

REPORT

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 Third 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.

Two years have past, the number of members increased from 43 to 56 as of January 16, 2006. (At the end of the Second General Meeting)

Various NARBO activities had been conducted from January 2005 to the end of the Second General Meeting (February 2006) and those activities are summarized in this 2005 NARBO annual report.

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, and 2003, 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 at basin level with the involvement of stakeholders at the basin level. The water conference in Dublin in 1992 referred to the need to manage 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 improving 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 (recently reconstituted as the Japan Water Agency), 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 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 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 a NARBO General Meeting.

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

(3) Charter

NARBO Charter is like a constitution because it stipulates NARBO organization and activities. The charter was presented and explained by NARBO Secretariat on February 23, the first day of the First General Meeting, 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 and February 2006 (At the Second General Meeting) in an effort to make it to be complete.

About the whole NARBO Charter, please refer to Appendix 1

(4) Action Plan

The action plan 2006-2007 was formulated by eight principles based on the lessons learnt in the past 2 years' activities. And some of the activities were prioritized to tackle with them more

intensively. The action plan was proposed by the secretariat at the 2nd General Meeting on February 16, 2005. The prioritized activities are as follows.

- Activities for Sharing / Exchange of information
- IWRM Training Program
- Performance Benchmarking
- Thematic Workshop
- Twinning Program
- Discussion for Case Study on Site
- Charting IWRM Progress in Asia
- Facilitating IWRM Investment Project

Detailed information, please see “2. The Second General Meeting”

About the whole NARBO Action Plan (2006-2007), please refer to Appendix

(5) Members

At the First 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 First 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 Second General Meeting (February 14-16, 2006) in Indonesia.

As of February 16 2006, the number of members is 56 and the number of countries is 12. (Bangladesh, Cambodia, India, Indonesia, Japan, Korea, Laos, Malaysia, Philippines, Sri Lanka, Thailand

and Vietnam)

If an organization wants to become a member, that organization gets the application form from NARBO web-site.

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

[The list of NARBO members]

As of April 21, 2006

	Member	Interest
River Basin Organization (RBO)	16	2
Government Organization (GOV)	21	4
Regional Knowledge Partner (RKP)	15	1
Inter Regional Knowledge Partner (IRKP)	3	0
Development Cooperation Agency (DCA)	1	0
Total	56	7
Contacted Organization and Others		1

River Basin Organizations (RBOs)

Classification		Country		Organization
Member	RBO	Bangladesh	M	Bangladesh Water Development Board
		Indonesia	M	Jasa Tirta I Public Corporation
		Indonesia	M	Jasa Tirta II Public Corporation
		Indonesia	M	Jragung-Tuntang Basin Water Resources Management Unit (BWRMU) (Balai PSDA Jragung-Tuntang)
		Japan	P	Japan Water Agency (JWA)
		Korea	M	Korean Water Resources Corporation (KOWACO)
		Lao PDR	M	Nam Ngum River Basin Development Sector Project
		Malaysia	M	Selangor Water Management Authority
		Philippines	M	Laguna Lake Development Authority (LLDA)
		Sri Lanka	M	Mahaweli Authority of Sri Lanka
		Vietnam	M	General Office for RBOs in Vietnam
		Vietnam	M	Cuu Long & Dong Nai River Basin Organization
		Vietnam	M	Red River Basin Organization
		Vietnam	M	Day River Basin Organization
		Vietnam	M	Vu Gia Thubon River Basin Organization
		Mekong region	M	Mekong River Commission Secretariat

Governmental Organizations (GOs)

Classification		Country		Organization
Member	GOV	Bangladesh	M	Local Government Engineering Department, Ministry of Local Government, Rural Development and Cooperatives
		Cambodia	M	Ministry of Water Resources and Meteorology
		Cambodia	M	Department of Hydrology and River Works
		Indonesia	M	Directorate General of Water Resources
		Indonesia	M	West Nusa Tenggara Regional Office of Settlement and Regional Infrastructure (Dinas Kinitraswi Provinsi NTB)
		Indonesia	M	Bengawan Solo River Basin Development Project
		Indonesia	M	Jeneberang River Basin Project
		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	M	Water Resources Department, Land and Water Bureau, Ministry of Land, Infrastructure & Transport
		Lao PDR	M	Water Resources Coordination Committee Secretariat
		Malaysia	M	Department of Irrigation and Drainage
		Philippines	M	National Water Resources Board
		Philippines	M	Department of Environment and Natural Resources
		Sri Lanka	M	National Water Resources Authority
		Thailand	M	Department of Water Resources, Ministry of Natural Resources and Environment
		Vietnam	M	Department of Water Resources Management, MoNRE (General Office for RBO, WRD MARD))
		Vietnam	M	Sub Institute for Water Resources Planning
		Vietnam	M	Department of Natural Resources and Environment of Dong Nai Province

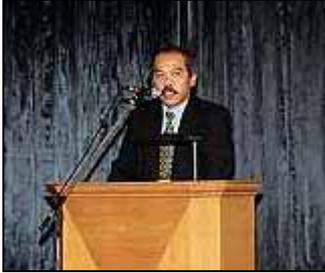
**Regional Knowledge Partner (RKP), Interregional Knowledge Partner (IRKP),
Development Cooperation Agency (DCA)**

Classification		Country		Organization
Member	RKP	Southeast Asia	M	Global Water Partnership (GWP) SEARWP (Malaysia)
		South Asia	M	Global Water Partnership (GWP) SAS RWP (Bangladesh)
		South Asia	M	South Asia Network of River Basin Organization (SASNET-RBO)
		Bangladesh	M	Institute of Water Modeling (IWM)
		Thailand	M	Thailand Water Resources Association (TWRA)
		Indonesia	M	Indonesia Water Partnership
		Indonesia	M	The Foundation on Water Affairs ADHI EKA
		Indonesia	M	Faculty of Engineering, Brawijaya University
		Indonesia	M	Research Institute for Water Resources
		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
		Australia	M	The World Wildlife Fund International (WWF International)
		India	M	CapNET South Asia
Thailand	M	IUCN - The World Conservation Union		
	IRKP	Japan	P	Asian Development Bank Institute
		Sri Lanka	M	International Water Management Institute (IWMI)
		Japan	M	Asia Pacific Association of Hydrology and Water Resources (APHW)
	DCA	Philippines	P	Asian Development Bank

About the whole NARBO members' list, please refer to Appendix 3

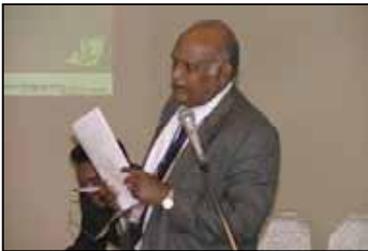
(6) Chairperson, Vice-Chairperson and Secretariat

1) Chairperson



Chairperson: Dr. Basuki Hadi Moeljono
(Director General, Agency for Research
and Development, Ministry of Public
Works, Indonesia)

2) Vice-Chairperson



Vice Chairperson: Dr. M.U.A. Tennakoon
(From 30 November, 2004 to 14 November, 2005
(Director General of Mahweli Authority of Sri
Lanka)



Vice Chairperson: Mr. Piyadasa Koralevidana
(From 16 February, 2006)
(Director General of Mahweli Authority of Sri
Lanka)

3) Secretariat

a) Secretary General



Secretary General: Dr. Masafumi Fukuda
(Executive Director: Japan Water Agency (JWA))

b) Vice Secretary General

Dr. Takeyoshi Sadahiro (Until 16 February, 2006)
(JWA)

Mr. Hiroyuki Shindo (From 16 February, 2006)
(Director, International Affairs Division, JWA)

Mr. Wouter Lincklaen Arriens
(Lead Water Resources Specialist, ADB)

Mr. Toru Tatara
(Special Advisor to the Dean, ADBI)



**Newly selected officials of NARBO at the 2nd
General Meeting**

c) Secretariat

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

2. The Second General Meeting

(1) Summary

The Second General Meeting (GM) was held from February 14 to 16 for three days at Jatiluhur (The organization : Jasa Tirta II public corporation (PJTII)), Indonesia with thirty-nine organizations from nine countries attended and ended very successfully. Various kind of pragmatic activities would be organized in accordance with the action plan 2006-2007 that was endorsed on this occasion. In this GM, the NARBO forest program was launched in the site visit.

At the reception on 13 evening, NARBO Forest Initiative was launched in cooperation with NARBO chairperson and PJT II with witness of Director General of Water Resources, Ministry of Public Works, Indonesia.

During the field trip on 14 February, participants planted seedlings of Rambutan, Avocado and Mango with local school kids in the vicinity of the Jatiluhur Dam (around 100 trees in the 20,000m²) as practical IWRM activities in collaboration with the Indonesian program "National Partnership on Water

Resources Area". Thanks to PJT II, participants recognized site is our field. It is expected to expand this activity to all NARBO members.

On February 15, the first day, more than fifteen papers presented in four sessions, i.e., session on water quality, flood, finance and benchmarking.

On February 16, the last day, the secretariat reported the activities in the past two years, proposed the revision of the charter and the action plan for the coming two years (2006-2007). The revision of the charter and the action plan were approved by applause. At the same time, the secretariat announced that fourteen organizations joined NARBO and one organization was eliminated from the member due to merged organization and it was also approved by applause.

Finally, new NARBO constitutional body was selected.

(2) Field Visit (February 14)

Participants visited three Jasa Tirta II water resources development facilities, namely Ir. H. Djuanda Dam, Walahar Weir and Curug Barrage. These facilities are the important component of Jatiluhur water resources system in Citarum River Basin.

The Citarum River Basin and Regional Water District (extended river basin) are located in West Java Province in Java Island of Indonesia. The annual rainfall is

3,000 mm in the mountain area and 2,500 mm in the lowland.

The Citarum River Basin and Regional Water District measures over 11,000 km². The Citarum River is 270km long and there are three large multi-purpose dams in the Citarum River, namely Saguling, Cirata and Ir. H. Djuanda (Jatiluhur) Dam. These three dams regulate the flow of the Citarum River.

Due to its location and its available

resources, the Citarum River Basin can play the major role in the development of the rapidly growing West Java region, in which Jabotabek and Bandung are major centers of economic activity. Considerable investments in infrastructure have already been made to support irrigation

development, hydropower production, flood control, and domestic municipal and industrial water supply.

However, the expected socioeconomic development of the region forms a considerable challenge for water management.

1) Ir. Djuanda Dam (Jatiluhur Dam)

Ir. H. Djuanda multi-purpose dam was constructed in 1957 and is located in Jatiluhur Purwakarta, West Java. The type of dam is rock-fill, the height is 100m, the reservoir area is 83 km² and the reservoir volume is 36 billion m³.

Benefits of Jatiluhur Dam are,

a) Flood every year inundated and endanger fertile area (20,000 ha) could be

controlled and minimized.

b) Technically irrigated of agricultural area of 240,000 ha with two crops annually.

c) Hydropower electric generation with installed capacity of 187.5 MW.

d) Raw water supply for domestic, municipal and industry.

Participants visited Ir. H. Djuanda Dam hydropower plant, after the visit of the dam.



At the dam site of Ir. H. Djuanda Dam



At the entrance of hydropower plant

2) NARBO Forest

NARBO Forest that is located within the green belt area of Ir. H. Djuanda (Jatiluhur) Reservoir under initiative of NARBO secretariat and PJTII, was established on land area owned and managed by PJTII. In addition for conservation purpose, this pilot forest has also the aim that planted

fruits trees (rambutan, avocado and mango) will benefit to community around the area.

In this cooperation, NARBO will give advocacy, increase awareness, sharing information, good practice, lessons learned and technical advice on the

sustainable aspect of watershed function.

All participants visited NARBO Forest site before going to Walahar Weir and planted those fruit trees with local school students.



Inscription of NARBO Forest



Planting fruit trees in the site

3) Walahar Weir and Curug Barrage

After participants finished planting fruit trees in NARBO Forest, they visited other two facilities, Walahar Weir and Curug Barrage.

Walahar Weir has 4 single gate weir of 20m width and 7.5m height of each, besides one gate used to accommodate exclusive vessels from upstream to downstream of the weir. The weir maintains water elevation at 18.0 mean

sea level and diverted water for North Tarum irrigation system of 80,000 ha.

Curug Barrage is located in Citarum River of the Jatiluhur Tailrace, stands as the main distribution structure of water for multipurpose in north plan of West Java include Jakarta Capital City. At Curug Barrage, water coming down from Ir. H. Djuanda Dam is being diverted into the north canal, east canal and west canal.



Walahar Weird



Intake of west canal at Curug Barrage

(3) Workshop (February 15)

Workshop was held on February 15 and it consisted of 4 sessions, namely “Water Quality”, “Flood”, “Water Finance” and “Benchmarking”.

At the “Water Quality” session, there were 4 papers presented from members in Philippines, Sri Lanka and Indonesia titled “Water Quality Management for the Laguna De Bay Region” by Laguna De Bay Development Authority, “Water Quality Management of Kala-Oya Basin in Sri Lanka” by Mahaweli Authority of Sri Lanka, “Monitoring and Studies on Water Quality in some Rivers and related Water Bodies” by Indonesian Water Partnership and “Water Quality Management for the Citarum River Basin” by Jasa Tirta II.

At the “Flood Management” session, there were 7 papers presented from members in Japan, Thailand, Vietnam, Philippines and Bangladesh titled “Brief review on results of investment for flood damage” and “Experiences on effective dam operation for flood in Japan” by Japan Water Agency, “IF Net and GFAS (Global

Flood Alert System) by Dr. Sadahiro, “Report from Thailand” by Department of Public Works and Town & Country Planning, “Report of Vietnam” by Red River Basin Organization, “ADB’s experience in flood management in Indonesia” and “Report of Bangladesh” by Bangladesh Water Development Board.

At the third session, “Water Financing”, there were 3 papers presented from members in Indonesia, Philippines titled “The Concept of Financial Sustainability of Water Resources Management in a River Basin” by PJT I, “Financing Water Investments” by Asian Development Bank and “Raw Water Charges in the Philippines” by National Water Resources Board.

At the last session, “Performance Benchmarking”, Asian Development Bank made the presentation titled “Indicators and Definitions” and “Next Steps” and International Water Management overviewed and demonstrated the prototype system.



(4) The 2nd General Meeting (February 16)

The General Meeting started with the opening remarks by the high-ranking officials from the Ministry of Public Works who substituted for the Minister and there were some provincial officials attended the meeting.

The General Meeting consisted of three sessions, namely “The report of NARBO activity 2004-2005”, “NARBO Charter and Action Plan 2006-2007” and “Selection of NARBO constitutional body”.

1) The report of NARBO activities 2004-2005

At the first session, the Secretary General overviewed and summarized two-year activities by “The lessons learnt”, which is as follows.

-The achievement of the action plan

Having carried out many activities according to the action plan is the big success. However, some of the activities did not get started. Considering this, identifying priorities in the activities is recommended.

-The expansion of the network

Nine organizations joined in NARBO in the past two years and there were not new RBO members joined. Therefore making efforts to increase the number of NARBO members, especially RBO members, is quite important.

-Members’ positive participation in NARBO activities

NARBO activities such as training courses and workshops were organized in

various countries with effort of host organizations. This is the big success of NARBO as the network activity.

However, it is unfortunate that members’ involvement in providing information and members’ participation in NARBO activities are still not enough.

-The practical activities

The secretariat has been promoting activities for members from the practical and useful point of view. It is important to study the present situation / issues of river basins / members’ organizations, to evaluate them and to reflect the results on future NARBO activities.

-Financial resources for NARBO activities

Presently, the secretariat supports the most part of the costs needed for the activities, however the financial resource is limited. In order to use the limited financial resources into many activities effectively, we should not have the gorgeous events and should save the cost for each activity as much as possible. The secretariat is also highly expecting all members to make every effort for finding other financial resources.

-The secretariat activity

The secretariat has been supporting activities under the guidance of the Chairperson and Vice-Chairperson. There are some issues left like lacking of close contact with members and the secretariat is expected to solve these issues.

After the Secretariat General, JWA NARBO secretariat reviewed last 2 years' activities quickly. Then, KOWACO explained IWRM training courses in detail and Indonesian NARBO and KOWACO explained the twinning programs conducted between JWA and Indonesian NARBO, KOWACO and Indonesian NARBO thoroughly. Finally, Mr. Nakai from ADBI explained the 1st Thematic Workshop finely.

2) Approval and withdrawal of NARBO member, proposal and approval of revised charter

In the afternoon, at the "NARBO Charter and Action Plan 2006-2007" session, first, JWA NARBO secretariat announced that one member withdrew from NARBO and 9 organizations joined NARBO. On top of those 9 organizations which sent the application forms to the secretariat before the 2nd General Meeting, around a half dozen organizations showed their intentions to become a member, so 5 organizations became a member in the end.

After this, also JWA NARBO secretariat proposed some revisions of the NARBO charter regarding an extraordinary General Meeting and the application for membership. These proposed revisions were approved by applause from the attendees. Prior to the 2nd General Meeting, also some provisions of the charter concerning the venue of a General Meeting, Chairperson and Vice-Chairperson were revised by exchanging opinions by e-mails.

3) Action Plan 2006-2007

Following those two matters, the Secretary General mentioned the principles of the action plan 2006-2007. According to the principles, some of the activities got the priority, then JWA NARBO secretariat explained them in detail. The principles and the prioritized activities are;

Principles

- To implement activities suggested in the action program 2004-2005 more actively identifying priorities in the activities
- To minimize additional new activities
- To bring more positive participation of NARBO members to various activities
- To encourage member organizations to take initiative of various activities
- To emphasize activities taking advantage of characteristic networking system
- To carry out practical activities
- To make effort to increase the number of NARBO members, especially RBO members.
- To strive to minimize cost for each activity in order to make the most effective use of financial resource

Prioritized activities

-Activities for Sharing / Exchange of Information

To promote activities for sharing and exchange of information via web site, database and newsletters. For this, all member organizations are requested to provide information actively.

-IWRM Training Program

To promote IWRM training program in order for member organizations to develop their capacities. With an advantage of NARBO network, it is expected to diversify

training resources among members and others. Member organizations are expected to propose to be a host organization of the training.

- Performance Benchmarking

To establish a performance benchmarking system for RBOs, supported by peer reviews, to stimulate performance improvement of RBOs and allow practical exchange of experience.

-Thematic Workshop

To hold thematic workshops in order to deepen discussion on specific themes concerning water resources management suggested by members

-Twinning Program

To facilitate twinning program for closer relations among NARBO members. Various forms of the program highly recommended such as information exchange, staff exchange and exchange visit.

- Discussion for Case Study on Site

To give much importance to discussion for case study on site with the aim of more pragmatic activities.

- Charting IWRM Progress in Asia

To undertake a study of practical progress of implementing IWRM in river basins in the region, supported by ADB and IUCN, to improve exchange of information and experience, build capacity, present a region-wide perspective on the progress of IWRM, identify further actions needed, and expand NARBO activities.

- Facilitating IWRM Investment Projects

To help NARBO members promote investments and financing for IWRM in their river basins, by getting advice from other members and partners in identifying and preparing river basin projects

At the final session, the new NARBO officials were chosen as mentioned in “(6) Chairperson, Vice-Chairperson and Secretariat”, in “1. General Information of NARBO” and each official delivered their short resolutions.



The Secretary General was summarizing two-year activities



A participation stating his opinions

About the detailed program, please refer to Appendix 4

3. Record of activities 2004-2005

(1) Table of activities

Year	Month	Name of the activity	Outline of the activity
2005	April	Web-site	The database was opened.
		Twinning Program	JWA dispatched 2 staff members to PJT I and II (Indonesian NARBO) based on the agreement. (for 3 months)
		The 2nd Training Course on IWRM	- It was held from April 25 to 29 at Negombo in Sri Lanka - There were 27 trainees from 5 countries.
	May	NARBO Annual Report	The year of 2004
		Newsletter	The 5th issue
	July	Twinning Program	PJT I and PJT II dispatched 3 staff members to JWA based on the agreement. (for two months)
		Web-site	Design was fully renewed.
	August	The 2nd Southeast Asia Water Forum	- It was held from August 29 to September 3 in Bali, Indonesia. - NARBO held the RBO session on August 31 morning and there were around 150 participants.
		The Benchmarking Workshop	- It was held on September 3 in accordance with The 2nd Southeast Asia Water Forum
		Newsletter	The 6 th issue
	November	The 3rd Training Course on IWRM	- It was held from November 14 to 18 in Daejeon, Korea. - There were 21 trainees from 9 countries.
		The workshop in the 10 th MRC Anniversary	- It was held from November 27 to 30 in Chiang Rai, Thailand - 2 persons from NARBO attended the workshop to report the RBO session of The 2nd Southeast Asia Water Forum
	December	The 1st Thematic Workshop on Water Allocation and Water Right	- It was held from December 5 to 9 in Hanoi, Viet Nam. - There were 24 participants from 6 countries.
2006	February	The 2nd General Meeting	-It was held from February 14 to 16 for 3 days. Around 90 members gathered

(2) Website <URL: <http://www.narbo.jp>>

The website is being administered by one of the secretariats (JWA secretariat). From the viewpoint of the recognition that website is the important tool for sharing

and exchange of information among members and it is needless to say that members' contribution is crucial.



NARBO Network of Asian River Basin Organizations

What's NARBO | NARBO Activities | Database | Sitemap | Links | Contact Us | News Letter

search in NARBO.jp Normal Search (free text search) Advanced Search

Brief report of the Second General Meeting - 22 February 2006 -
The Second General Meeting (GM) was held from February 14 to 16 for three days at Jatluhur (host organization: Jasa Tirta 2 public corporation), Indonesia with thirty-nine organizations from nine countries attended and ended very successfully. In this GM, various kind of pragmatic activities will be organized in accordance with the action plan 2006-2007 which was endorsed. In this GM, the NARBO forest program was launched in the site visit. >> More details

Event >> See more

- 14 April 2006 **Renowudli**
Introduction on The 2nd Thematic Workshop on Water Allocation and Water Rights
The 2nd Thematic Workshop on Water allocation and Water Rights will be held from 5th -9th June,2006 in Manila, Philippines. This workshop will be emphasized to discuss the causes of the issues and the approach to improvement on the basis of the information obtained from the 1st workshop. This workshop is targeted for the people who participated in the 1st one.
>> More details
- 29 March 2006 **NEW!**
JWA's annual report 2005 completed.
- 28 March 2006 **NEW!**
NARBO Chairperson made presentations at the 4th World Water Forum.
- 17 March 2006
Brief report on RBO visit in Vietnam & Philippines posted.
- 16 March 2006
RRBO's (The Red River Basin Organization) annual report completed.
- 22 February 2006
NARBO official brochure finally completed!
NARBO Secretariat has finally completed the official brochure in March. To make you understand NARBO easily, this brochure consists of many pictures that introduce various NARBO activities. You can get the brochure transformed to PDF on this web-site. NARBO secretariat expects you to download and distribute your colleagues it.
>> NARBO official brochure [PDF/840KB]
- 07 February 2006
NARBO newsletter No.7 issued.

Focus

- NARBO ANNUAL REPORT 2004
- Registration form for joining NARBO
- Benchmarking
- Twining Program
- Formats
- Work Plan [PDF/73KB]
- NARBO Charter [PDF/78KB]
- Draft Framework and Proposa
- New Network of IWRM for Asia Network of Asian River Basin Organizations
- NARBO Person
- Pictures
- Other Information

NARBO Person

Tjoek Walujo Subjanto
- Vice Executive Director of Indonesian NARBO Secretariat -

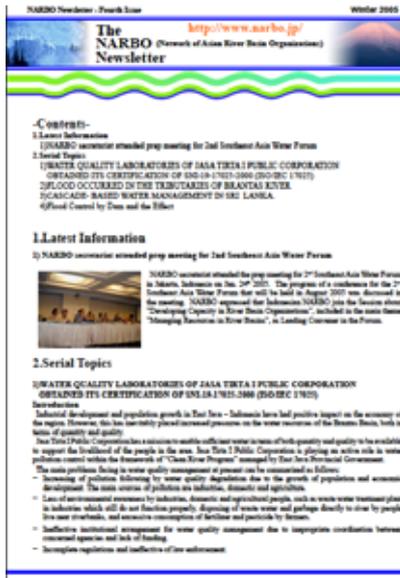
Tjoek Walujo Subjanto is Director of Operation for Brantas River, the Jasa Tirta I Public Corporation (the Brantas and Bengawan Solo River Basin Management Agency), Indonesia. He graduated in Mechanical Engineering at Brawijaya University and Diploma Degree in Water Resources Management. He was working for 18 years since 1972 in Brantas River Basin Development Projects. (See more)

NARBO Website

(3) Newsletter

Newsletter is recognized as another useful vehicle for NARBO activities along with website and JWA is in charge of newsletter. In the same manner, members' positive involvement regarding information gathering is essential. JWA

has issued the 4th, the 5th, the 6th and the 7th issue in February, May, August 2005 and February 2006, respectively. All newsletters were posted on NARBO website to make it possible for all members to see easily.



The 4th Issue



The 5th Issue



The 6th Issue

About all back issues, please refer to Appendix 5

(4) The 2nd Southeast Asia Water Forum

The 2nd Southeast Asia Water Forum was held from August 29 to September 2 at Bali International Conference Center in Bali, Indonesia. At this forum, Indonesian NARBO convened the session titled “Developing Capacity in River Basin Organizations (RBO)” in the morning and NARBO Secretariat organized the side event in the evening on August 30.

At the morning session, Dr. Basuki made the keynote speech and 4 speakers from Department of Water Resources (Thailand), Jasa Tirta I and II (Indonesia), Red River basin organization (Vietnam) and World

Bank made the presentations about their experiences and information about RBOs. After the presentations, 5 panelists discussed what are the essential points for capacity development of RBOs. At the end of the session, Mr. Bambang Hargono declared the outcome titled “Developing Capacity of River Basin Organizations” for the better water management in Asia. More than one hundred participants gathered and the session ended very successfully.



Presentation by Thailand



Mr. Hargono explained the session outcome

About the session program and outcome, please refer to Appendix 6, 7

(5) Training Course on IWRM

1) The 2nd Training Course

The training course on “River Basin Management and Organization” was held from April 25 to 29 at Beach Hotel on Negombo in Sri Lanka. Twenty-seven participants from Afghanistan, Bangladesh, India, Nepal, Pakistan and Sri Lanka took part in the training. From NARBO secretariat, Dr. Tennakoon, who was Vice-Chairperson, Mr. Dennis, Mr. Imama, Mr. Ishimura and Mr. Takagi also attended.

The training course was organized under the auspices of 6 organizations. These 6 organizations were IWMI, ADB, ADBI, JWA, GWP-South Asia and Lanka Jalani. The core training team from IWMI HQ guided the course and they emphasized on the first day that it was very important for participants to learn each other by exchanging their experiences and knowledge, discussing problems they had.

The program consisted of 4 modules titled “General overview of reasons for River Basin Management (RBM)”, “New insights from recent studies”, “Problems and constraints, at local and national levels” and “Designing an appropriate institutional system”. On module 3, participants were divided into 3 groups and visited the upper reach, middle reach and lower reach of Maha Oya River Basin. After they came back from the field trip, they were working on the group assignments until late at night to meet the deadline of submission. Also on module 4, each group tackled with the assignment given by the core training team and presented it on the final day.

At the closing ceremony, every participant was given the certificate and the training course ended very successfully and fruitfully.



At a group work



At a field trip

About the detailed program, please refer to Appendix 8

2) The 3rd Training Course

The training course on Technology for Integrated Water Resources Management -River Basin Approach” was held from November 14 to 18 in Daejeon in Korea. The main objective of this training course was to share experiences of developing and applying technologies for Integrated River Basin Water Resources Management among Asian countries. Twenty participants from Cambodia, China, Indonesia, Mongolia, Malaysia, Philippines, Sri Lanka, Thailand and Vietnam took part in the training. From NARBO secretariat, Dr. Basuki, who was Chairperson, Mr. Shindo also attended.

The 1st day was for the opening session and country report presentation by participants. In the opening session, 4 special lecturers made their presentations. The 2nd day was for the field trip and participants visited KOWACO main office, Daecheong

Multipurpose Dam and Cheongju Water Supply Plant. The 3rd day was for the group work, lectures on IWRM tools and the special session. In the group work, participants discussed the observations from the field trip. And in the special session, they reported the twinning program between JWA and Indonesian NARBO, KOWACO and Indonesian NARBO. The 4th day was for hands-on training and wrap-up discussion. In the hands-on training, participants exercised runoff forecasting system, K-MODSIM DSS etc. The final day was for the group presentation and concluding session. In the group presentation, participants made recommendations and proposals to share technology and experience among members’ countries to develop appropriate tools for river basin IWRM.



At a field trip (KOWACO main office)



At a hands-on training

About the detailed program, please refer to Appendix 9

(6) Thematic Workshop

The 1st thematic workshop on water allocation and water right was held from December 5 to 9 in 2005 in Hanoi, Vietnam. Red-Thai Binh River Basin Organization (RRBO), ADB, ADBI and JWA organized this workshop jointly. 24 participants from 6 countries (Vietnam, Indonesia, Philippines, Thailand, Lao PDR and Japan) participated in the workshop.

On December 6 and 9, special lecture and 3 sessions were held. The special lecturer was Mr. Ian Fox, Principal Project Specialist of Vietnam Resident Mission, ADB, and the theme of the lecture is "Understanding water right and water allocation". Also, the themes of 3 sessions were "Water allocation issues", "Water right system" and "Drought management". In each session, participants made presentations and discussions, and finalized the sheets for session outcomes. Through these processes, they could share the information on current situation and issues on water allocation and water rights, which was one of the objectives of

this workshop. And the session outcomes were uploaded onto the NARBO website.

On December 7 and 8, field trips were held. On December 7, participants went to the Hoa Binh Hydropower plant in Hoa Binh Province, which is one of the most important infrastructures in Vietnam. On December 8, they went to the Tac Huong Irrigation scheme in Thai Nguyen Province. In both of the field visits, participants were enthusiastic to make questions or discussions. Especially, in the field trip on December 8, they were able to learn the practical issues on water resources management including upstream vs. downstream issue, which was a precious experience. In addition, the situation of the workshop was broadcast by Hanoi Television on December 9.

Together with RRBO's good preparation work for the workshop and the participants' dedication to this workshop made it fruitful.



At a meeting



At a field trip (Tac Huong Irrigation Scheme)

About the detailed program, please refer to Appendix 10

(7) Benchmarking activity

ADB and IWMI organized the workshop on developing capacity in RBOs in accordance with the 2nd Southeast Asian Water Forum on September 3, 2005 at Inna Putri Bli Hotel in Bali, Indonesia.

The workshop helped more than 30 participants to better understand the capacity-building needs of RBOs including those related to institutional strengthening,

water allocation, financing, technical aspects, and stakeholder participation. The workshop emphasized the need for: (i) exchange of information and experiences, (ii) joint efforts for capacity development, (iii) government support, and (iv) respect for traditions.



General explanation about prototype system



Demonstration of prototype system

(8) Twinning program

1) JWA and Indonesian NARBO

Based on the MOU of twinning program concluded on November 29, 2004, first two JWA dispatched 2 staff to Indonesia from April 10 to July 9 for almost 3 months. They worked mainly at PJT I headquarters and also PJT II headquarters. During their stay in Indonesia, they visited many facilities of PJT I and PJT II to see operation and maintenance works and check the general condition of Indonesian practice.

After JWA staff came back, 3 exchange staff came to JWA on July 12 and went back to Indonesia on September 10. 2 staff came from PJT I and one came from PJT II. During their 2 months stay, they had lots of lectures about water resources management, river etc. and visited JWA facilities and other water resources related facilities.



Indonesian exchange staff at JWA



Indonesian exchange staff at the site

2) KOWACO and Indonesian NARBO

Based on the agreement on exchange of personnel on twinning program between PJT I, PJT II and KOWACO that was signed on December 15, 2004, 4 Indonesian exchange staff came to KOWACO from September 5 to September 30 for 3 weeks. 3 Indonesian staff were from the Ministry of Public Works, PJT I and PJT II. During their three-week stay at KOWACO, they worked on a few models that were developed / used in the IWRMS by KOWACO and visited dams, rivers and water treatment in KOWACO.



Indonesian exchange staff at KOWACO Headquarters

(9) Others (Members' meeting, secretariat meeting)

1) Members' meeting

Members' meeting was held on August 31 2005 in Bali on the occasion of the 2nd Southeast Asia Water Forum.

The meeting started from 7 p.m. with Dr. Basuki's opening remarks. After the opening remarks, Dr. Omachi from APHW, Japan gave the special lecture titled "Water Rights and Duties for Rational Water Use", then the

secretariat reported on NARBO activities and announced the 3rd training course in Korea and the 1st thematic workshop on "Water allocation and water rights" in Vietnam. After that, 3 presenters reported about their organization and Dr. Tenakoon, Vice-Chairperson of NARBO, delivered his closing remarks.



Presentation by APHW



Closing remarks by Dr. Tenakoon

2) Secretariat meeting

Secretariat meetings were held several times in April, 2005 on the occasion of the 2nd NARBO training course in Sri Lanka,

and in Saitama in September and November (twice).



Secretariat meeting at JWA

4. NARBO members' information (Summary)

(1) Japan Water Agency (JWA)

1. Organization

Water Resources Development Public Corporation (WRDEC) was transformed into Japan Water Agency (JWA), Incorporated Administrative Agency in October 2003.

Incorporated administrative agencies are established and given objectives and missions by the national government to carry out "administrative tasks and projects, where implementation should ensure public benefits such as stable public life and social and economic activities". The objective and the mission of JWA are as follows.

Objective: To ensure stable supply of water to areas that need to use water because of industrial development and population concentration.

Mission: Construction (Projects for increasing water supply are limited to the ongoing projects.), reconstruction and operation of completed facilities based on the Basic Plan for Water Resources Development.

2. NARBO Activities

JWA did or involved in a series of activities as NARBO Secretariat and also as one of NARBO members (as an RBO), the name of activities and date are summarized below.

(1) Activities as NARBO Secretariat

1) The Second training course on IWRM

The training course was held from April 25 to 29 at Negombo, Sri Lanka.

2) Electrical newsletter

JWA secretariat issued NARBO newsletter two times, namely issue No.5 and No.6 according to the work plan.

3) NARBO web site

JWA secretariat opened database in May 2005, and has been operating and maintaining it on regular basis.

4) NARBO Annual Report

JWA secretariat compiled members' annual report and prepared NARBO Annual Report 2004.

5) The Second Southeast Asia Water Forum.

The forum was held from August 29 to September 3 in Bali, Indonesia. In the forum, the RBO session was held on August 31.

6) The Third training course on IWRM

The training course was held from November 14 to 18 in Daejeon, Korea.

7) The First Thematic Workshop on Water Allocation and Water Right

The workshop was held from December 5 to 9 in Hanoi, Viet Nam.

(2) Activities as one of NARBO members

1) The annual report

JWA prepared the annual report and it was stored in database on NARBO website.

2) Twinning Program

JWA dispatched two staff to Indonesia for three months from April to July based on the agreement between Indonesian NARBO and JWA>

3) Mekong River Committee's 10th Anniversary

It was held from November 27 to 30 in Chiang Rai, Thailand. JWA dispatched one staff to MRC

3. Topics

Topics in 2005 are summarized below.

(1) Flood

Due to series of concentrated heavy rain during the rainy season in June and three typhoons, eight JWA dams did eighteen times flood control altogether.

(2) Drought

Because of a little rainfall from April to June, Chubu and Sikoku regions were hit sever drought. Especially, the drought in Shikoku was very sever.

(3) The Second JICA Group Training Course on Integrated Water Resources Management (IWRM)

JWA had the second course on IWRM from October 17 to November 7 with six participants from nine countries.

(4) The First JICA Country Focused Training Course on Integrated Water Resources Management (IWRM)

JWA had the first course from November 14 to December 9. Nine participants came from Iran.

(5) The First JICA Country Focused Training Course on Dam Management and Safety

JWA had the first course from November 21 to December 13. Seven participants came from Syria.

(6) The 29th "Water Week"

JWA joined a various "Water Week" related events.

(2) Korea Water Resources Corporation (KOWACO)

1. Objectives

The Korea Water Resources Corporation (KOWACO) is a state-run agency engaged in the construction, operation and management of Dams, Reservoirs, Water Supply Networks and Hydro-Power Facilities. It supplies water and electricity to municipal authorities and to private companies. KOWACO not only provides industrial and residential development services but specializes in water related services including provision of water resources information to public sector.

2. History

KOWACO was founded in 1967 as a specialized water resources management corporation. It is responsible for providing public with high quality water at low costs, supplying related water services and responding quickly to the various demands of clients. As the main impetus for water resources development and management in Korea, KOWACO is proud of its contribution to the nation's economic development and better quality of life being enjoyed by publics.

3. Organization

President of KOWACO is Dr. Kyul-Ho Kwak.

KOWACO consists of headquarter, four regional bureaus, 38 site offices and research and training center.

Total employee is 3,850 personnel in April 2004.

4. Financial

KOWACO's finances are from the central government, local government, national Industrial banks, and beneficiary shares of water users. KOWACO receives government funds in the form public supports. The scale of the budget of KOWACO is about 5,710 billion won (\$5.19; \$1 U.S. = 1100 won) in 2004.

5. Projects

KOWACO is undertaking the following projects based on the Water Resources Development Basic Plan.

- (1) Construction of multipurpose dams for flood prevention and water supply, estuary barrages, and Navigation canals.
- (2) Development of industrial complexes.
- (3) Disaster prevention works of concerning (1) or (2) facilities.
- (4) Operation of accompanying (1), (2), or (3).

6. Installing Law or the articles of association

KOWACO was established under the Ministry of Construction & Transportation, Korean Government.

7. Related Legal System

The legal system has been promoted with the intensive and integrated water resources management. Related Laws had been consolidated by late 1960s with the rapid economic growth and urbanization, and laws on environmental issues and ecological conservation have been developed since 1970s.

(1) Basic Law

The water resources management Law

(2) Water Use & Supply

1) Water Resources Development & Management Law

2) Specified Multipurpose Dam Operation Law

3) Sustainable Water Resources Development Law

4) Electric Power Development Promotion Law

5) Municipal Water Supply Law

6) Industrial Water Supply Law

(3) Environment

1) Basic Environmental Law

2) Nature Conservation Law

3) Water Pollution Prevention Law

4) Industrial Water Law

(4) Disaster Prevention and Land Conservation

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- 1) Disaster Prevention Basic Law
 - 2) Flood Control Law
 - 3) Environmental Protection Law

8. NARBO Activities

KOWACO carried out the following activities in 2004:

- (1) KOWACO organized the 3rd NARBO Training Workshop on “Technology for Integrated Water Resources Management – River Basin Approach” from November 14 to 18, 2005 in Daejeon, Korea.
- (2) KOWACO conducted the Twinning Program with Indonesian NARBO, PJT I and PJT II.

9. Topics

- (1) Typhoon

None of the 23 typhoons occurred in 2005 directly passed the Korean peninsula. However, the typhoon "Nabi" passed the East sea and poured 164~351 mm of rain in the eastern part of Korea.

- (2) Rain

The national average annual rainfall was 1,282 mm similar to the normal average value of 1,310 mm. The Summer Monsoon started on June 25th and ends on July 18th which is 9 days shorter than that in the past. The rainfall amount showed great regional variability ranging from 108.1 to 496.5mm.

- (3) Flood

The rainfall during flood season was 63% of the total annual precipitation whereas the stream-flow during the same period was 73% of the total annual stream-flow, which means there was increased intensity of rain storm.

(3) Mahaweli Authority of Sri Lanka

The Mahaweli Authority of Sri Lanka (MASL) was established under the Act No. 23 of 1979. The year 2005 marks the completion of the 26th year of its existence. The functions of the Mahaweli Authority of Sri Lanka are set out in Section 12 of the MASL Act, and is entrusted with the task of implementing the Mahaweli Development Programme (MDP).

According to the Mahaweli Act, the functions of the Mahaweli Authority in or in relation to, any Special Area are,

- (a) To plan and implement the Mahaweli Ganaga Development Scheme, including the construction and operation of reservoirs, irrigation distribution system and installations for the generation and supply of electrical energy;.

provided however, that the function relating to the distribution of electrical energy may be discharged by any authority competent to do so under any other written law.

- (b) To foster and secure the full and integrated development of any Special Area;
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- (c) To optimize agricultural productivity and employment potential and to generate and secure economic and agricultural development within any Special Area.
- (d) To conserve and maintain the physical environment within any Special Area;
- (e) To further the general welfare and cultural progress of the community within any Special Area and to administer the affairs of such area;
- (f) To promote and secure the participation of private capital, both internal and external, in the economic and agricultural development of any Special Area, and
- (g) To promote and secure the cooperation of Government Departments, State Institutions, Local Authorities, Public Corporations and other persons whether private or public, in the planning and Implementation of the Mahaweli Ganga Development Scheme and in the development of any Special Area.

The Mahaweli Authority of Sri Lanka has introduced an interim organization structure- in 1999 as part of a reform process and the following main Divisions and units were engaged in the implementation of projects, programmes and related activities of the Mahaweli Authority of Sri Lanka.

1. Organizational Structure

Main functions of the Mahaweli Authority of Sri Lanka

- (a) Secretariat
- (b) Planning and Monitoring
- (c) Central Internal Audit

Technical Services Division

- I. Head works, Operation and Maintenance

Development Services Division

- I. Lands
- II. Agriculture Development
- III. Business Development
- IV. Human Resources and Institutional Development.

Administration & Finance Division

- I. Personnel and Administration
- II. Finance
- III. Mahaweli Centre
- IV. Mahaweli Security Corps
- V. Transport & Maintenance

River Basin Planning & Management Division

- I. River Basin Planning & Management
 - II. Kala Oya Basin Organization
 - III. Water Management Secretariat
 - IV. Environment & Forest Conservation
-
-

Mahaweli Architectural Unit
Foreign Funded Special Project
Companies established under the MASL

2. Main Functions of Mahaweli Authority of Sri Lanka

The administration of the Divisions, units and projects offices of the MASL is co-ordinated by the Director General through the respective Executive Directors and Resident Project Managers.

The operation and maintenance of the major reservoirs and dams for provision of water to downstream irrigation settlement projects, and for power generation is a major function of the Authority. Water allocation for major water uses such as irrigation, hydropower and domestic water supply is coordinated at the national level in consultation with relevant line agencies through seasonal operational planning process. In the downstream major irrigation projects of system 'B', 'C','H','L' and Walawe, emphasis is on water management, community and human resources development, livestock, agriculture development with special attention on crop diversification, intensification and promotion of enterprises for socio-economic development and employment generation. Watershed management is promoted through educational and awareness programmes on soil and water conservation while monitoring of sedimentation and water pollution have become important programmes of the MASL. Dam Safety, through effective operation and maintenance programmes relating to upstream dams, reservoirs and diversion canals, maintenance of main and branch canals of major irrigation systems, transfer of responsibility of O & M of tertiary canals to Farmer Organizations in the downstream irrigation systems are also considered as priority programmes. Land settlement activities are continued in Victoria and Kotmale special areas. Management of special areas, downstream of Bowatenna up to Huruluwewa reservoir is one of the responsibilities of MASL.

Several programs were launched under the direction of Director General/MASL and immediate action was taken to provide relief assistance to the victims who suffered from the Tsunami Tidal wave of December 26.

3.NARBO Activities.

One participant from Mahaweli Authority of Sri Lanka (MASL) and Network Coordinator for South Asia Network of River Basin Organizations (SASNET-RBO) were invited by the ADB to attend to 1st General Meeting of Network of Asia River Basin Organizations (NARBO) which was held 24-26 February, 2004 held in Batu, Malang , Indonesia. Mr . P T Senaratne, Director General of MASL and Mr Sudharma Elakanda , Network Coordinantor of SASNET-RBO attended to this general meeting and actively contributed for all the sessions. SASNET-RBO was initiated in the year 2002 , when GWP-SA identified Sri Lanka as focal point for River Basin Management in the region and MASL as the Driver Agency .

At this meeting, Director General of MASL was elected to the Vice –Chairpersonship of NARBO for two year period. Both Mr P T Senaratne, Director General of MASL and Mr Sudharama Elakanda , Network Coordinator of SASNET-RBO signed the NARBO charter on behalf of two institutions respectively. Although SASNET-RBO is not a Government Institution , but it is now housed in the MASL Head Quarters. Very limited funding available for SASNET-RBO and it is channeled through GWP-SA. MASL is supporting to network by providing office space and

employing professional staff and giving some ICT equipment etc.

In the General meeting MASL agreed to give Mahaweli RBO as one of the Pilot River Basins to study under NARBO activities during next few years. After the Government change in April, 2004 Dr M U A Tennakoon assumed duties as the new Director General of MASL. On the Invitation of NARBO Secretariat, Dr Tennakoon, new Director General of MASL attended the Scoping Meeting held in Batu , Malang , Indonesia in September, 2004. Similarly in November , 2004 a Bench Marking meeting was held in the same venue in Indonesia and Both Dr Tennalkoon and Mr Elakanda attended and made very effective contribution for the success of the workshop objectives.

First training Program of NARBO was held in Thailand and second NARBO training was held in Sri Lanka 24-29, April 2005 in Negombo, Sri Lanka.

During this 18 months experience, NARBO learned several lessons and it was noticed in the NARBO charter there is no provision to accommodate a new person to any cadre posts of NARBO in the case of when he/she left the organization. This was practically happened for the Vice Chair Position. Next NARBO Bench Making meeting on 2-3, September 2005, at Bali, Indonesia will address this issue and do some amendments to the existing Charter. Dr Tennakoon attended for 2nd Bench Marking workshop held in Bali , Indonesia immediately after the 2nd SEA Water forum.

(1) NARBO Training & Exposure Visits

Following three international training programs were conducted upto now and planned to do another two programs in the year 2006.

1st Training Program -Thailand

2nd Training Program -Sri Lanka

3rd Training Program –South Korea.

(2) Proposed Training Programs -

4th Training Program- Indonesia

5th Training Program- Sri Lanka

It is agreed that 5th training program will be held in Sri Lanka in September/October 2006. DG/MASL and Vice Chairperson of NARBO will take the lead role of planning this program using existing Mahaweli Infrastructure and it's resource base. Also it was agreed that , it has to be done with lesser cost since, very limited funds available for NARBO for there annual activities.

(3) NARBO Coordinating Committee

It has been plan to form a NARBO Coordinating Committee in Sri Lanka under the guidance of MASL. Mr Sudharma Elakanda has suggested and Mr Koralevidana accepted it as principle. Those who have been attended for NARBO training and other activities will be members of that committee. They are mainly 4 participants of 2nd Training of NARBO in Sri Lanka, 2 participants of 3rd Training of NARBO in Korea and Mr Elakanada(Secretary) and Mr Koralevidana will be the chairman of that committee. It was suggested to organize 5th NARBO in Sri Lanka by this committee.

(4) How NARBO demonstrated it's "corporate social responsibility" after Tsunami

Three officials of NARBO secretariat , including Mr Sasahara, Mr Nakai came to Sri Lanka in early 2005 with Y600,000 which was collected through voluntary contribution from their own staff to assist Tsunami affected people , to handover to Dr Tennakoon, Vice Chairperson of NARBO. The

money was generously accepted by DG/MASL and promised that it would be utilized for most appropriate place where it should be due for. They attended to a discussion organized by DG/MASL along with senior management and visited tsunami affected costal area with Mr Elakanda before they left the country. This money has been utilized for rebuilding the Buddhist temple which was completely washed away due to tsunami tidal in Southern coast where the team has visited with Mr Elakanda. A report with some photographs will be sent to you with some story for enable NARBO to publish in their News Letter in due course.

(5) Strengthening the ties between Agencies and Governments.

In September 2005, Japan Water Agency (JWA) & NARBO Secretariat invited Dr M U A Tennakoon , Director General , MASL and Vice Chairperson of NARBO and Mr Sudharma Elakanda Project Director of MASL to Japan to study current activities/achievements of JWA visit few river systems such as Tone River System and how it works towards it's objectives. Dr Ayoyama , Chairman of JWA and the Senior Management warmly welcomed both delegates of Sri Lanka had a discussion which led for bilateral important issues .Also organized a visit to Yagisawa and Narmita Dams which was very useful as learning events for Mahaweli Project in Sri Lanka. Both Dr Tennakoon and Mr Elakanda made Presentations on "The Mahaweli (River) Development of Sri Lanka : Its Present & Future" and "Mahaweli Dams and Focus on Dam Safety". It was very effective for sharing experience in both countries.

(6) Second NARBO General Meeting

Second NARBO General Meeting was held in Jatiluhur , Jakarta, Indonesia in 14-16 February , 2006. Again to recognize Sri Lanka experience on River Basin Management in the region , Mr P Koralevidana , Director General of MASL was elected as vice chairperson of NARBO for next two years. He accepted that post and said he will do his best service for the achievements NARBO objectives.

(4) Department of Water Resources (Thailand)

The Department of Water Resources' organization chart and its mandate can be found in the 2004 Annual Report. Referring also to the 2004 Annual Report submitted in 2005, progress of work under the topic water shortages solving is elaborated as attached. It covers cross-cutting sectors such as management system, investment, decentralization, training, and awareness raising. Access to safe drinking water is focused in the national water resources policy and according to it by the year 2008 every village in Thailand will access to pipe water supply, which will be saved for drinking purpose.

As of NARBO activities, the representative of Department of Water Resources attended the 2nd Southeast Asia Water Forum with financial support from NARBO. On the other occasions, its representatives attended the 3rd NARBO Training Workshop during 14 – 18 November 2005 in Korea and the 1st NARBO Thematic Workshops on Water Allocation and Water Right during 5 – 9 December 2005 in Vietnam. There are also representatives from other agencies that were chosen to attend the Workshop and the 2nd General Meeting during 14 – 17 February 2006 in Indonesia.

For other international conferences during April 2005 – March 2006, the representatives of the Department attended many international conferences for example the International Workshop

organized by World Bank on River Basin Management at the Lowest Appropriate Level in Poland during 22-25 May 2005, the International Conference on Integrated Water Resources Management organized by Green Cross Spain in Spain during 24-25 November 2005.

(5) Department of Water Resources, the Ministry of Agriculture and Rural Development (Vietnam)

In the year 2005, the development of river basin organization in term of management, operation and cooperation has a lot progress. Most activities of the office was focused on cooperation with river basin organization' offices with some main activities as follows:

1. Organize a workshop on river basin management to evaluate the achievements and constraints of national river basin management in the year 2004 and plan for 2005;
2. Cooperation with river basin organization's office to collect and update river basin profile as well as river basin organization activities specially cooperate with Vietnam Mekong River Commission in international activities;
3. Cooperated and agreed with Quang Nam province and Danang city about members of Vu Gia-Thu Bon river basin organization and summited to Ministry for approval
4. Organized some workshops to develop draft decision and operation regulation of some new organization such as Ca, Srepok, Cau and Day rivers.
5. Cooperate with Hanoi University of water resources to organized a workshop on river basin management model;
6. Collect and develop river basin profile for big river basins including Banggiang-Kycung, Red-Thaibinh, Ma, Ca, Thachhan, Huong, Trakhuc, Con, Vu Gia-Thu Bon, Ba, SrêPôk, Sê San, Dong Nai, Cuu Long.
7. Research on the relation between river basin organization and related agency and organizations such as vietnam Mekong River Commission, Vietnam Water Partnership, National Water Resources Council etc.
8. Close cooperation with international organizations and donors in water resources and river basin management, specially cooperate with NARBO, ADB, WB, AFD, DANIDA.

(6) Red River Basin Organization (Vietnam)

1.1. Organization

1.1.1 Organization Name

Red River Basin Organization (RRBO)

1.1.2. Objectives

RRBO is set up to implement water resources planning management in Red-Thai Binh river basin in conformity with Article 64 of the Law on Water Resources.

1.1.3. History

On April 9, 2001 Minister of Agriculture and Rural Development of Vietnam signed a decision on establishment of the Red – Thai Binh River Basin Organization (RRBO) to implement river basin planning management in the river basin pursuant to the Law on Water Resources. Dr. Pham Hong Giang is Chairman of RRBO.

1.1.4. Organization

RRBO comprises 50 members, including

- Chairman: Vice Minister of Agriculture and Rural Development
- Vice Chairman: Director of Irrigation Department

RRBO has its office based at Institute of Water Resources Planning (IWARP). Dr. To Trung Nghia, Director of IWARP is also Head of the RRBO Office.

On December 1, 2005, Minister of Agriculture and Rural Development signed the Decision No. 3365/QĐ-BNN/TCCB on establishment of Day Sub-RBO under the RRBO.

1.1.5. Financial

Funds for operation of RRBO are provided from the State budget upon approval by Ministry of Agriculture and Rural Development (MARD).

1.1.6. Projects

With direction of the RRBO leadership, the RRBO have carried out in 2005 various activities in view of water resources management in the Red – Thai Binh river basin, e.g.:

- To continue implementation of integrated water resources use planning for basins;
- To coordinate with Department of Water Resources (MARD) in implementing measures against droughts;
- To coordinate with Department for Dike Management and Flood control in prevention and control floods and typhoons;
- To well play the role of the steering committee in the Second Red River Basin Project funded by ADB;
- The RRBO Office closely coordinated with relevant Ministries, agencies and sectors, especially with provincial DARDs in effectively realizing its functions and responsibilities.

1.1.7. Installing Law or the articles of association

On April 9, 2004, Minister of Agriculture and Rural Development signed the decision issuing “Regulations on organization and operation of river basin organizations”.