

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.

Four years have been passed since the establishment of NARBO. The number of member becomes 65 organizations from 15 countries as of February 22, 2008 when the 3rd General Meeting was complete.

Various NARBO activities had been conducted from February 2007 to February 2008 and those activities are summarized in this NARBO annual report 2007.

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, 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 maintenance of

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- 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 is like 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 First 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 Appendix 1

(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, member's contribution is highly required.

About the whole NARBO Action Plan (2008-2009), please refer to Appendix 2

(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 February 22, 2008, the number of members became 65 from 15 countries. (Australia, Bangladesh,

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

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 Feb 22, 2008

Category	Member	(Interested)
River Basin Organization (RBO)	22	4
Government Organization (GOV)	17	4
Regional Knowledge Partner (RKP)	17	1
Inter-Regional Knowledge Partner (IRKP)	8	0
Development Cooperation Agency (DCA)	1	0
Total	65	9

River Basin Organizations (RBOs)

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
		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
		Malaysia	M	National Hydraulic Research Institute of Malaysia (NAHRIM)
		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 whole NARBO members' list, please refer to Appendix 3

(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



Secretary General: Mr. Yasutaka Hamada
(October 1, 2006 -)
(Executive Director, Japan Water Agency)

b) Vice Secretary General

- Mr. Hiroyuki Shindo
(February 16, 2006 – March 31, 2007)
(Director, International Affairs Division, JWA)
- 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 -)
(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. The 3rd General Meeting

(1) Summary

The 3rd General Meeting (GM) was held from February 20 to 22 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 20 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 22 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 waters 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 problem 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.

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 RBOs 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.



Keynote presentation by Prof. Yoshida

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 unanimously 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.

Water-use rights help 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 growing importance of the topic to governments, water users and stakeholders in the region is clear. 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, and NARBO will explore collaboration with these networks as part of its work program. 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 a high-level of satisfaction with NARBO activities. 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 good 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 (supported by ADB), the preparation of IWRM guidelines at river basin level (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 is 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, who could include former NARBO chairpersons.

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

NARBO Position	Name
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 Oota, 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

About the detailed program, please refer to Appendix 4

3. Record of activities in 2007

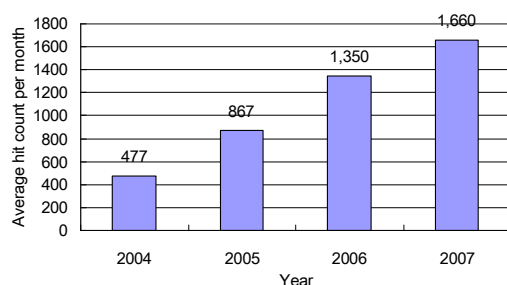
(1)Table of activities

Year	Month	Name of Activity	Outline of Activity
2007	March	NARBO Newsletter	10th Issue
	April	Performance Benchmarking Peer Review for Laguna Lake Development Authority	- Held in Manila, the Philippines on 9-13 April - Hosted by LLDA
	May	Thematic Workshop on Water Rights	- Held in Manila, the Philippines on 29-31 May - Hosted by ADB, NWRB and LLDA - Attended by 30 delegates from 7 countries
	June	The 1st Thematic Workshop on Sustainable Management for Water Resources Infrastructures	- Held in Hanoi, Vietnam on 11-14 June - Hosted by GORBO, MARD - Attended by 16 delegated from 5 countries
	June	Performance Benchmarking Peer Review for Red River Basin Organization	- Held in Hanoi, Vietnam on 12-15 June - Hosted by RRBO - Attended by 5 delegates from 5 countries
	August	NARBO Newsletter	11th Issue
	August	Twinning Program, JWA – Indonesian NARBO	- 3 staff were delegated from Indonesia NARBO to JWA
	October	The 2nd Thematic Workshop on Sustainable Management for Water Resources Infrastructures	- Held in Dhaka, Bangladesh on 24-27 October - Hosted by BWDB - Attended by 14 delegates from 4 countries
	October	The 3rd South East Asia Water Forum	- Vice Chairperson, Mr. Ivan de Silva, delivered speech to introduce NARBO
	November	The Workshop on Disaster Management in Developing Countries	- Held in Yogyakarta on 26-29 November - Hosted by PJTI - Attended by 9 delegates from 8 countries
	December	The Symposium on Catalyzing IWRM Investment in Asia-Pacific Region	- Held in Beppu, Japan on 1 December, as a Open Event for the Asia Pacific Water Summit (APWS)
	December	The 3rd Thematic Workshop on Sustainable Management for Water Resources Infrastructures	- Held in Sri Lanka on 12-16 December - Hosted by MASL - Attended by 10 delegates from 5 countries
2008	January	NARBO Newsletter	12th Issue
	February	The 4th Thematic Workshop on Sustainable Management for Water Resources Infrastructures	- Held in Bangkok, Thailand on 4-7 February - Hosted by DWR, MoNRE - Attended by 14 delegates from 6 countries
	February	The 3rd 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

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

1) Hit count

The website is being administered 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 and it is needless to say that members' contribution is crucial. **Average hit count per month has been increased up to approximately 1,660 in 2007, although it was only 477 in 2004.**

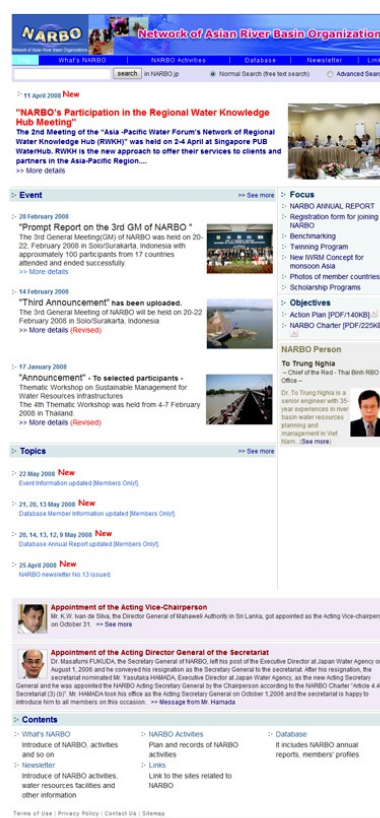


Trend of average hit count per month

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,

members' information, guideline for implementation of NARBO training, etc. This page is opened to only NARBO members, so please access and utilize this database!



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 10th, 11th and 12th issue in March, August 2006 and January 2007, respectively. All newsletters were posted on NARBO website to make it possible for all members to see easily.



The 10th Issue



The 11th Issue



The 12th Issue

About all back issues, please refer to Appendix 5

(4) NARBO Promotion

1) The 3rd Southeast Water Forum

Date: October 22-26, 2007

Venue: Putra World Trade Center
(Kuala Lumpur, Malaysia)

Website: <http://3rdseawf.water.gov.my/>

The 3rd Southeast Asia Water Forum which was held in Kuala Lumpur, Malaysia was successfully completed. The Organizing Committee of the Forum mainly consisted of Department of Irrigation and Drainage (DID) that is a NARBO member and Malaysia Water Partnership (MyWP).

NARBO secretariat invited Mr. Ivan de Silva, who is the Vice-Chairperson of NARBO as well as Director General of Mahaweli Authority of Sri Lanka, to the Forum. He chaired a session held in the morning of October 24 whose title is **“Water Resources and River Basin Management Issues”**, and had a presentation whose subject is “Present State and Future Prospects of NARBO”. Some NARBO secretariat staff, Mr. Ochii and Mr. Nishimura also had presentations in the session.

One of the proposals by NARBO was included in the final recommendations of the Forum as a description “NARBO to propose Asian IWRM procedures”.



Session chaired by Mr. Ivan de Silva



NARBO secretariat staff (Mr. Ochii)'s presentation

2) The 1st Asia Pacific Water Summit

a) Introduction

“**NARBO Symposium on Catalyzing IWRM investment in Asia-Pacific Region**”, held on December 1 (Beppu City Social Welfare Center, Beppu City, Oita Prefecture, Japan) as the Open Event for the Asia-Pacific Water Summit (APWS, 3-4 Dec, Beppu City, Oita Prefecture, Japan), was successfully completed. This symposium, attended by more than 100 audiences from 11 countries, was organized by Japan Water Agency, Asian Development Bank (ADB) and ADB Institute as NARBO Secretariat, in collaboration with the Ministry of Land, Infrastructure and Transport (MLIT) and the Infrastructure Development Institute of Japan.



Filled with audiences more than 100

b) Summary of the Symposium

Opening remarks were delivered by 2 persons; one is Dr. Basuki Hadimuljono, NARBO Chairperson, and the other is Mr. Shuhei Kazusa, Director General, Water Resources Department, Land and Water Bureau, MLIT. Followed by, 2 persons delivered keynote speeches as follows;

- "Japan's Experiences in Water

Resources Management and Some Implications to NARBO Members", by **Dr. Tsuneaki Yoshida**, Professor, University of Tokyo, and

- "Financing IWRM in River Basins - Challenges and Opportunities", by **Mr. Wouter L. Arriens**, Lead Water Specialist, ADB

After that, panel discussion session was held, led by Dr. Tsuneaki Yoshida. In the session, 5 presentations on the situation on the problems of water resources in each country were made by the following speakers;

- **Mr. Md. Abdul Hye**, Executive Engineer and Chief Staff Officer (CSO), Bangladesh Water Development Board,
- **Mr. Tjoek W. Subijanto**, President Director of Jasa Tirta I Public Corporation, Indonesia,
- **Mr. Jorge Marlang Estioko**, Chief Water resources development Officer, the National Water Resources Board, the Philippines,
- **Ms. Doan Thi Tuyet Nga**, Deputy Chief of Vietnam RBO General Office's Secretariat Board, Vietnam,
- **Dr. Takeyoshi Sadahiro**, Professor and council for International Affairs Division of Japan Water Agency.



5 panelists (presenters) and
2 session leaders (keynote speakers)

Finally, plenary discussion was held, and after that, we adopted the on the direction for the future NARBO activity on the basis of the discussion by the audiences.



Mr. Hamada, the Secretary General of NARBO, reads aloud the Recommendation

c) Distribution to the attendants of the APWS

The adopted recommendation was also distributed for the high-level attendants of the APWS. It is expected to contribute to make NARBO's presence and activities known for more people.



Symposium Operators

(5) Thematic Workshop on Water Rights

1) Introduction

The NARBO Thematic Workshop on Water Rights was held in Manila, the Philippines (ADB Headquarters), on 29-31 May 2007, attended by 31 participants from 7 countries (The Philippines, Vietnam, Lao PDR, Thailand, Indonesia, Sri Lanka, and Japan). The workshop was hosted by ADB, in collaboration with the National Water Resources Board (NWRB), Laguna Lake Development Authority (LLDA), and Japan Water Agency (JWA).

The objective of the workshop is to follow-up the Thematic Workshop on Water Allocation and Water Rights, held during December 2005 - January 2007 and to finalize the technical paper on water rights system.

Participants gave presentation on the status on water rights system in their own countries, and had intensive discussion on the system. In addition, field visit was held to go to 3 venues; Tagaytay City Water District, Office of National Irrigation Administration, and Ayala Property Management Corporation. We could share information on water rights in the Philippines through the field trip.

2) Highlight of the Discussion

The following items were mainly discussed in the workshop. Outcome of the discussions is attached herewith.

- How to accommodate water resources 1) for poor communities, 2) for new users, and 3) for environment
 - How to improve consultations for win-win solutions
 - How to manage transition from implicit allocation scheme to explicit one (From “implicit” to “explicit”)
 - How to coordinate surface water and groundwater allocation
- How to accommodate water resources:**
- **For poor communities:** Participants reported the issue that poor community areas, in many cases, do not have adequate water supply facilities. Accordingly, there find some controversial cases that rich people can use reasonable priced water though poor people have to buy expensive bottled water. Therefore, participants concluded that it is necessary to develop adequate potable water supply facilities for poor communities with minimum cost.
 - **For new users:** Participants concluded the followings; (i) more beneficial water uses should be prioritized, (ii) it is necessary to develop new water resources not only with reservoir construction but also inter-basin transfer or other measures, and (iii) with developing new water resources, financial contribution from large water users should be considered.
 - **For environment:** Participants concluded that it is necessary to ensure certain of % of available water for environmental use and raise awareness on the necessity of environmental flow.

How to improve consultations for win-win solutions:

Participants concluded that the followings are needed to realize improvement of consultations for win-win solutions; (i) to identify stakeholders especially small farmers' groups, (ii) to engage more multiple users through improving communication, transparency, and better education, (iii) to mobilize local organizations at village/community level, (iv) to promote and increase the opportunities for consultation between city water users and irrigation water users, (v) to promote the activity of coordination bodies such as RBOs, and (vi) to establish the plan for water uses at basin level through stakeholders' consultation as well as recognizing water demand and supply in the basin.

How to manage transition from “implicit” to “explicit”: Participants understood that explicit scheme for water allocation is vital for appropriate water allocation from the viewpoint of good governance. In addition, participants concluded that (i) it is necessary to raise awareness on the explicit water allocation scheme and disseminate the advantage of it, and (ii) enforcement power is needed for explicit water allocation scheme.

How to coordinate surface water and groundwater: Participants concluded that the followings are needed to coordinate surface water and groundwater appropriately; (i) to collect necessary data and information on availability of groundwater and surface water, (ii) to develop plans for uses of groundwater and surface water, and (iii) to establish strong coordination between groundwater management organization and surface water management organization.



Session in the workshop

3) Field Trip

Field trip was held on 30th May (Day2), and participants visited to 3 venues as follows.

- **Tagaytay City Water District:** The purpose of this field trip was to see the case of conflict on water permit application in an urban context, between water supply utility and private firms
- **National Irrigation Administration (NIA):** The purpose of this field trip was to see the good example of water allocation among multiple irrigation water users conducted by NIA, which is a government entity under the Department of Agriculture, the Philippines.
- **Ayala Property Management corporation:** The purpose of this field trip was to see the good

example of well-functioned water rights system relating to the Laguna Lake, which is the biggest lake in the Philippines.

4) Conclusion

Thanks to the contributions from the participants, we could made good discussion on water rights system, which is one of the important water issues in Asia. The drafted technical paper was intensively discussed with valuable comments from participants received, including on the roles of RBOs on water rights. Now, ADB HQ is deliberating the technical paper the outcome of the workshop. Further information will be posted onto the NARBO Website in the near future.

About the detailed program, please refer to Appendix 6

(6) Thematic Workshop on Sustainable Management for Water Resources Infrastructure

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) decided at the Second NARBO General Meeting. Japan Water Agency (JWA) will lead “the workshop on sustainable management of Water Resources Infrastructures” based on the action plan that called as “the workshop on facility management”.

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 the characteristic of water resources management being implemented by each country. 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 faced with each country. This workshop was composed of field visits and discussion.

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

Theme of each workshop is described as follows:

The 1st Workshop: “Characteristic and Issue on sustainable management of water

resources Infrastructures of each country”

The 2nd Workshop: “Identify of problem and consultation toward resolution”

The 3rd Workshop: “Setting goal and approach to problem solution”

The 4th Workshop: “Presentation of the next step by each participant”.

Each outline of the 4-part series is shown below:

a) First Workshop

Date: June 11-14, 2007

Place: Hanoi, Vietnam

Host: General Office for RBOs, Ministry of Agriculture and Rural Development (GORBO, MARD)

Participants: 16 delegates from 5 countries



Session

b) Second Workshop

Date: October 24-27, 2007

Place: Dhaka, Bangladesh

Host: Bangladesh Water Resources Board (BWDB)

Participants: 14 delegates from 4 countries



Session



Field Visit



Field Visit

d) Forth Workshop

Date: February 4-7, 2008

Place: Bangkok, Thailand

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

Participants: 14 delegates from 6
countries



Session

c) Third Workshop

Date: December 12-16, 2007

Place: Colombo, Sri Lanka

Host: Mahaweli Authority of Sri Lanka
(MASL)

Participants: 9 delegates from 5
countries



Session



Field Visit

About the detailed program, please refer to Appendix 7

(7) Thematic Workshop on Water-Related Disaster and Its Management in Asian Countries

Based on the previous Action Plan of 2006-2007, NARBO is planning a series of three workshops on the theme of Water-Related Disaster and Its Management in Asian Countries.

The first workshop was carried out and the characteristics and issues on water-related disaster management were identified.

First Workshop

Date: November 25-29, 2007

Place: Yogyakarta, Indonesia

Host: Serayu-Opak River Basin Office of Yogyakarta

Participants: 9 delegates from 8 countries

The workshop's goal is to develop capacity of key organizations for water-related disaster management by (i) providing basic concepts and principles; (ii) sharing country challenges and strategies; and (iii) formulating an action plan.

The coming second and third workshops are planned in 2008.



Session in the workshop
(Sabo Technical Center)



Sharing in disaster experiences
with local residents (in Bantul District)

About the detailed program, please refer to Appendix 8

(8) Performance Benchmarking Pilot and Peer Review of the RRBO

What was it About

The NARBO performance benchmarking pilot nears its completion with the peer review visit of the Red-Thai Binh River Basin Planning Management Board (RRBO) on 12 – 15 June 2007. The RRBO pilot benchmarking is the last of four pilots, after which NARBO will decide on how to proceed with its Benchmarking Initiative.³ A team of NARBO Certified Peer Reviewers (PR) from Jasa Tirta I Public Corporation (PJT I), Mahaweli Authority of Sri Lanka (MASL) and Ping River Basin Organization with support from Japan Water Agency (JWA)/Asian Development Bank Institute (ADBI)/NARBO Secretariat and the International Water Management Institute (IWMI) conducted the peer review. The PR Team was chaired by Supaporn Thongpook, President of Ping River Basin Organization. The peer review was fruitful and had the full support and cooperation of the host organization.

The June 2007 peer review visit was preceded by a self-assessment process which began in February this year. At the start of the process, the RRBO designated a Self-Assessment (SA) Team composed of nine (9) key officers and chaired by the Deputy Head, Mr. Le Van Hoc. A one-day orientation for the SA Team was conducted

by IWMI in early February. It laid down the guidelines in carrying out performance assessment using the NARBO Benchmarking Tool, which is anchored on five (5) critical river basin organization (RBO) performance areas and 14 performance indicators. The SA Team facilitated the self-assessment process within the RRBO using the NARBO tool. Testing the applicability of the Benchmarking Tool is one of the objectives of the pilot.

With the completion of the SA Self-Assessment Report in May 2007, the peer review process was commenced and a team of peer reviewers was composed in coordination with the RRBO. The implementation of this process is in accordance with the other aim of the pilot which is to test the usefulness and appropriateness of a peer review approach in RBO performance benchmarking. A few weeks before the visit, the selected Peer Reviewers were given the SA Report and the key support documents for them to read in advance to better prepare them for the task.

As in past peer reviews, the RRBO Peer Review (PR) visit included a series of activities. Just before the start of the 4-day peer review, the PR members briefly met, discussed as a team and appointed its chair. A quick refresher on RBO Peer Review objectives, process, guidelines and expectations followed. The first day of the peer review was filled with presentations by the SA Team, review of key RRBO

³ The 3 other pilots were done by Jasa Tirta II Public Corporation (PJT II) in late July to October 2006, Mahaweli Authority of Sri Lanka in mid September to early December 2006, and Laguna Lake Development Authority in late January to April 2007.

documents to support the self-assessment ratings and interviews with the RRBO top management and staff. The second and third days were spent meeting the staff and viewing some facilities of two sub-RBOs in the Red River basin (the Day and Cau sub-RBOs) as part of the RRBO stakeholder consultations. On the last day, the PR Team prepared the draft PR Report, had a dialogue with the SA Team and presented the key findings to the RRBO top management. The activity was officially closed by the NARBO Vice-Chair, Dr. Michio Ota, with some inspiring messages and a confirmation of NARBO's commitment to supporting its members and the Benchmarking Initiative.

Some Peer Review Highlights

During the Peer Review, the SA Team showed confidence and trust in the PR Team by freely sharing and discussing its performance ratings. The SA Team also showed objectivity in defending its high ratings and explaining the low ratings. In two indicators, while appreciative of the higher marks the PR team thought the RRBO deserved, the SA Team stood its ground and expounded on why the lower ratings were appropriate. This shows that the SA Team recognizes well that the RRBO as an organization has yet so much to improve in terms of realizing and implementing integrated water resource management (IWRM) objectives.⁴

⁴ This view does not reflect the impending reorganization and restructuring in river basin management with the transfer of this responsibility from the Ministry of Agriculture and Rural Development (MARD) to the Ministry of Natural Resources and

The PR team was really focused in its task, had well-thought questions and comments and came up with some interesting recommendations. The PR Team included Tjoek Subijanto of PJT I and J.A.S.A. Jayasinghe of MASL. All the three PR members have been involved in two other pilots, so they have the benefit of accumulated experience and understanding in performance benchmarking and peer reviewing.

At the end of the activity, a project management expert working on the Second Red River Basin Sector project has challenged the RRBO to put to use the results of this performance benchmarking and come up with a road map to help the organization become better.⁵ As he aptly put, the whole performance benchmarking is a tool for seeing where the organization is headed and knowing how to get there.

Some Lessons from the RRBO Benchmarking

- The successful implementation of the RRBO benchmarking pilot can be attributed to several key factors:
 - the strong commitment and full support of the top executive and management of RRBO backed by

Environment (MoNRE) this year and the finalization and implementation of the Government Decree on River basin Management most likely within the year.

⁵ Even with the transfer of river basin management, the Institute of Water Resources Planning (IWRP) which is hosting and manning the RRBO can benefit from the experience.

-
-
- commitment of some resources. Without the buy-in and support of the top management, the performance benchmarking initiative cannot go far.
- the appointment of highly capable and focused SA Team which facilitated the self-assessment process and completed a clearly written SA Report;
 - the openness to learn and experience new things, the desire to improve performance and willingness share and contribute own knowledge and experience, as reiterated in the opening address of the RRBO Head; and
 - a committed team of technically knowledgeable and experienced RBO peer reviewers which lent credibility to the whole benchmarking process. NARBO has currently a very limited number of Certified Peer Reviewers who can carry out peer reviews. This points to the need to do another round of training and certification of a new batch of peer reviewers.⁶
- Among the early benefits of the benchmarking initiatives is the increased awareness of RRBO staff on the potential usefulness of performance benchmarking with a balanced scorecard framework in identifying the organization's strengths and weaknesses, and supposedly investment gaps and areas to focus resources on to achieve target improvements in performance and implement IWRM.⁷ The balanced scorecard framework presents a more systematic way of understanding the organization's position in terms of 5 critical performance areas which all lead to the achievement of IWRM objectives. This knowledge should make possible setting of clear targets and correspondingly allocating resources. However, with the uncertainty on the immediate future of the RRBO, the SA Team thought it prudent not to set targets and identify the corresponding initiatives.
 - Despite initial reservations that the tool may not be appropriate for the RRBO given its relatively narrow mandate and limited activities compared to the other three pilots, both the SA and PR Teams realized that the tool makes sense even for a "young" and "small" RBO in transition, with some refinements.⁸
 - A better understanding of the NARBO Benchmarking Tool and the balanced scorecard approach will require a lot of practice. In turn, a better understanding of the Tool will allow the RBOs a better handle and reaping of greater benefits in

⁶ This need not be as intensive and long if members of the SA teams from all the pilots will be considered for the next batch.

⁷ The same can be said of the staff of the RBO members which were reviewed and or served as peer reviewers.

⁸ For instance, the PR Team had difficulty validating the Technical Development rating because it does not see the RRBO as maintaining infrastructure and operational assets while the SA Team could not give a rating for Cost Recovery because it feels that it is not a relevant indicator.

terms of improved performance and achieved targets.

What Next

For the RRBO, the PR Team will soon be submitting its final report to its top management for consideration and appropriate action. Two actions should be encouraged. First, the RRBO top management which holds concurrent and more regular positions in IWARP can apply the results and lessons to IWARP as an organization. Second, both the SA and PR Reports can be shared with the new river basin management body if it will be constituted soon enough while the findings and recommendations are still relevant.

For NARBO, however, the lessons from the RRBO performance benchmarking will be useful in several ways: (1) confirming that the balanced scorecard framework is appropriate and satisfactory for RBO performance assessment; (2) establishing the benefits of a peer review approach; (3) revising and improving the indicators; and (4) developing reporting formats. There is now a plan to hold

a NARBO workshop by end of the year to learn the lessons from the pilots, get updates on the responses and actions from the reviewed RBOs and draw the next steps for the Benchmarking Initiative.



Session



Group photo

(9) Twinning Program

1) What is Twinning Program?

An agreement on Twinning Program was signed in November 2004, between Japan Water Agency (JWA) and Indonesian NARBO. This personnel exchange program under Twinning Program was agreed as part of NARBO activities to share knowledge and information among NARBO member organizations and enhance their capacity to implement IWRM (Integrated Water River Management).

Since the agreement, personnel to/from JWA and Indonesia NARBO had been dispatched annually. First personnel were exchanged in 2005 and this year marks its 3rd anniversary. We are convinced that this program will give much profit to each other. Your joining to this program is highly expected.

2) Brief Report of Activities in 2007

The aim of this program in 2007 is to introduce Japanese experiences on IWRM to Indonesian NARBO experts and to share information of both countries.

For this, JWA accepted 3 civil engineers, two from Jasa Tirta I Public Corporation and one from Jasa Tirta II Public Corporation, for a month.

- At field visits

(1) Gunma Canal, Naramata Dam, Yagisawa Dam

As proverb says "Seeing is believing," JWA arranged a field visit to JWA's facilities in the first week of the program, such as dams and canals. Indonesian staff learned the overview of operations and management of those

facilities and its daily tasks.

(2) Tokuyama Dam, Nagaragawa Estuary Barrage, Lake Biwa, and Kagawa Canal

In the fourth week, JWA organized field visits to major project sites of JWA in the central and western part of Japan such as Tokuyama Dam where first filling of reservoir is conducted, Nagaragawa Estuary Barrage, Lake Biwa, and Kagawa Canal.

Indonesian staff asked many questions whenever they had, giving comparison between Japan and Indonesia. Moreover, JWA staff and Indonesian counterparts exchanged information about each country's system eagerly.



Discussion in Tokuyama Dam Office



On a patrol ship of Lake Biwa

- At JWA Headquarters

- (1) Lectures

JWA staff conducted lectures in many fields including on JWA's organization, completed and ongoing projects, and some examples of implementing IWRM in Japan

- (2) Sharing information

JWA staff and Indonesian counterparts exchanged questions and answers about operation and management of water resources facilities between the two countries.

- (3) Presentation

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



Presentation of the final report



Courtesy call to the President of JWA
(Mr. Aoyama)

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) 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 October 2007, 43 people work with the Dean at ADBI: 16 Japanese administrative staff, including temporary staff, 15 internationally recruited staff, 3 Visiting Fellows and 9 Research and Capacity Building Associates. There are also some on- and off-site consultants.

- (3) Amount of the annual budget in 2007

The approved budget for 2007 was \$14.2 million.

- (4) Main events in 2007

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 2007 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. 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 the NARBO Thematic Workshop on Water Allocation and Water Rights.

- NARBO Thematic Workshop on Water Allocation and Water Rights

ADBI organized the 4th NARBO Thematic Workshop on Water Allocation and Water Rights (23rd – 26th January 2008) in Saitama, Japan, in collaboration with ADB and JWA. In that workshop, participants deliberated and completed their own action plans for improvement of the issues on water allocation and water rights.

- (3) Resolutions and expectations for NARBO activities in 2008

- 1) The organization's resolutions

Following the activities of 2007, the Institute will continue to perform the role of secretariat with NARBO.

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 in the relevant area.

(2) Bangladesh Water Development Board (BWDB)

1. About the organization

- (1) The representative of the organization

Md. Azizul Haque

Chief Planning

Bangladesh Water Development Board (BWDB)

- (2) Number of staff

The BWDB reforms sought to cater the staff strength to cope with the future strategy and action plan of the Board. In this context, it may be mentioned that in 1998, staff strength of more than 18000 as of 1995 in the Board has been brought down to permanent staff strength of 8935 (excluding the manpower of Dredger and Mechanical Engineering Directorate). However, the present staff position is around 11000. Within 2011 it will be reduced to permanent staff strength of 8935 according to the decision of the Board.

- (3) Amount of the annual budget in 2007

Amount of annual budget for the year 2007-2008 of Bangladesh Water Development Board (BWDB) was TK. 12,189.40 million (US\$187.53 million)

- (4) Main events in 2007

NARBO Training

2nd Thematic Workshop on Sustainable Management for Water Resources Infrastructures was held in Bangladesh from 24th -27th October, 2007. This Workshop was held as a program of arranging four workshops in a series. The workshop was organized jointly by Bangladesh Water Development Board (BWDB) and Institute for Water Modelling (IWM) with the assistance of NARBO secretariat (JWA).

The main objective of this workshop was to formulate action plan on IWRM and recommendations in the specific project. Based on the action plan and recommendations derived from this workshop, the action plan was finalized to share knowledge and exchange experience with a view to firm up understanding of IWRM.

2. About NARBO activities

- (1) The organization's web-site URL

www.bwdb.gov.bd

- (2) Activities the organization implemented in 2007 as the member

Since becoming a member of NARBO, BWDB has been associated with various activities of NARBO. Two assistant Engineers of Directorate of Planning-1 of BWDB participated in 4th NARBO Training held in Sri Lanka in 2006. Recently the Executive Engineer of the Chief Planning office of BWDB has taken part in the 3rd Thematic Workshop held in Sri Lanka. 2nd Thematic Workshop on Sustainable Management for Water Resources Infrastructures was held in Bangladesh from 24th -27th October, 2007. Bangladesh Water Development Board has been according continuing effort through Joint Rivers Commission, Bangladesh to discuss related matter with the co-riparian countries for formation of the River Basin Organization (RBO) for the betterment of the

people of the region.

(3) Resolutions and expectations for NARBO activities in 2008

1) The organization's resolutions

BWDB resolutions are as follows:

- i) Water resources management and development in Bangladesh is a very complex task because of its unique geographical setting and the huge temporal variation in the river flow. About 93% of the catchments area of the rivers flowing through Bangladesh lies outside the country. Withdrawal of water in the upper catchment areas worsens the situation even more. The country suffers severe water stress during the dry season. BWDB expects that NARBO can play a vital role to minimize the transboundary river basin dispute that would ultimately help Bangladesh to develop an effective water resources management and basin wise development of the transboundary rivers passing through Bangladesh to the sea.
- ii) Expansion of NARBO scope of activity as river basin development organization.
- iii) Increase the number of NARBO member to act as an effective international water sector Organization.

2) Expectations of NARBO activities

BWDB expects that through NARBO, the network can be established towards a sustainable development and management of the river basins

- Establish regional cooperation for improved management of the water resources of the country in transboundary river basins.
- Building awareness through sharing local know-how and practices on IWRM among the apex bodies in the water sectors.
- Good water-related data, information, systems, & models with communication and participation for basin stakeholders
- Development of a knowledge base on individual basins
- Development of a regional based forecasting system for better management of natural disaster (floods and drought) through sharing of advance data and information so that early warning system can be established.

Good practices and achievements of IWRM concepts could be shared for national and local level applications

Capacity development by exchange of information through training staff, sharing the knowledge, development of procedures for good achievements among different water users.

NARBO activities can help in:

- Cooperation on Strengthening the Capacity building of BWDB in implementing IWRM and improving water management and allocation through - training courses, workshops, scholarship programs.
 - Strengthen the capacity and effectiveness of RBOs for the promotion of IWRM and improvement of water related issues of water sector agencies and knowledge partner organizations.
 - Providing information and lessons learnt on IWRM from different NARBO
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organizations.

- Sharing and technology transfer through - the NARBO web site, publications, electronic newsletters, and media.
- Co-operation for improved management of water resources in the transboundary river basins of Bangladesh.
- Offering more and effective training and scholarship programme in the forthcoming years.

This Department is expecting to be informed and involved on all the NARBO's future undertakings/activities.

3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

BWDB has improved its performance in quality control (both quantity and specification) in implementing various development projects in 2007. The participation of stakeholders in different projects handling has brought a new dimension for operation and maintenance of those projects. BWDB has also improved its financial management system.

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

Performance Monitoring Team (PMT) and Flood Damage Measurement Team was formed by BWDB for inspecting and monitoring all sorts of on going work under Annual Development Plan(ADP) and Revenue Budget in field level in 2007.

The teams performed their responsibilities under the guidance of Chief Monitoring, BWDB, Dhaka. The teams visited the work site at a regular basis and ensured the quality of the works. Finally the teams submitted their report to Chief Monitoring, BWDB mentioning the progress and limitation of all types of on going works. Accordingly to the suggestions and recommendations of the teams, the necessary actions were taken for up-grading the progress of project implementation.

(3) In what way NARBO has helped the organization

- NARBO has helped with Cooperation in Strengthening the Capacity building of BWDB in implementing IWRM and improving water management and allocation through - training courses and workshops.
- Sharing and technology transfer through - the NARBO web site, publications, electronic newsletters, and media.
- Providing information and lessons learnt on IWRM from different NARBO organizations.

(3) Cuu Long River Basin Organization (CLRBO, Viet Nam)

1. About the organization

(1) The representative of the organization

DR. To Van Truong, Director of Southern Institute for Water Resources Planning (SIWRP); Chief of CLRBO standing office.

(2) Number of staff

Member staff of CLRBO are drawn from a vast line agencies, including:

- Ministries of; Industry, Construction, Health, Fishery, Transportation and Communication, National Security and Defence, Science-Technology and Environment, and the General Department of Meteorology and Hydraulics,
- Department of Water and Hydraulic Works Management, Department of Flood, Storm Protective Prevention and Dyke Management, Institute for Water Resources Planning, Standing Committee of Mekong River Commission Secretariat, Southern Institute for Water Resources Planning,
- Departments of Agriculture and Rural Development for Mekong, Dong Nai and Hong - Thai Binh River Basin,
- Planning Management Councils for Cuu Long River Basin, Dong Nai River Basin and Hong – Thai Binh River Basin,

In original, the staff member of CLRBO are:

● **Standing members:**

1. HE. Nguyen Dinh Thinh, Vice Minister – Head of Cuu Long River Basin Planning Management Council (since deceased)
2. Mr. Pham Xuan Su, Director of Water and Hydraulic Works Management Department – Deputy Head of CLRSPMC (retired)
3. Mr. Le Duong Quang, Vice Director of Planning and Investment Department – Ministry of Industry
4. Mr. Vu Huy Thu, Vice Director of Fishery Resources Protection Department – Ministry of Fishery
5. Mr. Bui Dinh Khoa, Vice Director of Architecture and Planning Management Department – Ministry of Construction
6. Mr. Nguyen Huy Nga, Vice Director of Preventive Health Department – Ministry of Health
7. Mr. Le Van Thanh, Colonel, Officer of Action of Headquarters – Ministry of National Security and Defence
8. Mr. Nguyen Ngoc Duc, Director of Southern Meteorological and Hydraulic Station – General Department of Meteorology and Hydraulics
9. Mr. Le Huu Khang, Vice Director of Riverway General Department – Ministry of Transportation and Communication
10. Mr. Le Minh Sat, Vice Director of Science and Agricultural Technology Management Department – Ministry of Science-Technology and Environment

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11. Mr. Le Ngoc Tang, Vice Director of Water and Hydraulic Works Management Department
 12. Mr. Do Ngoc Thien, Vice Director of Flood, Storm Protective Prevention and Dyke Management Department
 13. Mr. Nguyen Hong Toan, General Secretary –National Mekong River Committee of Vietnam
 14. Mr. To Van Truong, Director of Sub-Institute for Water Resources Planning and Chief of River Basin Planning Management Council Secretariat

● **Non-standing members:**

15. Mr. Nguyen Quoc Ly, Vice Director of Long An Agriculture and Rural Development Department (promoted to Director)
16. Mr. Phan Van Nghiep, Vice Director of Tien Giang Agriculture and Rural Development Department (retired)
17. Mr. Huynh The Phien, Vice Director of Dong Thap Agriculture and Rural Development Department (now Director of Tram Chim National Parks)
18. Ms. Tran Thi Luan, Director of Ben Tre Agriculture and Rural Development Department
19. Mr. Nguyen Van Thanh, Director of Vinh Long Agriculture and Rural Development Department (since changed position)
20. Mr. Le Van Tai, Vice Director of Tra Vinh Agriculture and Rural Development Department
21. Mr. Nguyen Van Dong, Vice Director of Can Tho Agriculture and Rural Development Department (promoted to Director of Hau Giang DARD)
22. Mr. Quach Van Nam, Director of Soc Trang Agriculture and Rural Development Department
23. Mr. Nguyen Tan Hung, Vice Director of An Giang Agriculture and Rural Development Department
24. Mr. Duong Minh Lich, Vice Director of Kien Giang Agriculture and Rural Development Department (since changed position)
25. Mr. Ngo Chi Dung, Vice Director of Ca Mau Agriculture and Rural Development Department (promoted to Director of Ca Mau DARD)
26. Mr. Luong Ngoc Lan, Vice Director of Bac Lieu Agriculture and Rural Development Department (promoted to Director)

● **Representative office (Secretariat board members)**

The secretariat board has been established, pursuant to the decision of the Chief of CLRBO, for carrying out the tasks of the Standing Office. Members of secretariat board are as follows:

- Mr. Pham Xuan Phuong, Deputy chief of Cuu Long Delta Planning Division
- Mr. Luong Quang Xo, Chief of Cuu Long Delta Planning Division
- Mr. Nguyen Tat Dat, Deputy Director Centre for Water Resources Constructing and Technology Transfer
- Mr. Nguyen Huy Khoi, Deputy Chief of Division of Technical and General Affairs

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- Mr. To Ha Thang, International Co-operation and Planning Division
- (3) Amount of the annual budget in 2007
- Annually CLRBO has received a budget of approximately 200,000,000 VND (USD 34,000) from MARD, to be used for annual tasks of CLRBO office.
- (4) Main events in 2007
- Review all water resource management projects in the Mekong Delta.
 - Organise seminars, workshops and forums to build knowledge in local provinces.
 - Participate in key water resource projects conducted by SIWRP
 - Provide technical expertise for trans-national development projects, in collaboration with An Giang University (development of rice security program in Sierra Leone, West Africa)

2. About NARBO activities

- (1) The organization's web-site URL
- <http://www.siwrp.org.vn>
- (2) Activities the organization implemented in 2007 as the member
- Flood control planning for the Plain of Reeds area
 - Integrated Water Resources Planning for the Long Xuyen Quadrangle
 - Pre-Feasibility study for the system work of demarcation fresh – saline areas
 - Identification of trans boundary flood issues in the CLD part
 - Update CLD Water sector profile and CLD metal data base
 - Completion of the Ca Mau Peninsula water resource planning studies
 - Organise seminars and workshop regarding water resource management and planning.
 - Comprehensive field surveys and collation of all basic data across social, environmental, economic and water resource factors.
- (3) Resolutions and expectations for NARBO activities in 2008
- Provide financial support for CLRBO to attend seminar workshops and other NARBO events
 - Provide documents from Trans-national bodies (ADB, World Bank, JICA etc) to improve CLRBO knowledge base.
 - Communicate important findings/developments of all member RBOs in the region, to improve efficiency of RBO operations.
- 1) The organization's resolutions
- Collect all background data relevant to water resource planning in Mekong Delta
 - Periodically report to NARBO all activities
 - Attend seminars, workshops and all other activities organised by NARBO
 - Exchange knowledge and experience from our RBO to other RBOs
 - Facilitate the transfer of key findings, initiatives and knowledge to local committees working within regions of the CLD
- 2) Expectations of NARBO activities
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3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

- Improved background understanding of the study area.
- Improved technical and English skills and knowledge of CLRBO staff
- Improved inter-RBO cooperation and information sharing regarding water resource planning.

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

- Attending seminars, workshops and training
- Recalibrating methods, by assessing the performance of projects and field work and learning from experience
- Organise meetings/conferences with other RBOs

(3) In what way NARBO has helped the organization

- CLRBO is currently under the supervision of MARD, however it is unclear in the future if this will remain the case, or if CLRBO will be transferred under MONRE supervision
- Insufficient number of skilled staff
- Functions, responsibilities of CLRBO overlap with that of SIWRP
- Funding for activities is insufficient

Regardless of the reorganisation of RBO activities in the Government framework, our institute will require strong cooperation with NARBO and other concerned agencies to train staff and implement water resource initiatives in the Mekong Delta .

(4) Department of Environment and natural Resources (DENR, Philippines)

1. About the organization

- (1) The representative of the organization

Atty. Analiza Rebuella Teh, Assistant Secretary, Foreign Assisted and Special Projects Office.

- (2) Number of staff

The Department has four (4) Bureaus, two (2) line bureaus, 3 attached agencies and 13 Regional Offices with PENRO's and CENRO's with more than 5,000 staff

Foreign Assisted and Special Projects Office (FASPO) has 5 divisions, with 80 staff

- (3) Amount of the annual budget in 2007

The annual budget of FASPO for CY 2007 is PhP6,835,000.00.

- (4) Main events in 2007

Organizer of Major Activity such as World Water Day Celebration in March 22, 2007, and co-organizer of the ASEAN 25th conference on the Conference of ASEAN Engineering Organization held in October 25-27, 2007.

2. About NARBO activities

- (1) The organization's web-site URL

<http://www.denr.gov.ph>

- (2) Activities the organization implemented in 2007 as the member

Provides NARBO Secretariat country's annual report

- (3) Resolutions and expectations for NARBO activities in 2008

To join/attend NARBO's training , workshops, scholarship programs and the twinning programs and other undertakings.

- 1) The organization's resolutions

Actively participation to NARBO's undertakings and activities, particularly the submission of Annual Report on time.

- 2) Expectations of NARBO activities

This Department is expecting to be informed and involved on all the NARBO's future undertakings/activities.

3. Questions to RBO members

- (1) Areas which the organization has improved the performance in 2007

The areas of River Basin planning and governance which was rationalized with the creation of River Basin control Office (RBCO) through Executive Order 510.

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

Through the institutionalization and execution of Executive Order No. 510.

- (3) In what way NARBO has helped the organization

NARBO has helped in the broadening of the DENR's spectrum of institutional linkages and networking with other National Government Agencies (NGAs), Non-Government Organizations (NGO's), Academe, Business Group and stakeholders of the office.

(5) Dong Nai River Basin Organization (DNRBO, Viet Nam)

1. About the organization

(1) The representative of the organization

Dr. To Van Truong – Director of Southern Institute for Water Resources Planning
Head of the DNRBO Office.

(2) Number of staff

RRBO comprises 30 members, including:

- Chairman: Pro.Dr. Dao Xuan Hoc, Vice Minister of Ministry of Agriculture and Rural Development (MARD);
- Vice Chairman: Mr. Vu Van Thang, Director of Water Resources Department (MARD) and a Director of the Department of Water Resources Management of Ministry of Natural Resources and Environment (MONRE);
- and regular members.

Members are directors of relevant Departments under MARD, directors of provincial Departments of Agriculture and Rural Development (DARDs) in the Dong Nai river basin, and directors of relevant departments of ministries of Natural Resources and Environment, Industries, Fishery, Construction, Transport, Health, National Defense, and General Center of Hydro-meteorology.

(3) Amount of the annual budget in 2007

Funds for operation of RRBO Office are provided from the State budget upon approval by the Ministry of Agriculture and Rural Development (MARD). In 2007, total operation funds provided to the DNRBO were VND 210 million, equivalent to approximately US\$13,200. The funds were just for regular operation of the Office. Funds to implement planning projects are from various sources including central budget, provincial budget, and others.

(4) Main events in 2007

- Completion of an important project on Water Resources Management Planning for Dong Nai river basin;
- Field visits of the secretaries of the Office of DNRBO to all the provinces located in river basin as a regular activity to member provinces.
- Organize the workshop to determine the main problems for all the stake holder in the river basin;

Co-operate with MARD in finding solutions for inundated prevention for Ho Chi Minh City;

2. About NARBO activities

(1) The organization's web-site URL

<http://www.siwrp.org.vn>

(2) Activities the organization implemented in 2007 as the member

No action!

(3) Resolutions and expectations for NARBO activities in 2008

1) The organization's resolutions

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- Participate in NARBO activities,
 - Providing resource persons for NARBO thematic workshops.
- 2) Expectations of NARBO activities
- Advanced training course on river IWRM and related topics for the RRBO Office and its members.
 - Experience exchange among RBOs to strengthen cooperation and its self capacity.

3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

In year 2007, DNRBO has first time applied the Water Resources Management Planning in Dong Nai river basin.

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

DNRBO has applied the new approach of IWRM on water management in planning process.

(3) In what way NARBO has helped the organization

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

1. About the organization

(1) The representative of the organization

Representative : Mr.Adisak Thongkaimook

Director General , Department of Water Resources

(2) Number of staff

2,712 persons (30 December 2007)

(3) Amount of the annual budget in 2007

1,728 Million Bath

(4) Main events in 2007

1. World Water Day , 22 -23 March 2007 ,Impact Arena Exhibition , Bangkok , Thailand

2. Conservation and Development of Rivers, Ditches and Canals Day, 16 September 2007, Bangkok , Thailand.

2. About NARBO activities

(1) The organization's web-site URL

[http:// www.dwr.go.th](http://www.dwr.go.th)

(2) Activities the organization implemented in 2007 as the member

- Participation in the Thematic Workshop on Water – Related Disaster and Its Management in Asian Countries Yogyakarta Indonesia
- Participation in the 1th Thematic Workshop on Sustainable Management for Water Resources Infrastructures Hanoi Vietnam
- Participation in the 2th Thematic Workshop on Sustainable Management for Water Resources Infrastructures Dhaka Bangladesh
- Participation in the 3th Thematic Workshop on Sustainable Management for Water Resources Infrastructures Kandy Sri Lanka.

(3) Resolutions and expectations for NARBO activities in 2008

1) The organization's resolutions

- To support for articles of water resources management in NARBO newsletter
- To encourage RBO Benchmarking performance
- To be the host and arrange for NARBO's workshop or meeting

2) Expectations of NARBO activities

- Further developing of training , workshop , and performance benchmarking supported by peer reviews
- Support on twinning organization
- Knowledge and technology transfer as well as strength the potential of water management for RBO's Thailand

3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

Having developed and improved relating to the performance of DWR in wetland , water supply , people's participation as well as local wisdom and IWRM application.

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

- Formulation of master plan and strategic plan and policies to support Thailand's river basin management.
- Provide budget for implementation in program of IWRM.
- Promote and support the strengthening and capacity building for River Basin Committees , local authority and related network.
- Develop of information technology system , GIS data and hydrological database.
- International Cooperation and participation on IWRM such as MRC program, international conferences and workshops
- Decentralize to local organization and utilize local wisdom and IWRM principles.

(3) In what way NARBO has helped the organization

- Support for IWRM training or scholarship programs as well as transfer of technology, information experience and knowledge related IWRM.
- Encourage of capacity building and development of RBO in Thailand.
- Participate in NARBO activities such as workshops, conference or meeting.

(7) General Office for RBOs in Viet Nam (GO-RBO)

1. About the organization

(1) The representative of the organization

(2) Number of staff

6 specialists in charge of office work

(3) Amount of the annual budget in 2007

250,000,000VDN

(4) Main events in 2007

For the last three years of its operation, the river basin planning and management office has made a big contribution to improvement of effectiveness of Vietnam's river basin planning and management boards.

- + To support river basin organizations such as the river basin planning and management board of the Hong-Thai Binh river and the river basin planning and management sub-board of the Cau river for their more effective performance.
- + To join in managing the Hong river basin project in the second phase of ADB3.
- + To popularize Vietnam's river basin management efforts through regional conferences and leaflets.
- + To preside over and collaborate with other river basin organizations in Vietnam in research on, establishment of and supervision of the yearly river system's water quality in the basins for river management, for example, water quality supervision of the Hong-Thai Binh river, the Cuu Long river and Vietnam-based Mekong river.
- + To preside over construction and to supervise changes of riverbeds of big river such as the Hong-Thai Binh river, the Dong Nai river and the Cuu Long river.
- + To set up and compile the file of Vietnam's big river basins for the river basin management board's reference and propagation of Vietnam's river basin management to the world.

2. About NARBO activities

(1) The organization's web-site URL

(2) Activities the organization implemented in 2007 as the member

In 2007, as a NARBO member, River Basin Planning and Management Office participated into all Narbo's operations, as follows:

- + To collaborate with the Secretariat in building Twinning Program.
- + To attend the conference on "NARBO Symposium on Catalyzing IWRM investment in Asia-Pacific Region" held in Beppu, Japan from December, 1st, 2007.
- + To attend the conference on "The 3rd Thematic Workshop on Sustainable Management for Water Resources infrastructure's held in Sri Lanka, on 12-16 December 2007.
- + To attend the conference on "First Thematic Workshop in Asian country on water related disaster & its management" held in Indonesia from 25th to 29th, November, 2007.

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- + To collaborate with NARBO Secretariat to successfully hold the conference on “The 1st Thematic Workshop on Sustainable Management for Water Resources Infrastructures” held in Vietnam from 11th to 14th, June, 2007.
 - + To collaborate with Hong River Planning Management Board for preparation for the conference on “The Last Performance Benchmarking Pilot and Peer Review of the RRBO” held in Hanoi, from 12th to 15th, June, 2007.

(3) Resolutions and expectations for NARBO activities in 2008

1) The organization's resolutions

As a NARBO member, River Basin Planning and Management Office will enthusiastically participate into NARBO's operations in 2008.

2) Expectations of NARBO activities

River Basin Planning and Management is looking forward to NARBO's efforts including further exchange of river basin and water resource management-related information and experience sharing among its members through conferences; capability improvement for NARBO members including Vietnam; conferences on adaptation to climate changes and poverty; implementation of Twinning programme attended by 3 officers from Water Resource Department to learn river basin management experiences from Japan; further exchange of river basin management experiences in such countries with effective river basin organizations as China; and further domestic and international propagation of river basin management efforts.

(8) Institute of Water Modelling (IWM, Bangladesh)

1. About the organization

(1) The representative of the organization

Emaduddin Ahmad, PEng, Executive Director

(2) Number of staff

Engineers/Specialists : 91

Technical/Support staff : 35

Admin/Accounts/General staff : 35

(3) Amount of the annual budget in 2007

Taka 139.18 Million (2.03 USD)

(4) Main events in 2007

- 1) Active participation of NARBO workshop (Hanoi, Dhaka, Bangkok) for sustainable infrastructure management
- 2) Development of Storm Surge induced Flood Forecasting (after SIDR cyclone).

2. About NARBO activities

(1) The organization's web-site URL

<http://www.iwmbd.org>

(2) Activities the organization implemented in 2007 as the member

- a. The First Thematic Workshop on Sustainable Management of Water Resources Infrastructures was organized by NARBO in June 2007 in Hanoi, Vietnam. Mr. Emaduddin Ahmad, Executive Director, IWM actively participated in the workshop where the participants submitted a report containing major issues and example of good practices regarding i) legal/institutional framework, ii) organization and iii) Technical aspect for water resources infrastructure management. A filled up questionnaire regarding specific issues of infrastructure management was also submitted. The ED, IWM gave presentation that discussed on overall complexities of water resource management in Bangladesh, especially focussing on sustainable management of Karnafuli river basin and operation of the Kaptai Dam.
- b. IWM was a co-facilitator along with Bangladesh Water Development Board of the 2nd Thematic Workshop of NARBO on Sustainable Management of Water Resources Infrastructures held during 24 to 27 October 2007 in Dhaka, Bangladesh. On the last day of the workshop, the Executive Director, IWM presented different issues such as legal, technical and social aspect that are vital for infrastructure management in the context of Management of Flood Control Embankment of Gumti River and Sagarkhali-Borobeela Drainage Project. He also put forward some measures for enhancing the effectiveness of these issues.
- c. In the country, IWM participated/organized in seminar/conference on national and contemporary issues like IWRM, climate change, flood management, early warning system, urban water supply etc.
- d. As its regular activity IWM carried out several R&D projects, arranged seminars and

workshops for stakeholders participation and conducted trainings for technology transfer to the clients. The ongoing R&D projects are listed below:

- 1 Advanced modelling of Urban Storm Water Drainage system
- 2 Development of a manual for Design of Bridge and other Structures
- 3 Study of Water Ecosystem of Sundarbans
- 4 Development of Decision Support System (DSS) for Integrated Water Resources Management(IWRM)
- 5 Collaborative Research with Chittagong University Zoology Department on Bangladesh Cetacean Diversity Project
- 6 Determine regional Hydro-geological Parameter
- 7 Study possible impacts of Tsunami on the Coast of the Northern Bay of Bengal
- 8 Use of ECMWF data for Flash Flood Forecast in the Northeast Region of Bangladesh

(3) Resolutions and expectations for NARBO activities in 2008

- As a continuation of IWRM activities, IWM is already conducting a number of studies that is directly contributing to IWRM activities which are seen in serial 4 under ongoing projects and the training program under serial 5.
- The ongoing projects refer to the activities of 2008 and are expected to full fill advocacy, raising awareness, and exchange of information and good practices on IWRM and more specifically serial 3, 5, NARBO promotion.
- IWM will soon establish website on NARBO activities under our common website www.iwmbd.org/narbo , it will soon be active.
- Under capacity building in RBOs we have co-organised a regional integration program for the basin level water management along with World Bank, Dhaka.
- We hope to conduct a workshop on climate change in the GBM basin under WWAP.
- In the country we develop benchmark activities on IWRM supported by peer review activities.
- We are applying to UNESCO Water Education to be a regional member and towards this goal we have already signed agreement with AIT for collaborating programs.
- We are ready to develop twining program for agencies in the region to promote IWRM.
- Many of our activities are related to Transboundary water management and we work very closely with national agencies and at time attend in bilateral meeting at country level.
- We are always available as a knowledge hub to provide network support for national, regional and international bodies either for promoting education or providing decision support tools to promote participation of stakeholders and thus ensuring transparency.

1) The organization's resolutions

IWM is determined to remain the market leader and provide world-class service in the field of water modelling, Computational Hydraulics and allied sciences keeping in mind the implementation of the suggested interventions in an integrated way in line with the

national goals and policies of the water sector. At the same time IWM intends to broaden its horizon in the field of education, training and research. The overall degradation in water related environment in the country requires more attention and IWM intends to carry out extensive research and training in these fields.

IWM does believe in Basin Level Management of resources and as such it promotes all activities relevant to 'Regional Integration of the Ganges, the Brahmaputra and the Meghna basins"

2) Expectations of NARBO activities

IWM is dedicated to the development of mathematical models to support IWRM and it regularly arranges training for the users of IWM services and conduct research in the water related environment. To assist in fulfilling its goal IWM expects future collaboration projects and twinning programmes with foreign organizations and educational institutes. IWM also expects continued attachments with NARBO workshops and training programmes as in the case of past thematic workshops on sustainable management of water resource infrastructure. With its technological strength and manpower resources it can act as a **Regional Training Hub** and contribute as a resource centre to support NARBO programs.

3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

Developed awareness to stakeholders on the need for IWRM.

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

Visualization of the impacts of cooperation and disbenefits of non cooperation under various model supported scenario.

(3) In what way NARBO has helped the organization

The four workshops organised by NARBO has generated interest where IWM has participated and IWM's contribution being recognised.

(9) Japan Water Resources Association (JAWA)

1. About the organization

- (1) The representative of the organization

Dr. Toru KONDO, President Director

- (2) Number of staff

29 (As of 2007)

- (3) Amount of the annual budget in 2007

1.15 billion JPY (11.5 million USD)

- (4) Main events in 2007

JAWA supported 31st Water Week by Japanese government and related Symposium on water resources held in Tokyo.

2. About NARBO activities

- (1) The organization's web-site URL

Japanese: <http://www.jawa.or.jp/>

- (2) Activities the organization implemented in 2007 as the member

- Submitting Registration form for joining NARBO in January

- (3) Resolutions and expectations for NARBO activities in 2008

- 1) The organization's resolutions

JAWA will launch an English version web-site to contribute NARBO activities.

- 2) Expectations of NARBO activities

We will try to take part in NARBO activities positively.

(10) 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 2007)

(3) Amount of the annual budget in 2007

260 bil. JPY (2.6 bil. USD)

(4) Main events in 2007

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 2007 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.10 and No.11 in March and August respectively)
- Issue of NARBO annual report 2006 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 2006 in March
- Accepting staff through Twinning Program between JWA and Indonesian NARBO
(Indonesian NARBO dispatched 3 personnel to JWA from August 7 to September 7)

(3) Resolutions and expectations for NARBO activities in 2008

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.

(11) Mahaweli Authority of Sri Lanka (MASL)

1. About the organization

(1) The representative of the organization

Mr. Ivan de Silva, Director General of MASL

(2) Number of staff

4600 Nos

(3) Amount of the annual budget in 2007

US \$ 43.50 Million

(4) Main events in 2007

- ◆ Moragahakanda Project was inaugurated in January 2007
- ◆ Preparation of Dam Safety & Water Resources Planning Project was successfully completed.
- ◆ Organized and Conducted 3rd Thematic Workshop on “Sustainable Management of Water Resources Infrastructure” 12-16 December 2007, Kandy, Sri Lanka.

2. About NARBO activities

(1) The organization's web-site URL

<http://www.mahaweli.gov.lk>

(2) Activities the organization implemented in 2007 as the member

1. Attended and actively contributed for the 4th & Final Thematic Workshop on Water Allocation & Water Rights, 23-26 January 2007, Saitama, Japan.
2. Attended for the Workshop on Water Rights, 29-31 May 2007, Manila, Philippines. Also actively participated for Secretariat meeting held at ADB Head Quarters on 1st May 2007.
3. Director General of MASL and Vice- Chairperson of NARBO attended for the 3rd South East Asian Water Forum in 23-24 October 2007 in Malaysia.
4. Represented all 4 Thematic Workshops on “Sustainable Management of Water Resources Infrastructure” held in Vietnam, Bangladesh & Sri Lanka and Thailand.
5. Organized and Conducted 3rd Thematic Workshop on “Sustainable Management of Water Resources Infrastructure” 12-16 December 2007, Kandy, Sri Lanka.

(3) Resolutions and expectations for NARBO activities in 2008

1) The organization's resolutions

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 the organization has improved the performance in 2007

Prepared a New Project to address Water Resources Planning, Hydro-Meteorology Information System to focus on RBO concept accordingly.

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

MASL is having necessary Human Resources Strength.

(3) In what way NARBO has helped the organization

By creating an opportunity to share valuable experience in the Water Sector and RBO Sector among member countries and apply good practices to our own RBO.

(12) Mekong River Commission (MRC)

1. About the organization

(1) The representative of the organization

Mr Jeremy Bird, Chief Executive Officer

(2) Number of staff

131 at the MRCS headquarters in Vientiane and around 30 at the Regional Flood Management and Mitigation Centre in Phnom Penh.

(3) Amount of the annual budget in 2007

Total expenditure in 2007 was US\$14,225,403

(4) Main events in 2007

Third South East Asia Water Forum

One of the most important events on the 2007 calendar was the third South East Asia Water Forum, held in Kuala Lumpur, Malaysia in October. The conference theme was "Consolidating Actions towards Effective Implementation of Integrated Water Resources Management (IWRM): What Have We Done? What More Shall We Do?" Two sessions at the forum were chaired by the MRC, on the subjects of Flood Mitigation in a Development Context - Examples and Lessons from the Mekong, and on Sustainable Development Challenges: Climate, Drought and Water Management. The climax of the forum was the Putrajaya Ministerial Declaration recognising the importance of water in social and economic development and the role of IWRM approaches in responding to the challenges presented by climate change.

Nile Basin countries learn from MRC experience

In October the MRC hosted a six-day study tour from 26 members of the Nile Basin Initiative (NBI), which represents nine African nations. The delegates from Burundi, the Democratic Republic of Congo, Egypt, Kenya, Rwanda, Sudan, Tanzania and Uganda came from the Initiative's Water Resources Planning and Management Project, which aims to enhance technical and analytical capacity to support the development, management and protection of the Nile Basin's water resources.

One of the three technical components of the visitors' project is a decision support system, and as the MRC has good experience of such systems through its own Decision Support Framework, the African delegates were especially interested in learning how MRC goes about achieving basin-wide communication, information management and analysis of river basin resources. In an intensive two days of presentations and demonstrations from MRC programme staff, the NBI delegation had the opportunity to learn more about how the programme work is implemented in a basin-wide framework. They also presented their work in the Nile Basin to interested MRCS and National Mekong Committee participants.

WUP nears its natural end

The long-running Water Utilisation Programme (WUP) moved to the brink of final completion in 2007 and in May an independent evaluation team established that it had been successfully implemented. One of the WUP's final achievements was completion of the Decision Support Framework, a suite of modelling tools capable of describing changes in river flow and assessing impacts that can occur as a result of infrastructure development – mainly irrigation and hydropower – and climatic variations within the basin. An important conclusion of the Decision Support Framework is that we now understand the Mekong flow regime is highly robust: with good planning and management, there is much room for water resource developments that can help reduce poverty in the Member States.

2. About NARBO activities

(1) The organization's web-site URL

www.mrcmekong.org

(2) Activities the organization implemented in 2007 as the member

Events to mark World Water Day, World Wetlands Day

(3) Resolutions and expectations for NARBO activities in 2008

1) Organization's resolution

MRC representative from Cambodia National Mekong Committee to attend NARBO 3rd Annual General Meeting.

As the MRC's plans, programmes and policies are based on IWRM, all our activities are compatible with those of NARBO, and may be seen as an extension of the same ideal.

2) Expectations of NARBO activities

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

3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

Results-based Monitoring & Evaluation system development initiated.

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

The MRC Strategic Plan 2006-2010 calls for the development and implementation of an M&E system as an essential component of the plan's implementation. In addition, the independent organisational, financial and institutional review of the MRC Secretariat and the National Mekong Committees recommended in January 2007 that "a monitoring and evaluation strategy, including a framework for country reporting against measurable performance indicators, should be developed and implemented as a priority". As a preparatory step a unified output monitoring system was introduced throughout MRC programmes during the first and second quarters of 2007. The output monitoring system helped harmonise delivery structures throughout all programmes and align programme outputs towards the goals of the Strategic Plan.

(3) In what way NARBO has helped the organization

Through global and Asian promotion of the ideals of cooperation and IWRM.

(13) National Hydraulic Research Institute of Malaysia (NAHRIM)

1. About the organization

(1) The representative of the organization

Ir. Dr. Salmah Zakaria, Director General

(2) Number of staff

Until March 2008, the number of staff is 87. After April 2007, the approved staff strength has increased to 159.

(3) Amount of the annual budget in 2007

The annual budget is categorized under the management and development budgets. For the year 2007, the management budget is RM 3,443,841.01 and the development budget is RM 7,566,015.42. Grand total annual budget in 2007 for NAHRIM is RM 11,009,856.43.

(4) Main events in 2007

Events organized by NAHRIM:

1. Rainwater Utilization Colloquium
2. Colloquium on Lakes and Reservoirs Management: Status & Issues
3. Conference on Legislation & Institution Arrangement in IWRM
4. Training of Trainers (TOT) on Legislation & Institution Arrangement in IWRM

Events in 2007 that NAHRIM involved:

1. International Joint Workshop on Water and Climate : From Threats to Actions
2. International Conference on Climate Change
3. Rainwater Catchments System Conference & technical visit
4. SEA Water Forum
5. United Nations Climate Change Conference in Bali (COP 13 & CMP 3)
6. Technical Visit to Saraburi (Microbe Effective Research Center), University Chiangmai and Marine Research Center at Phuket.
7. Forum on cities and Climate Change: Adaptation and Planning Responses
8. International User Conference 2007, Wallingford Software.
9. River's 07 Conference
10. World Water Day 2007 Conference
11. East and Southeast Asia Regional Seminar on Flood Hazard Mapping
12. LFA Workshop on Development of Conceptual Framework for Lake Management
13. Technical Talk on Current and Future Challenges in Hydrology in Tropical Regions
14. Public Lecture on International Year of Planet Earth (IYPE)

2. About NARBO activities

(1) The organization's web-site URL

<http://www.nahrim.gov.my>

(2) Activities the organization implemented in 2007 as the member

(3) Resolutions and expectations for NARBO activities in 2008

1) Organization's resolution

2) Expectations of NARBO activities

NAHRIM believes that NARBO will be a good a platform to develop our organization and broaden the networking among other River Basin Organization in Asia. The NARBO Action Plan 2008-2009 has planned activities that are categorized into three key result areas, advocacy, raising awareness and exchange of information and good practices on IWRM, capacity building in River Basin Organizations (RBOs) and network support. NAHRIM believes that these activities will be useful beneficial to the members.

NAHRIM will enhance the quality of research and will exchange and share information, knowledge and experiences with other river basin organization, associated water sector agencies and the knowledge partner organizations through the NARBO website and e-Newsletter. NAHRIM now is now developing the National Water Information Repository Centre which eventually will be able to be accessed by NARBO members through NAHRIM website.

Through active participating and involvement in NARBO activities such as IWRM training program, workshops, performance benchmarking and twinning programs, NAHRIM will be able to strengthen the capacity of its researchers.

(14) National Water Resources Board (NWRB, Philippines)

1. About the organization

(1) The representative of the organization

MR. RAMON B. ALIKPALA - Executive Director

ATTY. ELENITO M. BAGALIHOG – Chief, Water Rights Division

(2) Number of staff

96

(3) Amount of the annual budget in 2007

Personal Services ----- P 28,375,000.00

Maintenance & Other Operating Expenses--- P 9,934,000.00

(4) Main events in 2007

1. The Philippine IWRM Plan Framework was approved by the NWRB Board and was launched during the Partners' Forum whereby key stakeholders signed pledge of support to adopt and implement the mainstream IWRM in lead agency. (January 2007)
2. First National Conference of Small-Scale Water Service Providers (SSWSPS) was conducted in order to provide support to SSWSPS on issues and concerns to be able to improve operations and management. In this activity, the official group of SSWSPS was organized and named National Waterworks Association of the Philippines (NAWASAP).
3. Preparation of Economic Regulatory Guidelines (ERG) as a tool for regulation of water service providers. The ERG could serve as a tool for water service providers to improve services.
4. Different policies related to water allocation was formulated such as:
 - Policy Guidelines on the processing of Water Permit Application in Cebu
 - Policy on the abstraction of groundwater for refilling stations
 - Policy on the issuance of Conditional Water Permit
 - Signing of MOA with LLDA on the Institutional Collaboration on the Regulation, Enforcement and Monitoring of Groundwater in the Laguna de Bay Region

2. About NARBO activities

(1) The organization's web-site URL

www.nwr.gov.ph

(2) Activities the organization implemented in 2007 as the member

- Hosted NARBO Workshop on Water Rights with ADB and LLDA (Auditorium Zone A, ADB, Manila, Philippines)
- Conducted Orientation Seminar on the NWRB Water Permit System with LLDA (March 20 and 22, 2007)
- Preparation and adoption of Philippine IWRM Plan Framework
- Strict Implementation of Laws, Rules and Regulations regarding water rights system
- Conduct series of IEC Campaign to inform water users about water rights system
- Establishment of partnership with LGUs and other water related agencies like LLDA,

-
-
- Water Districts, thru deputation and MOA execution
- (3) Resolutions and expectations for NARBO activities in 2008
- 1) Organization's resolution
NWRB resolves to cooperate and support all the activities of NARBO in relation to water resources management and development.
 - 2) Expectations of NARBO activities
NWRB expects the NARBO to continue with the activities it started to help countries like the Philippines learn more about the experiences of neighboring countries in the management of water resources.

3. Questions to RBO members

- (1) Areas which the organization has improved the performance in 2007
NWRB has improved its performance in :
- Water rights system and water allocation; and
 - IWRM concept and implementation
- (2) The way in which the organization was able to do so
Through participation in all NARBO activities.
- (3) In what way NARBO has helped the organization
NARBO has helped the NWRB a lot through the conduct of workshops and other water related activities attended by the staff, the subject of which were very much relevant in the performance of NWRB mandates.

(15) Jasa Tirta I Public Corporation (PJT I, Indonesia)

1. About the organization

(1) The representative of the organization

Mr. Tjoek Walujo Subianto, President Director

(2) Number of staff

Number of staff as of December 2007 is 632.

(3) Amount of the annual budget in 2007

Data is not available yet (being audited by authorized auditor)

(4) Main events in 2007

- Reorganization of PJT I

1. Based on Minister of State Owned Company Number : KEP-265/MBU/2007 dated 8 November 2007, PJT I has new Board of Directors, consists of :

President Director : Mr. Tjoek Walujo Subianto

Director of Technical Planning : Mr. Harianto & Development

Director of Operation: Mr. Edhie Subagio

Director of Human Resources & Common Affair : Mr. Syamsul Bachri

Director Finance : Mr. Didih Hernawan

2. It is expected by Minister of Public Works and Minister of State Owned Company as the owner and the regulator of PJT I that reinventing PJT I is needed to meet the challenges and to cope with the issues on WRM in Brantas and Bengawan Solo River Basin.

- Flood in the Bengawan Solo River Basin, 25 - 27 December 2007, cause many people lost their home and farming area. Many of the water resources facility also destroyed by the flood.

2. About NARBO activities

(1) The organization's web-site URL

<http://www.jasatirta1.go.id>

(2) Activities the organization implemented in 2007 as the member

- NARBO 1st Thematic Workshop Sustainable Management for Water Resources Infrastructures, Hanoi, Vietnam, 11 - 14 June 2007

- NARBO Thematic Workshop on Water Related Disaster and its Management in Asian Countries, Yogyakarta, 26 - 29 November 2007

- NARBO 3rd Thematic Workshop Sustainable Management for Water Resources Infrastructures, Colombo, Sri Lanka, 11 - 17 December 2007

(3) Resolutions and expectations for NARBO activities in 2008

1) Organization's resolution

PJT I will involve and participate actively in implementing NARBO activities in 2008 in order to reach 1) the 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 the organization has improved the performance in 2007

- Readiness to cope with flood hazard and drought as main priority, besides improvement of service and communication to costumers and stakeholders
- Maintenance of water resources facilities by conducting prevention maintenance

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

- Optimalize the reservoir operation
- Allocate more budget for operation and maintenance
- Improve quality management system of ISO 9001:2000 on design, operation and maintenance of water resources infrastructure

(3) In what way NARBO has helped the organization

NARBO activities e.g. Thematic Workshop on Water Allocation and Asset Management, we have best practices lesson learned from other members.

(16) Jasa Tirta II Public Corporation (PJT II, Indonesia)

1. About the organization

(1) The representative of the organization

Ir. Djendam Gurusinga, Dipl.HE, President Director

(2) Number of staff

Per 31st of December 2007, 1,522 employees, which classified by education as presented in Table 2:

Table 2 Composition of Human Resources Classified by Education

Education Level	Number of staffs
1. Post Graduate (master degree)	24
2. Undergraduate (bachelor degree)	185
3. Higher Education School	130
4. Senior High School	397
5. Junior High School	284
6. Elementary School	502
TOTAL	1,522

(3) Amount of the annual budget in 2007

Total annual budget of PJT 2 in 2007 was Rp. 209,483.19 million equal to USD 22.77 million.

(4) Main events in 2007

- a. Rehabilitation of Ir. H. Djuanda Hydro-electric Power Plants, particularly repairing and modifying the transformers.
- b. Improvement of water quality monitoring system.

2. About NARBO activities

(1) The organization's web-site URL

Website : www.jasatirta2.co.id

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

(2) Activities the organization implemented in 2007 as the member

- a. As participant on the Thematic Workshop of Water Right and Water Allocation, 23-26 Jan, 2007 in Japan.
- b. Attending the Thematic Workshop on Water Right, 29-31 May, 2007.
- c. Institutional Capacity Building on water quality management system, collaboration of PJT2 with K water on Pilot and Demonstration Activity: Development of a Water Quality Management System for the West Tarum Canal, May 2007 in Korea.
- d. Exchange of Personnel on Twinning Program of NARBO Indonesia and Japan Water Association, July 2007 in Japan.
- e. Staff Capacity Building on Water Quality Management System as part of the collaboration of PJT2 and K water on Pilot and Demonstration Activity: Development

-
-
- of a Water Quality Management System for the West Tarum Canal. PJT2 sent 6 (six) operational staffs to K Water in July 2007 in Korea.
- f. Collaboration between PJT2 and K Water on Pilot and Demonstration Activity of Development of a Water Quality Management System for the West Tarum Canal supported by Asian Development Bank, Nov 2006 – Dec 2007.
 - g. As participant on the Thematic Workshop on Water-related Disaster and its Management in Asian Countries, 12-16 November 2007 in Yogyakarta-Indonesia.

Summary of PDA – WQMS Project, collaboration with K Water

Pilot and Demonstration Activity (PDA): Development of Water Quality Management System (WQMS) for the West Tarum Canal in the Citarum River Basin is the collaboration project between Korea Water Resources Corporation (K Water) and Jasa Tirta II Public Corporation that was supported by the Asian Development Bank.

The project was to pilot an approach that address the issues of adequate database development through systematic monitoring of water quality and the development of a system to support better water quality management (WQM) in the context of IWRM, and to demonstrate the activities that need to be developed in order to have better WQM, focusing on the West Tarum Canal.

The project consisted of:

- WQ Monitoring: Design water quality monitoring network and Conduct monitoring to build up water quality database
- WQ Modeling: Develop a water quality modeling system and Model calibration and application (scenarios development)
- Capacity Building: Increase capability of technical staffs of PJT II with learning by doing and Institutional capacity building in water quality management system
- Stakeholder Meeting: To disseminate information in order to synchronize the program, raising awareness and participation from the stakeholders

(3) Resolutions and expectations for NARBO activities in 2008

1) Organization's resolution

Human resource is one the important 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.

2) Expectations of NARBO activities

To promote the close relationship among the NARBO members, the capacity building for the young engineers 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, simultaneously

with attending exhibitions to get acquainted with industries related to water technologies. To create closer relationship among the participants can be done by group exercises and making individual presentations.

3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

Water quality monitoring system has improved after conducting the pilot and demonstration activity of water quality management system for the West Tarum Canal. The activities will be continued by applying the similar scheme to the whole basins and deepened into the local basin with detail implementations.

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

Through regular training related to water quality monitoring, and also through learning by doing will enhance the staff's capabilities on water quality monitoring and modeling, and the staffs will be able to identify and react properly if there is alert on water quality in the rivers or canals.

(3) In what way NARBO has helped the organization

NARBO provided technical and financial supports by means of trainings which will be beneficial to strengthened institutional capacity. NARBO also linked the network of our organization to financial providers and through grant realized the practical exercises on water quality management activities.

(17) Research Centre for Water Resources (RCWR, Indonesia)

1. About the organization

(1) The representative of the organization

Dr. Arie Setiadi Moerwanto, Director of Research Centre for Water Resources

(2) Number of staff

-Strata 1 : 113 people

-Strata 2 : 64 people

-Strata 3 : 8 people

(69 people of them are researcher)

(3) Amount of the annual budget in 2007

57.339.577.000 IDR

(4) Main events in 2007

- Colloquium (RCWR, Bandung)
- Workshop Transboundary River Basin I & II (Bandung and Jakarta)
- International Symposium and Workshop on Current Problems In Groundwater management and Related Water Resources Issues (Kuta, Bali)
- Workshop on RBO (Jakarta)
- Training on Operational Hydrology (RCWR, Bandung)

2. About NARBO activities

(1) The organization's web-site URL

[Http://www.pusair-pu.go.id](http://www.pusair-pu.go.id)

(2) Activities the organization implemented in 2007 as the member

- Attending the 3rd General meeting of NARBO In Solo Central Java, Indonesia.
- Preparation of setting up of Dissemination Unit for River Basin Management and Technology.
- Counter-parting to K-Water on modeling the water quality of Citarum river.
- Received and guided the JWA mission to 13 Experimental Stations in Indonesia from December 2007 to March 2008.

(3) Resolutions and expectations for NARBO activities in 2008

1) Organization's resolution

- Following and active participation of NARBO activities.
- The Institute will continue to perform the role of NARBO Secretariat.

2) Expectations of NARBO activities

- Exchange and sharing of information, good practices and lessons learned for IWRM among the NARBO members.
- Advanced training course on river basin management for the RBOs office and members.
- Fostering regional cooperation for improved management of water resources in trans-boundary river basins.
- Develop and implement IWRM and effective water government in accordance with

government policy on water resources management.

- Facilitate communication and coordination of NARBO members.
- Technical advice in regard to the planning, conservation, development, and the proper and efficient operation and maintenance of water resources facilities, to improve IWRM.

3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

Guidelines for supporting capacity building of RBO in Indonesia.

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

Conducting research and development in various fields, and research and development comprising implementation of research, evolution and analysis of Research & Development products, technical advice & services, standardization, capacity building of human resources and water resources management.

(3) In what way NARBO has helped the organization

- Exchange of knowledge
- Conducting applied research and development.
- Preparing norms, standard and guidelines and manual.
- Training, consultation services and assistance.

(18) Red – Thai Binh River Basin Organization (RRBO, Viet Nam)

1. About the organization

(1) The representative of the organization

Dr. To Trung Nghia, Director of Institute of Water Resources Planning
Head of the RRBO Office

(2) Number of staff

RRBO comprises 50 members, including:

- Chairman: Mr. Nguyen Ngoc Thuat, Vice Minister of Agriculture and Rural Development
- Vice Chairman: Mr. Vu Van Thang, Director of Water Resources Department (MARD) and a Director of the Department of Water Resources Management of Ministry of Natural Resources and Environment (MONRE)
- and 46 regular members.

Members are directors of relevant Departments under MARD, directors of provincial Departments of Agriculture and Rural Development (DARDs) in the Red-Thai Binh river basin, and directors of relevant departments of ministries of Natural Resources and Environment, Industries, Fishery, Construction, Transport, Health, National Defense, and General Services of Hydro-meteorology.

In addition, there are 10 officers of IWARP working to run daily operation the RRBO Office.

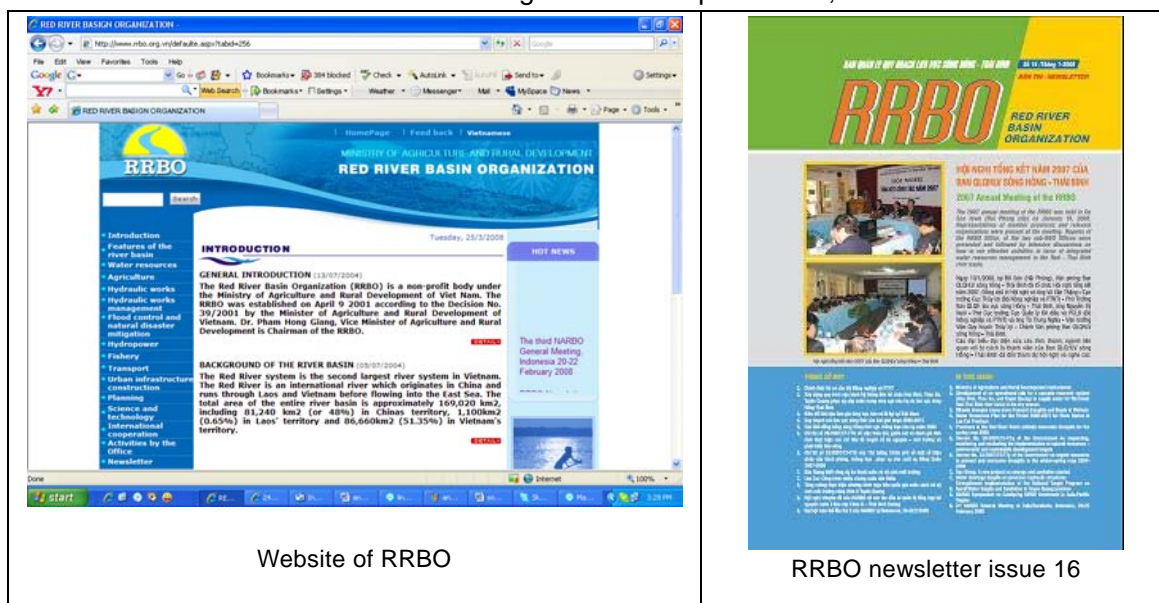
(3) Amount of the annual budget in 2007

Funds for operation of RRBO Office are provided from the State budget upon approval by the Ministry of Agriculture and Rural Development (MARD). In 2007, total operation funds provided to the RRBO were VND250 million, equivalent to approximately US\$15,600 (including VND54 million or US\$3,400 for Day Sub-RBO and VND40 million or US\$2,500 for Cau Sub-RBO). The funds were just for regular operation of the Office. Funds to implement planning projects are from various sources including central budget, provincial budget, and others.

(4) Main events in 2007

- Continuous implementation of ongoing projects including (i) review of the Water Resources Plan for Day – Nhue rivers, (ii) water resources planning for the intercalated areas between Red and Hoa rivers, (iii) review of the Water Resources Plan for Bac Hung Hai hydraulic scheme, and (iv) water resources planning for Ninh Binh province.
- Completion of important projects including (i) Integrated Water Resources Planning for Red – Thai Binh river basin, (ii) water resources planning to facilitate cropping and livestock pattern transform for the Northern Coast, (iii) detailed water resources planning for resettlement areas of Son La hydropower project, (iv) floodway planning for Red river, and (v) water resources planning for river basins in Lao Cai province.
- Field visits to Cao Bang, Bac Kan and Thai Nguyen provinces as a regular activity to member provinces.
- Mission to Ha Nam, Nam Dinh and Ninh Binh provinces to inspect preparedness for natural disaster mitigation.

- Coordination with Water Resources Department (MARD) in realizing measures against droughts in the winter-spring crop in 2007.
- Coordination with the Department for Dike Management and Flood Control (MARD) in flood control activities. Missions were sent to provinces for inspection of rehabilitation and improvement of dike systems.
- Coordination with Ministries of Industry, Natural Resources and Environment, and with Electricity of Vietnam to complete the preparation of operational rules for multipurpose multi-reservoirs on the Red river system
- Leading and coordination with the two sub-RBOs in making water resources management plans at sub-basin level.
- Keeping the RRBO website updated to provide relevant information and facilitate information exchange among members and provinces;
- Issuing quarterly newsletters (issues 13, 14 and 15) to inform activities of the RRBO as well as new relevant water-related regulations and provisions;



Website of RRBO

RRBO newsletter issue 16

2. About NARBO activities

- (1) The organization's web-site URL
www.rrbo.org.vn (for both English and Vietnamese)
- (2) Activities the organization implemented in 2007 as the member
 - Receiving IWMI mission to strengthen cooperation among water management organizations and carry out Performance Benchmarking Tool and Self-Assessment Orientation (30/1/2007 to 8/2/2007)
 - Self-assessment process (February to May 2007)
 - Peer Review mission (12-15/6/2007) for the RRBO (including field visits to the two sub-RBOs)
 - Participation in NARBO workshops and training

- Thematic workshop on Water Rights in Philippines (29-31/5/2007)
- The 4th Thematic Workshop on Water Allocation and Water Rights in Japan (23/1 - 26/1/2007)
- The 1st Thematic Workshop on Sustainable Management for Water Resources Infrastructures in Vietnam (11-14/6/2007)



(3) Resolutions and expectations for NARBO activities in 2008

1) Organization's resolution

RRBO has maintaining and will maintain a regular and close cooperation with NARBO and active participation in NARBO activities, for instance

- Participating in NARBO activities,
- Holding NARBO activities in collaboration with NARBO Secretariat
- Providing resource persons for NARBO thematic workshops.

2) Expectations of NARBO activities

- More intensive experience exchanges through study tours on river basin management for RBOs to learn experiences from other members, especially from Japan, China, Thailand,
- Advanced training course on river IWRM and related topics for the RRBO Office and its members. Community development, analytical skills and management skills are also very important for successful IWRM.
- Staff exchange among RBOs to stimulate experience exchanges and strengthen cooperation.
- Capacity building for the RRBO in particular and for new RBOs in general in the field of water resources management and allocation as well as water legislations

3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

- Stakeholder involvement
- Data sharing

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

-Stakeholder involvement: There is a principle set for member provinces and organizations to have voice in preparation, planning, design, and implementation of water-related project in the basin. Every project using budget funds must be agreed by stakeholders before it is invested in.

-Data sharing: Relevant information and data collected through regular meetings, reports and field visits are shared among members. RRBO website and newsletters are seen as useful means to disseminate relevant information to RRBO members and those who are interested in. In particular RRBO website was highly appreciated by NARBO Peer Review for its contents and regular update.

(3) In what way NARBO has helped the organization

Being selected as one of the RBOs for piloting the performance benchmarking tool is really helpful for RRBO to recognize its strengths and weaknesses and from that RRBO knows and plans what to do next for better performance.

NARBO communication system (including website, newsletter, notice, etc) is a good example for RRBO to learn and improve its own.

(19) Selangor Water Management Authority (SWMA, Malaysia)

1. About the organization

(1) The representative of the organization

Hj Md Khairi bin Selamat, Principal Assistant Director

(2) Number of staff

Up to 31 March 2008, the total staffs which include administrative, technical and supporting staff are 52.

(3) Amount of the annual budget in 2007

Operation budget: RM 3 million (USD \$937,500.00)

Charges and fee collection: RM 2.4 million (USD \$750,000.00)

(4) Main events in 2007

I. Seminar on Integrated River Basin Management (IRBM) for Selangor River on 3 - 5 July 2007 at Awana Porto Malai, Langkawi, Kedah, Malaysia.

II. Seminar on Groundwater Management in Selangor on 4 September 2007 at Equatorial Hotel, Selangor, Malaysia.

2. About NARBO activities

(1) The organization's web-site URL

www.luas.gov.my

(2) Activities the organization implemented in 2007 as the member

None

(3) Resolutions and expectations for NARBO activities in 2008

1) Organization's resolution

I. Lesson and experience learned

II. Good practices sharing

III. Collection, management and utilization of data (ie via website)

2) Expectations of NARBO activities

I. To participate in all program initiated by NARBO that is related to SWMA's function; and

II. to improve the networking between NARBO's member.

3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

1. Pollution control activities (monitoring and enforcement);

2. Raw water abstraction control (monitoring and charging);

3. Jetties activity (monitoring)

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

I. Integrated approach;

II. Collaboration and cooperation between related agencies and stakeholders;

III. Preparation of Regulations (Inland Navigation, Effluent Discharges and Raw Water Abstraction); and

IV. Skill knowledge.

(3) In what way NARBO has helped the organization

I. Training/capacity building; and

II. Information sharing.

(20) Water Resources Coordination Committee Secretariat (Lao PDR)

1. About the organization

(1) The representative of the organization

Mr. Phonchaleun NONTHAXAY, Director of Water Resources Coordination Committee Secretariat

(2) Number of staff

19 staffs

(3) Amount of the annual budget in 2007

(4) Main events in 2007

- Nam Ngum River Basin development sector project.

1. National Water Resources Profile.

2. Data and Information on Water Resources assessment paper.

3. Drafting Nam Ngum River Basin Profile

4. Making scenario following the potential and ability to water and water resources management in Nam Ngum River basin.

5. Making decree on Nam Ngum River Basin Committee and its secretariat.

6. To Implementation training plan of Integrated water resources management

7. Making public awareness on “the important of water resources”.

8. Drafting the concept note on Nam Ngum River Basin Plan.

- Integrated Nam Theun/ Nam Kading River Basin Management

1. Baseline Study on data and Drafting Nam Theun/ Nam Kading River Basin Profile

2. Making Stakeholder Analysis.

- Integrated Xedon River Basin Management.

1. Drafting Xedon River Basin Profile

2. About NARBO activities

(1) The organization's web-site URL

No Have

(2) Activities the organization implemented in 2007 as the member

- Participate the Series of the Workshop on Water Allocation And Water Right

- Participate the Workshop on Disaster Management.

(3) Resolutions and expectations for NARBO activities in 2008

- 1) Organization's resolutions

- Our organization will be Link to NARBO member websites, newsletters, online databases, and other related sites

- Share good practices, lessons learned, IWRM-related activities

- To be the Members to attend and contribute knowledge on issues and solution strategies in the workshops

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- Prepare annual report and send to NARBO Secretariat

2) Expectations of NARBO activities

We expect NARBO will be organize the IWRM workshops or training program on topics of River Basin Planning and Reservoir management.

3. Questions to RBO members

(1) Areas which the organization has improved the performance in 2007

- Improve water resources unit at central and provincial level.
- Preparation Nam Ngum River Basin planning activities on 2008
- Establish Nam Ngum River Basin Committee and institutional Strengthening for Nam Ngum River Basin Secretariat.
- Preparation concept paper of Nam Ngum watershed Management.
- Cooperate with National University of Lao to develop IWRM
- Implementation sort and long term training plan on IWRM

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

(3) In what way NARBO has helped the organization

NARBO help our organization by improve our colleagues' knowledge on IWRM and Others topic that Related to Water Resources Management.