
Preface

As the recognition of importance of IWRM has been surging, the lack of the network to assist RBOs in Asia in their work of introducing and implementing IWRM approach came to light.

With this background, the 3rd World Water Forum was held in Japan in March 2003. At the forum, JWA, ADB and ADBI signed a Letter of Intent to jointly launch NARBO in recognition of the need to cooperate and support RBOs in order to promote IWRM in Asia. Subsequently, the three organizations made inquiries to governmental agencies, RBOs and other related organizations in Asia about their intention to participate in NARBO

and solicited their cooperation. After the inaugural NARBO General Meeting was held after the Inception Meeting in Chiang Mai, Thailand in November 2003, NARBO was established in February 2004 with 43 member organizations.

Five years have been passed since the establishment of NARBO. The number of members becomes 68 (member list is attached in Baseline 3) organizations from 16 countries as of March 31, 2009.

Various NARBO activities had been conducted from January 2008 to March 2009 and those activities are summarized in this NARBO annual report 2008.

1. General Information of NARBO

(1) Introduction

The world community has recognized the importance of managing water resources in a more integrated manner. Over the past decades, a series of regional and global water conferences, including the World Water Forums in 1997, 2000, 2003, and 2006, and 2009 have underlined the need to adopt and operationalize the approach of integrated water resources management (IWRM), which is defined by the Global Water Partnership as “a process to improve the planning, conservation, development, and management of water, forest, land, and aquatic resources in a river basin context, to maximize economic benefits and social

welfare in an equitable manner without compromising the sustainability of vital environmental systems.”

By focusing on the management of water and related resources in a river basin context, it is implied that IWRM will be undertaken with the involvement of stakeholders at the basin level. The water conference in Dublin in 1992 referred to the need for management of water resources at the lowest appropriate level. This has become one of the basic principles underpinning the IWRM approach, and it has led to increased recognition that river basin organizations (RBOs) can realize

IWRM at the basin level. Since Dublin, the world community has also recognized the importance of promoting gender and development work as part of the IWRM approach to ensure that women participate in water management at all levels.

“Many forms of RBOs have been established in recent decades, and countries have developed various governance approaches for RBOs, for example, river basin commissions in the People’s Republic of China, river basin parliaments in France, river basin committees in Australia, river basin authorities in the United States and Sri Lanka, a lake basin development authority in the Philippines, water resources public corporations in Japan and Indonesia, inter-state RBOs like the river basin tribunals in India and the Murray-Darling Basin Commission in Australia, and international RBOs in the Mekong basin, the Syr and Amu Darya basins, and in the Tumen basin.

Some RBOs were established decades ago and have ceased to exist, while many new RBOs have been established recently. Some RBOs have a large technical capacity, employing thousands of staff, while others may employ just a handful, like the newly established river basin committees in Southeast Asia. While there are many differences between these RBOs, they share a common mission, which is to operationalize IWRM in their respective river basins.

A network to assist RBOs in Asia in their work of introducing and operationalizing the IWRM approach does not yet exist. Consequently, RBOs lack opportunities for exchanging information and experience on their operations, and access for their staff to training and capacity building that draws on the technical and non-technical experience in managing water resources in Asia.

The need for partnerships for action to achieve IWRM was recognized at the 3rd World Water Forum held in Kyoto, Osaka, and Shiga, in the Lake Biwa and Yodo River Basin, Japan, in March 2003, where it was noted that several developed and developing countries in Asia have already established RBOs to implement IWRM. The 3rd World Water Forum highlighted the need to support these RBOs through knowledge sharing and capacity building, especially in developing countries.

The 3rd World Water Forum also emphasized the contributions that IWRM can make to improve the water security of the poor, by incorporating the needs of the poor explicitly in water policies and management practices at all levels.

Recognizing the need for networking and capacity building in the implementation of IWRM, the Water Resources Development Public Corporation of Japan (reconstituted as Japan Water Agency in October 2003), the Asian Development Bank, and the Asian Development Bank Institute decided at

the 3rd World Water Forum in March 2003 in Kyoto, Japan, to collaborate in launching a Network of Asian River Basin Organizations (NARBO), and a letter of intent was signed at the Forum on 21 March 2003. After the forum, the three organizations made inquiries to governmental agencies, RBOs and other

related organizations in Asia about their intention to participate in NARBO and solicited their cooperation. The inaugural NARBO General Meeting was held after the Inception Meeting in Chiang Mai, Thailand in November 2003 and the Preparation Meeting for NARBO General Meeting in Tokyo, Japan in January 2004.

(2) Purposes

The goal of NARBO will be to help to achieve IWRM in river basins throughout Asia.

NARBO's objective will be to strengthen the capacity and effectiveness of RBOs in promoting IWRM and improving water governance, through training and the exchange of information and experience among RBOs and their associated water sector agencies and knowledge partner organizations in Asia and to advise the establishment of RBOs in Asia."

To promote IWRM in Asia, the focus of NARBO's activities will be as follows:

1) Activities for the whole of NARBO

The activities joined by all members of NARBO will be as follows:

- Advocacy and raising awareness for IWRM among RBOs, water sector apex bodies, and leading water sector agencies in the region, mainly through regional workshops.
- Sharing of information, good practices, and lessons learned for IWRM among the participating organizations, mainly by operating databases and a web site for

IWRM exchanging information, and by sending a newsletter by e-mail as well as posting on the web site and holding (sub) regional workshops.

2) Activities for regional areas of NARBO

RBOs, national and federal governmental organizations with expertise in IWRM, regional and interregional knowledge partner organizations for IWRM, and bilateral and multilateral development cooperation agencies, will be requested to support RBOs in Asia in the following types of activities.

- Supporting NARBO members to improve water governance, including the enabling policy, institutional, and legal framework for IWRM, and the formulation of the action plans.
- Building capacity of RBOs in implementing IWRM, mainly through staff exchange and training among participating organizations.
- Supporting RBOs with technical advice in regard to the planning, conservation, development, and the proper and efficient operation and

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- maintenance of water resources facilities, to improve IWRM.
 - Fostering regional cooperation for improved management of water resources in transboundary river basins.

3) The scope of IWRM activities to be supported by NARBO will be approved by the NARBO General Meeting.

4) NARBO's activities will initially focus on the monsoonal areas of Asia.

(3) Charter

NARBO Charter serves as a constitution because it stipulates NARBO organization and activities. The charter was presented and explained by NARBO Secretariat on February 23, 2004, the first day of the 1st General Meeting, and then it was duly approved without change. The charter consists of introduction and five sections. These five sections are as follows:

"Section 1. Denomination and Working

Language", "Section 2. Goal and Objective", "Section 3. Activities", "Section 4. Organizations" and "Section 5. Resources".

The secretariat revised the charter partially in August 2005, February 2006 (At the 2nd General Meeting) and February 2008 (At the 3rd General Meeting) in an effort to make it to be complete.

About the whole NARBO Charter, please refer to BASELINE

(4) Action Plan

The action plan 2008-2009 was proposed by the secretariat at the 3rd General Meeting on February 22, 2008. The action plan was divided into three categories:

- A. Advocacy, Raising Awareness, and Exchange of Information and Good Practices on Integrated Water Resources Management (IWRM)
- B. Capacity Building in River Basin Organizations (RBOs)

C. Network Support.

In each category, the activities are divided in two parts, namely led by the NARBO Secretariat and NARBO member organizations. Since NARBO is a network organization, members' contribution is highly required.

About the whole NARBO Action Plan (2008-2009), please refer to BASELINE

(5) Members

At the 1st General Meeting, 43 organizations from 11 countries signed the Agreement to Membership in NARBO and 8 organizations signed the Expression of Interest for Membership in NARBO.

After the 1st General Meeting, 11 organizations newly joined NARBO and one organization withdrew (It was abolished in the organizational reform in its country) and another 3 organizations joined NARBO at the 2nd General Meeting (February 14-16, 2006) in Indonesia. As a result, the number of members became 56 from 12 countries.

After the 2nd General Meeting, 9 organizations newly joined NARBO by the 3rd General Meeting (February 20-22, 2008) in Indonesia. As of March 31 2009, the number of members became 68 from 16 countries. (Australia, Bangladesh,

Cambodia, China, India, Indonesia, Japan, Korea, Laos, Malaysia, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam, Nepal)

If an organization wants to become a member, the organization is requested to get the application form from NARBO website

(http://www.narbo.jp/narbo/registration/join_NARBO.htm).

All they need is to fill registration form and to get a recommendation letter from the existing member, and to send it to the Secretary General. The membership fee is not collected for the time being.

[The list of NARBO members]

As of March, 2009

Category	Member
River Basin Organization (RBO)	24
Government Organization (GOV)	17
Regional Knowledge Partner (RKP)	19
Inter-Regional Knowledge Partner (IRKP)	8
Development Cooperation Agency (DCA)	1
Total	69

River Basin Organizations

Classification		Country/Region		Organization
Member	RBO	Indonesia	M	Jasa Tirta I Public Corporation (PJT I)
		Indonesia	M	Jasa Tirta II Public Corporation (PJT II)
		Indonesia	M	Jragung-Tuntang Basin Water Resources Management Unit (BWRMU) (Balai PSDA Jragung-Tuntang)
		Indonesia	M	Balai Besar Wilayah Sungai Bengawan Solo
		Indonesia	M	Balai Besar Wilayah Sungai Pompengan Jeneberang
		Indonesia	M	River Basin Water Resources Management Unit Pekalan Sampean (PSDA)
		Indonesia	M	Balai Pengelolaan Sumber Daya Air Ciujung-Ciliman Banten (BPSDA)
		Indonesia	M	Sermo Water Resources Management Unit (BPSDA)
		Indonesia	M	River Basin Water Resources Management Unit Citarum (PSDA)
		Japan	P	Japan Water Agency (JWA)
		Korea	M	Korean Water Resources Corporation (K water)
		Laos	M	Nam Ngum River Basin Development Sector Project
		Malaysia	M	Selangor Water Management Authority (SWMA)
		Pakistan	M	Indus River System Authority (IRSA)
		Philippines	M	Laguna Lake Development Authority (LLDA)
		Sri Lanka	M	Mahaweli Authority of Sri Lanka (MASL)
		Thailand	M	Bang Pakong River Basin Committee (BPRBC)
		Viet Nam	M	Cuu Long & Dong Nai River Basin Organization
		Viet Nam	M	Red River Basin Organization (RRBO)
		Viet Nam	M	Day River Basin Organization
		Viet Nam	M	Vu Gia Thubon River Basin Organization
		Viet Nam	M	Ca River Basin Management Council
		Viet Nam	M	Cau River Basin Planning Subcommittee
		Southeast Asia	M	Mekong River Commission Secretariat (MRC)

Governmental Organizations (GOVs)

Classification		Country/Region		Organization
Member	GOV	Bangladesh	M	Bangladesh Water Development Board (BWDB)
		Bangladesh	M	Local Government Engineering Department (LEGD)
		Cambodia	M	Ministry of Water Resources and Meteorology (MOWRAM)
		Cambodia	M	Department of Hydrology and River Works (DHRW)
		Indonesia	M	Directorate General of Water Resources (DGWR)
		Indonesia	M	Water Resources Development, West Nusa Tenggara Province
		Japan	M	Water Resources Department, Land and Water Bureau, Ministry of Land, Infrastructure, Transport and Tourism
		Laos	M	Water Resources Coordination Committee Secretariat
		Malaysia	M	Department of Irrigation and Drainage (DID Malaysia)
		Philippines	M	National Water Resources Board (NWRB)
		Philippines	M	Department of Environment and Natural Resources (DENR)
		Sri Lanka	M	National Water Resources Authority (NWRA)
		Thailand	M	Department of Water Resources, Ministry of Natural Resources and Environment (DWR, MoNRE)
		Viet Nam	M	Department of Water Resources Management, MoNRE (General Office for RBO, WRD, MARD)
		Viet Nam	M	General Office for RBOs in Viet Nam (GO-RBO)
		Viet Nam	M	Southern Institute for Water Resources Planning (SIWRP), Ministry of Agriculture & Rural Development (MARD)
		Viet Nam	M	Department of Natural Resources and Environment of Dong Nai Province

Regional Knowledge Partner (RKP), Interregional Knowledge Partner (IRKP), Development Cooperation Agency (DCA)

Classification		Country/Region		Organization
Member	RKP	Southeast Asia	M	Global Water Partnership (GWP) SEA RWP
		South Asia	M	Global Water Partnership (GWP) SAS RWP
		South Asia	M	South Asia Network of River Basin Organization (SASNET-RBO)
		South Asia	M	The Capacity Building Network for Integrated Water Resources Management South Asia (CapNet SA)
		Bangladesh	M	Institute of Water Modeling (IWM)
		Indonesia	M	Indonesia Water Partnership (InaWP)
		Indonesia	M	The Foundation on Water Affairs ADHI EKA
		Indonesia	M	Faculty of Engineering, Brawijaya University
		Indonesia	M	Research Centre for Water Resources (RCWR)
		Indonesia	M	Center for Environment & Civil Engineering Research
		Indonesia	M	Post Graduate Study on Water Resources Management Faculty of Engineering Gadjah Mada University
		Indonesia	M	SEMBRANI foundation
		Japan	M	JAWA - Japan Water Resources Association
		Japan	M	Japan River Restoration Network (JRRN)
		Japan	M	Graduate School of Management, Kyoto University
		Japan	M	Civil Engineering Research Institute for Cold Region, PWRI
		Malaysia	M	National Hydraulic Research Institute of Malaysia (NAHRIM)
		Nepal	M	International Centre for Integrated Mountain Development (ICIMOD)
		Thailand	M	Thailand Water Resources Association (TWRA)
	IRKP	Inter-region	P	Asian Development Bank Institute (ADBI)
		Inter-region	M	Asia Pacific Association of Hydrology and Water Resources (APHW)
		Inter-region	M	International Centre for Water Hazard and Risk Management (ICHARM)
		Inter-region	M	International Research and Training Center on Erosion and Sedimentation (IRTCES)
		Inter-region	M	IUCN - The World Conservation Union
		Inter-region	M	International Water Centre (IWC)
		Inter-region	M	International Water Management Institute (IWMI)
		Inter-region	M	The World Wildlife Fund International (WWF International)
	DCA	Inter-region	P	Asian Development Bank (ADB)

About the NARBO members' list (Detail), please refer to BASELINE

(6) Chairperson, Vice-Chairperson and Secretariat

1) Chairperson



Former Chairperson: Dr. Basuki
Hadimuljono
(February 24, 2004 - February 22, 2008)
(Inspector General, Ministry of Public
Works, Indonesia)



Chairperson: Dr. Mochammad Amron
(February 22, 2008 -)
(First Advisor to Minister of Public Works,
Indonesia)

2) Vice-Chairperson



Vice Chairperson: Mr. K. W. Ivan de Silva
(October 31, 2006 -)
(Director General, Mahaweli Authority of Sri
Lanka)

3) Secretariat

a) Secretary General



Former Secretary General: Mr. Yasutaka
Hamada
(October 1, 2006 – September 30, 2008)
(Executive Director, Japan Water Agency)



Acting Secretary General: Mr. Masaru
Kubota
(October 1, 2008 –)
(Executive Director, Japan Water Agency)

b) Vice Secretary General

Mr. Michio Oota
(April 1, 2007 -)
(Director, International Affairs Division, JWA)

Mr. Wouter Lincklaen Arriens
(February 24, 2004 -)
(Lead Water Resources Specialist, ADB)

Mr. Toru Tatara
(February 24, 2004 – October 24, 2008)
(Special Advisor to the Dean, ADBI)

c) Secretariat

NARBO Secretariat consists of JWA, ADB and ADBI. The headquarters of the secretariat is in JWA.

2. Record of activities in 2008

A. Advocacy, Raising Awareness, and Exchange of Information and Good Practices on IWRM

I. Table of activities

Year	Month	Name of Activity	Outline of Activity	Action Plan
2008	January	NARBO Newsletter	12 th Issue	A.a.2
	February	The 4 th Thematic Workshop on Sustainable Management for Water Resources Infrastructures	- Held in Bangkok, Thailand on 4-7, February - Hosted by DWR, MONRE, Thailand - Attended by 14 delegates from 6 countries	B.a.2
		The 3 rd General Meeting of NARBO	- Held in Solo/Surakarta, Indonesia on 20-22 February - Hosted by Bengawan Solo River Basin Organization - Attended by approx. 100 delegates from 17 countries	A.a.6
	April	The 1 st Technical Advisory Committee	- Held in Singapore on 4-5 April - Hosted by NARBO Secretariat - Attended by 20 Delegates from 13 organizations	A.a.7
		NARBO Newsletter	13 th Issue	A.a.2
	May	Twinning Program, JWA – Sri Lanka	- 3 staffs were delegated from JWA to MASL on 10-30 May	B.b.2
	August	NARBO Newsletter	14 th Issue	A.a.2
		Stockholm World Water Forum	- Steering Committee of IWRM Guidelines at river basin level on ** August, hosted by UNESCO-IHP	
	October	The 2nd Thematic Workshop on Water-Related Disaster and Its Management in Asian Countries	- Held in Manila on 7-10 October - Hosted by LLDA - Attended by 16 Delegates from 7 countries	B.a.2
		Regional Meeting on Hydro-informatics and Developing Knowledge Hub Networks	- Held in Zhengzhou, China on 15-17 October - Hosted by YRCC - Attended by approx. 40 Delegates from 20 countries	A.a.7

	November	IWRM Seminar	<ul style="list-style-type: none"> - Held in Saitama, Japan on 13 November - Organized by UNESCO, Ministry of Land, Infrastructure, Transport and Tourism (MLIT, Japan) and Japan Water Agency - Attended by approx. 160 people including resource persons 	A.a.5
		Twinning Program, JWA – Viet Nam NARBO	- 3 staffs were delegated from Viet Nam NARBO to JWA from ** to **	B.b.2
	December	Regional Workshop on Developing Partnership for Water and Climate Change Adaptation	<ul style="list-style-type: none"> - Held in Putrajaya, Malaysia on 1 - 5 December - Hosted by NAHRIM - Attended by 50 Delegates from 20 countries 	B.b.1
		NARBO Newsletter	15 th Issue	A.a.2
2009	January	LOI between ADB and JWA	<ul style="list-style-type: none"> - Signed on 11 Jan at ADB HQ - Acknowledgement by Chairman and Vice-Chairman 	
	February	The Study Meeting on Water-Related Disaster and Its Management in Asian Countries	<ul style="list-style-type: none"> - Held in Hoi An, Viet Nam on 17 - 21 February - Hosted by JWA - Attended by 5 Delegates from 5 countries 	
		The 5 th IWRM Training	<ul style="list-style-type: none"> - Held in Hoi An, Viet Nam on 18 - 25 February - Hosted by VGTB River basin Committee - Attended by 24 Delegates from 6 countries 	B.a.1
	March	The 5 th World Water Forum	<ul style="list-style-type: none"> - The Launching Ceremony "IWRM Guidelines at River Basin Level" held on March 16 - Open Workshop "IWRM Guidelines at River Basin Level" held on March 20 - JWA convened session 3.2.1 	
		NARBO Newsletter	16 th Issue	A.a.2

II. Website

1) Hit count

The website is managed by the headquarters of the Secretariat (Japan Water Agency).

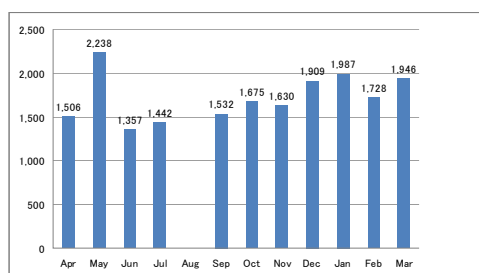
From the viewpoint of the recognition that website is the important tool for sharing and exchange of information among members, it is needless to say that members' contribution is crucial. **Average hit count per month has been increased up to approximately 1699 in 2008,** although it was only 477 in 2004.

2) Database

When you visit the database in the website, it is necessary to input Password.

By visiting this database, you can get information on details of NARBO activities, materials of our workshops and trainings, members' information, guideline for implementation of NARBO training, etc.

This page is opened to only NARBO members, so please access and utilize this database!



Timeline of hit count on Narbo HP

(The hit count in August 2008 is unknown because of the replacement of the web server.)



NARBO HP top page

III. Newsletter

Newsletter is recognized as another useful vehicle for NARBO activities along with website, and Headquarters of the Secretariat (Japan Water Agency) is in charge of newsletter. In the same manner, members' positive involvement regarding information gathering is essential. JWA has issued the 12th, 13th, 14th, 15th and 16th issue in January, April, August, December 2008 and March 2009, respectively.

All newsletters were posted on NARBO website to make it possible for all members to see easily and sent to the contact person at each member organizations by e-mail.



The 13th issue



The 14th issue



The 15th issue

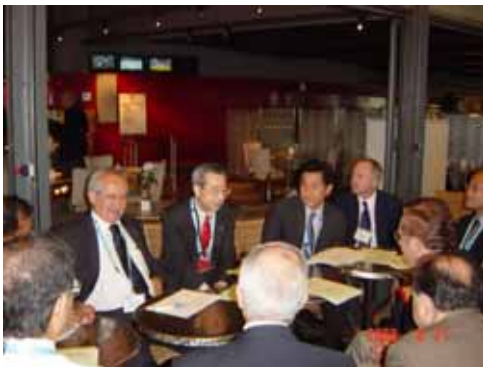


The 16th issue

IV. Distinguished Activities -IWRM Guidelines at River Basin Level-

The IWRM Guidelines at River Basin Level was launched at the 5th World Water Forum in Istanbul, Turkey March, 2009. The purpose of the guideline is to raise awareness and to facilitate practical implementation of IWRM at river basin. This project was conducted by UNESCO United Nations Educational Scientific and Cultural Organization (UNESCO), Ministry of Land, Infrastructure, Transport and Tourism and JWA. And NARBO and ADB also cooperated with this project.

This project was reported at the 3rd General Meeting and incorporated into the Action Plan 2008-2009. Chairperson and Vice Secretary General of NARBO was included a Steering Committee member and contributed to the steering committee and former Executive Vice President of JWA took a role as Co-chair of the committee. Thanks to their efforts, the Guidelines were launched.



You can download it on UNESCO's webpage and you can reach it through NARBO's webpage (<http://www.narbo.jp/>).

As brochure of this guideline said, this set of Guidelines is a 'Living Document'. So if you have found a Key for Success', please provide feedback so that your work can be included in future updates.

On the process of formulating this guideline, several steering committee meetings were held as follows;.

- 1st August 22, 2008
 at Stockholm, Sweden
- 2nd November 14, 2008
 at Saitama, Japan
- 3rd January 11
 at Bangkok, Thailand

Together with the Steering committee, an open session which regards to the guidelines was held. And an open workshop was held at the 5th World Water Forum in Istanbul as discussed in detail below.



1) World Water Week in Stockholm

Date; 16-20 August, 2009

Venue; Stockholm, Sweden

Dr. Mochammad Amron, the Chairperson of NARBO made a presentation.

The session "River Basin Approach of IWRM; Integrated River Basin Management (IRBM) Toward the 5th World Water Forum" was organized by UNESCO and MLIT, Japan on 21st August in the 2008 World Water Week in Stockholm. He talked about Integrated Water Resources Management (IWRM) from the viewpoint of Asia, titled "Political will and institution for River Basin Management" and contributed to the session.

Mr. Shinsuke Ota, former executive vice president of JWA also made a presentation."Sustainable IWRM" and this ?? the way for the guidelines.

The 1st steering committee for the guideline was held during this period, and direction and roll were discussed.

2) IWRM Seminar "Key for Success in Implementing IWRM at River Basin Level"

Date: 11th November 2008

Venue: Saitama Culture Center, Saitama, Japan

Participants: approx. 160 people including resource persons

Organized by: UNESCO, MLIT, Japan and JWA

Seminar "Key for Success in implementing IWRM at River Basin Level" was held as a pre-event of 2nd Steering Committee of the guidelines and open to the public." Dr. Mochammad Amron, Chairperson of NARBO, a member of the Steering Committee, made a presentation on Challenges of Brantas River Basin in the seminar.

In the morning, before starting the seminar, steering committee members visited the Tone Canal Control Station to enhance the understanding of the actual event of IWRM and received same explanation from the key persons of this project.



Then the seminar was started with an opening remark by Mr. Shuhei Kazusa, Director-General, Water Resources Department, Land and Water Bureau, MLIT, and he started stating with an introduction of the process the Steering Committee and mentioned necessity to formulate the Guidelines.

Mr. William Cosgrove, Former Vice-president of the World Bank, made a keynote speech.

Part 1 of the seminar focused on "From the viewpoint of overall basin and each sector." It means that it is essential for practical IWRM to overview whole basin and to be acquainted with the mind of each sector. Also speech on river administration was delivered by MLIT as a good example of viewing and administrating whole river basin.



The theme of Part 2 of the seminar was "Overview & Challenge of IWRM." Mr. Shahbaz Khan made a presentation titled "Importance of River Basin Approach for True Stakeholder Participation in Water Management." Three case studies were presented by guest speakers from abroad. Challenges of Brantas River Basin (Indonesia), Murray-Darling River Basin (Australia) and La Plata River Basin were presented by Mr. Mochammad Amron, Mr. Tony Jakeman and Mr. Victor Pochat respectively.

At the final stage of Part 2 of the seminar, Mr. Shinsuke Ota, Executive Vice President of JWA, gave us some explanations for an overall structural design of the Guidelines, and the user-friendly tools such as extraction of key for success and pentagram. Besides, there was an encouraging and optimistic comment on the Guidelines from Mr. Wouter T Linklaen Arriens, Lead Water Resources Specialist, ADB.

Eventually, the seminar was summed up by Mr. Toshiki Aoyama, President of JWA, and ended successfully after the scheduled closing time.

Then the 2nd Steering Committee was held at JWA-HQ in Saitama and some draft paper was shown to the members and confirmed to conduct the mission to collect the good examples around the world.

Based on this, concerned staffs were dispatched to several RBOs to collect good examples of IWRM and summarized as case studies in part 2 of the guideline.

3) The 5th World Water Forum

IWRM Guidelines at River Basin Level launched

UNESCO launched IWRM Guidelines at River Basin Level at the 5th World Water Forum in Istanbul, 16 March, 2009.

The Launching Ceremony "IWRM Guidelines at River Basin Level" took place on March 16, 2009 at Ayyansaray Hall, Stülüce Congress and Cultural Center, Istanbul, Turkey, as a side event of the 5th World Water Forum. It was convened by UNESCO and MLIT, Japan. HH the Crown Prince of Japan, Honorary President of United Nations Secretary General's Advisory Board on Water and Sanitation (UNSGAB) attended the launching ceremony and was handed over of the Guidelines by Mr. Koïchiro Matsuura, Director-General of UNESCO.

UNESCO led this project and NARBO has cooperated together with some other organizations such as MLIT and JWA. Dr. Mochammad Amron, Chairperson of NARBO, and Mr. Wouter Lincklaen Arriens, Vice Secretariat General of NARBO, participated in the project as Steering Committee Members of the Guidelines. In addition, Mr. Shinsuke Ota, former Executive Vice President of JWA took a role as Co-chair of the committee.

The Guidelines provide with necessary information to help practitioners implement IWRM under their own circumstances. They consist of the fundamental concepts of IWRM as well as perspectives of various stakeholders with regard to water issues, key for success for overcoming problems, and good examples where such keys for success were applied.

Mr. Shinsuke Ota made a presentation about introduction of the Guidelines. He mentioned in his presentation that NARBO has already started using these materials in NARBO's 5th IWRM training held in Hoi An, Viet Nam, 18-25 February, 2009.

An Open Workshop was also held at the 5th World Water Forum, 20 March, 2009 and further improvement of the Guidelines was discussed.



V. NARBO Promotion

1) Letter of Intent for collaboration to improve water security in river basins and to continue and expand NARBO signed between ADB and JWA

Letter of Intent (LOI) was signed on 12th of January 2009 by ADB President Haruhiko Kuroda and JWA President Mr. Toshiki Aoyama for collaboration to improve water security in river basins and to continue and expand NARBO.

In recent years, the need to improve water security in river basins has become an increasingly pressing issue, and we need to adapt water resource management to climate change impacts and improve risk management.



Thus further capacity building is needed in NARBO member countries and other partners and stakeholders.

Consequently, the concept of water security has been acknowledged since the 1st Asia-Pacific Water Summit held in 2007 in Japan.

So they felt the need to have continuous collaboration in support of NARBO and intended to promote more projects in some key result areas such as Capacity development, Regional knowledge hub, Asia-Pacific Water Summit and Ministers for Water initiative by signing LOI.

2) The NARBO Patron

Since its establishment in 2004, NARBO has started exerting considerable influence on water professionals in the region to introduce IWRM in river basins. However, to catalyze the necessary investments and practical result in IWRM programs and projects, much more advocacy and support are needed, involving the highest political levels in countries of the region, and also from the general public. Based on these backgrounds, NARBO secretariat thought that attracting a NARBO Patron is expected to make a major difference in promoting further attention and support to IWRM implementation through NARBO activities.

Therefore, we decided to have the NARBO Patron and amended NARBO charter at the 3rd General Meeting in February 2008.

As a result of a minute consideration,

NARBO secretariat concluded that Her Royal Highness Maha Chakri Sirindhorn is the best qualified for the post of NARBO Patron, because her father, His Majesty King Bhumibol Adulyadej has contributed to the improvement of water resources management in Thailand for dozens of years.

And Thailand is the associated country where the initial ideas of creating a regional network of river basin organizations (RBOs) for IWRM were discussed in Chaing Mai in 2002. After that NARBO was officially established in 2004.

NARBO secretariat started negotiation with her private office through Ministry of Natural Resources and Environment (MONRE), government of Thailand. Based on the result of it, we issued a letter of request for her acceding to the NARBO Patron to her private office through Ministry of Foreign Affairs, government of Japan, the embassy of Japan in Thailand.

We'd like to continue negotiation with her private office with support of MONRE. And after the approval, we'd like to have an opportunity to introduce her as the NARBO Patron.

3) The Regional Meeting on Hydro-informatics and Developing Knowledge Hub Networks

Meeting dates:

15th – 17th October, 2008

Venue: Zhengzhou, People's Republic of China

Host: The Yellow River Conservancy Commission (YRCC)

The ceremony of the Center for Hydro-informatics in River Basin (CHIRB) which is one of the Knowledge Hub of the Asia-Pacific Water Forum (APWF) was held at the YRCC main office in Zhengzhou, China.

The meeting had two parallel sessions. Track 1 was an information sharing session on Hydro-informatics and Integrated Water Resources Management and Track 2 was a workshop to support the development of hub business plans and hub networks, and to explore participation of candidate hubs.

Then we visited the Hydraulic Laboratory of the YRCC, the Yellow River Water Allocation and Remote Control Center and so on for study and saw how YRCC manages the Yellow river.



At this meeting, NARBO secretariats explored and promoted the collaboration between NARBO and APWF's Knowledge hub by exchanging information and by new affiliations of hub members to NARBO.

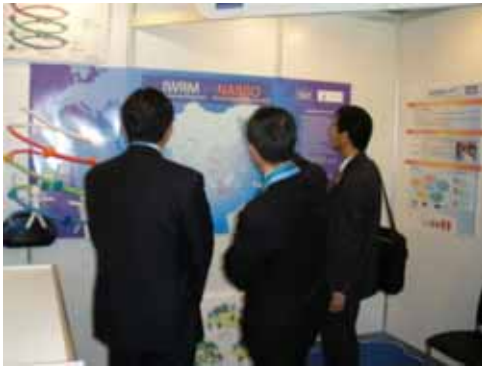
Futhermore, we had a NARBO secretariat meeting to prepare for our next workshop and training there.

NARBO secretariat attended several meetings of APWF's Knowledge hub to cooperate with their activities and to generate the synergy between NARBO and APWF.



4) The 5th World Water Forum

NARBO members actively participated in the 5th World Water Forum in Istanbul. Dr. Mochammad Amron, the chairperson of NARBO attended a lot of events at the Forum such as IWRM Guidelines at River Basin Level Launching Ceremony and session 3.1.2 "How can stakeholder be involved in basin management and Transboundary water cooperation?". Conveners invited him to the session as the chairperson of NARBO. He made a presentation on stakeholder involvement in Indonesia.



Other members also contributed to the events at the Forum. K-water and JWA held an exhibition at the World Water Expo from 16-22 March, 2009 in the venue of the Forum. NARBO member organizations visited their booths and exchanged information about their activities and so on.

Besides the launch event of IWRM Guidelines, JWA held an exhibition at the World Water Expo. The theme of this exhibition was 'IWRM - NARBO'.

And JWA became a convener with DSI of the session 3.2.1 "Ensuring Adequate Water Resources Development and Management (Quantity and Quality) for Sustainable Development".

At the JWA booth at World Water Expo, they displayed posters regarding NARBO member map, NARBO activities and Introduction of IWRM Guidelines at River Basin Level. They also distributed NARBO leaflet and NARBO Annual Report at their exhibition booth. Hundreds of visitors were so interested in NARBO that they took NARBO Annual Report CDs. This proved the uniqueness of NARBO and its activities.



VI. The 3rd General Meeting

(1) Summary

The 3rd General Meeting (GM) was held from February 20th to 22nd for three days at Solo / Surakarta, Indonesia with about 100 participants from 17 countries attended and ended successfully. The host organization was Bengawan Solo River Basin Organization, and organizing committee consists of Jasa Tirta I public corporation (PJT I), Research Center for Water Resources, Indonesia NARBO Secretariat. Various kinds of practical activities would be organized in accordance with the action plan 2008-2009 that was endorsed on this event. During the study visit on 20th February of the first day, participants are divided into 2 groups; one group visited Wonogiri Reservoir and Colo Weir in Bengawan Solo Basin and the other had a dialogue with water users and stakeholders in the Basin.

On February 21 of the second day, three

workshops were held after the opening program. Parallel Workshop 1 - Measuring the Performance of RBOs and River Basins - and Workshop 2 - Managing Assets and Risks - were held in the morning and Workshop 3 - Exploring New Challenges in IWRM - was held in the afternoon. More than fifteen papers presented in the three sessions and active discussion was had by participants.

In the morning on February 22nd of the third day, the secretariat reported the activities in the last two years after the opening program. In the afternoon, new nine member organizations were introduced to participants. After that, the action plan for the coming two years (2008-2009) and the Charter revision were proposed and approved with minor alteration. Finally, new NARBO constitutional body was selected.

(2) Study Visit (Day 1)

On the first day, participants familiarized themselves with the implementation of IWRM issues in the host Bengawan Solo River Basin¹ for which two study visits in the basin were organized to study two specific issues, one on sedimentation, and the other on institutional aspects of integrating IWRM into planning and implementation.



Address by the Chairperson (then)

¹ Located in central and eastern Java, the basin has a total catchment area of 20,125 km². The Bengawan Solo River, the largest in Java, has a length of about 600 km.

1) Managing Water Sedimentation

The first group visited the Wonogiri Multipurpose Dam, whose reservoir are used for irrigation, hydropower generation and flood control; but whose effective reservoir capacity has decreased to nearly 60% of the original due to severe sedimentation caused by poor land use zoning, intensive farming, poor farming practices, and highly erosive and steep-sloped uplands. To cope with the sedimentation problem, the government has: (i) constructed two check dams on the Keduwang River close to the dam to mitigate sediment inflow into the reservoir, (ii) dredged sediments of about 250,000 m³ in front of the intake structure to allow stable and continuous water supply, and (iii) provided a permanent dredging system to allow sustained maintenance dredging of sediment deposited in front of the intake. Fundamental permanent countermeasures are however needed in order to recover the reservoir's storage capacity; and the government has proposed the following: (i) structural measures to cope with the sediment and garbage inflow from the Keduwang River and other tributaries, as well as with the sediment deposits at and around the intake structure; and (ii) watershed conservation projects.

Dredging at Wonogiri Reservoir



Discussion at Wonogiri Reservoir



Colo Weir



2) Facilitating IWRM in Planning and Implementation

The second group visited a rural area (Gemawang Village) and discussed community and public participation in river basin planning and management with stakeholders, including an NGO the Association for Social and Economic Studies and Development. The study visit demonstrated the importance of stakeholder participation and bottom-up approaches; and the critical role of local community initiatives for resolving IWRM challenges in local areas in the river basin. An extensive background document helped to inform participants about the RBO's work on

stakeholder participation in the basin under the Comprehensive Development and Management Plan (CDMP) Study of the Bengawan Solo River Basin.



Dialogue with the stakeholders

(3) Workshop (Day2)

On the second day, participants exchanged experiences and learned from three workshops on IWRM: (i) Measuring the Performance of RBOs and River Basins²,

(ii) Managing Assets and Risks, and (iii) Exploring New Challenges in IWRM.



Keynote presentation by Prof. Yoshida

² This workshop was a follow-up to the NARBO Performance Benchmarking of RBOs with Peer Review Process held from 2005 to 2007. NARBO launched its performance benchmarking service in August 2005, whereby 4 RBOs piloted the service from the 11 RBOs who initially signified interest. For reference, the 11 RBOs that announced their interest in 2005 included the Jasa Tirta 1 and 2 Public Corporations in Indonesia, as well as the Balai PSDA for the Jragung-Tuntang and the Jeneberang RBO. In Korea, K-Water for the Geum river basin. In the Philippines, the Laguna Lake Development Authority. In Sri Lanka, the Mahaweli Authority. In Thailand, the Bang Pakong and Ping river RBOs, and in Viet Nam, the Red and Dong Nai river RBOs.

1) Workshop 1: Measuring the Performance of RBOs and River Basins

NARBO's performance benchmarking and peer review service for RBOs is a key part of NARBO's work to introduce IWRM in river basins and to develop capacity of RBOs. It starts with clarifying the RBO's vision and mission, then looks at key performance dimensions and targets for each. Positive results provide good encouragement for RBO leaders and staff, as well as valuable lessons learned. Results below expectation can trigger good guidance from comparison by peers, identify areas where performance improvement is needed, and provide justification for additional resources. The workshop explored the results of piloting the service in several river basins in the region, and explored how the service could be rolled out and further fine-tuned. The workshop also explored a new methodology for measuring the status of IWRM in river basins, based on two initial pilots.

Towards a New Paradigm for Doing Better. In the opening remarks, the participants were reminded that while each RBO is different across the region, they face many common issues, challenges, and can share solution strategies. Performance benchmarking and peer review is replacing the earlier paradigm for performance assessments by external experts. Often, these proved to be expensive exercises, and in many cases the reports would end up on the shelf due to lack of ownership by the organization being reviewed. The new paradigm for performance improvement

involves self-assessment followed by peer review, with the RBO taking the driver's seat during the review and in subsequent work to improve performance.



Scene of Workshop 1

Lessons from the Pilots. The four pilot cases of RBO self-assessment and peer review provided valuable unanimous positive feedback on the benefits of the exercise. The assessment tool was found to be useful across RBO types and stages of development. The importance of a clear and shared vision of the RBO's purpose, and a commitment to performance management, came out strongly. A clear understanding of the RBO's IWRM functions is also needed to set relevant and meaningful targets; and this should be supported with commitment of the RBO's top executive and management team. The self-assessment and peer review teams should of course be technically-qualified and dedicated, and the experience from the pilots showed that the exercise can be professionally rewarding to the teams. The balanced-scorecard framework proved to be a satisfactory performance assessment tool, and the peer review process provided credibility and improved evaluation and performance

targets. The performance benchmarking indicators were helpful and will be further adjusted as NARBO members gain further experience in using the service.

Basin Performance Benchmarking. The presentation on a new and complementary methodology for basin performance indicators was well-received. The methodology has been developed in collaboration with the University of Tokyo and ADB, and saw initial piloting in the Citarum river basin in Indonesia and Laguna Lake in the Philippines. The participants welcomed the discussion of the first pilots which focused on the use of three basin status indicators: (i) water utilization (recreational water quality and raw water quantity); (ii) disaster vulnerability (flood vulnerability and chemical spills); and (iii) environmental management (environmental water quality and biodiversity). Further work will be undertaken, and discussion explored a possible expansion to include indicators for health and livelihoods.

Workshop Recommendations. The workshop participants endorsed the results of the pilots and recommended to expand the RBO performance benchmarking and peer review service to more basins, taking into account feedback from the pilot phase. They also recommended to expand the pilot testing of the new basin performance benchmarking methodology. Several knowledge partners joined the workshop, and opportunities for collaboration with partner organizations will also be explored in the further piloting and implementation of NARBO's benchmarking work.



Presentation in Workshop 1



Panel Discussion in Workshop 1

2) Workshop 2: Managing Assets and Risks

The second workshop discussed the development and sustainable management of water resources infrastructures. Two collaborating agencies were also introduced: International Research and Training Center on Erosion and Sedimentation (IRTCES); and International Centre for Water Hazard and Risk Management (ICHARM).

Report on Thematic Workshop on Sustainable Management for Water Resources Infrastructure, various cities, June 2007-February 2008. A series of workshops were held in Hanoi, Dhaka, Kandy and Bangkok from June 2007-February 2008 which demonstrated the importance (i) to deepen the understanding of water, land and other natural resources; (ii) to strengthen cooperation with related organizations; and (iii) to minimize friction among stakeholders caused by increased diversified water demand and social needs. The workshops also identified perceived roles of government and RBOs towards sustainable management of water resources infrastructure.

Community-based (flood hazard) early warning systems are considered 'people-centered' when they empower individuals and communities to act in sufficient time and in an appropriate manner so as to reduce the possibility of personal injury, loss of life, damage to property and environment, and loss of livelihood. They can provide the community and disaster

mitigation committee with advance information on the flood risks that can be readily translated to disaster prevention and preparedness response actions against loss of lives, injuries, and economic losses.

Dam Asset Management Project: Sustainable Reservoir Sediment Management. For sustainable reservoir management, it is important to have sound analysis of facilities and proper maintenance planning. A key factor for long term use of reservoirs is to address sedimentation problems; and solutions should include technical, economical and environmental countermeasures within the context of integrated river basin management.



Presentation in Workshop 2



Panel Discussion in Workshop 2

3) Workshop 3: Exploring New Challenges in IWRM

The third workshop comprised four sessions: (i) addressing issues and challenges in water rights and water allocation, (ii) facilitating IWRM with civil society and private sector participation, (iii) restoring the health of rivers, and (iv) sharing IWRM experience from other regions. The last two included presentations to introduce the Asian River Restoration Network (ARRN) and the International Network of Basin Organizations (INBO), and their respective mandate and activities.

Addressing Issues and Challenges in Water Rights and Water Allocation. The implementation of water-use rights can be effective to introduce IWRM in river basins. However, the process of introduction and country-wide implementation of a licensing system for water use rights may well take as long as 20 years to complete. Making clear arrangements for practical solutions in the transition phase is therefore an important and urgent task, and these arrangements need to be flexible enough to respond to changing needs in water management. These are some of the lessons learned from NARBO's workshop series of water rights.

This workshop session provided a better understanding of the principles and application of water use rights and water allocation, and stimulated in-depth discussion on the challenges, practical solutions and lessons in the implementation of water rights. To introduce the topic, ADB

presented a technical paper on 'Water Rights and Water Allocation – Issues and Challenges for the Region', which informed the discussion. The paper also drew on the results of the five earlier NARBO workshops on the topic.

The importance of the water rights for governments, water users and stakeholders in the region is clearly growing. Panelists and participants discussed that since water shortages are expected to increase further, demand management was important, supported by better public awareness and a change in mindset among water users to conserve water and to accept explicit allocation systems introduced by government. Enforcement of provisions of relevant laws on allocation will need to be taken more seriously, including penalties where needed. Updated and reliable data will also help improve compliance in implementation. The process of introducing explicit water allocation systems to support water-use rights needs to be transparent and equitable. Much can be gained from sharing information and experience among RBOs and countries, while keeping in mind that solutions always need to be adapted to suit local conditions.

Facilitating IWRM with civil society and private sector participation. Workshop participants learned from recent experience in Indonesia, where important institutional changes in water resources management at the national and provincial levels are driven by decentralization, which pose new challenges for coordination, consultation and legislative reform. To implement its

water resources law, Indonesian organizations are putting more emphasis on public consultations and a “bottom-up” planning approach involving civil society and private sector participation.

Restoring river fronts and international cooperation. The workshop participants benefited from the presentations by ARRN and INBO. The impressive examples of restoring river fronts in cities in Japan, South Korea and the People’s Republic of China served to inspire NARBO members to pursue similar activities in their river basins.



Scene of Workshop room



Presentation by International Network of Basin Organizations (INBO)

(4) General Meeting (Day 3)

Report on Accomplishments 2006-2007.

A comprehensive report of NARBO activities for the period 2006-2007 was presented, and accepted by the members. A feedback survey among NARBO members showed full satisfaction with NARBO activities records. Suggestions to improve NARBO work focused on information-sharing and revamping NARBO's IWRM training program, amongst others.

Work Plan 2008-2009. The work plan for 2008-2009 was proposed by the Secretariat and approved by the General Meeting after a fruitful discussion. NARBO will continue the following activities: (i) information sharing and exchange via the internet, (ii) IWRM training program, (iii) thematic workshop, (iv) performance benchmarking of RBOs with peer review process, and (v) staff exchange programs. Some new programs will be launched as guided by the recommendations made at the 1st Asia-Pacific Water Summit in December 2007 in Japan. These include a project on charting progress and facilitating investment for IWRM (conducted by ADB), the preparation of IWRM guidelines at river basin level (conducted by UNESCO and supported by JWA), and collaborative activities among regional water knowledge hubs under the auspices of the Asia-Pacific Water Forum and facilitated by ADB. It was also agreed that the Secretariat will convene a NARBO Technical Advisory Committee to help in revamping the IWRM training program.

New Members. Nine organizations from six countries (Pakistan, Thailand, Japan, Malaysia, Australia, and PRC) were welcomed as new NARBO members, as follows: (i) Indus River System Authority of Pakistan; (ii) Bang Pakong Prachinburi and Tonlesab River Basin Committee of Thailand; (iii) Japan Water Resources Association; (iv) Graduate School of Management, Kyoto University of Japan; (v) Japan River Restoration Network; (vi) National Hydraulic Research Institute of Malaysia; (vii) International Water Centre of Australia; (viii) International Centre for Water Hazard and Risk Management of Japan; and (ix) International Research and Training Center on Erosion and Sedimentation of People's Republic of China. The total number of NARBO member organizations has become now 65.

NARBO Charter Revision. The General Meeting also approved minor revisions to the charter to enable NARBO to appoint a patron to promote its work, as well as senior advisers, to which NARBO can appoint former NARBO chairpersons.

Constitutional Body 2008-2009. The General Meeting approved the following constitutional body for NARBO for 2008-2009:

N A R B O P o s i t i o n	N a m e
Chairperson (New)	Dr. M. Amron, Ministry of Public Works, Indonesia
Vice Chairperson (Continued)	Mr. Ivan De Silva, Mahaweli Authority of Sri Lanka
Secretary General (Continued)	Mr. Yasutaka Hamada, Japan Water Agency
Vice Secretary Generals (Continued)	Mr. Michio Ota, Japan Water Agency Mr. Wouter Lincklaen Arriens, Asian Development Bank Mr. Toru Tatara, Asian Development Bank Institute
Senior Advisor (New)	Dr. Basuki Hadimoeljono, Ministry of Public Works, Indonesia



Address by the former Chairperson



Address by the Vice-Chairperson



Report by the Secretary General



Address by the new Chairperson

**F o r t h e d e t a i l e d p r o g r a m , p l e a s e
r e f e r t o B A S E L I N E**

B. Capacity Building in River Basin Organizations (RBOs)

I. The 1st Technical Advisory Committee

Dates: 4th – 5th April, 2008

Venue: Water Hub, PUB Singapore

Participants:

14 delegates from 6 countries

NARBO established the NARBO Technical Committee (TAC) at the 3rd NARBO General Meeting to ensure the level of the quality and credibility of its IWRM Training Program as a prestigious regional flagship program.

TAC will advise NARBO's leadership and secretariat in the design of its IWRM Training Program and make specific recommendations on the objectives, target participants, qualifications of applicants, requirements for certification, and guidelines for organization of the program, including venue, host organizations, program scope and detailed content, assignments and ratings, resource speakers, finance, and frequency.



In this meeting, the Director General of the National Hydraulic Research Institute of Malaysia (NAHRIM) was invited to chair the meeting and some presentations about experience in IWRM Program were given by committee members. And we had a discussion about NARBO IWRM Training Program on the design, management and implementation of the course program for certification of NARBO IWRM professionals.

Plenty of useful recommendations to improve NARBO's IWRM Training were given to the secretariats by the committee members.

Based on their recommendations, NARBO secretariats had a discussion about the contents, the date and venue of the training.

Thanks to their valuable advices, NARBO could conduct the 5th IWRM Training in February 2009 at Hoi An Viet Nam quite successfully as is described on the following page.



II. The 5th IWRM Training

1) Introduction

IWRM Training was conducted as a major part of NARBO activities based on the NARBO Action Plan 2008-2009 and hosted by the Vu Gia – Thu Bon (VGTB) river basin committee which is included in Department of Natural Resources and Environment (DONRE) of Quang Nam Province and Da Nang City.

The goal of this training is to develop capacity of NARBO member staff in understanding and implementing IWRM in their respective river basins by (1) lectures of IWRM concepts and case studies; (2) group work of IWRM; and (3) sharing country challenges and strategies. This training consisted of class sessions (6 days) and study visit (2day) and the theme of this training was “Keys for Success (KfS) with IWRM” which was named after the IWRM Guidelines which was made by UNESCO, with support by NARBO.

The characteristic of this training was different from previous ones which NARBO had conducted for the last 5 years. NARBO established the TAC and made the main framework of this training based on TAC's advices. And we had many opportunities to discuss among the participants and made them think by using the case studies and the lecture materials. And time we asked the International Water Center (IWC) which is one of the NARBO's knowledge partner to lead this training based on their experiences on trainings and they handled the training competently and provided strong leadership.

Based on these backgrounds, NARBO secretariat had the preparation meeting at Hoi An, Viet Nam in advance with host organization and IWC.

2) Highlight of the Training

Training dates:

18th – 25th February, 2009

Venue: Hoi An, Viet Nam

Host : The Vu Gia – Thu Bon (VGTB) river basin committee

Participants :

24 delegates from 6 countries

We had about 20 lectures which consisted of the concept of IWRM, “IWRM Guidelines”, Biodiversity and Case studies at the VGTB river Basins and several workshop sessions to find and make the KfS at the VGTB River Basin.

And more, we had poster session and presentations of KfS at each river basin by participants.

At workshop session, participants were divided into 5 groups and discussed to find out the issues and recommendation for solution. At the end of this training, the representatives of each group presented their analysis and recommendations about the KfS in the VGTB river basin. They commonly recommended the needs of the institutional and legal framework, the master plan of the VGTB river basin, monitoring, introduction of the latest technology, capacity building and funding. Especially, as a practical recommendation, they paid attention to “Benefit Sharing” which was recently introduced at the VGTB river basin. “Benefit Sharing” is a framework to compensate the people who have lived

around the reservoir of hydro-power in a long time.

3) Study Visit

As study visit, we went to the upper stream area and the down stream area of the VGTB River Basin and saw what is happening and how they confront the issues. Then we found the KfS which solve the issues such as the necessity of coordination mechanism by seeing the polluted water caused by gold mining.

4) Conclusion

Through this training, the participants confirmed the concept of IWRM and learned the technique to implement IWRM at each dimension. Especially, acknowledging the importance of stakeholder's participation is useful for all participants. By obtaining above knowledge, participants could recognize by themselves what was needed for their river basins.

And by exchanging the information which was introduced by participants' presentation, they noticed that they had similar issues such as water allocation and lack of coordination mechanism on promoting IWRM. The unity among the participants is useful and important for them to cope with promotion of IWRM.



III. Thematic Workshop on Sustainable Management for Water Resources Infrastructures

Workshop dates:

4th – 7th February, 2008

Venue: Bangkok, Thailand

Host :Department of Water Resource (DWR), Ministry of Natural Resources and Environment (MoNRE)

Participants :

14 delegates from 6 countries

The thematic workshop on Sustainable Management for Water Resources Infrastructures was held in 4-part series and completed successfully.

A thematic workshop was highlighted as one of the important activities in the action plan (2006-2007) approved at the 2nd NARBO General Meeting. Japan Water Agency (JWA) will lead “the workshop on sustainable management of Water Resources Infrastructures” based on the action plan called “the workshop on facility management”.



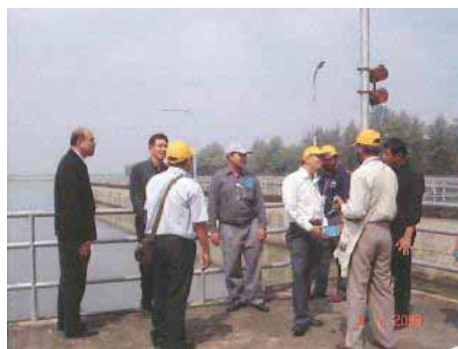
Session

The sustainable management becomes a very important perspective to practice water resources management and it has been worked on by various methods in each country. In this respect, NARBO respects each country's implemented water resources management.

Therefore, we would like to take this opportunity to discuss a concrete measure for how NARBO members' country has endeavored to improve the management of water resources infrastructure by sharing experience and major issues in each country. This workshop consisted of field visits and discussions.

The outcome of this workshop was summarized into a report and distributed to the participants at the 3rd General Meeting in Solo / Surakarta, Indonesia.

NARBO Secretariat would like to support their activities of implementation of the outcome of this series workshop continuously.



Field Visit

IV. Thematic Workshop on Water-Related Disaster and Its Management in Asian Countries

1) Introduction

Conducting thematic workshops was considered at The 3rd NARBO General Meeting in Indonesia in February 2008 as one of the important activities of NARBO. Based on the updated NARBO Action Plan of 2008-2009, NARBO carried out a series of workshops on the theme of Water-Related Disaster and its Management in Asian Countries, which has been continued since 2007.

In November 2007, the 1st workshop was carried out at Yogyakarta, Indonesia, and the characteristics and the issues on water-related disaster management were identified.

The main objective of the 2nd workshop is to analyze the issues on water-related disaster management again and to investigate and evaluate the strategies and solutions to address the issues by using the framework of the HFA.

And at the 2nd workshop, we focused on the Hyogo Framework for Action 2005-2015 (HFA) which governments around the world had committed to take action to reduce disaster risk, and have adopted a guideline to reduce vulnerabilities to natural hazards. Because the HFA offers five areas of priorities for action, guiding principles and practical means for achieving resilience against disasters for vulnerable communities in the context of sustainable development, it is useful for making the

action plans.

2) Highlight of the 2nd Workshop

Workshop dates:

7th – 10th October, 2008

Venue: Manila, the Philippines

Host : Laguna Lake Development Authority (LLDA)

Participants :

16 delegates from 7 countries

This workshop consisted of special lectures, presentations by the participants and the related discussions, study visit to Pampanga River Basin, and Group Work.

Among the special lectures are; the Role of RBO at Water-Related Disaster Management in the river basin by ADB, the Integrated Flood Risk Management by ICHARM and the Water-Related Disaster Management in Japan by JWA.

Then the participants were divided into 2 groups; one is a group of RBOs and the other is a party of Government Organizations. The participants discussed the common challenges by each group based on the materials (the preliminary assignments) to formulate better action plans. The result of the discussion was shared by presenting in the plenary session.

3) Study Visit

To learn water-related disaster and its management in Pampanga River Basin near Manila, participants visited some places such as the buried town by lahars (volcanic mudflows) caused by the eruption of Mt. Pinatubo, the mega dyke constructed by JICA project to keep the

downstream residential area away from the Lahar, terminal telemetry station along Pampanga River and Operations Center of the Flood Forecasting Branch managed by Philippine Atmospheric, Geophysical, Astronomical and Seismology Administration (PAGASA).

We learned the concrete measures to cope with water-related disaster and could feel the enthusiasm to recover from disaster.

4) Conclusion

Through this workshop, the participants could acknowledge that the importance of the necessity of creating their own, feasible and effective action plans by themselves. And we learned the importance of the disaster management including the disaster forecast, the hazard map and the community-based point of view and the necessity of the maintenance of facilities and the legal framework for sustainable maintenance of facilities by study visit.

Based on these results, the participants discuss and revise their draft action plan at their organization and will explain the result of it at the next workshop.



V. Regional Workshop on Developing Partnership for Water and Climate Change Adaptation

1) Introduction

This workshop was held as a part of NARBO activities based on the NARBO Action Plan 2008-2009.

The objectives of this workshop are (1) to understand the impact of climate change on water resources management in river basins and cities; (2) to exchange information and experiences on current and planned projections and adaptation initiatives in the Asia-Pacific region; and (3) to develop partnerships and action plans for the climate change projection, impact assessment and adaptation.

This workshop, which consisted of class sessions (4 days) and study visit (1day), focused on the application at the river basin level, with partnerships and action plans expected to boost collaboration in impact assessments, adaptation strategies and capacity development.

2) Highlight of the Workshop

Workshop dates:

1st – 5th December, 2008

Venue: Putrajaya, Malaysia

Host: National Hydraulic Research Institute of Malaysia (NAHRIM)

Participants:

45 delegates from 16 countries

Several distinguished lectures about the measures and activities of Climate Change Adaptation were delivered

by lecturers from Ministry of Land, Infrastructure, Transport and Tourism, government of Japan, JICA and the University of Tokyo. The participants also delivered many presentations about the activities of Climate Change Adaptation in each country.

Followed by the special lectures, presentations by the participants and study visit, the participants were divided into 6 groups (Climate Change projections, South Asia, Indonesia, Philippine, Mekong river region and Malaysia). In each group, members of group introduced the impacts and the adaptation strategies on climate change in each region. For common indicative matters are, 1) adaptation to flood, 2) reinforcement of the hydrological day-to day management and 3) raising awareness of decision makers and public about Climate Change.

On the last day of this workshop, based on the previous discussion we had discussion to create project proposal for each organization. And NAHRIM made some presentations about its products and services as Regional Knowledge Hub of Water and Climate Change. Team Japan, Center of River Basin Organizations and Management (CRBOM) in Indonesia and ADB also made other presentations which summarize the regional workshop.

3) Study Visit

At study visit, we learned the example of sustainable water-use and mitigation plan for climate change by seeing the projects at the Sungai Selangor River. Also we learned the importance of knowing the rain prediction around the

river basin for creating the adaptation plan, because the prediction of rainfall by climate change is based on the adaptation plan.

4) Conclusion

Through this workshop, the participants noticed that they were facing similar situation as other Asian countries. And they learned what they should do for Climate Change and how to predict climate change through a “down-scaling model”. But they also learned that it is difficult to predict climate in the future, so they recognized they needed more study and observation for climate. In this point, we think it was successful in introduction of the concept of climate change adaptation by conducting this workshop.



VI. Study Meeting on Water-Related Disaster and Its Management in Asian Countries

Study Meeting dates:

16th – 21st February 2009

Venue: Hoi An, Viet Nam

Participants:

5 delegates from 5 countries

The study meeting on Water-Related Disaster and Its Management in Asian Countries was held jointly with IWRM training in 2009 in Viet Nam as a follow-up workshop to prepare an interim report on the theme. Participants from Indonesia, Philippines, Sri Lanka, Thailand and Vietnam worked hard on their interim reports. Their contents were primary action plans of each participating country. It is desirable if their primary action plans would be further reviewed and enhanced on the next stage.

The Result of this meeting, primary action plans were summarized by NARBO secretariat and disseminated at the 5th World Water Forum.



VII. Twinning Program

1) What is Twinning Program?

Agreements on Twinning Program were concluded between Japan Water Agency (JWA) and Indonesian NARBO, Viet Nam NARBO and Sri Lanka NARBO. The personnel exchange program under Twinning Program is a part of NARBO activities to share knowledge and information among NARBO member organizations and enhance their capacity to implement IWRM (Integrated Water River Management).

Based on the agreement, personnel to/from JWA and Indonesia NARBO had been dispatched annually. First personnel were exchanged in 2005.

It is convincing that this personnel exchange program benefits both of the NARBO members. Any of NARBO members is highly welcomed to join this program.

2) Brief Report of Activities in 2008

Mahaweri Authority of Sri Lanka (MASL) accepted four JWA staffs in May for around two weeks, and JWA accepted three staffs from Ministry of Agriculture and Rural Development, Viet Nam in November for around three weeks.

>Sri Lanka

A survey on water resources management was conducted by JWA, and practical knowledge of water resources management was exchanged between MASL and JWA, at Head Quarter, Dam management offices and irrigation system management offices. Based on them, it was succeeded that consensus building among related

organizations about support by JICA expert for capacity development with MASL as a collaboration project.

>Viet Nam

This program consisted of field visits, sharing information and lectures.

JWA arranged field visits to JWA's facilities which are Gunma Canal Comprehensive Redevelopment, Operation and Maintenance Office, Lake Biwa Comprehensive Operation and Maintenance Office, Hiyoshi Dam and Hitokura Dam.

Lectures were arranged in the field of environment, compensation, canal engineering, public relation and the IWRM Guideline.

JWA staffs and Vietnamese staffs exchanged Q&As about the operation and the management of water resources facilities between them.

There were two presentation sessions; the first session was the explanation of their operation and management of water resources facilities and the second session summarized what they had learned during the program.



4. NARBO members' information (Summary)

Organizations are arranged in alphabetical order of the abbreviation.

If you want to read more, please see NARBO website.

[URL: http://www.narbo.jp/data/02_ar.htm]

(1)Jasa Tirta I Public Corporation (PJT I)

Date of preparation: 20/03/2008

Name of the editor: Tjoek W. Subijanto, Harianto, Harry M. Sungguh

1. About the organization

(1) Name of the organization and postal address of the office

Jasa Tirta I Public Corporation (PJT I),
Jalan Surabaya 2A Malang, East Java, Indonesia 65115

(2) The representative of the organization

Mr. Tjoek Walujo Subijanto, President Director

(3) Purposes and roles of your organization

a) Historical background of the organization

The history of PJT I can not be separated from Brantas River basin development which commenced in 1961. The development is conducted on series of master plans that involves stage-wise planning in accordance to the national development requirements. These master plans are summarized below:

- Master Plan I was prepared in 1961, emphasizes on flood control by developing dams at the upper reaches and river improvements to increase flood relief capacity.
- Master Plan II was prepared in 1973 after most objectives of the first master plan were achieved. This master plan was founded in accordance to the government policy on flood sustainability, by emphasizing on irrigation development.
- Master Plan III was prepared in 1985 after irrigation schemes were developed in the basin and as result of the irrigation development, agricultural intensification was made possible. The third master plan emphasizes on water supply for domestic and industrial uses, as more urban area is evident in the basin.
- Master Plan IV was prepared in 1998, to emphasize on effective water resources conservation and management.

Development in the basin resulted into 8 reservoirs (Sengguruh, Sutami, Lahor, Wlingi, Lodoyo, Selorejo, Bening and Wonorejo), four river improvement schemes, three barrages, and three rubber dams. Total investment in water resources infrastructure is priced Rp 7.63 trillion based on the year 2003 price level (US\$ 0.097 billion, Yen 78.8 billion, Rp. 258.9 billion).

After construction period in Brantas River basin, it is necessary to maintain function of the completed infrastructures in order to ensure maximum benefit to achieve the designated technical life span and to achieve sustainable development. Adequate operation and maintenance activities are necessary to be conducted by a permanent institution, with professional staff and adequate budget. Further, it is necessary to maintain the function of the water resources infrastructures to ensure optimum benefit at their planned lifetime. Adequate operation and maintenance (O&M) activities are necessary to be performed; however, these activities encountered specific problems as follows:

1) Institution

Until 1990, the Brantas River basin has no permanent institution that could perform O&M activities in a conceptual and sustainable manner. Brantas River Basin Development Project (BRBDP) is a temporal institution whose duty is only to carry out the construction and not the O&M. Since there are many sectors in utilization of water resources in the basin, and in the other hand, the water availability is much influenced by climate and human activities, this condition will lead to conflict among uses and users. Then it is required a neutral institution to manage water resources in the basin to meet the various needs.

2) Funding

BRBDP who had then to carry out the O&M, encountered problems in obtaining fund for these activities due to the limited National Government Budget.

3) Water Resources Degradation

Lack of O&M budget resulted in degradation of the water resources infrastructures, and less coordination among related agencies complicated the water resources management. This scheme posed risk of water resources degradation, which in the long run shall harm economic development of the basin. Whereas water degradation is evident, sustainable resources are at risk.

To cope with the above problem, PJT I was established in 1990, having working area in the Brantas River basin consist of its main river and 39 tributaries. Based on Presidential Decree No. 129 of 2000, Bengawan Solo

River basin consists of its main river and 24 tributaries was added as *PJT I* working area.

b) Purposes and roles of the organization

The purpose and objective of PJT I are to conduct public utilization on water resources in sufficient and high quality manner for fulfilling public needs, and carry out specific tasks given by the Government in performing river basin management and to join national economic development by participating on national development program especially in water resources management sector.

Main tasks of PJT I based on Ministry of Public Works Regulation No. 56/PRT/1991 on General Policy of PJT I Management (Article 6) are as follows:

- Perform operation and maintenance of the water resources infrastructures;
- Economic dealings in water utilization;
- River basin management including water resources conservation, development and utilization, and;
- Rehabilitation of the water resources infrastructures.

In the framework of performing the main task to perform operation and maintenance of the water resources infrastructures, in the field of operation, PJT I has a vital role in the activities as follows: licensing for water resources utilization, water allocation, flood control, and pollution monitoring. In performing these activities, PJT I coordinates and cooperates with related institutions, particularly with Local Government in the operational matters.

(4) Outline of the organization

1) Number of staff

Number of staff as of December 2008 is 632.

2) Amount of the annual budget in 2008

- O & M cost for 2008 = Rp 67,518,700,000.00
- Water Resources Conservation cost for 2008 = Rp 2,762,210,000.00

(Data from Prognosa 2008 (unaudited), the officially finance report is being audited by authorized auditor)

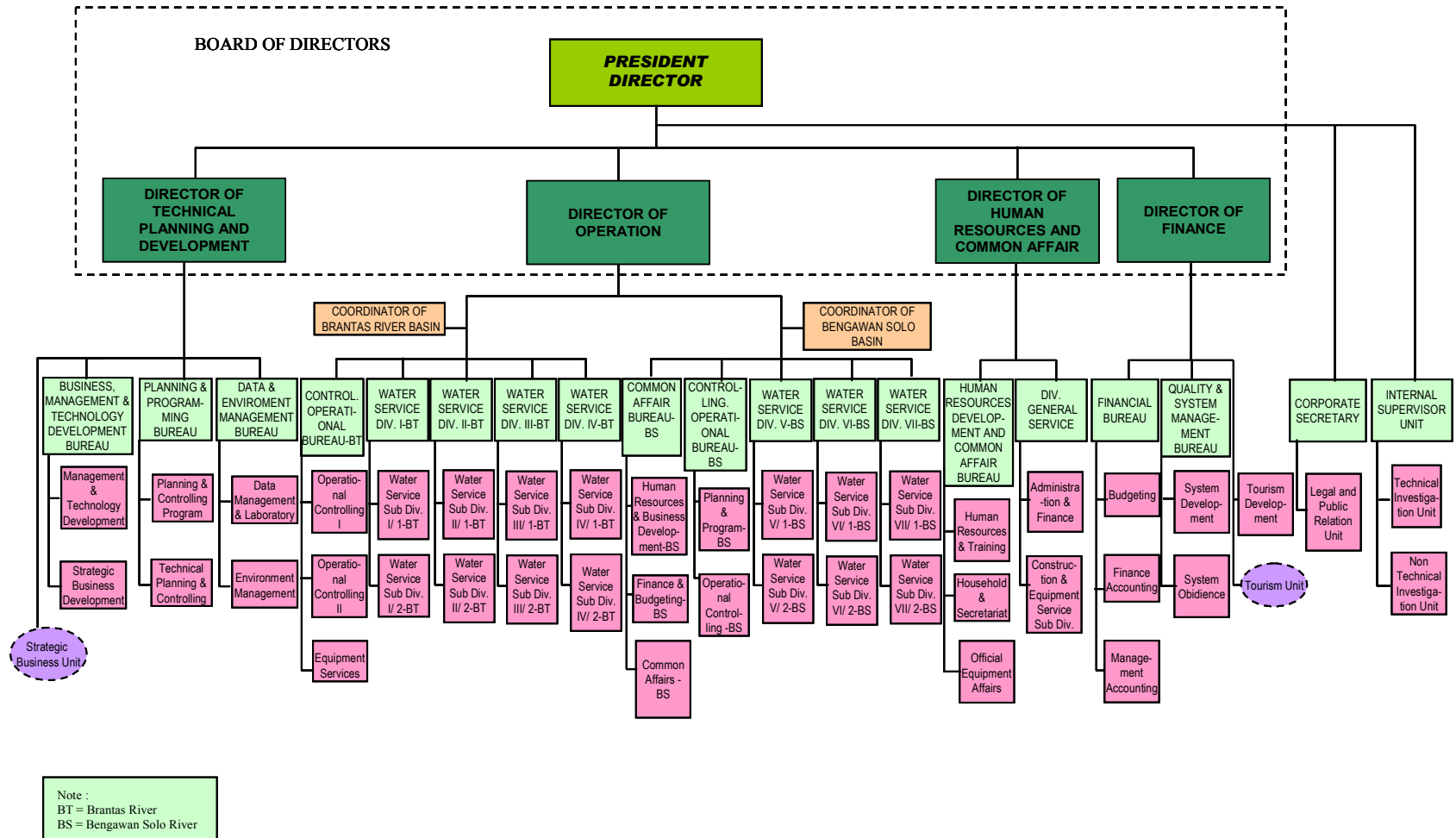
3) Organizational chart

See the attachment

4) Ongoing projects

-

ORGANIZATION STRUCTURE OF JASA TIRTA I PUBLIC CORPORATION



(5) Main events in 2008

- Organize RBO Performance benchmarking RETA-6351 INO Catalyzing Performance Benchmarking of River Basin Organization in Indonesia, July - November 2008.
- Organize Southeast Asia 5-days Training on Effective IWRM Implementation in River Basin for River Basin Organization, Malang, Indonesia, 23-28 November 2008.
- Sign MoU with Ebro River Basin Institute, Spain, 12 September 2008.

2. About NARBO activity

(1) The contact person and organization's web-site

- 1) The name, position, phone & fax number, e-mail address of the contact person
Mr. Harry M. Sungguh, phone: +62 341 551971, email: blb@jasatirta1.go.id
Mr. Fahmi Hidayat, phone: +62 341 551971, email: hidayat.f@gmail.com
Ms. Astria Nugrahany, phone: +62 341 551971, email: birolitbang@telkom.net
- 2) The organization's website URL (English and local language respectively)
<http://www.jasatirta1.go.id>

(2) Activities your organization implemented in 2008 as the member

- Regional Workshop on Developing Partnerships for Water and Climate Change Adaption, Selangor, Malaysia, 1-5 December 2008.

(3) Resolutions and expectations for NARBO activities in 2009

- 1) Your organization's resolutions
PJT I will involve and participate actively in implementing NARBO activities in 2009 in order to reach 1) the goal of NARBO i.e. to help achieve IWRM in river basins throughout Asia, and 2) the objective of NARBO i.e. to strengthen the capacity and effectiveness of RBOs in promoting IWRM and improving water governance, through training and the exchange of information and experience among RBOs and their associated water sector agencies and knowledge partner organizations in Asia and to advise on the establishment of RBOs in Asia.
- 2) Expectations of NARBO activities
Exchange and sharing of information, good practices and lessons learned for IWRM among the NARBO members, training workshop, staff exchange, etc. should be continued and advanced.

3. Questions to RBO members

(1) Areas which your organization has improved the performance in 2008

Operation and maintenance of water resources infrastructures can be conducted better than previous years

(2) The way in which your organization was able to do so

- We provide more budgets for O&M activities. The budget is mainly provided

by the commercial users as well as of the revenue from non water resources services.

- We have good cooperation with other agencies such as Balai Besar Wilayah Sungai Brantas and Bengawan Solo (Public Utility type RBOs in the basins) in performing O&M works.

(3) In what way NARBO has helped your organization

Through NARBO, activities such as training, twining program etc, we can exchange and sharing information, good practices and lesson learned for IWRM and also conducting workshop and staff exchange.

(2)Jasa Tirta II Public Corporation

Date of preparation : 31/03/2009

Name of the editor : Ir. Djendam Gurusinga, Dipl. HE

About the Organization

1. Name of the Organization

Jasa Tirta II Public Corporation in English or Perusahaan Umum (Perum) Jasa Tirta II in local Bahasa Indonesia or PJT2 in short.

2. Purposes and roles of your organization

Historical background of the organization

In 1956 Ir. H. Djuanda, the Prime Minister of Indonesia declared the commencement of Jatiluhur Multipurpose Project. The main aim of the project was to enhance the rice production to achieve self-supporting national staple food. The project comprised of two major activities, namely, construction of a dam across Citarum River to create a reservoir with impounding capacity of $3.0 \times 10^9 \text{ m}^3$ including the hydroelectric power plant with the install capacity of 150 MW, and develop technically irrigation system over 240,000 ha of paddy field in the north plain of West Java Province. The project finished in 1967, since then the dam, the reservoir and the power plant were named Ir. H. Djuanda.

The benefits reveal upon the completion of the project, among other: (1) flood occurs during rainy season that inundated 20,000 ha of fertile land in the North plain could be minimized, (2) farmers have the opportunity to cultivate paddy with technically irrigated system over an area of 240,000 ha, two crops per year, (3) raw water supply for domestics, municipalities and industries especially for Jakarta the Capital City of Indonesia, (4) hydropower plant with the installed capacity of 150 MW, (5) fresh water

as well as brackish water fisheries development in coastal area, and (6) beautiful scenery surrounding the reservoir for tourism and water sport.

After the construction project finished in 1967, the Government of Indonesia (GOI) through the Ministry of Industry established the Jatiluhur State-own with the Government Regulation No. 8/1967 dated 24 July 1967. This company was intended to optimize the Jatiluhur Hydro-electric Power Plant (HEPP) generation. As a corporation, the Jatiluhur State-own Company was aimed to gain profit. Thus the operation of reservoir was designed to obtain the maximum revenue from the Jatiluhur HEPP production. In the meantime, the water resources infrastructures for irrigation and other purposes that completed in 1968 was handled by three institutions, those are : West Java Public Works for Purwakarta Region (under West Java Provioncial Government), Jatiluhur Irrigation Project (under Ministry of Public Works), and Jatiluhur Tertiary Irrigation Project (under Ministry of Home Affairs).

In 1969 the Jatiluhur Irrigation Board was established to coordinate and optimize the reservoir operation for multipurpose, consisted of those four related institutions, (1) Jatiluhur State Own Company, (2) West Java Public Works for Purwakarta Region (under West Java Provioncial Government), (3) Jatiluhur Irrigation Project (under Ministry of Public Works), and (4) Jatiluhur Tertiary Irrigation Project (under Ministry of Home Affairs). The reservoir operation then operated firstly to meet the downstream requirements,i.e. irrigation, domestic, municipal, and industry, not only to maximize the Jatiluhur HEPP production. In 1970 those four institutions were merged became the Jatiluhur Public Authority (POJ) based on Government Regulation (GR) No. 20/1970. After the POJ establishment in the Jatiluhur Irrigation Board was not longer existed.

The POJ has tasks and responsibilities to maintain sustainability of water resources in the basin and extends operation and maintenance of water resources infrastructures and the hydroelectric power plant. The entity also collected the contribution from the beneficiaries of water services for running the operation and maintenance of the system. In the year 1999 the name of the entity was changed to Jasa Tirta II Public Corporation (PJT 2) with the tasks and responsibilities remain the same.

The summary of the historical development of the PJT II is shown in **Table 1**.

Table 1 Historical Development of the PJT II

Name of the organization	Period / Legal	Tasks
Jatiluhur Multipurpose Project	Construction Period (1956 -1967)	To construct and develop the Jatiluhur dam, its reservoir and hydroelectric power generation including the irrigation infrastructures downstream of the dam
▪ Jatiluhur State-own Company	Operation and Maintenance Period (1967-1970)	To manage the Jatiluhur dam and its reservoir especially the hydroelectric power generation
▪ Jatiluhur Tertiary Irrigation Project ▪ Jatiluhur Irrigation Project. ▪ West Java Public Works	(1967-1970)	To manage the Jatiluhur irrigation area and other water resources infrastructures downstream of the dam after the completion of the Jatiluhur Multipurpose Project.
Jatiluhur Authority Public Corporation	Operation and Maintenance Period Based on GR: <input type="checkbox"/> No. 20/1970, May 23 rd 1970 <input type="checkbox"/> No. 35/1980, October 13 rd 1980 <input type="checkbox"/> No. 42/1990, August 23 rd 1990	Incorporates the company purposes for profit making besides the social tasks of managing the water resources supply system downstream of the dam.
Jasa Tirta II Public Corporation	Operation and Maintenance Period Based on GR: <input type="checkbox"/> No. 94/1999, October 13 th 1999	Managing water resources in the Citarum river basin based on the integrated water resources management principles.

Purposes and Roles of the Organization

Based on the GR No. 94 in the year of 1999, the PJT II has tasks and responsibilities at the Citarum river basin on:

1. Operation and maintenance of the water resources infrastructures and hydroelectric power plant,
2. To carry on business on water resources and hydroelectric power generation,
3. To conduct the river basin management, i.e., conservation, development, and utilization of the water resources,
4. To do the rehabilitation on the hydroelectric power plant.

Number of Staff

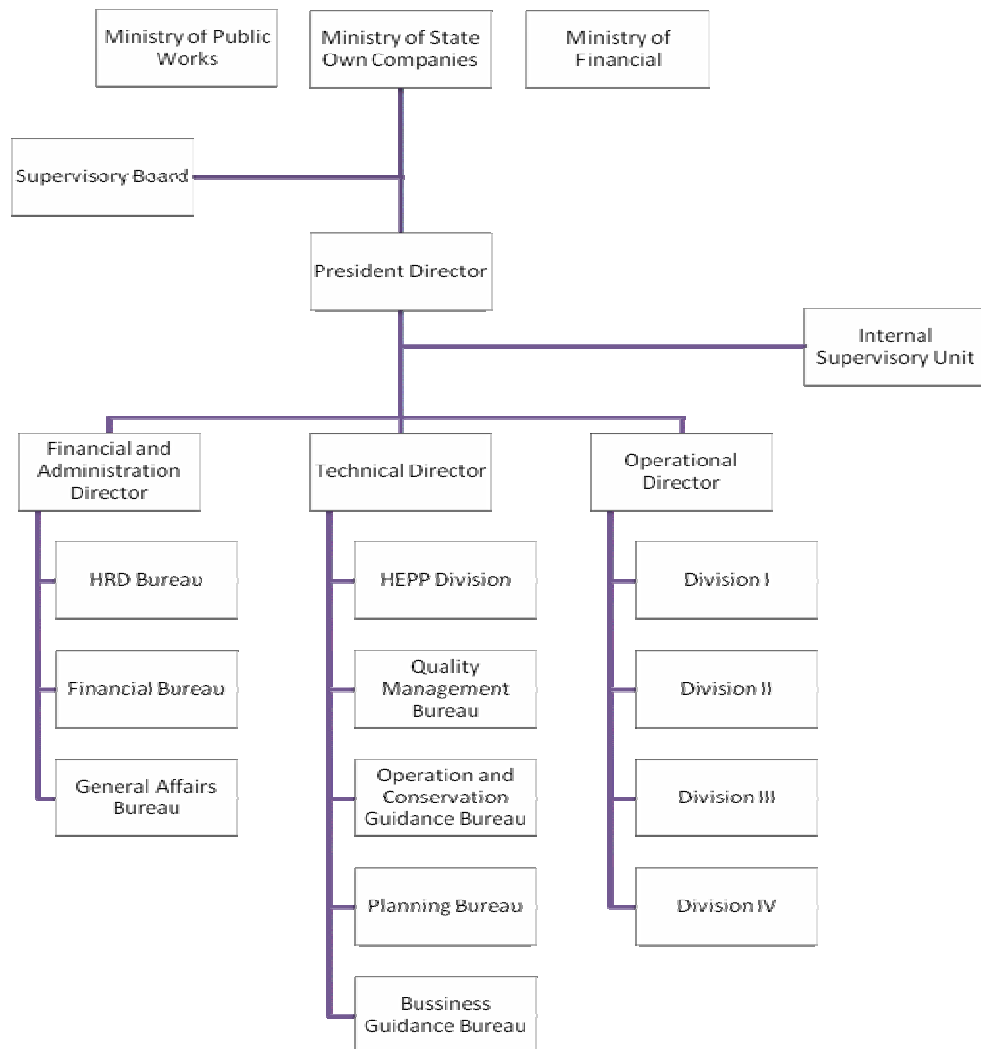
The number of staffs as 31st of December 2008 was 1.406 employees, which classified by education as presented in the following table:

Education Level Description		Number of Staffs
1	Post Graduate (master degree)	44
2	Undergraduate (bachelor degree)	140
3	Higher Education School	124
4	Senior High School	524
5	Junior High School	456
6	Elementary School	118
Total		1.406

Amount of the annual budget in 2008

Total annual budget of PJT 2 in 2008 was IDR 282,107.99 million equal to USD 25,646,180.91.

Organizational chart



Ongoing project

Most activities done by PJT 2 in the Citarum River Basin are routine and operational project, such as:

- a. Rehabilitation of the water resources infrastructures (rising canal embankment, intake gate for irrigation area, canal, etc),
- b. Installation of flow meter for industrial intakes,
- c. Rehabilitation of Hydro-Electric Power Plants Unit 6 (30 MVA),
- d. Modernisation of Hydro-electric Power Plant especially Programmable Logic Control (PLC) / automatic system
- e. Decision Support System (DSS) for water quality management project.
- f. PLC Unit 1 pump for water supply to Jakarta.
- g. Public water supply development for 3 sub-district
- h. Improvement of GIS based water resources information system.
- i. Pilot and demonstration activities on water saving agriculture collaboration with Department of Agriculture,
- j. Community based on Citarum lower flood plan management.

Main events in 2008

- a. Rehabilitation of Hydro-electric Power Plant especially improvement and changing of transformer.
- b. Improvement of water quality monitoring for the water quality conducting to water pollutant.
- c. Improvement of automatic water level and rainfall telemetry system.
- d. Capacity Development Project for River Basin Organizations in Water Resources Management and Technology
- e. Re-Stocking of fish in Jatiluhur reservoir.
- f. Re-Greening of Ubrug saddle dam and Djuanda dam green belt.
- g. Re-arrangement and zoning the fish culture in Jatiluhur reservoir.

About NARBO Activity

1. Activities your organization implemented in 2008 as the member

- a. As participant on the 3rd General Meeting of NARBO, 20 - 22 February, 2008 in Solo, Indonesia.
- b. As participant on the 2nd Thematic Workshop on Water-Related Disaster and Its Management in Asian Countries, 7 – 8 October, 2008 in Manila, Philippine.
- c. As participant on the Regional Meeting on Hydro-Informatics and Developing Knowledge Hub Networks, 15 – 17 October, 2008 in Zhengzhou, People's Republic of China.

2. The contact person and organization's website

2.1 The name of the contact person and contact number (including e-mail address)

Name : Herman Idrus, CES

Position : Head of Planning, Research and Development Bureau

Phone number : +62 216828

Mobile phone : +62 811 837 964

E-mail address : planning@jasatirta2.co.id / herman_idroes@yahoo.com

2.1.1. Organization's web-site URL (English and local language)

Website : www.jasatirta2.co.id

URL : <http://jasatirta2.co.id>

3. Resolutions and expectations for NARBO activities in 2008

3.1 Your Organization's resolutions

Human resource is one the importance assets to be maintained and highly contributes to the implementation of IWRM. Strengthening the capacity and effectiveness through regular training both of external and internal are helping to achieve the goal of NARBO.

3.2 Expectations of NARBO activities

To promote the close relationship among the NARBO members more capacity building for the young engineer of NARBO members is expected, such as by establishing Young Scientist Program or similar program that combines between practical exercises and lesson learned from existing institutions on water quality management, wastewater treatment plant operation, multiple reservoirs operation, and attending exhibitions to get acquainted with industries. To create closer relationship among the participants can be done by group exercises and making individual presentations.

4 About the NARBO web-site (<http://www.narbo.jp>)

4.1 Whether you can access to the NARBO web-site.

Yes

4.2 Whether you can access to the ADB's web-site (<http://www.adb.org/>) and the ADBI's web-site (<http://www.adbi.org/>)

Yes

4.3 Who can accesses NARBO web-site usually?

Everybody in the Head Office of PJT II around 300 employees.

4.4 How often do you access to the NARBO web-site on the average?

Once a week or whenever it is necessary, especially if there is activity related to NARBO

4.5 What content are you interested in most and what information do you want to get from the NARBO web-site?

The Capacity Building Activities and Twinning Program.

4.6 What do you think we need to do to get more hits to the NARBO web-site?

Put link of the NARBO web-site into websites of river basin organizations, or vice versa.

4.7 What do you think we need to do to stimulate information exchange among members through the NARBO web-site?

Embrace more young participants from the NARBO members which are more familiar to the information technology.

(3) Japan Water Agency (JWA), Incorporated Administrative Agency

1. About the organization

(1) The representative of the organization

Mr. Toshiki AOYAMA, President

(2) Number of staff

1,579 (As of 2008)

(3) Amount of the annual budget in 2008

260 bil. JPY (2.6 bil. USD)

(4) Main events in 2008

- 1) Construction works (excavation) of Oyama Dam body has started.

2. About NARBO activities

(1) The organization's web-site URL

English: <http://www.water.go.jp/honsya/honsya/english/top.html>

Japanese: <http://www.water.go.jp/>

(2) Activities the organization implemented in 2008 as the member

Japan Water Agency has played a key roll in NARBO activities as the main secretariat together with ADB and ADBI and as the member organization.

- As the main secretariat

- Administration of the website with frequent update and improvement of contents.
- Issue of newsletter (No.12 to No.16 in March)
- Issue of NARBO annual report 2007 in July.
- Thematic Workshop on "Water Allocation and Water Rights"
(The 4th in late January in Japan and follow-up in late May in Philippines)
- Thematic Workshop on "Sustainable Management for Water Resources Infrastructures"
(The 1st-3rd in middle June, late October and middle December in Viet Nam, Bangladesh and Sri Lanka respectively)
- Thematic Workshop on "Water-Related Disaster and Its Management in Asian Countries"
(The 1st in late November in Indonesia)
- Attending the 3rd Southeast Asia Water Forum in late October in Malaysia and having some presentations together with the Vice-Chairperson
- Holding NARBO symposium on "Catalyzing IWRM Investment in Asia-Pacific Region" as an open event of The 1st Asia Pacific Water Summit held in early December in

Japan

- As the member organization
 - Submitting Member's annual report 2008 in March
 - Accepting staff through Twinning Program between JWA and Vietnam NARBO

(3) Resolutions and expectations for NARBO activities in 2009

1) The organization's resolutions

Japan Water Agency will continue to play a key roll in NARBO activities as the main secretariat together with ADB and ADBI and as the member organization.

2) Expectations of NARBO activities

We secretariat really expect members' cooperation in NARBO activities.

(4)Mahaweli Authority of Sri Lanka

NETWORK OF ASIAN RIVER BASIN ORGANIZATIONS (NARBO)

Annual Report 2008 - Mahaweli Authority of Sri Lanka (MASL)

Date of preparation: 18th March 2009

Name of the editor: Sudharma Elakanda

Project Director, DSWRPP /MASL

1. About the organization

- (1) Name of the organization and postal address of the office

Mahaweli Authority of Sri Lanka

- (2) The representative of the organization

Eng H P S Somasiri, Acting Director General of MASL

- (3) Purposes and roles of your organization

a) Historical background of the organization

The Mahaweli Ganga Development Programme, the largest integrated rural development multi-purpose programme ever undertaken in Sri Lanka, was based on water resources of Mahaweli and allied six river basins. Main objectives were to increase agricultural production, hydro-power generation, employment opportunities, and settlement of landless poor and flood control. The programme originally planned for the implementation over a 35-year period was brought to acceleration in 1979, with incorporation of Mahaweli Authority.

The total Mahaweli Project Area covers 39 percent of the whole island, 55 percent of the Dry Zone, and encompasses 60 percent of the irrigable land area of Sri Lanka.

The Project is to provide Irrigation water for agriculture and water for domestic use, generate hydro-power for the whole range of agro-based industry in the Mahaweli areas

and elsewhere, provide effective flood control and most importantly open up new land for agriculture development.

The project comprises five Major Dams; Kotmale, Victoria, Randenigala–Rantambe, Maduru Oya and Moragahakanda which is being constructed now..

b) Purposes and roles of the organization

The primary task of MASL has been and remains "the improvement of human life in the Mahaweli impacted areas".

(4) Outline of the organization

1) Number of staff - **4670 Nos.**

2) Amount of the annual budget in 2008 – **US \$ 49 million**

3) Organizational chart

Attached (Attachment 1)

4) Ongoing projects

As follows:

▪ **Moragahakanda & Kaluganga Development Project**

Moragahakanda & Kaluganga Development Project is the largest reservoir project to be taken up for development under the Mahaweli River Development Programme. A full feasibility study of the Moragahakanda Project combined with the Kaluganga Development Project was completed in 2004 by the Lahmeyer International, in association with the Central Engineering Consultancy Bureau (CECB) of Sri Lanka, United Consulting Group (KUWAIT) and Chuo Kaihatsu Corporation, Japan. The project area is located in the Central and North Central Provinces in Sri Lanka. The investment cost of the project is US \$ 425 million. The Economic Internal Rate of Return (EIRR) is 22%. Kuwait has already provided US\$ 37 million for the detailed designs of the project and JICA, SFD are now committed to co-finance the project.

▪ **Dam Safety & Water Resources Planning Project (DSWRPP)**

The Dam Safety & Water Resources Planning Project (DSWRPP) is to be implemented by the Ministry of Agricultural Development and Agrarian Services (MADAS) of the Government of Sri Lanka with the financial assistance from the International Development Association

(IDA) of World Bank. The project cost is US\$71.66 million will be implemented within 4 years period from mid 2008. Seven stake holder agencies namely MASL, ID, CEB, NASDB, MD, WRB & DMC are involved with the implementation of the project.

The Major Components of the Project are as follows:

- 1. Dam Safety and Operational Efficiency Improvement*
- 2. Upgrading & Modernizing of Hydro-meteorological Information System (HMIS)*
- 3. Technical Assistance for Multi-sectoral Water Resources Planning:*
- 4. Institutional Development and Capacity Building*

Improve the development and management of water resources within the country, reduce water-induced hazards to public, and enhance effectiveness of water related investments are the objectives of the Project.

▪ *Mahaweli System B – Maduru Oya Right Bank Development Project*

Since the commencement of the project formulation of the Mahaweli Ganga Development Programme various agencies under taken survey of the irrigation potential of the Mahaweli System B – Maduruoya Right Bank Project and found that the project is economically and technically feasible and several funding agencies pledged their support for the development efforts. But, the terrorist activities prevented the commencement of development activities until recently.

Now Eastern Province of the country has totally liberated and Government focused on all development work in the province.

Development of the East of Sri Lanka in every possible sphere is the main objective. Resettlement and development are vital components of this mission. The GOSL, set up a special programme named 'Negenahira Navodaya' to achieve this task under the Ministry of Nation Building. All the government organizations concerned were assigned to carryout specific functions. In this respect MASL was assigned to implement the development of the Zone 6 of Mahaweli System B, Maduru Oya Right Bank, immediately, in order to commence cultivation in the new lands under medium size commercial farms through funding by the private sector investors. The investors are to be provided with a 20 ha. Farm-Plot with an access to water for cultivation and a motor enable access to the farm plot. Until, the completion of the construction and commissioning of the necessary downstream irrigation infrastructure, prospective farmers can utilize ground water as well as stream flow as water for cultivation and livestock development. At present there is a demand from the investors for land for commercial production of crops, livestock etc. to cater the needs of the local and export markets. The Proposed project would attract the private sector to develop the area as a production

base. The participation of the Private Sector in the development process will reduce the financial burden on the GOSL.

Present development scenario for immediate development needs of Zone 6 of Mahaweli System B-RB will comprise following specific objectives.

- *Economic development through commercial farming with the participation of private sector investors.*
- *Utilization of available arable land and water resources.*

Following are the identified project activities

- *Preparation of blocking out plans of 20 ha. lots (250 Nos.) for commercial farming*
- *Erection of 2 Nos. Bailey bridges*
- *Construction of access roads of 60 kn.*
- *Staking out of commercial farm lots*
- *Selection of Investors for commercial farming*
- *Alienation of commercial farms*
- *Monitoring and follow up*

Mahaweli System B Consolidation Project

With Rs 400 million GOSL funds MASL has undertaken design and implementation of remedial work of rehabilitation of Left bank Irrigation System and work is now going on successfully.

(5) Main events in 2008

- *Dam Safety & Water Resources Planning Project was officially launched 14th August 2008, with the participation of His Excellency President of Democratic Socialist Republic of Sri Lanka.*
- *Organized and Conducted Technical Workshop on “Project Launching of Dam Safety & Water Resources Planning Project” 15-16 August 2008.*

2. About NARBO activity

(1) The contact person and organization’s web-site

- 1) The name, position, phone & fax number, e-mail address of the contact person
Sudharma Elakanda, phone: 0094-11-2675315, fax: 0094-112691163
e-mail: elamrrp@sltnet.lk
Dam Safety & Water Resources Planning Project. (DSWRPP)

- 2) The organization’s website URL (English and local language respectively)
<http://www.mahaweli.gov.lk>

(2) Activities your organization implemented in 2008 as the member

- *Attended and actively contributed for the 3rd General Meeting of NARBO, 18th – 22nd February 2008, Solo, Indonesia.*
- *Attended for the Review Workshop on Water Related Disasters in Asia, 6th -10th October 2008, Philippine.*
- *Attended for the Workshop on Developing Partnership for Water & climate Change Adaptation, 1st – 5th December 2008, Selangor, Malaysia*
- *Four members team from JWA attended to Twinning program in Sri Lanka for 3 weeks period and studied Sri Lankan Water sector thoroughly and submitted a report.*

(3) Resolutions and expectations for NARBO activities in 2008

1) Your organization's resolutions

No

2) Expectations of NARBO activities

Sharing experience among member countries through Training Programmes, Twinning Arrangements, Thematic Workshops, Peer Review of RBO etc., also willing to organization Training Programmes in Sri Lanka too.

3. Questions to RBO members

(1) Areas which your organization has improved the performance in 2008

How climate change create impacts on Mahaweli Project and on Food Production Program of Sri Lanka. Understood need of aware more public on this matter and keep all alert on this issue.

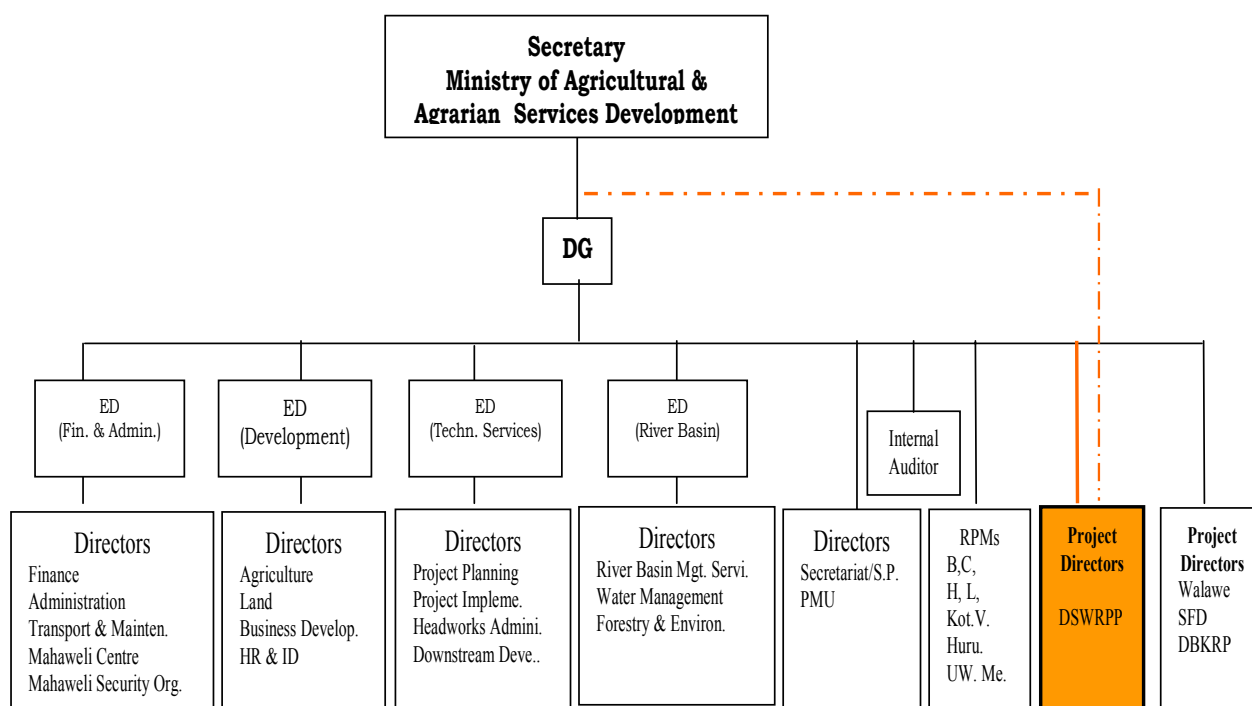
(2) The way in which your organization was able to do so

After having exposed to some of the NARBO program and internal discussions made us to initiate such actions.

(3) In what way NARBO has helped your organization

Sri Lankan NARBO should encourage more & more members to join NARBO and make them exposed to such programs so that they could disseminate the message effectively.

Attachment 1



(5) Mekong River Commission

Date of preparation: March 17th, 2009

Name of the editor: Michael Lowry

1. About the organization

(1) Name of the organization and postal address of the office

Mekong River Commission

PO Box 6101, 184 Fa Ngoum Road, Ban Sithane Neua,

Vientiane, Lao PDR

(2) The representative of the organization

Mr. Jeremy Bird, Chief Executive Officer, MRC Secretariat

(3) Purposes and roles of your organization

a) Historical background of the organization

The Mekong River Commission (MRC) was formed on 5 April 1995 by an agreement between the governments of Cambodia, Lao PDR, Thailand and Viet Nam. The four countries signed The Agreement on Cooperation for the Sustainable Development of the Mekong River Basin and agreed on joint management of their shared water resources and development of the economic potential of the river. The MRC has a foundation of over 50 years of knowledge and experience in the region starting from 1957, when it began life as the UN-founded Mekong Committee. China and Myanmar are also Dialogue Partners of the MRC.

b) Purposes and roles of the organization

The MRC is an international river basin organization that provides the institutional framework to promote regional cooperation in order to implement the 1995 Agreement. The MRC is owned by and serves its Member States by supporting decisions and promoting action on sustainable development and poverty alleviation as a contribution to the UN Millennium Development Goals. The MRC supports the Mekong Programme and a Regional Cooperation Programme for the Sustainable Development of Water and Related Resources in the Mekong Basin. The overall goal of the MRC is to support its Member Countries for:

“More Effective Use of the Mekong’s Water and Related Resources to Alleviate Poverty While Protecting the Environment”

The 2006-2010 Strategic Plan sets forth the following four goals:

- Goal 1: To promote and support coordinated, sustainable, and pro-poor development;
- Goal 2: To enhance effective regional cooperation;
- Goal 3: To strengthen basin-wide environmental monitoring and impact assessment;
- Goal 4: To strengthen the Integrated Water Resources Management capacity and knowledge base of the MRC bodies, National Mekong Committees, line agencies, and other stakeholders.

(4) Outline of the organization

1) Number of staff

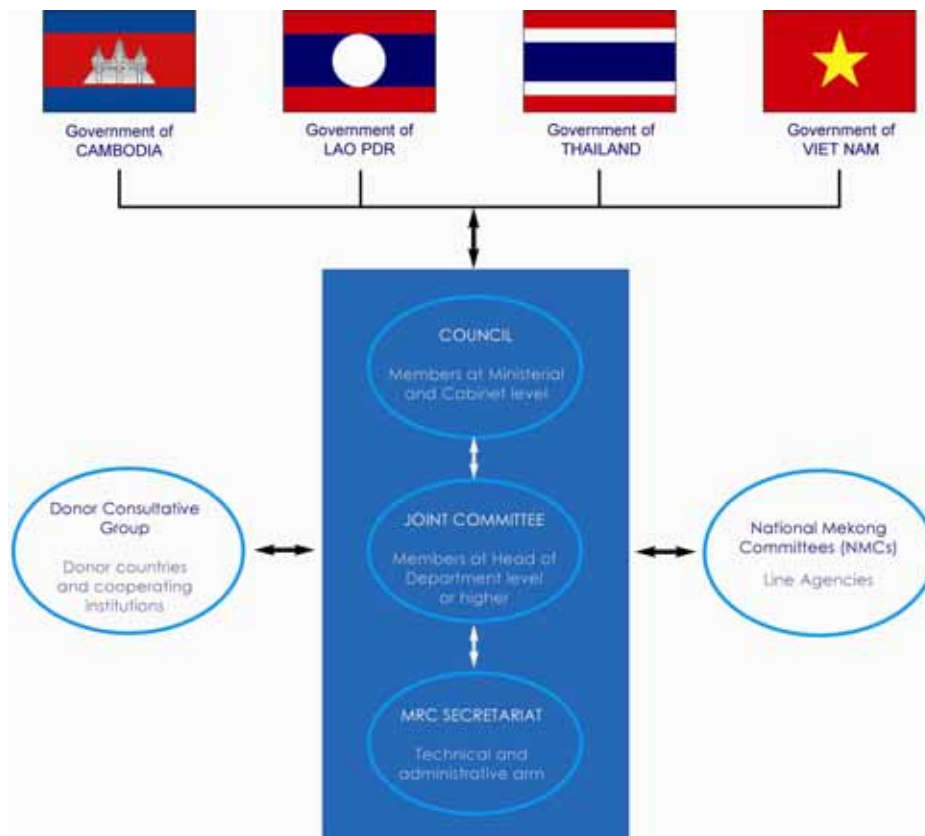
150 staffs

2) Amount of the annual budget in 2008

The total expenditure in 2008 was USD 16,393,276.

3) Organizational chart

MRC Organizational Structure



Our Dialogue Partners

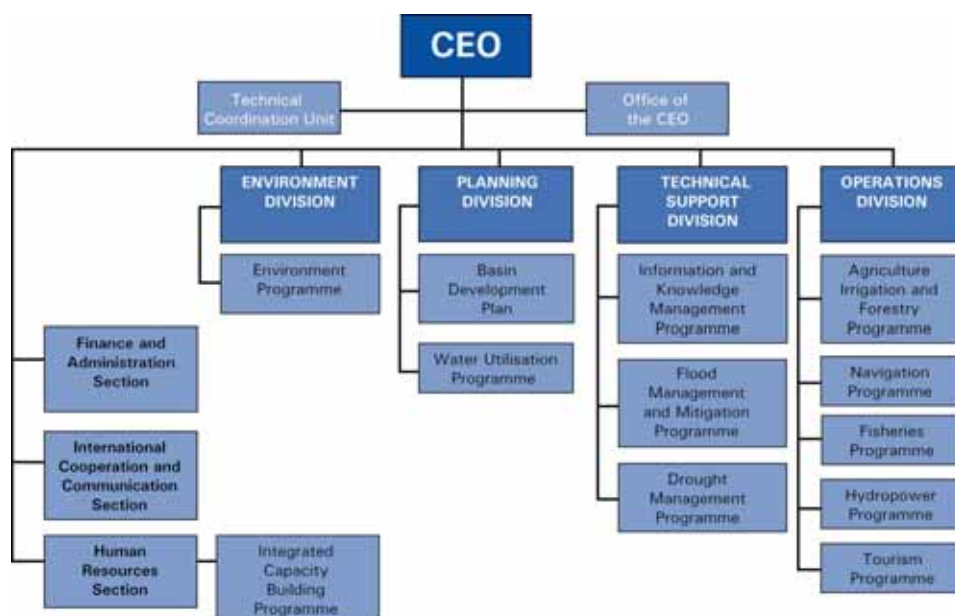


China



Myanmar

MRC Secretariat Structure



4) Ongoing projects

The MRC is engaged in a Regional IWRM Support Programme, and maintains an integrated approach to its programme work. MRC programmes are structured in a way that emphasizes their complementarities and their importance as a whole. Within the programme structure the Basin Development Plan plays a pivotal role, using knowledge acquired from the programmes to build an overall perspective of development needs and 'pertinent knowledge gaps'.

Basin Development Planning

Objective: To formulate the basin-wide plan for water resources development; to identify, categorized and prioritized project, programme and investment opportunities, to assist and support countries in implementing them at basin level.

Components: Planning Capacity and Tools; Development Strategy and Investment Plan; Support to National IWRM; Project Portfolio Identification and Promotion.

Mekong Integrated Water Resource Management Project

Objective: To strengthen the regional enabling framework for the implementation of IWRM in the LMB countries; to contribute to the implementation of IWRM at the national and sub-basin levels; and to demonstrate mechanisms for the implementation of IWRM at trans-boundary project levels.

Components: Regional Component - Enabling framework for the implementation of IWRM at the interface between the basin and national levels; National Component – Implementation of IWRM at the national and sub-basin levels, Trans-boundary Component – Implementation of IWRM at the trans-boundary project level and for joint management of water infrastructure assets.

Integrated Capacity Building

Objective: To strengthen the capacity of MRC, the National Mekong Committees and the line agencies in all fields leading to more effective integrated water resources development and river basin Management.

Component: Training in Project Management; Training in Information Management and Communication; Training in Environmental Governance, Junior Riparian Professional Programme, Strengthening Core activities of MRC; Research Coordination; Gender Mainstreaming.

Information and Knowledge Management

Objective: To provide database, IT infrastructure, expertise and services to support planning and decision-making.

Components: Hydro-meteorological data collection and analysis Information gathering and integration; Database management; Mekong basin GIS; Remote Sensing simulation and Decision Support System; Data Exchange Policy and Procedures.

Environment

Objective: To strengthen the framework of trans-boundary environmental management by the four Lower Mekong Basin countries. To generate data, information and knowledge for decision-making; to balance economic development and environmental conservation that will benefit the Basin's inhabitants.

Components: Environmental Monitoring & Assessment; Environmental Decision Support; Environmental Knowledge; People and Aquatic Ecosystems; Environmental Flow Management.

Flood Management and Mitigation

Objective: To prevent, minimize or mitigate people's suffering and economic losses due to floods, while preserving environmental benefits. To maintain an accurate flood forecasting system and establish an effective warning mechanism, To act as facilitator on trans-boundary issues and to build capacity in member countries.

Components: Regional Flood Management and Mitigation Centre; Structural and flood Proofing Measures; Mediation of Trans-boundary Flood Issues; Flood Emergency Management Strengthening; Land Use Management.

Agriculture, Irrigation and Forestry

Objective: To preserve the integrity of the watersheds of the four countries through monitoring land use changes, identifying problems and management training. To implement technical surveys of irrigation practices to improve efficiency.

Components: Irrigation water use efficiency and productivity; Watershed Management, Challenge Programme on Water and Food.

Navigation

Objective: To promote freedom of navigation on the Mekong, increase social development, and international trade opportunities using the navigation potential for the river system.

Components: Social-economic Analysis and Regional Transport Planning; Legal Framework for Cross-border Navigation; Traffic Safety and Environmental Sustainability; Information, Promotion and Coordination; Institutional Development.

Fisheries

Objective: To manage the productive Mekong fisheries so as to sustain their high yield and economic output well into the future, to undertake research and training and to disseminate information to policy makers and planners in the four Lower Mekong countries.

Components: Assessment of Mekong Capture Fisheries; Institutional Support; Aquaculture of Indigenous Mekong Fish Species; Management of River and Reservoir Fisheries.

(5) Main events in 2008

New Initiatives:

Climate Change and Adaptation Initiative

The MRC Climate Change Initiative was launched by the Environment Programme in July 2008 for the period of 2008-2012. The first national consultation meetings were conducted in July-August 2008. A Regional Forum on Climate Change and Adaptation Initiative, involving relevant stakeholders was held on 2-3 February 2009 to discuss approaches, interfaces with other Climate Change initiatives and activities in the region and how to best explore the value added of the MRC Climate Change and Adaptation Initiative.

Initiative for Sustainable Hydropower

As a result of consistent economic growth, the Mekong Region's demand for energy is rapidly growing. This and the increasing importance of regional trade and investment flows have stimulated a new era of hydropower development in the basin, now mainly driven by regional private sector actors. Extreme fluctuations in oil and gas prices and concerns over climate change have intensified the focus on hydropower as a renewable technology. The Initiative for Sustainable Hydropower, launched in 2008, aims to improve understanding of the regional implications of hydropower projects. With particular focus on how the barrier effect of mainstream dams can be minimised or successfully mitigated.

Other Activities:

Strategic Plan 2006-2010

The Mekong River Commission (MRC) has entered to the fourth year of its Strategic Plan 2006-2010. With regard to the strategic direction and priorities for the remaining period, the MRC undertook a Mid-term Review of the Strategic Plan in July 2008. The review captured and integrated the perspectives of Member States, Development Partners, the Secretariat and other interested parties. The MRC dialogue partners, China and Myanmar, also had opportunity to provide input. The Mid-term Review had concluded that the Strategic Plan broadly provides the right direction to support the regional cooperation for sustainable development of Mekong water and related resources.

MRC Dialogue Partners

Cooperation with the two MRC dialogue partners, the People's Republic of China and the Union of Myanmar has been further strengthened through technical cooperation, the conduct of the regular annual Dialogue Meeting, the follow up meetings with MRC's focal point for P.R. China at Chinese Embassy to Bangkok, the visit of MRCS Delegation to Chinese Ministries in Beijing in October. The extension of the Agreement on the Provision of Hydrological Information of the Lancang / Mekong River in the Flood Season between the MRC and the Ministry of Water Resources, China which provides valuable data for MRC's flood forecasting system was signed on the occasion of the Thirteenth Dialogue Meeting in August 2008.

International Cooperation

The MOU and a Letter of Cooperation between the World Bank and the MRC was signed in October 2008. The Letter of Cooperation set out some cooperation principles and modalities which generally support the Mekong-Integrated Water Resources Management Project.

The MRC has also been actively involved in major international and regional events, such as the World Water Week in Stockholm. In September 2008, the MRC participated in the 13th International Water Resources Association (IWRA) Congress in Montpellier, France and the Mekong in Crisis Symposium, Gothenberg. The MRC also participated in the International Symposium on the Three Gorges Project and Water Resources Development and Project of Yangtze River, Yichang in October 2008.

2. About NARBO activity

(1) The contact person and organization's web-site

- 1) The name, position, phone & fax number, e-mail address of the contact person

Bérendère Prince

Officer-in-Charge
International Cooperation and Communication Section
berengere@mrcmekong.org
Tel: (856-21) 263 263 Ext 4070
Mob: (856-20) 782 2385

2) The organization's website URL (English and local language respectively)
www.mrcmekong.org

(2) Resolutions and expectations for NARBO activities in 2008

The MRC has taken part in NARBO's dinner meeting at the 5th World Water Forum in Istanbul.

1) Your organization's resolutions

The MRC will continue to share experience with NARBO.

2) Expectations of NARBO activities

That NARBO continues to promote international cooperation based on IWRM principles.

3. Questions to RBO members

(1) Areas which your organization has improved the performance in 2008.

Commissioning and implementation of an Independent Organizational Review.

(2) The way in which your organization was able to do so

The implementation of the Independent Organizational Review recommendations is a process for enhancing the organizational efficiency and capacity at the MRC Secretariat. Acknowledging the importance of this process, several meetings were organized in 2008, namely, the Task Force on the Organizational Structure of the MRCS and the Subcommittee on the Permanent Location of the MRCS to support the decision of the MRC Joint Committee as well as the MRC Council on the implementation of recommendations. This process is also accompanied by the Joint Contact Group meetings, bringing together MRC Member Countries and Development Partners. Against this background, the MRC has progressively addressed 20 out of 38 recommendations

(3) In what way NARBO has helped your organization

Through global and Asian promotion of Cooperation on trans-boundary water resources and IWRM

(6) Department of Water Resources , Ministry of Natural Resources and Environment

Date of preparation: 31 /03 /2009

Name of the editor: Mr.Panu Arunrat

1. About the organization

(1) Name of the organization and postal address of the office

Department of Water Resources, Ministry of Natural Resources and Environment
180/3 Rama VI Rd, Soi 34, Phayathai , Bangkok , 10400 ,THAILAND

(2) The representative of the organization

Representative: Dr.Siripong Hungspreug
Director General, Department of Water Resources

(3) Purposes and roles of your organization

a) Historical background of the organization

Because of the awareness of various water problems all over the world as well as in compliance with the Office of Prime Minister's regulation on Water Resources Management (B.E. 2532) , The National Water Resources Committee (NWRC) was appointed for solving national water resources related problems. At the end of 2002, the bureaucratic reform was implemented. The Department of Water Resources was established as a core governmental agency for solving Thailand water resources management.

b) Purposes and roles of the organization

The Department proposes policies, plans and measures for management, development, conservation, rehabilitation, supervision, direction, coordination, monitoring and solving problems relating to water resources. Its responsibilities include technical development, setting of standards, and technology transfer pertaining to water resources at the national and basin levels.

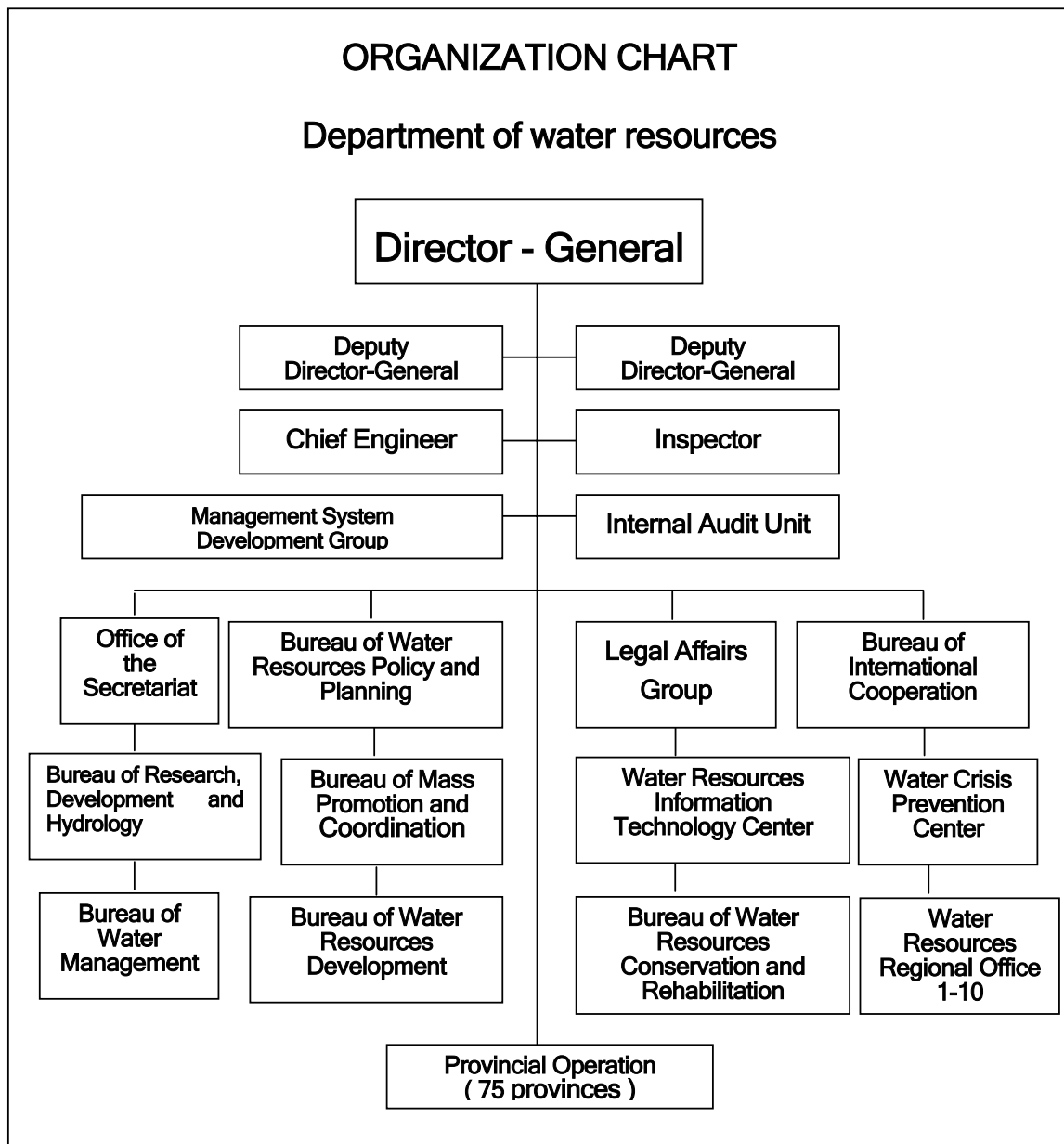
(4) Outline of the organization

1) Number of staff

2,712 persons

2) Amount of the annual budget in 2008
3,321.487 Million Bath

3) Organizational chart



4) Ongoing projects

-

(5) Main events in 2008

Expo Zaragoza 2008

Thailand attended the Expo Zaragoza 2008 at Zaragoza, Kingdom of Spain during 14th June – 14th September 2008. The Cabinet has approved in principle and assigned the Department of Water Resources as the core responsible agency to handle the exhibition under the theme “Water and Sustainable Development”. This is to celebrate His Majesty the King “The Father of Water Resources Management” on the auspicious occasion of His Majesty 80th Birthday Anniversary 5th December 2007. This exposition also aims to disseminate the good image of Thailand to the world population on the way of Thai life, culture, tradition and innovation of Thailand in sustainable water resources management.

Development of Surveillance, Forecasting and Early Warning Systems

The Department of Water Resources under the Ministry of Natural Resources and Environment has been approved by the Cabinet to install the early warning system in the flood and landslide risk areas at the mountainous slope villages all over the country covering 2,300 villages. The priority for installation is considered by risky level. In the fiscal year 2008, implementation 134 stations, and the total stations for implementation cover risky areas until year 2008 are 591 stations.

Solution for Water Shortage for Domestic use and Consumption

As the Cabinet’s Resolution on 28th June 2005 approved in principle of Project of Problem Solution for Water Shortage for Domestic and Consumption, the Department of Water Resources, Ministry of Natural Resources and Environment, was assigned to implement the Project. This project aims to provide clean water for villages without water supply system or villages with existing ones but unable to produce sufficient water or not in properly function and this project implemented for village water supply system that supply sufficient water in every villages all over the country, 3,225 unit, in 2008 completely.

Water Allocation

The Department of Water Resources has implemented the Bang Pakong Dialogue since 2003 with support from ADB’s RETA. This project aims to development and practice of integrated water resources management by participatory approach. In 2008, the Department of Water Resources has implemented the project titled “Water Allocation in the Bang Pakong-Prachin Buri River Basin” immediately after completion of the Bang Pakong Dialogue. Water allocation model is used for consideration of basin committees

for water management in basin and the project will be completed in 2009.

2. About NARBO activity

(1) The contact person and organization's web-site

1) The name, position, phone & fax number, e-mail address of the contact person

Contract person: Ms. Sukontha Aekaraj

Director, Foreign Relation Branch, Department of Water Resources,
Ministry of Natural Resources and Environment

e – mail: sukontha_a@dwr.mail.go.th , s.aekaraj@gmail.com , saekraj@hotmail.com

Tel : +66 22986604 , +66 92058061 (Mobile) Fax : +66 22986604

2) The organization's web-site URL (English and local language respectively)

www.dwr.go.th

(2) Activities your organization implemented in 2008 as the member

- Arrangement of the 4th thematic workshop on Sustainable Management for Water Resources Infrastructures on 4 – 7 February 2008, Bangkok, Thailand.
- Participation in the 2nd Thematic Workshop on Water-Related – Related Disaster and its management in Asian Countries 7 – 10 October 2008, Manila, Philippines.
- Attending NARBO 3rd General Meeting on 19 – 23 February 2008, Solo, Indonesia.

(3) Resolutions and expectations for NARBO activities in 2008

1. Your organization's resolutions

Department of Water Resources has promoted water allocation system at the river basin level. In one of NARBO's thematic workshop on "Water Allocation" the representative Thailand proposed an implementation of water allocation in the Bang Pakong river basin to be a pilot case and this was and has been continuously implemented throughout 2008 and 2009.

2. Expectation of NARBO activities.

At the river basin in order to promote IWRM, planning for an investment in water infrastructure in a participatory approach is a very important step to achieve a well planned water resources development. This area is recommended to be a future plan for NARBO activities.

(7)General Office for River Basin Organization
Department of Water Resources (DWR)
Ministry of Agriculture and Rural Development (MARD)

Date of preparation: 20/4/2009

Name of the editor: Doan Thi Tuyet Nga

1. About the organization

(1) Name of the organization and postal address of the office

General Office for River Basin Organization
Department of Water Resources (DWR)
Ministry of Agriculture and Rural Development (MARD)
N^o 2, Ngoc Ha str., Ba Dinh dist., Ha Noi city, Vietnam.

(2) The representative of the organization

Mr. Vu Van Thang – General Director of Department of Water Resources – Ministry of Agriculture and Rural Development

(3) Purposes and roles of your organization

a) Historical background of the organization

As defined by the decision by the Minister of MARD on functions, tasks, powers and organizational arrangements, the Department Water Resources has following functions:

- + The Water Resources Department is an agency under the control of MARD - Vietnam, performing the function of state management over the water resources profession in the whole nation.
- + The Department has its legal entity, own seal, operational funds and its account is opened in accordance with the legal regulations. The Department is located in the capital city of Hanoi.

b) Purposes and roles of the organization

- As defined by the decision by the Minister of MARD on functions, tasks, powers and organizational arrangements, the Department Water Resources has following functions:
 - + The Water Resources Department is an agency under the control of MARD - Vietnam, performing the function of state management over the water resources profession in the whole nation.
 - + The Department has its legal entity, own seal, operational funds and its account is opened in accordance with the legal regulations. The Department is located in the capital city of Hanoi. Develop plans for synthesized exploitation of water resources facilities;

- Development plans, train in the formulation of investment project, preside the appraisal and implement investment in projects on repairing and upgrading water resources facilities in compliance with assignments of Minister;
- Develop operation processes of inter-provincial water resources facilities and steers the safe operation of water resources facilities;
- Take part in the planning, plans, projects on developing dike facilities and facilities for flood and storm control and prevention.
- Steer the prevention, control and management of drought, inundation, salty water invasion.

(4) Outline of the organization

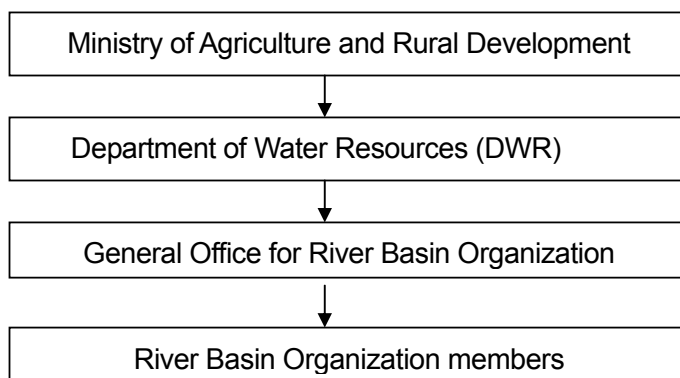
1) Number of staff:

18 members

2) Amount of the annual budget in 2008:

500.000.000 VND

3) Organizational chart



4) Ongoing projects

-

(5) Main events in 2008

- Together with General office for river basin planning management promote bilateral co-operation between NARBO and river basin organizations of Vietnam. In 2008, Department of water resources introduced and proposed Vu Gia - Thu Bon river basin planning management Board, Ca river basin management Council, Cau, Day Sub-river basin planning management Board to NARBO as its official members.
- To enhance capacity building for staffs doing river basin management work, in 2008, Department of water resources has organized mission to China to visit and work at Hoang river basin management Board, to get to know water fee policy at Ministry of

water resources. Members of this mission are delegated from whole river basin management Boards and member of Hong – Thaibinh river basin planning management Board took part in. It can be said that, this is one of promised events for future bilateral cooperation between Vietnam and China in the field of river basin management.

- Coordinating with Japan water agency to enhance experiences exchange, training for staffs of both countries.

2. About NARBO activity

(1) The contact person and organization's web-site

1) The name, position, phone & fax number, e-mail address of the contact person

Mrs. Doan Thi Tuyet Nga

Chief of Science, Technology and Environment division – DWR – MARD.

Tel: 84-4-37335707

Fax: 84-4-37335702

Email: rbovn.tl@mard.gov.vn, ngadt.tl@mard.gov.vn

2) The organization's website URL (English and local language respectively)

Website: www.mard.gov.vn/thuyloi

(2) Activities your organization implemented in 2008 as the member

- Coordinating with Committee of river basin management to enhance information exchange, propaganda for activities of river basin management to people and concerned agencies as well as enhancing international cooperation in river basin management in Vietnam.
- Coordinating with line agencies in MARD to set up project: "plan for preventing and controlling natural disaster, responding and mitigating negative impacts of climate change.
- Coordinating with appropriate authorities to organize workshop on impacts of climate change on water resources of 07 big river basins in Vietnam.
- Coordinating with appropriate authorities to organize workshop on impacts of climate change on inundation of some big cities in central area of Vietnam.
- Taking part in national consulting workshop on water quality of Vietnam Mekong River Commission.
- Joining and coordinating with international organizations such as ADB, AFD, WB, JICA... to deploy research projects about impacts of climate change on hydraulic structure systems.
- Coordinating with Units in Department of water resources to build water law.
- Researching solutions for water supply for Islands.

(3) Resolutions and expectations for NARBO activities in 2008

1) Your organization's resolutions

- Coordinating closely with Ministries, Agencies, provincial Department of Agriculture and Rural development to execute functions and Tasks on river basin management.
- Coordinating with Department of Agriculture and Rural development of provinces to set up water resources planning projects, water supply and rural environmental sanitation planning, detail flood control planning for rivers...
- Organizing some field trips to provinces to know about present situation of water use development of regions in river basins, from whence setting up solutions and implementing integrated water resources planning and management in the future.
- Coordinating with line agencies in MARD, concerned Ministries and Agencies in flood and storm control and disaster mitigation.
- Disseminating and propagandizing information on Website of Department of water resources and other means of communications. Publishing reports about activities as well as documents, decrees which are related to water resources management.
- Coordinating with river and sub-river basin planning and management Boards aim at setting up solutions to implement integrated water resources planning management of Basins.
- Maintaining relations and taking part in all activities of Asian river basin organizations network positively.

2) Expectations of NARBO activities

- Often providing information about activities of Asian river basin organizations network.
- Arranging field trips to countries which their river basin management is at high level in order to study, exchange experiences.
- Supporting and helping organization's members in training staffs.

3. Questions to RBO members

(1) Areas which your organization has improved the performance in 2008

Climate change impacts negative on water resources and other areas. It's complicated issue to need having a lot detail investigation programs.

(2) The way in which your organization was able to do so

To strengthen more cooperative information exchange between NARBO countries.

(3) In what way NARBO has helped your organization

Vietnam GO of NARBO is coordinating with line agencies in MARD to set up project: "plan for preventing and controlling natural disaster, responding and mitigating negative impacts of climate change.

(8)Global Water Partnership Southeast Asia (GWP-SEA)

Gedung Utama Lama Lantai 3 – Ditjen SDA, Dep.PU

Date of preparation: / /2009

Name of the editor: Djoko Sasongko

1. About the organization

(1) Name of the organization and postal address of the office

Global Water Partnership Southeast Asia (GWP-SEA)
Gedung Utama Lama Lantai 3 – Ditjen SDA, Dep.PU
Jalan Pattimura No. 20 , Kebayoran Baru Jakarta 11210

(2) The representative of the organization

Mr.Siswoko Sastrodihardjo
Chair of GWP-SEA

(3) Purposes and roles of your organization

a) Historical background of the organization

The formation of a Southeast Asia Technical Advisory Committee (SEATAC) comprising initially of 8 selected experts from Indonesia, Malaysia, Philippines, Thailand, and Vietnam was seen as a first step towards the process of formation of a regional water partnership. Cambodia and the Lao People's Democratic Republic joined in 2000 and Myanmar joined in 2003.

The GWP-SEA regional water partnership was established in the year 2004 to take over SEATAC's role in the region.

b) Purposes and roles of the organization

The mission of GWP- SEA is to encourage, support, facilitate member countries in achieving sustainable water for all through the Integrated Water Resources Management (IWRM) approach.

The objective of GWP-SEA is to promote the principles of integrated water resources management and to that end:

- a) Identify critical needs of the region and riparian countries and stimulate Partners to meet the needs within their available human and financial resources;
- b) Support action at regional, national, local or river-basin level that will lead to the adoption and implementation of the principles of integrated water resources management;
- c) Help match needs to available resources;
- d) Strengthen mechanisms for sharing information and experience.

(4) Outline of the organization

1) Number of staff

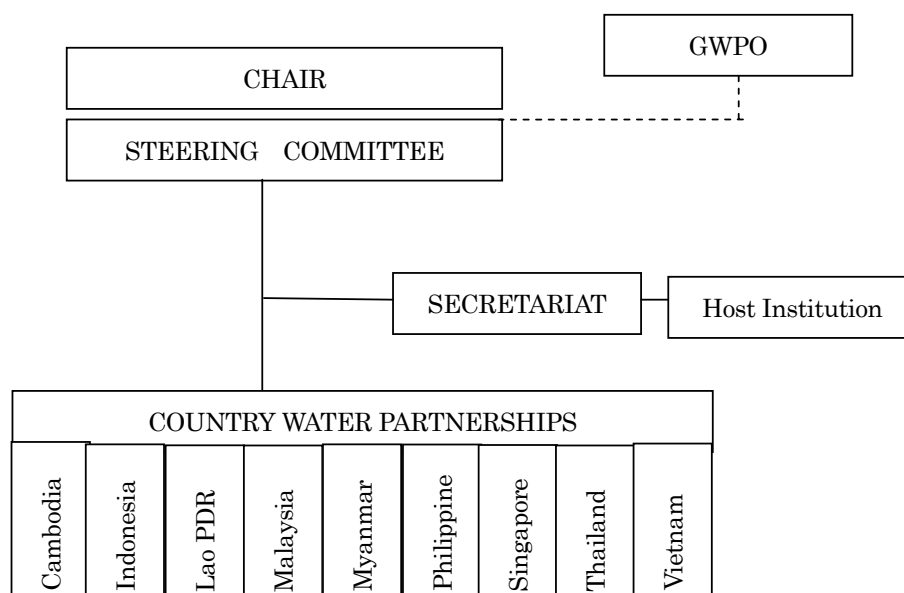
The organization is basically a loose network :

- Part-time activists at SEA and Country Steering Committee and Executive boards
- No permanent staff at all levels
- Two full time staff at SEA Regional Water Partnership
- Almost no full time staff at Country Water Partnership, but in a few countries

2) Amount of the annual budget in 2008

USD 477,000

3) Organizational chart



4) Ongoing projects

2009 activities based on annual Work Plan mostly comprising of workshops, meetings and trainings at regional and country levels

(5) Main events in 2008

2009 activities based on annual Work Plan mostly comprising of workshops, meetings and trainings at regional and country levels

2. About NARBO activity

(1) The contact person and organization's web-site

- 1) The name, position, phone & fax number, e-mail address of the contact person

Djoko Sasongko

GWP-SEA Program Coordinator

Phone and Fax . +62 21 739 6792 , E-mail : djoko@gwpsea.org, dsas@cbn.net.id

- 2) The organization's website URL (English and local language respectively)

<http://www.gwpsea.org>

(2) Activities your organization implemented in 2008 as the member

- Implemented workshops, seminars and trainings on IWRM at national level.
- Supported RBO formation and development
- Developed IWRM ToolBox.

(3) Resolutions and expectations for NARBO activities in 2008

- 1) Your organization's resolutions

GWP-SEA will continuously undertake its core activities to implement efforts to promote IWRM at regional, national, local and river basin level.

- 2) Expectations of NARBO activities

It is expected that NARBO will cooperate in workshops, seminars and training on IWRM implementation at river basin level organized by GWP-SEA.

One important event is Workshop on River Basin Organization and Management which will be organized by GWP-SEA in cooperation with DGWR of Indonesia , in Jogjakarta, Indonesia from 18 – 19 June 2009 where NARBO is expected to sponsor participants from SEA countries.

3. Questions to RBO members

(1) Areas which your organization has improved the performance in 2008

Generate better understanding and commitments from government organizations to develop enabling environment for IWRM and to reform IWRM institutions

(2) The way in which your organization was able to do so

Organized IWRM workshops and trainings.

(3) In what way NARBO has helped your organization

Not yet in 2008

(9) Asian Development Bank Institute (ADBI)

1. About the organization

(1) The representative of the organization

Dr. Masahiro Kawai, Dean, ADB

(2) Number of staff

As of March 2009, 45 people work with the Dean at ADBI. There are also some on- and off-site consultants.

(3) Amount of the annual budget in 2008

The approved budget for 2008 was \$14.8 million.

(4) Main events in 2008

The Institute carried out numerous events relating to research and capacity building and training activities. With regard to the events, please see the Institute's website.[<http://www.adbi.org/>].

2. About NARBO activities

(1) The organization's web-site URL

[<http://www.adbi.org/>] (English)

(2) Activities the organization implemented in 2008 as the member

- Placement of JWA staff

In order to promote the NARBO activities and research to propose future action plans for NARBO, ADBI accepted the placement of a staff from Japan Water Agency (JWA), Michitaro Nakai. He has served at ADBI as NARBO Associate since May 2005. Then Tadashige Kawasaki started working at ADBI since April 2008 as a successor of Mr. Nakai. The NARBO Associate contributes not only to the research activities on water resources management in the Asia-monsoon region but also to the capacity building activities such as NARBO Thematic Workshop on Water-Related Disaster Management and preparation for the 5th IWRM Training.

(3) Resolutions and expectations for NARBO activities in 2009

1) The organization's resolutions

Following the activities of 2008, the Institute will continue to perform the role of secretariat with NARBO aggressively, especially in IWRM Training.

2) Expectations of NARBO activities

The Institute expects more interactive activities for sharing information and experiences among NARBO member countries, which will promote regional cooperation and improve governance in the relevant area.

(10)International Research and Training Center on Erosion & Sedimentation (IRTCES)

Date of preparation: 22 / March /2009

Name of the editor: Zhang Yanjing

1. About the organization

(1) Name of the organization and postal address of the office

International Research and Training Center on Erosion & Sedimentation (IRTCES)

P.O. Box 366, 20 Chegongzhuang West Rd.Beijing, 100048, China

(2) The representative of the organization

Dr. Prof. Hu Chunhong , Secretary General

(3) Purposes and roles of your organization

a) Historical background of the organization

The International Research and Training Center on Erosion and Sedimentation (IRTCES) was jointly set up on July 21, 1984, in Beijing according to the agreement of the Government of China and UNESCO, which was renewed in November 2005. The Ministry of Water Resources is the governmental executive agency. Since its founding, IRTCES has devoted itself to research and training to solve scientific and engineering problems related to erosion and sedimentation.

b) Purposes and roles of the organization

Functions of IRTCES are as follows:

- ✧ To promote the scientific research, training and information exchange on erosion and sedimentation, and related fields ;
- ✧ To coordinate the cooperative research activities and to provide facilities for laboratory and field work for the experts;
- ✧ To organize international and regional training courses, symposia or workshops, study tours and lecturing activities; serve as the Secretariat for the International Symposium on River Sedimentation;
- ✧ To serve as secretariat of WASER & UNESCO-ISI technical secretariat;
- ✧ To undertake and organize domestic research projects on sediment related problems, and publish the "International Journal of Sediment Research", monographs and circulars etc. in English.

(4) Outline of the organization

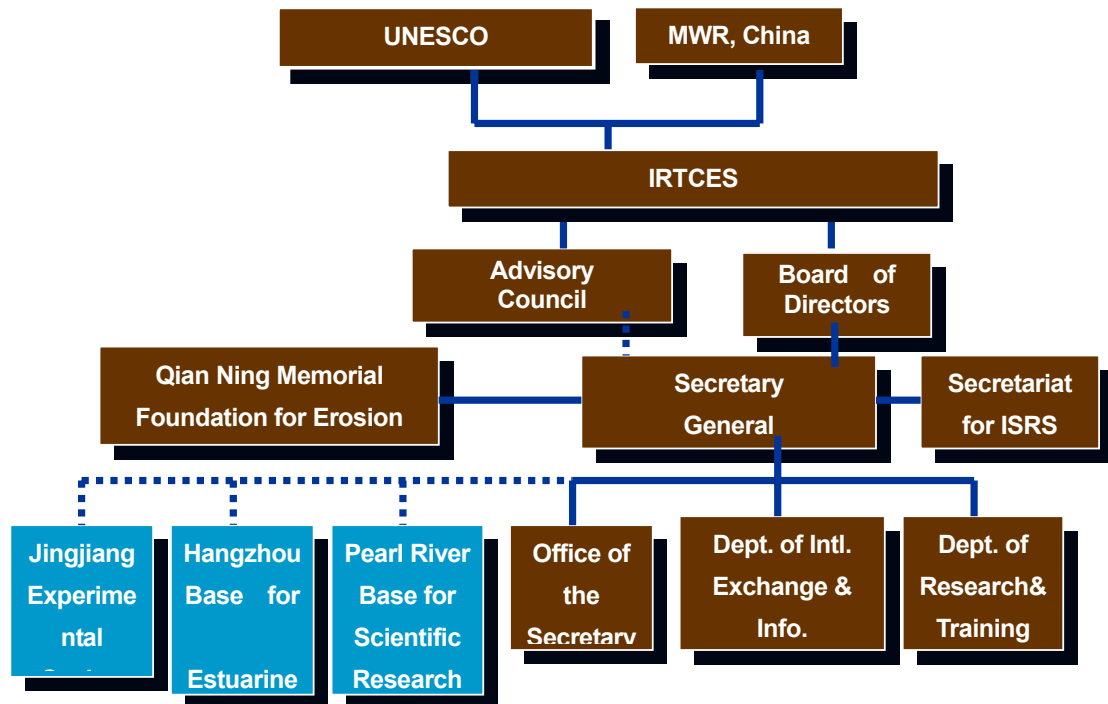
1) Number of staff

15 staff

2) Amount of the annual budget in 2008

US\$300,000

3) Organizational chart



4) Ongoing projects

➤ **Conferences**

- ✓ Serving as the permanent secretariat for International Conference on Estuaries and Coasts, IRTCES is helping to organize the 3rd ICES to be held in Sept.2009 in Sendai, Japan.
- ✓ Serving as the permanent secretariat for the International Symposium on River Sedimentation, IRTCES is helping to organize 11th ISRS to be held in Sept.2010 in South Africa.

➤ **Scientific researches**

- ✓ Variation Mechanism of River Channel Pattern below Large-Scale Hydro Project.
- ✓ Optimal Allocation of Water and Sediment in Rivers and Regulation Measures of Maintaining River Health.
- ✓ Theories on Allocation of Water and Sediment Resources.
- ✓ Ecological Hydrology Regulation on Ecological Safety in Areas of Dry River Valley after Operation of Western Route of South-to-North Water Transfer Project.

- ✓ Organizing and Supervising Research Works on Key Sediment Problems on Three Gorge Project.
- **Update and Maintenance of the IRTCES's Web**

(5) Main events in 2008

- **Organizing International and Domestic Conferences**
 - ✓ The 6th International Sediment Initiative Steering Committee Meeting and Workshop were successfully held in Beijing on November 5-7, 2008.
 - ✓ 3rd US-China Workshop on Advanced Computational Modeling in Hydro science and Engineering was successfully held on May 13-16, 2008, at Honolulu Hawaii, USA. in cooperation with the National Center for Computational Hydro science and Engineering.
 - ✓ Serving as permanent secretariat for International Conference on Estuaries and Coasts, IRTCES is helping to organize the 3rd ICES to be held in Sept.2009 in Sendai, Japan.
 - ✓ Serving as the permanent secretariat for the International Symposium on River Sedimentation , IRTCES is helping to organize 11th ISRS to be held in Sept.2010 in South Africa.
 - ✓ Assisting organizing High-level International Forum on Water Resources and Hydropower held on Oct.17-18.2008, Beijing, China.
 - ✓ Assisting organizing 7th National conference on Basic Theory on Sediment Movement held on Oct.28-30, 2008 in Xi'an, China. The Award of Qian Ning Prize for Erosion and Sedimentation Technology was issued during the conference. The Prize was set up by IRTCES.
- **International exchange**
 - ✓ A representative from IRTCES participated in the 2nd Regional Meeting of the Asia-Pacific Water Forum's Network of Regional Water Knowledge Hubs was held on April 2-4, 2008, Singapore.
 - ✓ On April 24, 2008, a group of Chinese delegation led by Prof. HU Chunhong, Secretary General and Deputy Director of IRTCES, visited University of Padova in Italy for academic communication on invitation of Prof. Giampaolo Di Silvio.

- ✓ Representatives from IRTCES participated in International Workshop - Erosion, Transport and Deposition of Sediments in Berne, Switzerland, April 28-30.
- ✓ A Seminar on Impact of Climate Change on Water Resources was organized in the Ministry of Water Resources of China (MWR) by the Chinese National Committee for IHP on May 26, 2008. The representatives from MWR, UNESCO, Bureau of Hydrology MWR, Chinese National Committee for IHP, International Research and Training Center on Erosion and Sedimentation (IRTCES), Yellow River Conservancy Commission (YRCC), Institute of Geography CAS, Tsinghua University, Beijing Normal University and Changjiang Water Resources Commission participated in the seminar.
- **Training Course**
 - ✓ IRTCES organized Advanced Training Course on River Regulation and Flood and Disaster Mitigation, on Sept.21-29, at Three Gorge University, including classroom lectures and a field tour to the Three Gorge Project.
- **Scientific Researches**
 - ✓ Construction of Global River Sediment Information Database. The project consists of two parts: Construction of Database, Research work on Global Water and Sediment Variation in Rivers and Impacts of Hydro Projects on River Health.
 - ✓ Technology of Integrated Regulation for Sediment Disasters in Irrigation Areas of Yellow-Huai-Hai Plains.
 - ✓ Variation Mechanism of River Channel Pattern Below Large-Scale Hydro Project.
 - ✓ Optimal Allocation of Water and Sediment in Rivers and Regulation Measures of Maintaining River Health.
 - ✓ Theories on Allocation of Water and Sediment Resources.
 - ✓ Ecological Hydrology Regulation on Ecological Safety in Areas of Dry River Valley after Operation of Western Route of South-to-North Water Transfer Project.
 - ✓ Organizing and Supervising Research Works on Key Sediment Problems on Three Gorge Project.
- **Information Exchanges**
 - ✓ Editing and Publishing China River Sediment Gazette (2007).

- ✓ Editing and Publishing “International Journal of Sediment Research”, the Journal became Source of SCI in 2008.
- ✓ Update and Maintenance of the IRTCES’s Web
- ✓ IRTCES is in charge of three webs:
 - ① <http://www.irtces.org/> “International Network on Erosion and Sedimentation” “国际泥沙信息网”;
 - ② <http://www.waser.cn/> “World Association for Sedimentation and Erosion Research” “世界泥沙学会”;
 - ③ <http://www.irtces.org/isi/> “International Sediment Initiative” “国际泥沙项目” .

2. About NARBO activity

(1) The contact person and organization’s web-site

- 1) The name, position, phone & fax number, e-mail address of the contact person

Zhang Yanjing, Prof. Senior Engineer,

Tel: 8610-68786409, mobile: 86-13801130762

Fax: 8610-68411174,

Email address: zhangyj@iwhr.com, z.yanjing@yahoo.com

- 2) The organization’s web-site URL (English and local language respectively)

<http://www.irtces.org/> International Network on Erosion and Sedimentation

国际泥沙信息网

(2) Activities your organization implemented in 2008 as the member

- ✓ Participating in the 3rd general meeting of NARBO in Solo/ Surakarta, Indonesia on Feb.20-22, 2008, IRTCES became a member of NARBO.
- ✓ Participating in the 1st Meeting of Regional Water Knowledge Hub and Workshop on River Basin Management, 15-17 October 2008 Zhengzhou, China.

(3) Resolutions and expectations for NARBO activities in 2009

- 1) Your organization’s resolutions

As an Inter-Regional Knowledge Partner (IRKR) member of NARBO, we are going to participate in following activities and make our contributions to NARBO.

- ✓ Exchanging case study and research results related with IWRM
- ✓ Participating in 4th general meeting of NARBO
- ✓ Participating in construction of Knowledge Networking

- 2) Expectations of NARBO activities

It is hoped that cooperation and exchanges among NARBO members could be strengthened, knowledge, experience, information and database can be shared.

(11) ADB

3. About the organization

(1) Name and address of the organization

Asian Development Bank (ADB)	
Postal Address	Street Address
P.O. Box 789 0980 Manila, Philippines	6 ADB Avenue, Mandaluyong City 1550, Philippines
Telephone No.: + 632 632 4444 (connecting all Depts./Offices)	

(2) Organization's representative to NARBO

Wouter T. Lincklaen Arriens

Lead Professional (Water Resources Management)

Sustainable Infrastructure Division (RSID)

Regional and Sustainable Development Department (RSDD)

Asian Development Bank

and

NARBO Vice Secretary General

Tel (632) 632-6754

Fax (632) 636-2444

Email: wlincklaenarriens@adb.org

(3) Background of Organization

Historical background. The ADB was conceived amid the postwar rehabilitation and reconstruction of the early 1960s - the vision was of a financial institution that would be Asian in character and foster economic growth and cooperation in the region. The Philippines capital of Manila was chosen to host the new institution, which opened its doors on 19 December 1966 with 31 members. Through the years, ADB's work and assistance levels have expanded alongside its membership as the region has undergone far-reaching changes. From 31 members at its establishment, ADB has grown to 67 members – of which 48 are from within the Asia and Pacific region, and 19 outside. See <http://www.adb.org/About/history.asp>

Purpose and role. ADB is an international development finance institution. ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries substantially reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two thirds of the world's poor: 1.8 billion people who live on less than \$2 a day, with 903 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through

inclusive economic growth, environmentally sustainable growth, and regional integration. See <http://www.adb.org/About/default.asp>

Number of staff. ADB's staff numbers around 2,000, coming from around 67 member countries, including 48 from the region.

Amount of the annual budget in 2008. In 2008, ADB approved loans worth \$10.5 billion for 86 projects, most of which went to the public sector. Technical assistance, which is used to prepare and implement projects and support advisory and regional activities, amounted to \$274.5 million. Grant-financed projects totaled \$811.4 million. See <http://www.adb.org/About/operations.asp>.

Projects. ADB works in partnership with governments and public and private enterprises in its developing member countries on projects and programs that will contribute to economic and social development, based on the country's needs and priorities. ADB extends loans and TAs to its DMCs for a broad range of development projects and programs. See <http://www.adb.org/Projects/>.

Organizational Structure. The highest decision making tier at ADB is its Board of Governors, to which each of ADB's 67 members nominate one Governor and an Alternate Governor to represent them. The Board of Governors meets formally once a year at an Annual Meeting held in a member country. The Governors' day to day responsibilities are largely delegated to the 12-person Board of Directors, which performs its duties full time at ADB's HQ in Manila. The ADB President, under the Board's direction, conducts the business of ADB. The President is elected by the Board of Governors for a term of five years and may be reelected. See <http://www.adb.org/About/management-staffing.asp> for details. View full organizational chart at http://www.adb.org/About/ADB_Organization_Chart.pdf.

4. About NARBO Activity

(1) The contact person and organization's web-site

Lead Professional (Water Resources Management)
Sustainable Infrastructure Division (RSID)
Regional and Sustainable Development Department (RSDD)
Asian Development Bank
and
NARBO Vice Secretary General
Tel (632) 632-6754
Fax (632) 636-2444
Email: wlincklaenarriens@adb.org
<http://www.adb.org/water>

(2) NARBO activities your organization implemented/supported in 2008

ADB, as member of the NARBO Secretariat together with Japan Water Agency and ADB Institute,

has played a key role in NARBO activities. In 2008, ADB continued its support to the network to improve water governance and to help achieve IWRM in river basins throughout Asia. ADB provided expertise through exchange of information and experiences, and technical advice.

Performance Benchmarking of River Basin Organizations and River Basins. ADB recognizes the vital leading and facilitating roles that RBOs play in managing river basins, and the need for performance improvement so that RBOs can better meet increasing challenges in the water sector. NARBO's performance benchmarking service for RBOs, launched in September 2005 after a one-year participatory design process, is expected to enable RBOs to track its progress, to enable comparisons with the performance of other organizations; and to improve the efficiency and effectiveness of their service delivery. The pilot performance benchmarking and peer reviews were completed for Jasa Tirta 2 in Indonesia, Laguna Lake Development Authority in Philippines, Red RBO in Viet Nam, and Mahaweli Authority of Sri Lanka. A fifth pilot was completed for Balai Besar Citarum in Indonesia during the 1st quarter of 2008. ADB also supported the development of a complementary methodology for basin performance indicators, in collaboration with the University of Tokyo. ADB supported the pilot implementation of the basin performance indicators in the Citarum river basin in Indonesia and the Laguna Lake in the Philippines. The first two pilots focused on three basin status indicators: (i) water utilization (recreational water quality and raw water quantity); (ii) disaster vulnerability (flood vulnerability and chemical spills); and (iii) environmental management (environmental water quality and biodiversity).

Publication: Water Rights and Water Allocation – Issues and Challenges for Asia. The topic of water rights is of great interest to NARBO members as it helps to introduce IWRM in river basins. Water rights emerged as the top-ranked topic in a survey of training needs carried out among NARBO members. In response, NARBO initiated a series of four workshops on the theme of water allocation and water rights starting December 2005, in partnership with NARBO member organizations from Indonesia, Lao PDR, the Philippines, Thailand, Viet Nam and subsequently Sri Lanka. ADB supported the sequence of workshops held in Hanoi, Manila, and Bangkok; including the fourth held in Saitama, Japan in January 2007, and a culminating workshop on water rights held at ADB's Headquarters in May 2007. These workshops served as foundation in crafting a knowledge product on water rights: Water Rights and Water Allocation – Issues and Challenges for Asia which is expected to assist RBOs in introducing or implementing effective and efficient water rights system.

Workshop on Water-Related Disaster and its Management in Asian Countries. Natural disasters (e.g. floods, droughts, landslides, volcanic eruptions, earthquakes, tsunami, typhoons, hurricanes, cyclones and other extreme weather phenomena) have hit monsoon Asia in recent years, inflicting losses to human lives and to the economies of countries of NARBO member organizations. NARBO decided to carry out a series of workshops on the theme of water-related disaster management, whose goals are (i) to evaluate the issues, challenges, and strategies; and (ii) to develop capacity of key organizations for water-related disaster management by providing basic concepts and principles, sharing country experiences, and formulating an action plan. ADB supported two workshops on

water-related disaster (i) 1st workshop held in Indonesia from 25-28 November 2007, and (ii) 2nd workshop held in Manila from 6-10 October 2008.

3rd General Meeting of NARBO, Solo, Indonesia, 20-22 February 2008. ADB supported the general meeting which was participated by 93 water professionals from 19 countries and 52 organizations, including river basin organizations, government agencies, academic institutions, regional knowledge partners, and multilateral financing institutions. On the first day, participants familiarized themselves with the implementation of IWRM issues in the host Bengawan Solo River Basin for which two study visits in the basin were organized to study two specific issues, one on sedimentation, and the other on institutional aspects of integrating IWRM into planning and implementation. On the second day, participants exchanged experiences and learned from three workshops on IWRM: (i) Measuring the Performance of RBOs and River Basins (ii) Managing Assets and Risks, and (iii) Exploring New Challenges in IWRM. On the 3rd day, the NARBO General Meeting was held, which charted directions for NARBO for the next two years.

NARBO Technical Advisory Committee. NARBO is keen to improve the quality and credibility of its annual training program on IWRM to the level of a prestigious regional flagship program. At NARBO's 3rd General Meeting in Indonesia last February 2008, NARBO agreed to establish the Technical Advisory Committee (TAC) which will review and advise NARBO's leadership and secretariat in revamping the training program, based on experience gained by NARBO over the past four years and taking into account approaches and experiences by other training providers. ADB helped in establishing the NARBO TAC; and supported the conduct of the 1st NARBO TAC Meeting in Singapore last 5 April 2008, back-to-back with the meeting of the regional water knowledge hubs.

Regional Workshop on Developing Partnerships for Water and Climate Change Adaptation, Selangor, Malaysia, 1-5 December 2008. ADB supported this workshop which helped to increase understanding of impact of climate change on water management; developed partnerships for better results in climate change projections, impact assessments, and adaptation strategies; and helped clients formulate projects for 2009 with support of the regional knowledge hub NAHRIM and its partners

NARBO Secretariat Meetings. ADB participated in NARBO Secretariat meetings with either JWA and/or ADBI on several occasions in 2008, which discussed measures to improve planned activities of NARBO.

Promoting NARBO in Regional Events. ADB participated in regional events on water which provided the opportunity to promote NARBO and its activities.

(3) Resolutions and expectations for NARBO activities

ADB will continue to play a key role in NARBO, providing financial support, guidance and direction to its activities (including training program, thematic workshop, performance benchmarking of RBOs,

newsletter, web site, etc.) as provided for in the NARBO Action Plan. ADB expects NARBO to significantly improve its activities in the coming years, with increased cooperation from member organizations.