply that the Citarum area is one of the National Strategic River Basins, although several procedures for the official definition are yet to be cleared as described below.



- The law provides for the establishment of water Resources Councils (Dewan Sumber Daya Air) for national, provincial (PTPA) and district level (PTPA), and a River Basin Level institution (PPTPA) to coordinate water administrators, users and other stakeholders.

Various laws and regulations specified the roles of agencies related to the water resources management. The defined roles from the institutional frameworks for national and regional levels as follows :

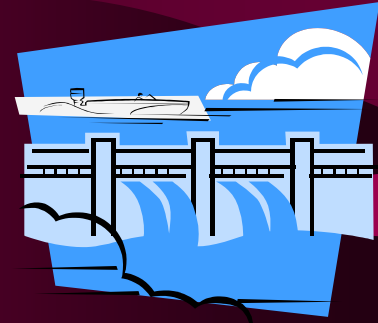
<i>Roles related to water and watershed conservations</i>		
- Forest reservations	:	Ministry of forest, provincial and district forestry department.
- Spatial planning	:	Ministry of public works and provincial land agency
- Land use	:	Ministry of interior, national land agency and regional planning board.
- Urban Drainage	:	Ministry of human settlement and provincial spatial planning
- Environment	:	State ministry of environment, provincial environmental management agency and district environmental control agency



<i>Roles related to water uses</i>		
- Agriculture	:	Ministry of agriculture and agricultural departments of province and district.
- Water supply	:	Ministry of settlement (Cipta Karya), Ministry of health, Ministry of industry and regional infrastructure agency.
- Hydropower generation	:	Ministry of energy and natural resources

Roles related to disaster prevention

- Flood	:	Ministry of public works and National coordination body for disaster mitigation and refugees management.
- Mud Flow	:	Ministry of public works and National coordination body for disaster mitigation and refugees management.



Roles related to land acquisition

- Land acquisition	:	National land agency and regional committee for land acquisition.
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Resettlement

Resettlement plan	:	National land agency and the Provincial Governor and head of the district
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The Main Targets of The Policy

- To facilities efficient and environmentally and socially sustainable water resources development and management



- To establish effective regulatory institutions and implementation arrangements for water pollution abatement and regional water quality management

- To strengthen the institutional and regulatory frameworks for integrated and equitable river basin management
- To improve the performance and sustainability of irrigation systems by establishing an institutional framework for the transparent and accountable delivery of irrigation services, and participatory fiscal support to democratic farmer organizations

The Expected Socio-Economic Development of The Region Forms a Considerable Challenge for the Water Management.



- Watershed degradation is affected by natural phenomenon
- Limited water availability in most basins due to infrastructure degradation,
- Water quality degradation
- Flood hazard is occurred due to decreasing
- Threatened river environment
- Water resource infrastructures degradation

Reason of the Trouble

1. Lack of Institutional framework

PJT II were established by the Government for managing water resources limited in-stream of river acted as operator of water resources in the basin.

2. Lack of Budget / Financial

- Financial support for sustainable water resources management should be collected from beneficiaries
- Funding of water resources management for the people welfare safety and environment conservation is only possible whether the government is willingly to take part (contribute) its shares
- Community awareness, education, and participation become important since people play significant role in utilization & conservation of water resources environment

3. Decentralization in regard to this nation-wide policy, all natural resources are owned by the respective Local (Regencies / Municipal) Government



Experience of Drought Management



- Irrigation is the biggest demand of water it is about 90% of the total demand for two crops per year
- According to the Note for Jatiluhur (Ir. H. Djuanda) Reservoir Operation (Angoedi, 1960) total water demand in the downstream of the reservoir will be supplied during wet season 70% from local resources and 30% from the reservoir, and conversely, during dry season 30% from local resources and 70% from the reservoir.
- The committee is also prepares integrated reservoirs operation rule curve based on the equal sharing of the three reservoirs in term of water level and hydro electric power production.
- Water management includes: catchment area management, water quantity, water quality, river environment, flood and drought, and water resources infrastructures.
- They should not rampant to cut trees in the forest or illegal logging and extended agricultures activity in the slope land that will cause erosion in the catchment area and sedimentation in downstream reach
- The beneficiaries of water mostly are living in the downstream area that is why a mechanism of incentive from the downstream to upstream should be established.

JASA TIRTA II PUBLIC CORPORATION

INTEGRATED WATER RESOURCES MANAGEMENT

1. Catchment Area Management

2. Water Quality Management

3. Water Quantity Management

4. River Environment Management

5. Flood & Drought Management

6. Water Resources Infrastructure Management

Water Quality Monitoring

Clean River Program:

82 POINT

INDUSTRY : 102 UNIT

REPORT

1. Public Work Department
2. Environment institution (West Java)
3. Regional Coordination Unit Purwakarta
4. Water Resources Development Unit (West Java)
5. Industrial Unit (West Java)
6. Environmental Local Unit

WATER RESOURCES MANAGEMENT ACTIVITIES IN CITARUM RIVER BASIN

Minister of Public Works Decree No.
67/PRT/1993

“PTPA – PROVINCE LEVEL”

Local Regulation of West Java Province
No. 12 /1989

“WATER REGULATION “

Governor Decree of West Java No. 18/1994
ESTABLISHMENT OF PPTPA RIVER BASIN

Letter by Water General of Director
Public Work Department

No. KP.01-Da/660 – Oct 28, 1994

**ESTABLISHMENT OF PPTPA RIVER
BASIN– WEST JAVA PROVINCE**

Governor Decree of West Java No. 614.05/SK.834-
Huk/1997

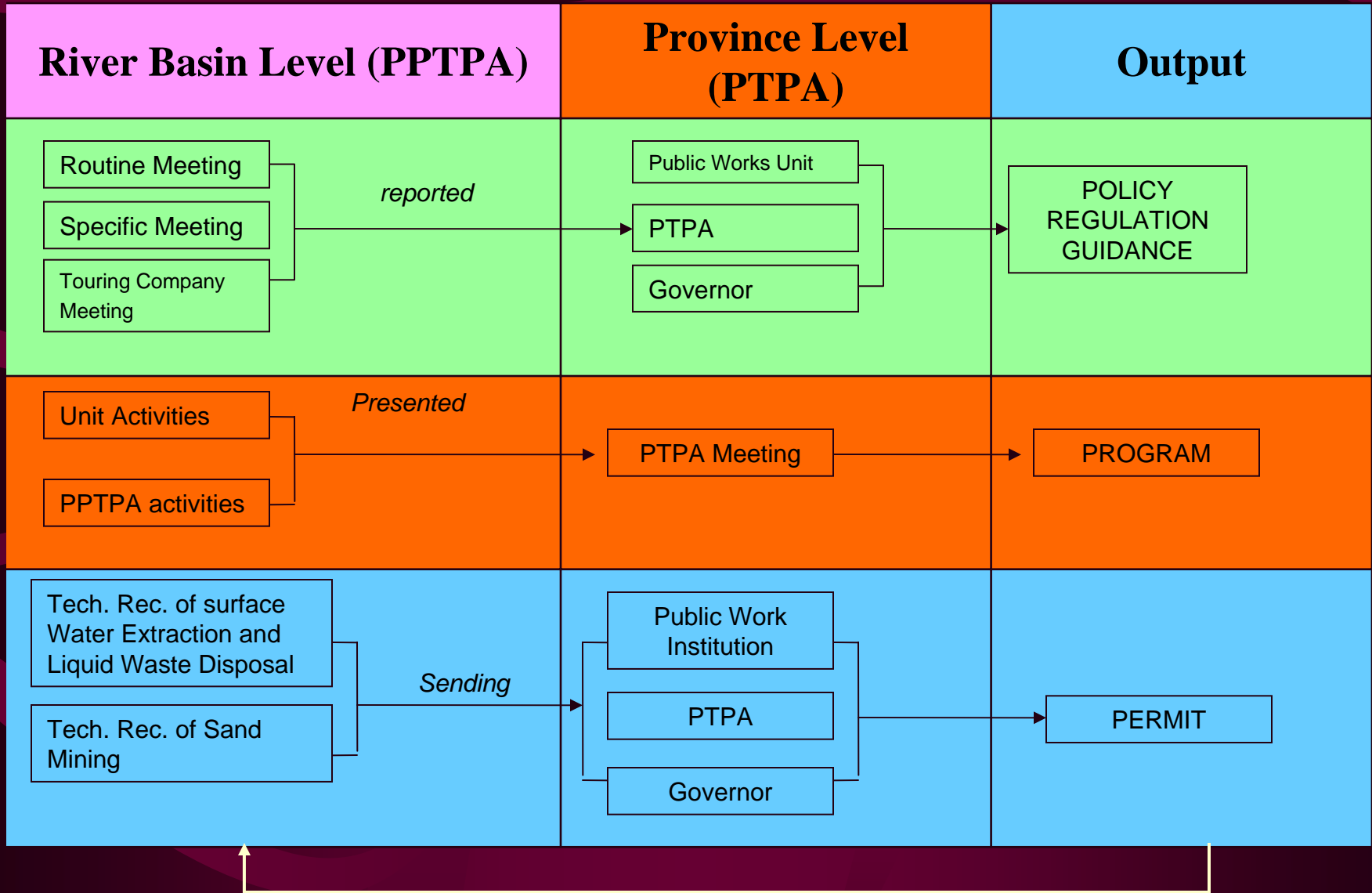
ESTABLISHMENT OF PPTPA CITARUM RIVER BASIN

Working Group of PPTPA

(Letter of Decision by Jasa Tirta II Public Corporation Direction)

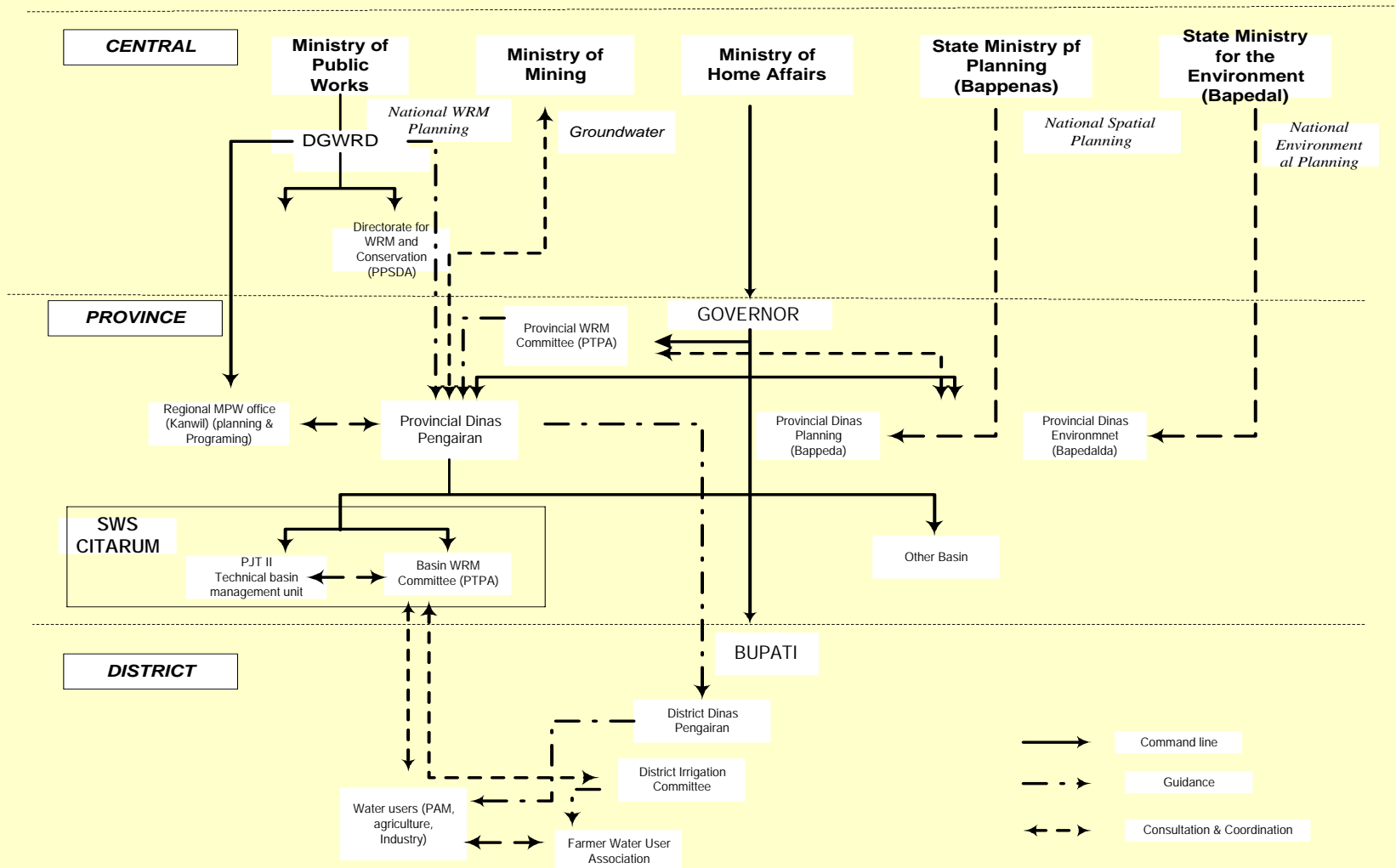
Meeting of the Planning – Review - Operation
of Water Allocation

COORDINATION AMONG STAKEHOLDERS IN THE CITARUM RIVER BASIN

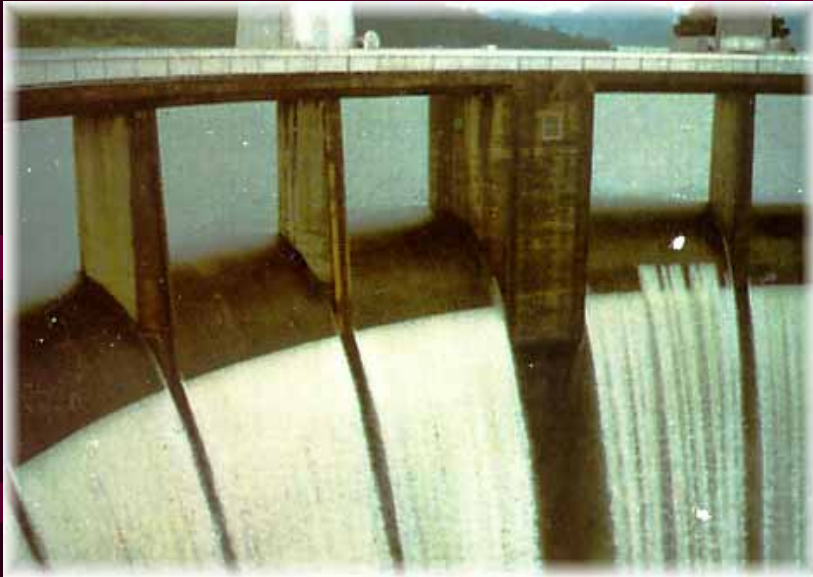


Feed Back

INVOLVEMENT OF GOVERNMENT ADMINISTRATION LEVELS IN WATER RESOURCES MANAGEMENT OF CITARUM RIVER BASIN

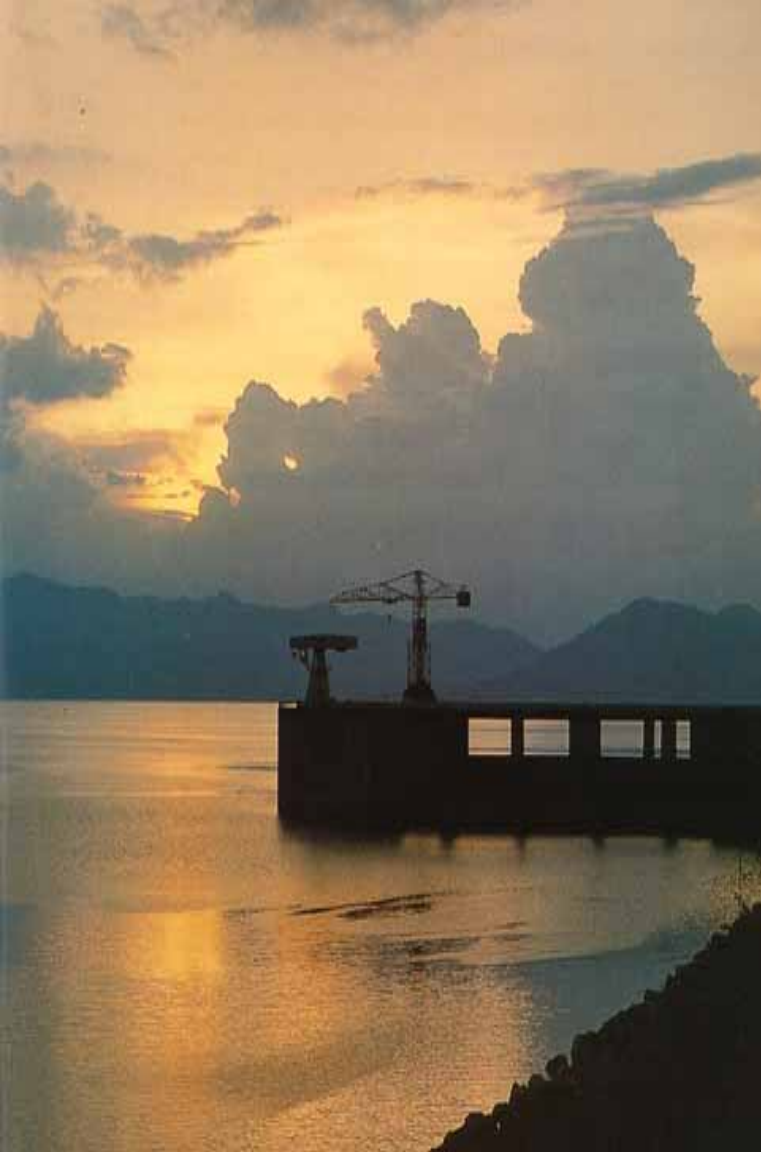


Conclusion



- Water is considered a national asset under public ownership, there are some countries which implicitly treat water as an unlimited resource, where it is de facto a common resource without clearly defined property rights.
- Stable and secure water rights should be pursued because they are an important incentive for private investment.
- Water rights are rights to use certain amounts of water rather than the right to the ownership of the resource itself.
- To allocate water efficiently and effectively to competing user.

Thank You !



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