

The Second Phase of WEPA

Framework and Actions



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Outline of Presentation

- 1. Rationale of water environmental conservation**
- 2. Reflection of 1st Phase Activities**
 - objectives, basic facts and quick evaluation**
- 3. Focus of the 2nd phase**
- 4. 2nd phase of WEPA**
 - specific goals, activities, expected outputs**
- 5. An emerging issue: climate change**

Water Environment Conservation for Sustainable Development

- Sound water environment is critical for us to enjoy various services provided by water resources, which are elements of sustainable development.



Objective of WEPA

- **To strengthen water environmental governance that is a key to address water environmental problems.**

Definition of Water Environmental Governance in WEPA

Enhancement of efficiency and effectiveness in planning and implementation of policy and legislation for improvement of water environmental problems and also maintain sound water environment.

The elements of water environmental governance is, for example, legislation, systems to secure implementation, organisational arrangement, human capacity, financial capacity, partnership and communication with community.

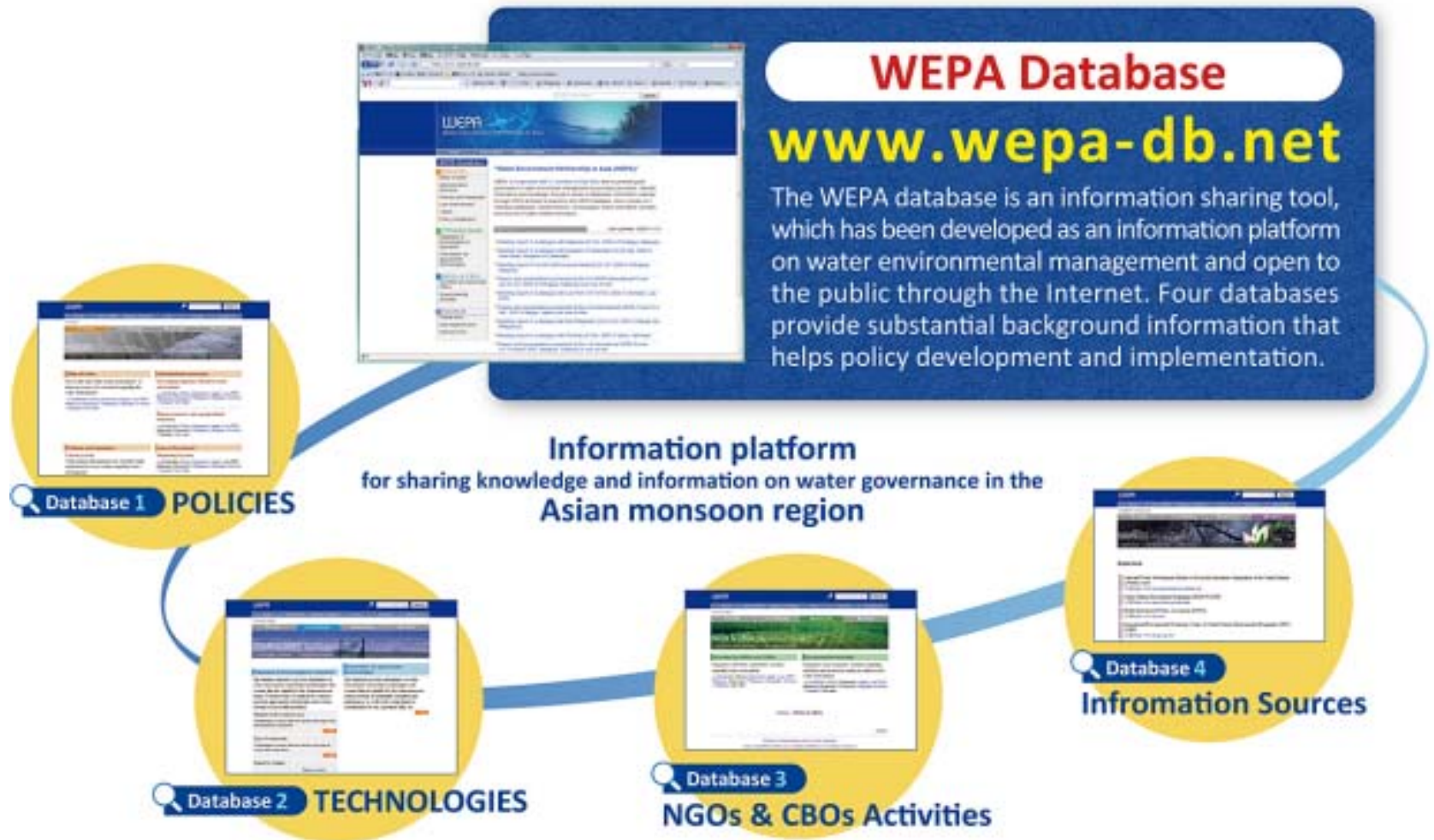
Basics of the WEPA First Phase

- 1. Project Duration: April 2004 – March 2009**
- 2. Partner countries: 11 countries (Cambodia, China, Lao PDR, Indonesia, Republic of Korea, Malaysia, Myanmar, Philippines, Thailand, Viet Nam, Japan)**
- 3. Main Activities:**
 - (1) Establishment of WEPA Database**
 - (2) Capacity development through WEPA activities such as forums and**
 - (3) Partnership development among WEPA countries**

Quick Evaluation of the 1st Phase

	Achievement		Future Challenges
Development of WEPA Database	YES	The database was fulfilled by necessary information provided by partner countries, participants of international forums and etc.	To translate “information” in the database into “knowledge” that contributes to improvement of water environmental governance.
Capacity Development	YES	WEPA provided opportunities of gaining knowledge	To increase effectiveness of capacity building
Development of Human Network and Partnerships	YES	Network of WEPA partner countries has been developed.	To enhance network; To deliver messages from the network to the regional/international dialogues

WEPA Database – a tool of information sharing



WEPA Policy Database

	State of water	Org. Arrangements	Legislative Framework	Law Enforcement			Background	Cases
				Monitoring system	Budget /Expense	CB		
Cambodia	Green	Green	Green	Red	Red	Green	Green	Green
China	Green	Green	Green	Green	Green	Green	Red	Red
Indonesia	Green	Green	Red	Green	Green	Green	Red	Red
Korea	Green	Green	Green	Green	Green	Green	Green	Green
Laos	Green	Green	Green	Red	Green	Green	Green	Green
Malaysia	Green	Green	Green	Green	Green	Green	Green	Green
Myanmar	Green	Green	Green	Red	Red	Red	Red	Red
Philippines	Green	Green	Green	Green	Green	Green	Green	Green
Thailand	Green	Green	Green	Green	Green	Red	Red	Green
Viet Nam	Green	Green	Green	Green	Green	Green	Green	Green
Japan	Green	Green	Green	Green	Green	Green	Green	Green

Green column = Data available, Red column = No Data

Capacity development opportunities provided by WEPA

Japanese Fiscal Year	WEPA Activities that Contribute Capacity Development
FY2004	Collection of information by partner countries
	Working Group Meeting on Database on Technologies (1)
FY2005	Working Group Meeting on Database on Technologies (2)
	Working Group Meeting on Policy Database
FY2006	WEPA International Symposium (Bangkok)
	WEPA International Forum (Bangkok)
	Bilateral Dialogue in Vietnam (Hanoi)
FY2007	Bilateral Dialogue in the Philippines (Manila)
	WEPA International Forum (Beppu, Japan)
	Water Industry Training in APU (Beppu, Japan)
	Bilateral Dialogue in Lao PDR (Vientiane)
FY2008 (Apr. 2008 – March 2009)	Bilateral Meeting in Cambodia (Siem Reap)
	Bilateral Meeting in Malaysia (Putrajaya)
	WEPA International Forum (Putrajaya, Malaysia)

Enhancement of Human Network

- Presentations from Different Sectors at h WEPA meetings -

		Gov.	Univ.	Research Institutes	International Org. and others	Public Sector	CBO/ NGO	Others
Int'l Symposium	Dec. 2006	4	3	2	0	0	1	0
Int'l Forum (1)	March 2007	3	15	5	2	1	1	0
Int'l Forum (2)	Dec. 2007	13	19	6	0	1	2	1
Int'l Forum (3)	Oct. 2008	18	11	6	1	0	1	0
TOTAL		38	48	19	3	2	5	1

More than 100 presentations from different sectors

2nd Phase of WEPA

1. Duration: April 2009 – March 2014

2. Objective of WEPA

The overall objective of WEPA is the same as in the 1st phase – “To strengthen water environment governance”

Goals of the WEPA 2nd Phase

Strengthening Water Environmental Governance

WEPA

Formulation of Message on Actions for Better Water Environment in Asia

Identification, Analysis of Water Environmental Governance

Sharing of knowledge and Identification of solution of current and emerging issues

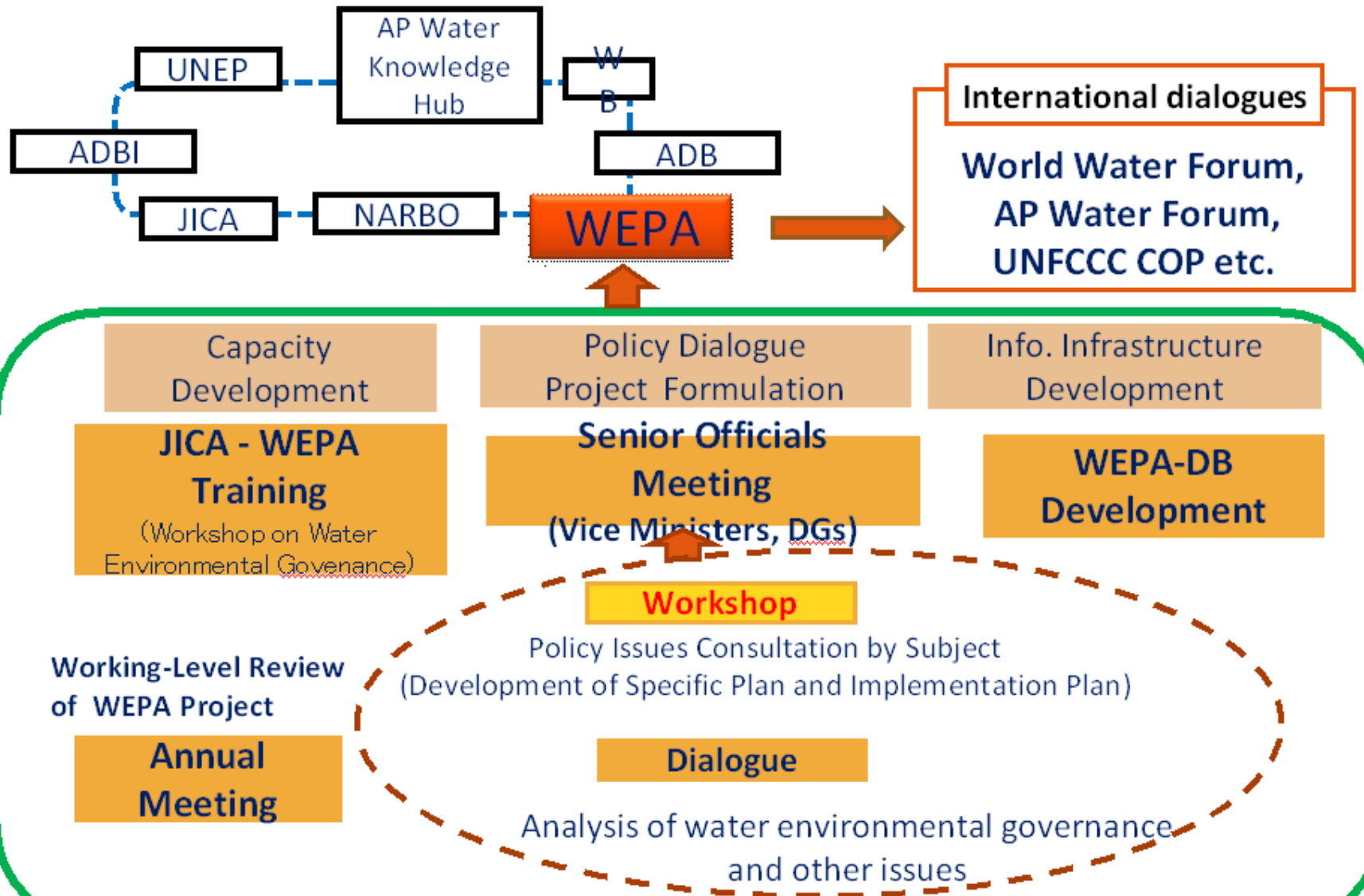
Capacity building through WEPA activities and in collaboration with other org.

Assets of the 1st Phase as the basis of the 2nd phase

Network of Governments

WEPA Database (as an information platform)

How to achieve the objectives?



Expected Outputs of the Second Phase

1. Policy reports on water environmental governance
2. Reports on the discussion on the specific topics (e.g. climate change, urban wastewater management)
3. Message from WEPA to the World Water Forum, UNFCCC COP, etc.
4. Updated WEPA database
5. Enhancement of knowledge and capacity building of partners.

Background of the Workshop Thematic Session1 (1)

Urbanization and Water Quality Control for the Source of Water in Asian city

Why Water Quality Control for Water Sources in Asian Cities?

- Many Asian cities face scarcity of water resources and water degradation caused by **rapid urbanization** for decades.
- **The water quality control of water sources in the cities** is one of the most urgent political issues in many countries in Asia, considering that cities have played an important role in economical and political activities of each country.
- The improvement of water quality of water sources in the cities requires not only application of the wastewater treatment technologies but also a more comprehensive approach.



Background of the Workshop Thematic Session1 (2)

Urbanization and Water Quality Control for the Source of Water in Asian city

Considering the importance of water quality conservation in urban areas, especially at the source of water, the issue becomes a topic of the 1st WEPA workshop.

The purpose of the session:

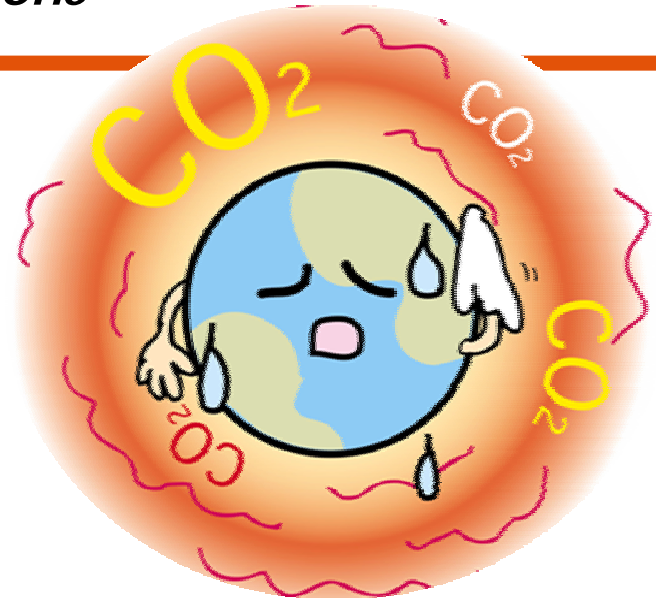
To share experiences and identify the common issues on **water quality management of sources of water in Asian cities** that will be the basis of further discussion.

To this end, current situation and issues of **water quality management of water sources in the Asian cities** are to be presented.

Background of the Workshop Thematic Session2

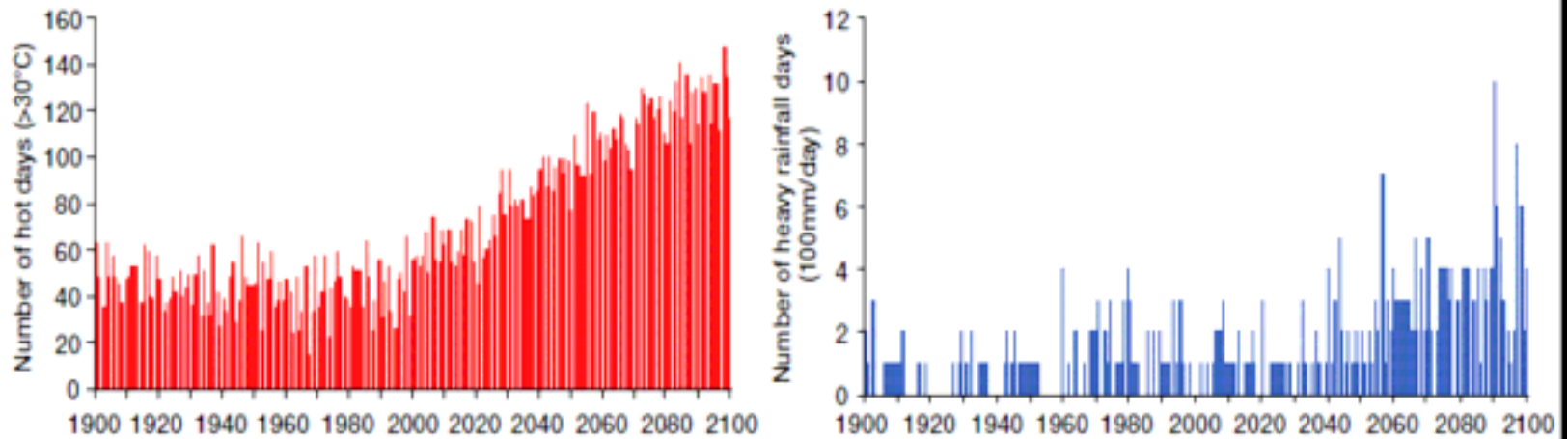
Impacts of Climate Change on the Water Environment and Adaptation Options

Climate change is one of the emerging challenges of water environmental governance in the near future.



- The session 2 aims to exchange knowledge and thoughts on climate change and environment matters among WEPA partner countries.**
- How climate change and water environment issues are perceived in the WEPA partner countries?
 - What actions have been taken or will be taken in partner countries
 - What adaptation options are available?

More hot days and heavy rainfalls in Japan



The more hot summer days and heavy rainfalls including typhoon by the increase in atmospheric moisture due to climate change

IPCC-AR4-WG2

Figure 10.2. Projected number of hot days (>30 ° C) and days of heavy rainfall (>100 mm/day) by the high resolution general circulation model (Hasumi and Emori, 2004).

Climate Change vs. Water Environment

- **More hot days** **increase in water temperature (W.T.)**
 - **reaction rate** **water quality**
 - 1 ~ 2 °C increase in drinking water temperature increase in THMFP and/or other reactions to produce toxic substances
 - **thermal stratification** **water quality**
 - dimictic lake monomictic lake meromictic lake
- **Heavy rainfalls: increased pollutant runoff** **water quality**

- **Observed changes:**
 - **Lake Ikeda: 2-3 °C water warming** **no autumn circulation** **anoxic bottom in winter**
- **Projected changes:**
 - **Lake Biwa north basin: 1.5 °C water warming** **no circulation in 100 years**
similar to L. Ikeda?
 - **0.8 ~ 2.0 mg/l increase in COD by 1 °C warming**

Adapting Water Programs to Climate Change: Global and Local Issues

- Climate change →
atmospheric temperature, precipitation, evapotranspiration
→ water cycle → water quality/environment
- Management/use of water environment has been based on the past weather and water cycle conditions by the tacit understanding that weather variations will be within the past range
- (water cycle: past future) Water management based on the previous data will not be useful?



*Global climate change is a **local** problems with which conservation authorities, local governments and water users will have to deal.*

Working together for better future

- WEPA will be served as “the platform of dialogue among WEPA partner countries” to address current and emerging issues related to water environmental governance.
- This first workshop is very important as a kick-off of thematic discussion of WEPA. It is expected that the findings of the workshop will form the basis of future discussions.
- To facilitate the 2nd phase WEPA activities, your active involvement is very important.

Specific goals of the 2nd phase

- 1. Identification of areas which need policy intervention through extended analysis of water environmental governance in each WEPA country, based on the information accumulated in the WEPA database and dialogues with partner countries.**
- 2. Sharing “knowledge” and find “options of solution” through discussion on common and/or emerging issues (e.g. climate change adaptation, urban wastewater management) among partners.**
- 3. Delivering message from WEPA on necessary actions for improvement of water environmental governance in WEPA partner countries and asking int’l collaboration where necessary.**
- 4. Enhancing knowledge and capacity of WEPA partners through WEPA activities**