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MESSAGE FROM THE SECRETARY GENERAL



Preface

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

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

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

Eight years have been passed since the establishment of NARBO. The number of members becomes 76 (member list is attached in Baseline 3) organizations from 16 countries as of March 31, 2012.

Various NARBO activities had been conducted from April 2010 to March 2012 and those activities are summarized in this NARBO annual report 2010/2011.

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, 2006, 2009 and 2012. These conferences 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 water resources facilities, to improve IWRM.

- Fostering regional cooperation for improved management of water

resources in transboundary river basins.

- 3) The scope of IWRM activities to be supported by NARBO will be approved by the NARBO General Meeting.
- 4) NARBO's activities will initially focus on the monsoonal areas of Asia.

(3) Charter

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

"Section 1. Denomination and Working

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

The secretariat revised the charter partially in August 2005, February 2006 (At the 2nd General Meeting), February 2008 (At the 3rd General Meeting) and November 2010 (At the 4th General Meeting) in an effort to make it to be completed.

About the whole NARBO Charter, please refer to BASELINE 1

(4) Action Plan

The action plan 2010-2012 was proposed by the secretariat at the 4rd General Meeting on November, 2010. 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 both of first two categories, the activities are divided in two parts, namely led by the NARBO Secretariat and NARBO member organizations. Since NARBO is a network organization, members' contribution is highly required.

About the whole NARBO Action Plan, please refer to BASELINE 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. Finally, NARBO was joined by 9 organizations after the 4rd General Meeting (November 8-12 2010) in Indonesia. As of March 31 2012, the number of members became 76 from 16 countries. (Australia, Bangladesh, Cambodia, China, India, Indonesia, Japan, Korea, Laos, Malaysia, Pakistan, Philippines, Sri Lanka, Thailand Vietnam, and Nepal)

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

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

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

[The list of NARBO members]

As of March 31, 2012

Category	Member
River Basin Organization (RBO)	28
Government Organization (GOV)	19
Regional Knowledge Partner (RKP)	19
Inter-Regional Knowledge Partner (IRKP)	9
Development Cooperation Agency (DCA)	1
Total	76

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	S	Japan Water Agency (JWA)
		Korea	M	Korean Water Resources Corporation (K water)
		Laos	M	Nam Ngum River Basin Development Sector Project
		Malaysia	M	Selangor Water Management Authority (SWMA)
		Pakistan	M	Indus River System Authority (IRSA)
		Philippines	M	Laguna Lake Development Authority (LLDA)
		Sri Lanka	M	Mahaweli Authority of Sri Lanka (MASL)
		Thailand	M	Bang Pakong River Basin Committee (BPRBC)
		Viet Nam	M	Cuu Long & Dong Nai River Basin Organization
		Viet Nam	M	Red River Basin Organization (RRBO)
		Viet Nam	M	Day River Basin Organization
		Viet Nam	M	Vu Gia Thubon River Basin Organization
		Viet Nam	M	Ca River Basin Management Council
		Viet Nam	M	Cau River Basin Planning Subcommittee
		Southeast Asia	M	Mekong River Commission Secretariat (MRC)
		Indonesia	M	Balai Besar Wilayah Sungai Brantas
		Philippines	M	HELP Davao Network
		Lao PDR	M	Nam Ngum River Basin Committee Secretariat
		Lao PDR	M	Nam Theun-Nam Kading River Basin Committee Secretariat

M: Member, S: Secretariat

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
		Nepal	M	Water and Energy Commission Secretariat
India	M	Orissa Water Planning Organization		

M: Member, S: Secretariat

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 Muda University	
		Indonesia	M	SEMBRANI foundation	
		Japan	M	JAWA - Japan Water Resources Association	
		Japan	M	Japan River Restoration Network (JRRN)	
		Japan	M	Graduate School of Management, Kyoto University	
		Japan	M	Civil Engineering Research Institute for Cold Region, PWRI	
		Malaysia	M	National Hydraulic Research Institute of Malaysia (NAHRIM)	
		Nepal	M	International Centre for Integrated Mountain Development (ICIMOD)	
	Thailand	M	Thailand Water Resources Association (TWRA)		
		IRKP	Inter-region	S	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)
		Inter-region	S	Center for River Basin Organizations and Management(CRBOM)	
	DCA	Inter-region	S	Asian Development Bank (ADB)	

M: Member, S: Secretariat

About the NARBO members' list (Detail), please refer to BASELINE 3

(6) Chairperson, Vice-Chairperson and Secretariat

1) Chairperson



Chairperson: Mr. Keizrul Bin Abdullah
(November 12, 2010 -)
(Adjunct Professor, Tenaga National
University, Malaysia)



Vice Chairperson: Mr. Tjoek Walujo
Subijanto
(November 12, 2010 -)
(President Director, Perum Jasa Tirta I
Public Cooperation, Indonesia)

2) Vice-Chairperson



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



Vice Chairperson: Ms. Dolora Nepomuceno
(November 12, 2010 -)
(Assistant Manager, Laguna Lake
Development Authority, Philippines)

3) Secretariat

a) Secretary General



Acting Secretary General: Mr. Hisao Inoue
(October 1, 2011 –)
(Executive Director, Japan Water Agency)

b) Vice Secretary General

Mr. Wouter Lincklaen Arriens

(February 24, 2004 -)
(Lead Water Resources Specialist, ADB)

Mr. Kenji Someya

(April 1, 2010 -)
(Director, International Affairs Division, JWA)

c) Secretariat

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

2. Record of activities in 2010&2011

Table of activities

Year	Month	Name of Activity	Outline of Activity	Action Plan
2010	January	NARBO Newsletter	19 th Issue (refer to 2009 Annual Report)	A.a.2
	February	NARBO Case Study Workshop - Follow up for NARBO 6 th IWRM Training	- Held in Bangkok on February 25 - 26 - Hosted by DWR of Thailand - Attended by 5 Delegates from 5 countries (refer to 2009 Annual Report)	B.a.1
		Twinning Program between JWA and MALS	- Exchange of personnel implemented on February 4 - 16 - 2 engineers from JWA delegated (refer to 2009 Annual Report)	B.b.2
	March	NARBO Newsletter	20 th Issue (refer to 2009 Annual Report)	A.a.2
	May	River Basin Study Visit	- Held in Madrid and Zaragosa, Spain on 24-28 May	B.a.1
	July	NARBO Secretariat Meeting	- Held in Singapore on July 1	C.a.1
	September	NARBO Newsletter	21 th Issue	A.a.2
	November	The 4 th NARBO General Meeting	- Held in Makassar, Indonesia from 8 to 12 November.	A.a.6
		The 3 rd Technical Advisory Committee		C.a.1
2011	January	NARBO Management Team Meeting	- Held in Malang, Indonesia from 11 to 12 January.	C.a.1
	June	1 st NARBO IWRM Executive Retreat on Leadership in River Basins	- Held in Malang, Indonesia from 20 to 22 June.	B.a.2
		International Seminar on Corporate River Basin Organizations in Asia	- Held in Malang, Indonesia from 22 to 24 June.	B.a.2
	September	Twinning Program between JWA and MARD	- 2 engineers from JWA delegated from 5 to 30 September	B.b.1

Year	Month	Name of Activity	Outline of Activity	Action Plan
	September	WEPA and NARBO Joint Session on Water Quality Management in River Basins with Integrated Water Resources Management	- Held in Metro Manila, Philippines in 21 September.	B.a.2
	October	Online Course on River Basin Management	5 participants from NARBO joined this online course.	B.a.1
	November	Twinning Program between JWA and MARD	- Exchange of personnel implemented on November 15 - 24	B.b.1
	December	International Workshop on Water & History	-Organized by Government of Japan, World Bank Tokyo Office, UNESCO and UNSGAB on 13-14 December in Tokyo.	B.a.2

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

I. Website

1) NARBO Website

One of the main activities conducted as NARBO activities is to share the information on IWRM. As stated in the action program, NARBO provides news on NARBO activities, information on introducing IWRM in river basins in Asia, and publications related to IWRM through its website. (Fig-1) The website has been managed by JWA, the headquarters of the secretariat, since 2004, and improved for easy handling and visibleness.



Fig-1 NARBO Website

2) Database

One of the main characteristics of NARBO Website is that it has a database for members only. You can see annual reports submitted by the member organizations, sources used in IWRM trainings and workshops, and information on member organizations from the database. You need to enter the password to access it.

3) Hit Count

JWA records the hit count to research the degree of interest to NARBO website. Comparing the monthly average hit count to the top page between 2008 and 2009, there were 1820 access in 2008 and 2245 access in 2009 respectively. This shows its great increase from 2008 to 2009(See Fig-2). Also the monthly hit count in 2009 shows that the access tends to increase at the year-end (See Fig-3).

II. Newsletter

Newsletter is recognized as another useful vehicle for NARBO activities along with website, and Headquarters of the Secretariat (Japan Water Agency) is in charge of newsletter. In the same manner, members' positive involvement regarding information gathering is essential. JWA has issued the 21th issue in September 2010.

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

NARBO Newsletter 21th Issue September 2010



Topics

News	<ul style="list-style-type: none">● Report of river basin study visit, Spain, 18-24 May 2010● Cooperation between JWA and Integrated Flood Management (IFM) HelpDesk managed by World Meteorological Organization(WMO)
Information	<ul style="list-style-type: none">● The 4th General Meeting
From Secretariat	<ul style="list-style-type: none">● New Member of NARBO - Orissa Water Planning Organization(OWPO) -● Newcomer

News

Report of river basin study visit, Spain, 18-24 May 2010 by Tadashige Kawasaki, Asian Development Bank Institute

River basin study visit was organized by ADB, ADBI and Government of Spain (Ministry of Economy and Finance and Ministry of Environment) on 24-28 May 2010 in Madrid and Zaragoza, Spain. Around 20 senior officials from the NARBO member organizations and water related organizations in Asia participated. The objectives of the study visit are to 1) exchange experiences and



The 21th issue

III. NARBO Promotion

1) Presentation at 6th World Water Forum

A NARBO secretariat participated in 'Implementing IWRM in South Asia through Area Water Partnership' session organized by Pakistan Water Partnership on 16 March as one of the panelists and introduced NARBO activities. He stressed that the necessity of further exchanging of knowledge and experience on IWRM and of selecting appropriate method based on regional culture and geography.

(Reported By Tadashige Kawasaki/ JWA)



Participants to the 4th NARBO General Meeting

IV. NARBO General Meeting

1) 4th NARBO general meeting

98 water professionals from river basin organizations (RBOs), financing institution, government agencies, academic institutions, and knowledge partners representing 18 countries (Sri Lanka, Malaysia, Thailand, Viet Nam, Lao PDR, Republic of Korea, United States, Philippines, Australia, Japan, Indonesia, Netherlands, Ireland, India, United Kingdom, Denmark, Nepal) participated in NARBO's 4th General Meeting which was held in Makassar, South Sulawesi in Indonesia, 8-12 November. The event was hosted by the RBO for the Jeneberang river basin in Makassar, in coordination with the Center for River Basin Organization and Management (CRBOM) under Indonesia's Ministry of Public Works, and Perum Jasa Tirta 1. New NARBO Chairperson was elected, some new organization were introduced, and NARBO charter was modified.

(Copied from a website article)

B. Capacity Building in River Basin Organizations (RBOs)

I. IWRM Training

1) River Basin Study Visit (Madrid and Zaragoza, 24-28 May 2010)

River Basin Study Visit was organized by ADB, ADBI and Government of Spain (Ministry of Economy and Finance and Ministry of Environment) on 24-28 May 2010 in Madrid and Zaragoza, Spain. Around 20 senior officials from the NARBO member organizations and water related organizations in Asia took part in the study visit. The objectives of the study visit are to 1) exchange experiences and case studies on IWRM in Asian and European countries, 2) explore ways to improve water security in Asia, and 3) strengthen networking among participants, speakers and partner organizations.

Participants exchanged experiences and lessons learnt on IWRM and Water Governance of Asia and Spain each other. Representative of Asian countries introduced their situation of river basin by using the IWRM Spiral Model. Lack of institutional capacity and finance was pointed out as common issues in Asia

Experiences and practices of river management in Spain were introduced, including river management with private sector and through remote sensing. Rivers in Spain are managed by the river basin authority. River management of Spain is

based on the EU Water Framework Directive*. Participation of stakeholders in river management is much advanced and better coordinated through systematic consensus building. The history of dialogues on transboundary river between Spain and Portugal serves as a useful lesson for transboundary river management in Asia.

Participants also visited Ebro River basin and Tajo River basin. Ebro hydrologic federation is the river basin association (RBA) in the Ebro River basin and is the oldest river basin organization in the world. It was officially established in 1926. The river basin plan is made by the River Basin Water Council under each RBA. This council consists of representative of central and regional government and water users of the river basin and the role of the council is stipulated in the Water Law. In making the river basin plan, the most important thing is to share the common information of the river basin. To meet the terms, RBA improved the observation systems of rainfall, river flow and water quality and disclosed all information to the public to secure the transparency. They saw these systems and learnt how they monitor the rainfall, river flow and water quality by using the state-of-the-art remote sensing technologies.





Participants recognized the importance of establishment of clear legal system in river management for improving IWRM. And they also acknowledged the necessity of the improvement of technical tools such as automatic hydrological system by using remote sensing to collect information for making river basin management plan.

Study visit became a good opportunity to recognize the importance of legal framework and remote sensing technology on water resources management for improving Water Governance. It was also good opportunity to discuss water governance and IWRM with organizations concerned in Spanish for looking for the possibility of collaboration for improving IWRM and Water Governance in Asia.

(Copied from a website article)

2) Four River Basin Professionals Completed CEDDET's Pilot Online Course on River Basin Management, 10 October – 18 December 2011

Four river basin professionals from NARBO member organizations in Malaysia,

Indonesia, Philippines, and Thailand completed the free online course on river basin management which was held from 10 October to 18 December 2011. The four basin professionals were:

(i) Ms. Bidasari Binti Bahashim from Malaysia's Selangor Water Management Authority,

(ii) Mr. Herry Rachmadyanto from Indonesia's Perum Jasa Tirta 2,

(iii) Mr. Brando Angeles from Philippines' Laguna Lake Development Authority, and

(iv) Mr. Boonchai Ngamvitroj from Thailand's Department of Water Resources.

Designed from interdisciplinary and policy-oriented perspectives with eight modules, the online course provided the professionals with a "must-have toolbox" on the basic elements of river basin management. It also provided a better understanding of the IWRM process as implemented by basin organizations in the region.

All the four basin professionals evaluated the online course as successful, valuable, and conducted with high quality modules. That being said, they however also felt the need to improve future online courses: (i) add tools for IWRM; (ii) have participants to actively join the forum; (ii) utilize web cams and audio for improved interactions; (iv) conduct study tours in different study sites; and (v) have more time for finishing exercises.

' There is need to for participants to continue to communicate with other participants for further learning and training.', LLDA's Mr. Angeles added.

The distance learning course on river basin management was offered on a pilot

basis by the Government of Spain through CEDDET Foundation, in collaboration with the Environment, Water and Agriculture Ministry of Spain through the Ebro River Basin Management Organization, and the Laguna Lake Development Authority.

(by Dennis Von C.Custodio
IWRM Specialist and RETA 6470 Coordinator
(Consultant))

II. Workshops

1) IWRM Executive Retreat on Leadership in River Basins (Manila, 21 September 2011)

The titled retreat was held in Malang on 20 – 22 June 2011. The Retreat aims to share executive's experiences supported by case studies of effective leadership in their river basins, and explore key for success in i) Leadership across organizations in the basin, ii) Leadership within organizations and iii) Personal leadership.

Nowadays, Asia's river basins possess unprecedented challenges. To cope with these challenges, it is important to share what IWRM executives should do to maximize their leadership in preparing river basins for the future. This time, the retreat was hosted by PJT 1 and CRBOM in Indonesia.

H.E. Mr. Djoko Kirmanto, Minister of Public Works, Indonesia gave his welcome remarks.

Over the two days, the 32 participants from Government agencies, RBOs, alongside other IWRM executives, special guests, moderators, resource persons and organizers, made short presentations about the leadership challenges and achievements in their specific river basins.



The group photo of participants

NARBO secretariats issued a leaflet of this retreat. Public can obtain this leaflet through website.



(Abstracted from a leaflet)

2) International Seminar on Corporate RBOs in Asia (Selorejo, 22-24 June 2011)

The titled seminar was held in Malang on 22 – 24 June 2011 back to back event of IWRM Executive Retreat on Leadership in River Basin which was held in Malang, Indonesia. Most of the RBOs operate within the structures of regular government departments. However, a growing number of governments has opted for a corporate or quasi-corporate model to provide RBOs greater autonomy in their management, capacity development, and revenue generation. The seminar provided participants with the opportunity to learn about the work and performance of corporate and quasi-corporate RBO in Asia, and participants expressed interest in applying

lessons learned in their respective countries and basins.



The group photo of participants

In the seminar, study visit was organized by OJT1. Participants learned how the infrastructure facilities in the Brantas river basin are operated and maintained.



The photo of Study visit

NARBO secretariats issued a leaflet of this seminar. Public can obtain this leaflet through website.



(Abstracted from a leaflet)

3) WEPA, IWRM Case Study Workshop (Bangkok, 25-26 February 2010)

As one of the NARBO's collaborative activities with other related organizations, Three NARBO members got the opportunity to present their results of activities at the Third WEPA International Workshop.

WEPA stands for "Water Environment

Partnership in Asia". This project is initiated by the Ministry of Environment of Japan in 2004 to solve water environment problems in Asia. IGES (Institute for Global Environmental Strategies, Japan) serves the secretariat.

Mainly, ministries and research institutes in the field of environment from thirteen countries are now the members of WEPA.

The workshop was held on September 21 and 22 for two days. The theme of each day was "Water Quality Conservation and Water Quality Management" and "Treatment of Domestic Drainage" respectively. Presentations from NARBO members were scheduled in the afternoon on the first day and the session title was "Water Quality Management taking "Basin Management" into consideration.

Three presentations were made by JWA, PJT II and LLDA. Mr. Takagi from JWA introduced the efforts of water quality conservation in Agigawa dam's catchment area, Mr. Herry from PJT II showed water quality management in Citarum River Basin using spiral model from IWRM guideline which was compiled by jointly UNECSO and JWA, then Mr. Jose from LLDA introduced development of Laguna Lake and water quality conservation measures.



The presentation from Mr. Herry from PJT II

Each presentation exceeded the allocated time and invited many questions. As a whole, NARBO members succeeded to make good impressions about NARBO itself among the workshop participants and attracted much attention about NARBO activities.

(Reported by Katsunori Takagi of JWA)

4) International Workshop on Water & History (Tokyo, 25-26 February 2010)

Water has been closely intertwined with the history of human beings. Asia's current water allocation and usage issues are rooted in the history of the region. It is essential to learn from history when exploring solutions to water issues, so that compromises can be achieved over water conflict and water can be used as a catalyst for regional development.

Based on these backgrounds, the International Workshop on Water and History was held in association with Cabinet Office of Japan, World Bank, UNESCO, UNESGAB, MLIT, ADB, ADBI and JWA. The workshop examined the lessons of history in order to build better relations between people and water in the future. High-level speakers and participants explored ways to establish sustainable regional development through water by sharing success and lessons from history. The workshop provided an opportunity to revisit our relations with water to build a brighter, more sustainable future.

Over 80 participants of 11 countries from Government, International organizations and private sectors concerned attended the workshop. In addition, Crown Prince of Japan attended the first day of the workshop.

Dr. Keizrul bin Abdullah, Chairperson, Network of Asian River Basin Organizations (NARBO) made presentations on historical development of water management. He explained the relationship between water and human civilization chronologically. He insisted "To solve many water problems, river basin approach is inevitable in the future". In addition, he mentioned importance of leaning history, considering food security, water security, the possibility of another green revolution, and the relationship between mankind and water. He summarized "there are many lessons, and we should learn from history".

The workshop was quite successful and contributed to boost improving understanding of limited natural resources, water. All participants agreed this kind of knowledge sharing is useful and to be included to water-related workshops or events.

(Reported by Tomotaka Higuchi of ADBI)

III. Twinning Program

1) What is Twining Program?

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

Based on the agreement, first personnel exchange between JWA and Indonesia NARBO was implemented in 2005.

2) Brief Report of Activities in 2010-2011

JWA accepted 12 persons from MARD

of Vietnam on November 15 – 24 2011. In the meantime, JWA dispatched 2 engineers to MARD on Sep 5 -26 2011.

- Exchange Personnel Between JWA & VMARD in 2011

In 2011, the program of the exchange personnel was conducted between MARD and JWA on the bilateral basis.

From Japan to Vietnam

During 5 – 26 September, two staffs of JWA, Mr. Sasahara and Mr. Nishimura, were guided to several places on the water resources management, such as some provinces near Hanoi, capital city and the TT Hue, Quang Nam, Quang Bing and Ha Tinh provinces in the central region of Vietnam. Through this visit, real situations on water management at sites were well understood. It was impressive that the practitioners of Vietnam understand issues deeply and those background and they had steadily paid much attention to resolve them. Regarding the institutional setup on the water management toward the future, JWA staffs strongly recognizes that opinion and experiences of MARD and site practitioners are crucially important.

According to JWA staffs, MARD and some umbrella organizations such as the Vietnam academy for water resources and institute of water resources planning accumulated a lot of expertise knowledge, and its ambitious strategies to meet the characteristic of Asian monsoon are expected to realize.

In this regards, it is expressed that JWA will introduce appropriate technologies with highly consideration of the current situation of water management of Vietnam.



Photo: the eroded bank of irrigation canal



Photo: Hydraulic model at the laboratory under MARD.



Photo: Dam Construction (9million cubic m)

From Vietnam to Japan

During 15-24 November, the big delegation formed by 12 persons from the Directorate of Water Resource of MARD and irrigation management companies (IMC) which manage facilities and management the water resources at the site visited Japan.

The delegation visited some project sites such Nagaragawa estuary barrage, Mie and Aichi canal scheme, Tone canal project and so on.

In this regard, they recognized the situation of well managed facilities with the proper

funding scheme.

It was useful that the documents explaining the each project were translated into Vietnamese before their visit by MARD. To arrange this delegation, the MARD carried out the elaborate preparation on expenditures and arranged the schedule.

Based on this trip, MARD now has intention to dispatch further delegations in 2012 and 2013 as well.



Photo: Small scale hydro power

Effect of exchange personnel

Members of delegations between Vietnam and Japan felt the necessity what this program should be continued to exchange the information on the social background as well as the practical technology on water resources management. Therefore, the facilitation of this program is recommended to other NARBO members.



Photo: Misogawa dam in Nagano Prefecture



Photo: Re-construction of the aged canal using the elaborate technology



Photo: Vegetable shop without shop seller.

(Reported by Hideshi Sasahara of JWA)



Photo: Aichi canal site

C. Network Support

I. Technical Advisory Committee

1) The 3rd Technical Advisory Committee

The 3rd NARBO TAC meeting was held in Makassar, Indonesia on 12 November 2010, back-to-back with the 4th NARBO General Meeting. It aims: (i) to share results of the 6th IWRM Training; and (ii) to seek advises on the direction of NARBO's IWRM Training program, including on the design of NARBO's 7th IWRM Training. According to the Action Plan 2010-2012 which was approved at the 4th General Meeting, 7th IWRM training will be held in the first quarter of 2011.

8 experts including new NARBO's constitutional body and 2 observers have participated in this meeting.

Discussions to make comments and recommendations were held and useful comments were made. Specific comments are as follows.

i) NARBO secretariat has to clarify and identify specific senior level.

ii) What is the synergy and impact to hold NARBO training back-to-back with the workshop on water and history.

iii) Case study approach will be useful. More case studies are needed to hold training course for leadership. In case of study visit, we should visit the venue where specific issues have actually happened and have dialogue on it.

iv) Senior level training we have to be careful about terms.

v) Leadership training should be focused on financing and planning perspective.

vi) We should think why we are doing this training course and why they want to come to the training.

vii) We need to be clear what we want and what is the output. Clear what is output & expectation to the achieve of the training

viii) Continue to the lower level training. Middle level is regular program.

ix) We have to think how we can implement senior people to understand better.

x) Basin level & leadership and need influence to senior I NARBO more member and successful case and good information we should use them. Decision makers

xi) Top level (governor and politician) training is needed and important.

xii) IWRM is still complicated and long term and can be strengthen other member and

xiii) Networking after training is important.

Based on the discussion, NARBO secretariats have to consider i) Range four days is suitable or not, ii) Make clear the target of the training and identify the senior level and iii) Expectations to senior levels after the training. Next training will be held based on dialogue style considering the target of the training.

Other specific comments to NARBO secretariats to manage NARBO were made as follows.

1) NARBO secretariats need to make survey to identify the demand of members.

2) NARBO secretariats should improve the quality of what we produce and make attractive network.

3) We should create our website and page for them to keep in touch with

secretariat.

4) Case study approach is useful.

5) Create mechanism more actively in touch with training and events and NARBO should organize regular events.

6) NARBO needs to build successful stories so that other member refer and can be used techniques.

NARBO secretariat plans to hold the Management Meeting in Indonesia on 11-12 January 2011 to have common vision of NARBO's activities among new constitutional body which was approved at the 4th General Meeting to enhance NARBO activities and emphasize the influence of river basin management in Asia. Discussions to make the clear strategy of NARBO and IWRM trainings in the future will be made, and NARBO secretariats will propose draft program of the upcoming events in March 2010 based on the recommendation of the 3rd TAC and consultation to NARBO secretariats.

(Abstracted from a Meeting Report)

II. Knowledge Networking

1) ADB water learning Week

The effective integrated water resources management (IWRM) in river basins is becoming more and more important on improving water quality, managing disaster risk and building resilience, preparing our river basins for future and leveraging knowledge sharing for capacity development. This workshop aimed to explore guidelines in IWRM. All participants discussed and shared their experiences on IWRM.

This workshop was held for five days including study visits to Laguna Lake. About 130 water practitioners, researchers, and

knowledge and funding partners from 18 countries participated in discussions on guidelines for new investments in integrated water resources management. Discussions covered water quality, disaster risk management, water security, climate change adaptation, and leveraging knowledge sharing.

At the day 4 session titled "Preparing Our River Basins for the Future", Dr. Keizrul bin Abdullah of the chair of Network of Asian River Basin Organization (NARBO) gave his presentation with the case study of Aral Sea and Bangkok Floods 2011, presented NARBOs' activities and said the world is reaching a tipping point to manage river basins better and stressed the importance of knowledge sharing and capacity building to help river basins in the Asia-Pacific region address water security.

It was a great opportunity for Asia's leading water practitioners, researchers, knowledge and funding partners, including sharing innovative practices and lessons learned. The participants discussed guidelines for new investments in IWRM in river basins, focusing on water quality, disaster risk, climate change adaptation, and water security.

(Reported by Tomotaka Higuchi of ADBI)

III. Charting Progress and Facilitating Investment for IWRM

1) Introduction of RETA 7547

In recent years, water security has become a significant issue in the region, and a pressing concern to water users, practitioners, and leaders. To increase water security for stakeholders, IWRM approach is needed.

NARBO has worked to strengthen the capacity and effectiveness of RBOs in promoting IWRM and improving water governance. Based on the 7 years collaborative activities of NARBO, the presidents of ADB and JWA signed a letter of intent in 2009 for further collaboration in strengthening IWRM through investment programs and capacity development programs to improve water security in three river basins of Indonesia (Solo River), Nepal (Bagmati River), and Uzbekistan (SyrDarya River in Uzbekistan territory) and to lay the foundation for subsequent feasibility studies of investment projects and for demonstrating best practices to the region. The TA has started from June 2010 as two year's program. In the TA, ADB is executing agency, and JWA is implementing agency.

2) ACTIVITIES

In Indonesia, Solo River basin suffer from severe degradation of the watershed, resulting in erosion and sedimentation. The middle and lower reaches suffer from increasing floods, and disputes about water allocation among urban and agricultural uses during the dry season. TA Indonesia portion focuses on 1) water distribution improvement in canal system, 2) strengthen reservoir operation &

management and 3) improve watershed management in tributaries. These activities are conducted through participatory approach such as multi-stakeholder workshops. BBWS-BungawanSolo takes a role of RBO, and Basin council (TKPSDA) has a role of coordinate/approve strategic basin plan and implementation plan with the support of RBO. Bagmati River Basin has severe issues on river environment. The upper reach in the Kathmandu Valley suffers from serious water shortages, pollution, and land encroachment by excessive population concentration in these 30 years. The middle reach is enduring watershed degradation, while the lower reach suffered frequent flooding and irrigation water shortage. To improve river environment, Nepal government has established the Bagmati Civilization Integrated Development Committee (BCIDC), which is expected to become the first RBO in Kathmandu valley. Under the Bagmati Action Plan, the government has started to address water and environmental issues in the upper reach. The TA focuses to sector coordination to formulate investment program and strategic roadmap for water security using participatory approach. The TA also focuses on planning of RBO set up for the whole river basin through step by step procedure. ADB Project Preparatory TA (PPTA) is going to take over draft investment program of this TA through feasibility study. In Uzbekistan, which lies in the middle reach of the SyrDarya and AmuDarya river basins, deteriorating infrastructures including dams, weirs, and canal systems are making allocation and water services difficult to manage during water scarcity. And the

government needs to improve present water resources management of irrigation water in canal system because SyrDarya river is transboundary river which flow is controlled by upper area country, and structural change of farm irrigation scheme in the nation after independence is still developing phase from water resources management perspectives. The government prioritized water use efficiency in irrigation canal system including water saving. TA will conduct basin profile survey and pre feasibility study to help prepare investment program, and also conduct capacity development for water use efficiency and help prepare capacity development plan. The TA plans to have regional workshop to disseminate the output to the region from IWRM perspectives. The TA also have collaborative work with NARBO, CRBOM and JICA programs. IWRM experiences of Japan Water Agency (JWA) are also reflected in the activities of the TA.



Water shed conservation



Bagmati river in Kathmandu



NARBO seminar in Kathmandu



Indonesia; The Colo Wair intake facility to the canal



Uzbekistan North Fergana canal



Dawuhan dam field check



Reservoir in Namangan

(By Takeyoshi SADAHIRO / JWA)

