

Appendix 8

The outline of the First Training Course on IWRM

I. Background

One of the targets set by the World Summit on Sustainable Development (WSSD) is for all countries to put in place an Integrated Water Resource Management approach for managing their water or the so-called "IWRM plan" by 2005. IWRM is actually a process, and in order to prepare a plan, the key elements of IWRM must be integrated into the overall water resource management from the central government down to the grassroots level.

Need for RBOs. The 1992 Dublin Conference referred to the need to manage water resources *at the lowest appropriate level*. This has become one of the basic principles underpinning the IWRM approach, and it has led to increased recognition that river basin organizations (RBOs) can realize IWRM at the basin level with the involvement of stakeholders.

Need to Network RBOs in Asia. A network to assist RBOs in Asia in their work of introducing and operationalizing the IWRM approach does not exist yet. RBOs need to network 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 Network of Asian River Basin Organizations (NARBO). Recognizing the need for networking and capacity building in the implementation of IWRM, the Water Resources Development Public Corporation of Japan (recently reconstituted as the Japan Water Agency), the Asian Development Bank, and the Asian Development Bank Institute decided at the 3rd World Water Forum in March 2003 in Kyoto, Japan, to collaborate in launching NARBO, and a letter of intent was signed at the Forum on 21 March 2003. NARBO aims to achieve IWRM in river basins throughout Asia. Specific objectives were to (i) strengthen the capacity and effectiveness of RBOs in promoting IWRM and improving water governance through training and exchange of information and experience among RBOs and their associated water sector agencies and knowledge partner organizations in Asia; and (ii) advise in the establishment of RBOs in Asia. The 1st NARBO General Meeting was held in Indonesia, in February 2004 whereby the NARBO Charter was confirmed, the NARBO constitutional body was selected; and the NARBO action plan was formulated.

Training in Thailand. One of the prioritized capacity-building activity in the NARBO action plan is the training courses for IWRM. This training program in Thailand is the first activity and it is significant for NARBO because Thailand's participatory approach to IWRM and its success in institutionalizing the IWRM process through planning and budgetary instruments is unique and highly relevant to other DMCs. Thailand has been introducing IWRM into the management of water resources as well as other natural resources. In order to decentralize the decision-making and responsibility to the stakeholders in the river basins, an evolving process of involving the stakeholders in the design of RBC organizational structure as well as functions has taken place. The Thai Government has authorized the establishment of RBCs for all 25 major river basins, and starting to delegate the authority to the RBC with respect to preparing river basin plans and approving projects in the basin for budget allocation.

It is therefore a good opportunity to share the Thai experiences with water-related professionals in the region, so that the process can be better understood as well as for further improvement. In addition, there are a number of community-based projects which have incorporated the concept of IWRM in managing their water. These projects are managed by the users group and rely on simple traditional approaches as well as methods. With the introduction of IWRM, it further enhances the efficiency of these projects.

II. Objectives of the Training Program

The Regional Training Program on IWRM and Strengthening of River Basin Committees aims to strengthen the capacity of IWRM practitioners with emphasis on putting concepts into practice. The training workshop's specific objectives are:

- Equip the water-related professionals in the region to have a good understanding of the IWRM concepts;
- Present case studies and field experiences on actual water management at a basin and country level; and
- Enable the participants to translate the IWRM concepts into the planning process.

Expected Outputs

- Daily written report of what participants have learned
- Analysis of the various project sites visited with respect to the application of the IWRM concepts
- Individual strategies or action plans for either organizational or country level developed by participants and an outline or roadmap to put IWRM into practice
- Group presentation of project assignment

Program

The program (proposed sessions attached) would provide the participants an opportunity to gain field experiences to complement the lectures that will be presented. The training will be conducted for 2 weeks from 26 July to 6 August 2004.

The first week will focus on the concepts and implementation process. Case studies in Thailand and Japan will be presented. The training mode will be more of exchange of opinions and open discussions rather than pure classroom type of lecturing. The topics to be covered are:

- Concept of IWRM
- Process of integrating IWRM into the management procedure
- Evolving process in establishing RBOs/RBCs
- Capacity building of RBOs/RBCs
- Sharing experiences of variety fields

The participants will then be exposed to successful community-based management projects as well as a new initiative of H.M. the king of Thailand of a small watershed management project in the northeastern part of Thailand during the second week of the training. The participants will have the opportunity to discuss and exchange views with the local leaders and water users groups.

The participants will also have dialogues with RBOs/RBCs for first-hand information.

Participants will be grouped and each group will have discussion in accordance with the themes proposed by secretariat and participants themselves.

III. Venue, Hotel accommodation and others

Venue

The venue is the Irrigation Development Institute as follows;

Address : Tivanont Rd, Pakkred, Nonthaburi 11120

Tel & Fax : 02-5838312, 02-584-0378-9 Email : Lersak@irricollege.ac.th

Hotel

The Hotel is T.K. Palace Hotel as follows;

address : 54/7 Chaengwattana Rd, Soi 15 Laksi, Bangkok, 10210

Tel & Fax : 02-574-1588 Fax 02-5742622

Lotus Hotel - Pang Suan Kaew

Address : Tambon Suthep, A. Muang, Chiang Mai 50200, Thailand

Tel 66-053-224333, Fax 66-053-224493

Pick-up from the Airport will be arranged.

Inquiry on above matters;

Mr. Lersak Rewtarkulpaiboon, Director of Irrigation Development Institute

address : Tivanont Rd, Pakkred, Nonthaburi 11120

Tel & Fax : 02-5838312, 02-584-0378-9 Email : Lersak@irricollege.ac.th

Hotel for Secretariat arranged by Thailand side.

The Miracle Grand Hotel, 99 Vibhavadi-Rangsit Road, Don Muang, Bangkok 10210

Thailand Tel 66-02-5755599, Fax 66-02-5755555

Email info@miraclegrandhotel.com

Training Fees

Training costs will be shared by JWA, ADB, ADBI, TWRA, the participants, and other supporting organizations. NARBO member organizations proposing training candidates will be required to contribute a registration fee not exceeding \$250 in cash from their own resources, which can include ongoing TA projects. This requirement was adopted to ensure the ownership and contributions of NARBO members in the network's activities and will serve as precedent for design of further NARBO activities. The fee partly covers the total costs of (i) training materials, including a CD version of the training materials and report; (ii) local transport cost by bus, Bangkok-Chiang Mai-Bangkok; (iii) lodging AND (IV) Airfare.

Contact Persons

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NARBO Vice-Secretariat

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**IWRM Training Program
First Week, 26th July – 30th July**

Irrigation Development Institute, Tivanont Rd, Pakkred, Nonthaburi 11120 Bangkok

DAY 0 – 25th July 2004 Check in Hotel

DAY 1 – 26th July 2004

0830-0900 Registration of Participants

0900-1000 Welcome Remarks and Opening Speeches

Facilitator and Emcee: Dr. Apichart Anukularmphai, President, TWRA

Speeches:

Secretariat of Thailand

Dr. Apichart Anukularmphai, President, TWRA

NARBO Vice-Secretary General

Takeyoshi Sadahiro, Director General of Research Institute of JWA

Wouter Lincklaen Arriens, Lead Water Resources Specialist, ADB

Toru Tatara, Special Advisor to the Dean, ADBI

Welcome Remarks:

Department of Water Resources, Thailand

Mr. Sompol Sukhotu, Deputy Director-General

1000-1030 Tea Break

1030-1200 Concept of IWRM

Introduction of Participants

1030-1130 Concept of IWRM

Lecturer: Dr. Apichart Anukularmphai, President, TWRA

1130-1140 Q & A and Free Discussion

1140-1200 Briefing on the Training Program and Individual & Group Assignments

Secretariat of Thailand

Dr. Apichart Anukularmphai, President, TWRA

NARBO Vice-Secretary General

Takeyoshi Sadahiro, Director General of Research Institute of JWA

Wouter Lincklaen Arriens, Lead Water Resources Specialist, ADB

Toru Tatara, Special Advisor to the Dean, ADBI

1200-1300 Lunch

1300-1430 Presentation of Country/Organizational Report

Facilitator: Dr. Apichart Anukularmphai, President, TWRA

- 1300-1315 Jasa Tirta II Public Corporation Experience in Managing Citrum River Basin, Indonesia by Herman Idrus, Head of Research and Development Bureau / CES, and Nurlaila Noer, Head of Quality Management Unit / DRA, Jasa Tirta 2 Public Corporation
DISCUSSION
- 1315-1330 Water Resources Management in Cambodia by Sao Samphois & Chhun Bunnarith, Ministry of Water Resources and Meteorology
DISCUSSION
- 1330-1345 Indonesia Water Partnerships: Organizational Structure, Vision- Mission and Activities by Achmadi Partowijoto, Senior Water Management Specialist, Indonesia Water Partnership
DISCUSSION
- 1345-1400 Integrated Water Resources Development and Management in a River Basin Context: the Brantas River Basin's Experience, Indonesia by Soegiarto, Chief of Division for Operation and Maintenance & Koesmartini, Chief of Planning and Controlling
DISCUSSION
- 1400-1415 Jeneberang River Basin Development Project, Indonesia by Haryanto, Jeneberang River Basin Development Project
DISCUSSION
- 1415-1430 Water Resources Management in Lao PDR by Phonechaleun Nonthaxay, Chansouk Phimvongsa, and King Kham Manivong, Directors, Water Resources Coordination Committee
DISCUSSION
- 1430-1500 Tea Break
- 1500-1630 Presentation of Country/Organizational Report**
Facilitator: Dr. Apichart Anukularmphai, President, TWRA
- 1500-1515 Experience of Thailand on IWRM by Bancha Kwanyuen, Assistant Professor, Kasetsart University, Thailand
DISCUSSION
- 1515-1530 Agno River Basin Development Commission, Philippines by Tony Leo Repollo, Executive Assistant and Delia L. Abalos, Planning Officer, Agno River Basin Development Commission
DISCUSSION
- 1530-1545 Laguna Lake Development Authority, Philippines by Leonor Poserio, Fiscal Examiner II, Laguna Lake Development Authority
DISCUSSION

- 1545-1600 Organizational Report, Department of Water Resources Management (DWRM), Ministry of Natural Resources and Environment (MoNRE), Viet Nam
by Nguyen Chi Yen, Deputy Chief of Bureau and Phi Quoc Hao, Master of Engineering, Bureau for Water Resources Protection, DWRM, MONRE
by Pham Quoc Hung, Officer, General Office of RBOs, DWRM
DISCUSSION
- 1600-1615 Red River Basin Planning Management Organization, Viet Nam
by Bui Nam Sach, Deputy Chief of Planning Division for North Regions, Institute of Water Resources Planning - MARD
DISCUSSION
- 1615-1630 Organizational Structure and Roles of the National Water Resources Board (NWRB), Philippines
by Jorge M. Estioko, Chief Water Resources Development Officer and Jesusa T. Roque, Engineer III, NWRB
DISCUSSION
- 1630-1700 Plenary Discussion

DAY 2 – 27 July 2004

0830-1200 Case Study of Japan and Thailand

Facilitator: Ick Hwan Ko, Director of Hydro-Systems Engineering Center, KOWACO

- 0830- 0930 Water Resources in Japan and the Development of IWRM in Kiso River
by Hiroyuki Shindou, Director of International Affair Division, JWA

0930-1000 Q & A

- 1000-1030 Lecture: Implementation of IWRM In Thailand
by Dr. Apichart Anukularmphai, President, TWRA

1030-1200 Q & A

1200- 1300 Lunch

1300-1430 ISO 9001 & IWRM

Facilitator: Hideshi Sasahara, Deputy Director of International Affair Division, JWA

- 1300-1400 Implementation of Quality Management System ISO 9001:2000 in IWRM in the Brantas and Citarum River Basins, Indonesia
by Ir. Alfian Rianto, M. Tech, Perum Jasa Tirta I and Perum Jasa Tirta II

1400-1430 Q & A

1430-1500 Tea break

1500-1630 Preparations for the Group Assignment

See appendix

DAY 3– 28 July 2004

0830-1200 Establishment of RBC's in Thailand

Facilitator: Wouter Lincklaen Arriens, Lead Water Resources Specialist, ADB

0830- 1200 Establishment of RBC's in Thailand
by Dr. Apichart Anukularmphai, President, TWRA

Q & A

1200- 1300 Lunch

1300-1430 Public Participation

Facilitator: Toru Tatara, Special Advisor to Dean, ADBI

1300-1330 Key Concepts and Strategic Elements in Public Participation for IWRM
by Lehuu Ti, Economics Affairs Officer, UNESCAP

1330-1400 Contribution of "Traditional PIM that is Harmonized with Conditions in Asia " to
Enhancement of IWRM
by Mr. Yasuhiro Ochii, Counselor, Toyogawa Project, JWA

1400-1430 Q & A

1430-1500 Tea break

1500-1630 Participatory Process

Facilitator: Dr. Kampanad Bhaktikul, Asst. Professor, Mahidol University

1500-1530 by David Jezeph, Chief of Water Resources Section, UNESCAP

1530-1600 by Wouter Lincklaen Arriens, Lead Water Resources Specialist, ADB

1600-1630 Q & A

DAY 4 – 29 July 2004

- 0830-1000 Concept of Environmental Flow**
Facilitator: Dr. Apichart Anukularmphai, President, TWRA
- 0830- 0930 Concept of Environmental Flow
by Dr. Kampanad Bhakpikul
- 0930-1000 Q & A
- 1000-1030 Tea Break
- 1030-1200 Wet-land Management**
Facilitator: Dr. Apichart Anukularmphai, President, TWRA
- 0830- 0930 Wet-land Management
by Mr. Alvin Lopez, IUCN
- 0930-1000 Q & A
- 1200- 1300 Lunch**
- 1300-1430 Water Supply System**
Facilitator: Hideshi Sasahara, Deputy Director of International Affair Division, JWA
- 1300-1400 Integrated Water Supply Management System
by Jae-Heung Yoon, Director, KOWACO
- 1400-1430 Q & A
- 1500-1630 Basin Planning**
Facilitator: Ick Hwan Ko, Director of Hydro-Systems Engineering Center, KOWACO
- 1500-1530 Evolution of Approaches and Tools for Basin Planning towards IWRM
by Lehuu Ti, Economics Affair Officer, UNESCAP
- 1530-1600 Basin Planning
by Ick Hwan Ko, Director of Hydro-Systems Engineering Center, KOWACO
- 1600-1630 Q & A

DAY 5– 30 July 2004

- 0830-1000 Application of IWRM Tools**
Facilitator: Dr. Apichart Anukularmphai, President, TWRA
- 0830- 0900 by David Jezeph, Chief of Water Resources Section, UNESCAP
- 0900-0930 Application of GWP Toolbox
by Kobkiat, Kasetsart University, Thailand
- 0930-1000 Q & A
- 1000-1030 Tea Break
- 1030-1200 Transboundary**
Facilitator: Wouter Lincklaen Arriens, Lead Water Resources Specialist, ADB
- 1030-1130 Exploring Opportunities for Transboundary Water Cooperation through Basin
Development Planning
by Mak Solieng, Environmental Natural Resources Planner of the Basin Development
Planning, MRC
- 1130-1200 Q & A
- 1200- 1300 Lunch**
- 1300-1630 1) Participant to work on group assignment**
2) Secretariat - Meeting / Brainstorming on IWRM (Monitoring and Evaluation)
Facilitators :
Apichart Anukularmphai, President, TWRA
Takeyoshi Sadahiro, Director General of Research Institute of JWA
Wouter Lincklaen Arriens, Lead Water Resources Specialist, ADB
Toru Tatara, Special Advisor to the Dean, ADBI
- 1500-1530 Tea break
- 1530-1630 End

IWRM Training Program
Second Week, 1-6 August 2004, Chiang Mai, Thailand

1st August, Sunday		Travel to Chiang Mai
	06:00	Leave the Hotel
	08:30 – 09:30	Visit Chao Phraya Diversion Dam
	09:30 – 11:30	Arrive Kampengpet
	11:30 – 12:00	Lunch
	12:00 – 14:30	Arrive at Bhumipol Hydropower Dam
	14:30 – 15:30	Briefing and visit Dam Site
	15:30 – 20:00	Arrive at Chiang Mai, Check in at Pang Suan Kaew Hotel
2 nd August, Monday	08:30	Leave Hotel for Ping river boat trip
	09:00 – 11:00	Ping river restoration project
	11:30 – 12:30	Lunch
	12:30 – 13:00	Doi Pui
	13:00 – 14:30	High Land agriculture
	14:30 – 15:30	Doi Suthep temple
	15:30 – 16:30	Return to Hotel
	19:30 – 21:30	Discussion and preparation of group paper
3rd August, Tuesday	08:30	Leave Hotel for Chiang Dao watershed
	10:00 – 12:00	Briefing and site visit
	12:00 – 13:30	Lunch
	13:30 – 14:30	Chiang Dao cave
	14:30 – 15:30	Mae Ngud Dam
	15:30 – 17:00	Return to Hotel
	19:30 – 21:30	Discussion and preparation of group paper
4th August, Wednesday	08:30	Leave Hotel for Chom Tong Traditional water
	08:30 – 12:00	management
	12:00 – 13:00	Briefing and site visit
	13:00 – 14:00	Lunch
	14:00 – 15:00	Mae Kang water fall
	15:00 – 16:00	Ban Tawai
	16:00 – 17:00	Visit wood carving village
	19:30 – 21:30	Return to Hotel
		Discussion and preparation of group paper
5th August, Thursday	09:00	Leave Hotel for Huai Hong Krai Project
	09:40 – 10:30	Briefing
	10:30 – 12:00	Site visit
	12:00 – 13:00	Lunch
	13:00 – 14:00	Visit Moo Ban Hae Dang
	14:00 – 15:30	Visit Mae Kuang Dam
	15:30 – 16:15	Return to Hotel
	16:30 – 18:00	Discussion
6th August, Friday	08:30 – 12:00	Presentation of individual and group papers
	13:00 – 15:00	Organizers' evaluation meeting
		Participants free time
	18:30	Farewell dinner
7th August, Saturday		Return to Bangkok
	07:00 – 12:00	Leave for Bangkok
	11:00 – 12:00	Visit Sukhothai (World Heritage)
	13:00 – 14:00	Lunch
	14:00 – 18:00	Return to Bangkok
		Check in T.K. Palace Hotel
		* Some participants return home
8th August, Sunday		Participants Return Home

Session Description

Concept of IWRM

Recently, IWRM has become popular as a holistic approach to water management. In this session, the overall view of the IWRM concept will be explained; and the topics to examine IWRM for Asia relevant to NARBO activities would be pointed out.

Country/Organizational Report

Asia region contains various aspects and features in terms of the situation of water resources and social perspectives. The appropriate approach in water management for each country and several basins would be examined. In this session, information on the differences and similarities of participants' organizations will be shared, and those will be used as the basis of discussion.

Case studies of Thailand and Japan

Thailand has facilitated to establish RBCs in recent years, and to uniquely re-structure the government body, especially regarding water management. Through the description of activities, participants will share/know the efforts, key points and referential experiences. Japan has been developing the water resources development through the practical approach on IWRM in support to economic growth. One of the special aspects of Japanese IWRM, which is one of the longest history of IWRM in the world, is to be implemented nationwide.

ISO9001 & IWRM

The Brantas River Basin, supervised by Jasa Tirta I, Indonesia, has installed the concept and approach of ISO9001 for the management of water. In this session, the experiences in terms of effect and effort of ISO9001 will be introduced.

Establishment of RBC's in Thailand

Thailand Water Resources Association has contributed to facilitate water resources management of Thailand through IWRM approach. Many RBCs were established and will be established from now on. In this session, the role and effect of RBCs in Thailand will be introduced.

Public Participation & Participatory Process

For the public participation and participatory process in Asia, the respect on the traditional system in local communities is highly significant. In particular, the concepts and enrichment processes are important for sustainable development. In this session, modes of participation will be discussed, including adjustment with the traditional system in local community and legislature of new law as a practical approach.

Concept of Environmental Flow

In the past, the design and operation of large reservoirs have not taken environmental flow into account, resulting to negative impact downstream. Environmental flow is a rather new concept and needs to be estimated and allocated properly for the maintenance of downstream ecology as well as for fisheries. In this session the concept will be explained with some case studies.

Wetland Management

Wetland contributes to the reduction of flood, a source of water and more importantly, preserves the marine bio-diversity. In this session, the concept and management of wetland will be explained and demonstrated with case studies.

Water Supply System

Water supply is one of the significant functions of water resources management. In this session, the experiences of water supply in Korea are introduced at the comprehensive water management point of view. The key point of water supply is to satisfy not only quantity but also quality. Korea also has high population density, i.e. for the plain and shallow hill areas. Water supply management in Korea is an appropriate example of water management for the Asia region having high population.

Application of IWRM Tools

GWP has developed IWRM ToolBox with many case studies to demonstrate the application of IWRM. In this session, participants will be introduced to the usage of IWRM ToolBox and how to access it.

Transboundary

The basin development planning of the Mekong River Commission will be introduced, with focus on information regarding community approach and comprehensive planning. This session is particularly relevant for the further development of riparian countries in Asian.

Basin planning

Basin planning from the scientific and engineering viewpoints is the basis of integrated management. In this session, institutional and management measures within the physical and institutional setting of river basins, as well as roles in river basin planning and management are lectured. Examples in Korea and US are introduced as case studies.

Brainstorming on IWRM

In this session, some subjects/topics prepared by Secretariat and/or trainees are discussed, followed by group discussion. Example of topics:

- What is the key point of decentralizing trend in Asian countries?
- How can we improve our capability and skills toward the future?
- What is the real necessity method to share the information?
- Flood, Disaster and Water resources development.
- Difficulty of water quality management in the high population density
- Public Participation and IWRM
- What is the key point of IWRM in Asia?
- How can we send our Asian voice to the world?
- How can we implement the infrastructure for water resources development in collaboration with people?
- How can we have a long vision for IWRM in Asia?
- Do we have any possibility/chance to contribute to solve the water resources problems in our region and/or other regions?
- How can we, residents of monsoon Asia, send the message to the world?

Appendix

Briefing of the training program and report submission

Individual assignments

(each participant to submit reports before the end the second week and the evaluation form before departure)

1. Summarize your lessons learned from the course, with a plan how you will use them for yourself and your organization, with specific results and time frame. (max 3 pages)
2. Complete the evaluation form for the training course.

Group assignments

Limited number of slots for each group, and each group to present their report on last day
- group reports max 5 pages and separate overhead sheets (5 max) for presentation (or powerpoint)

Group 1: Advocating IWRM -

How can the basic principles of IWRM best be formulated, disseminated, and advocated to target groups?

Group 2: Institutionalizing IWRM -

How can IWRM be institutionalized and implemented through national, basin, and local planning and decision-making?

Group 3: Establishing New RBOs -

Why are new RBOs needed, what are their essential tasks, and how can they best be established?

Group 4: Building Capacity in RBOs -

How can RBO capacity be assessed and capacity building be prepared and implemented?

Group 5: Fostering Participation in IWRM -

Why is participation important in IWRM, who are the important stakeholders, and how participation be designed and implemented?