



# The NARBO Newsletter

(Network of Asian River Basin Organizations)

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## 1. Latest Information

### 1) The detailed report on the first training course in Thailand

One of the priority capacity building activities in the NARBO action plan is to conduct trainings and workshops on IWRM. Hence, this “First Training Program on IWRM and Strengthening of River Basin Committees” was organized. This training program in Thailand was 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 members in developing countries. This training course was a good opportunity for the participants to learn from Thai experiences with water-related professionals in the region.

The aims of the training course were

- a) Equipping the water-related professionals in the region to have a good understanding of the IWRM concept.
- b) Presenting case studies and field experiences on actual water management at a basin and country level.
- c) Enabling the participants to translate the IWRM concept into the planning process.

The training course was participated by 20 professionals and technical practitioners from six Asian countries. Namely, Cambodia (2 participants), Indonesia (5), Lao PDR (3), Philippines (5), Thailand (1), Vietnam (4) and graduate students from University of Tokyo, Japan. The two-week training course was conducted from July 26 to August 6 in Bangkok and Chiang Mai, Thailand.

The first week of the training was held from July 26 to 30 at Irrigation Development Institute in Bangkok. The activities of the training included the presentation of country / organizational reports by the participants, lectures and discussions on the IWRM concepts, methods and approaches, presentation of case studies and demonstration of the IWRM Tools. After every lecture or presentation finished, the participants had the chance to ask questions or to comment on what had had been discussed.

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**Lecture in Irrigation development institute (Bangkok)**



**All of participants (Bangkok)**

In the second week, from August 1 to 6, the participants visited different kinds of water management projects in Chiang Mai. There, the participants were able to witness the actual water management operations of a various dams and through the discussions and interactions with the technical and management staff gained knowledge on their field experiences. The participants visited about two to three projects per day. After they got back from site visits, participants and the secretariat had the meeting to discuss what they had seen and observed during the site visits. They tried to identify the key issues,

strong and weak points in the operations and IWRM elements embedded the projects visited. These meeting lasted to late at night every day.



**Lecture at the field visit site (Chiang Mai)**

In the training course, the participants were asked to write an individual report and a group report. In the individual report, the participants had to summarize what they had learned, the strategies and the action plan on how they would put IWRM into practice in their own organization or country. For making group reports, the participants made five groups and each group was designated the different theme to write about.



**Discussion after getting back from site visit**

Five themes were as follows

- a) Advocating IWRM. –How can the basic principles of IWRM best be formulated, disseminated and advocated to target groups ?
- b) Institutionalizing IWRM. How can IWRM be institutionalized and implemented through national, basin and local planning and decision-making ?
- c) Establishment of New RBOs. Why are new RBOs needed, what are their essential tasks and how can they best be established ?
- d) Building Capacity in RBOs. How can RBO capacity be assessed and capacity building be prepared and implemented ?
- e) Fostering Participation in IWRM. Why is participation important in IWRM, who are the important stakeholders and how participation be designed and implemented ?

On August 6, the last day of the training course, the participants presented their individual and group works to the panel committee and it evaluated their works. Awards were given to those participants.

#### <Best Individual Papers>

Mr. Phonechaleun Nonthaxay (Lao PDR)

#### <Best Group Paper>

Group 4 : Building Capacity in RBOs

Members : Mr. Haryanto (Indonesia)

Mr. King Kham Manivong (Lao PDR)

Mr. Jorge Marlang Estioko (Pilippines)

Dr. Bancha Kwanyuen (Thailand)

## 2) JICA training course (October 14 to 29) ended successfully

The first JICA group training course on “Integrated Water Resources Management” was successfully over on October 29 with the great evaluation from 9 participants who came from Bangladesh, Cambodia, India, Indonesia, Pakistan, Philippines, Sri Lanka, Thailand and Viet Nam. This training course was organized and conducted by JWA. The successful end of this training course became the milestone for JWA and it’s highly expected to be organized and conducted by JWA next year also.

If you’re interested in this training course, please apply for next year thorough JICA local office in your country.



**On the first day (October 14) with Mr. Toshiki Aoyama, President of JWA**



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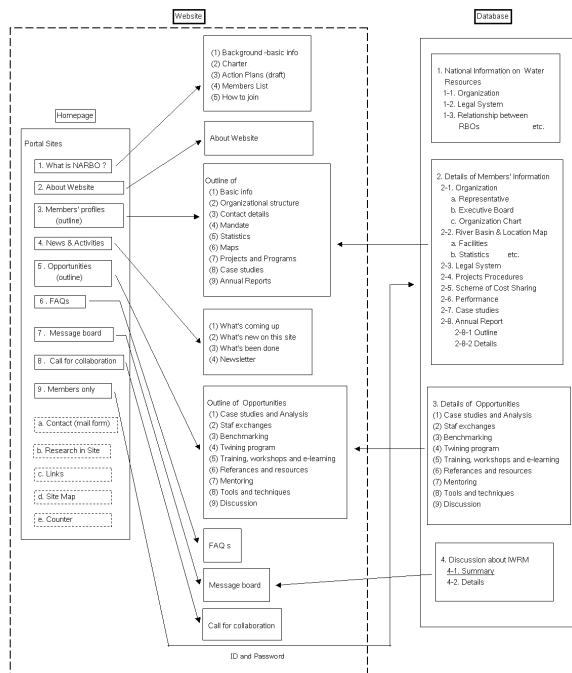
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## 2. Announcement from NARBO Secretariat

### 1) The concept for NARBO website and database

JWA Secretariat has been working hard on developing website based on the results obtained through discussions at the workshop on August 7 and 8 in Bangkok, Thailand.

Any comments and opinions are welcomed to improve website and we're expecting to get information from members to enrich the contents of website.



The concept for website based on the results obtained at the workshop

### 2) Call for information on NARBO members

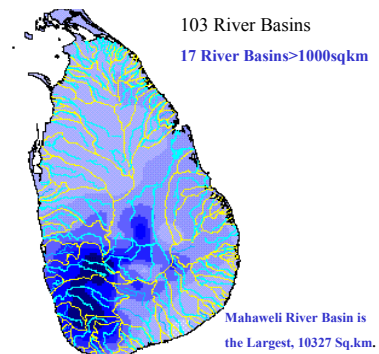
As being mentioned above, NARBO Secretariat are waiting for your offer of any information on your organization, movement of the water-sector in your country and new water-related legislations. We accumulate those gathered information in NARBO website database, so you'll access the database with ID to get information.

## 3. Serial Topics

### •What is RBO? : Mahaweli Authority of Sri Lanka & its Role

#### 1.Introduction

Sri Lanka is the tropical Island situated in the Indian Ocean with the total land area of 65,525km<sup>2</sup>. Its rainfall feeds a radial network of rivers that begin from the highlands in the Central part. 103 distinct rivers cover about 59,217km<sup>2</sup> with their basins. Large percentage of resources in these basins is used for irrigated agriculture and hydropower generation. Current population is estimated to be around 19 million and is projected to be stabilized at 23 million by 2025.



#### 2.Historical Perspective of Water Resources Management

Sri Lanka is the country with the long history of hydraulic civilization, which had been developed along the main river basins of the country. Early settlers began developing their network of irrigation systems in the main river basins around 5th Century B.C. Some of the large basins developed by them were; Malwathu, Mahaweli, Deduru, Kelani, Kalu, Walawe, Kirindi, Menik and



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Kumbukkan. Many of these rivers originate in the central highlands and flow towards plateaus in other parts of the country providing opportunities for irrigated agriculture. This geographical situation helped the early settlers to conserve the watersheds in the highlands and to develop plateaus in agriculture by storing water in a network of reservoirs.

This system of optimum use of water is well expressed in the popular dictum by the King Parakramabahu (AD 1153) that **"not a single drop of water received from the rain should be allowed to escape into the sea without being utilized for human benefit"**.

### 3.Sectoral Approach

During the early part of 20th Century, a program for restoration of ancient irrigation works located in the dry zone was launched under the British rule and continued after gaining independence in 1949. People were resettled in these areas with a view to developing agriculture basically to achieve food security, employment and socio-economic development objectives of the country. At present responsibility for water resource management is fragmented and entrusted to different government agencies viz. Irrigation Department, Ceylon Electricity Board, National Water Supply and Drainage Board and Water Resources Board.

These institutions were established with single-purpose mandates, which could be seen as parts of highly fragmented sectoral approach towards service deliveries with no relationship to integrated water resource management. Each

agency is mandated to develop their own water sources extracting from either rivers, streams or groundwater in catering to the service delivery functions in respect of irrigation, hydro-power, domestic water supply etc.

### 4.Multi-Purpose Area Based Development and Creation of Mahaweli Authority of Sri Lanka

Having realized the limitations of sectoral approaches to development, the Government of Sri Lanka introduced an area based, multipurpose Mahaweli Development Program with an integrated approach to development. In 1968, on the request made by GOSL the Mahaweli Development Master Plan which was prepared UNDP/FAO team, for stepwise implementation over a period of 30 years, had been revised under the Accelerated Mahaweli Development Program (AMDP) in 1977. Accordingly the period of implementation was reduced to 6 years to implement the MADP, Mahaweli Authority of Sri Lanka was established under a special government Act -23 of 1979.

Major components of the program were; providing irrigation facilities for dry zone agriculture, generation of hydro-electric power, settlement of displaced and landless families by providing required physical and social infrastructure for human habitation, providing marketing facilities for agricultural produce and social facilities for sports, cultural and religious purposes.

### 5.Implementation of Accelerated Mahaweli Development Program (AMDP)

Project almost implemented with the donor

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assistance from all the major donors such as World Bank, European Commission, JICA, OECF (JBIC), SFD, Kuwait Fund etc totaling amount approximately SLR 90 billion (year 2000). At the end of the AMDP following physical output was observed.

- a) Five Major Dams (03-Rockfill Dams + 02 Concrete Dams.)
- b) Trans-basin Canals/ Anicuts-02 Units
- c) Irrigation Canals (All Types)-8350 km
- d) New Irrigable Lands-120,000 ha
- e) New Roads (All Grades A, B C &D)-1350 km
- f) New Schools –310 Units
- g) Other Service Buildings-592 Units

6. Significant achievement by Mahaweli Authority of Sri Lanka under (AMDP)

- a) At the end of the AMDP, power generation capacity of the country was increased by 137% with the operation of above 5 major multipurpose dams which broadly regulate water for irrigated agriculture and generation of power. Cumulative value of electricity generated by Mahaweli Power Stations are Rs 87 billion (year 2000). Mahaweli Energy/ Power Contribution-55% of national requirement (1994-95).
- b) Newly developed Mahaweli paddy cultivation lands cover 16% of the total paddy cultivation area of the country. But Mahaweli contribution is 25% of the national rice production. Cumulative value of crops (paddy / OFCs) produced by Mahaweli lands are Rs 94 billion (year 200).

7. Indirect benefits of AMDP

- a) Rural-Urban Migration largely averted
- b) Created minimum 250,000 agriculture direct labor days / day
- c) Created about 350,000 indirect labor days / day in service sectors
- d) Living standards of poor communities were largely improved.
- e) Community empowerment in rural sector was largely visible.
- f) Health situation largely improved in dry zone (e.g. drastically reduced Malaria epidemic)

8. Negative impacts of AMDP

- a) Drastic reduction of forest cover-10%
- b) Influenced to human-elephant conflicts
- c) Very valuable lands were submerged
- d) Concept of green GDP not much adopted

9. Current transformation

As implementing agency Mahaweli Authority of Sri Lanka has now passed little more than two decades and for the sustainability perspective Government of Sri Lanka has decided to transfer it's role from implementation to management. Therefore now Mahaweli Authority of Sri Lanka moving towards River Basin Management to address:

- a) Inter-sectoral allocation of water resources among diverse users / uses
- b) Management of multipurpose water infrastructure
- c) Watershed / Water quality / Riverine Management
- d) Reliability of water availability to meet all



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demands

- e) Demand management through conservation measures
- f) Impacts on environmental health concerns
- g) Institutional development-public-private sector partnership, awareness creation and education

## 10. Conclusion

After having this long journey, Mahaweli Authority of Sri Lanka has now proved its' need and importance of operating it as a River Basin Management Organization since a "River Basin" is the most logical unit for implementation of Integrated water resources management (IWRM) concept and to support to this idea, **Government of Sri Lanka has now established a separate Cabinet Ministry, namely Ministry of Mahaweli and River Basin Development** to give more attention for this important sector. Similarly Sri Lanka has been identified as the focal point for coordinating River Basin Management in South Asia and Mahaweli Authority of Sri Lanka as the Driver Agency of SASNET-RBO.

\* NARBO Secretariat in JWA received this article from Mr. Sudharma Elakanda, Network Coordinator, Mahaweli Authority of Sri Lanka on November 8. His e-mail address is [elamrrp@slt.net.lk](mailto:elamrrp@slt.net.lk)