

# **Report on 2<sup>nd</sup> NARBO Training Workshop in River Basin Management and Organization 25-29 April, 2005**

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The traditional water resources management was focused on the supply side where only technical solutions were considered to meet the growing demand of water. Isolated projects on irrigation, drinking water supply and sanitation, hydropower etc. were developed while considering the economic side only. Generally, the environmental and social impacts were not considered in an adequate level.

Integrated Waters River Management (IWRM) principle professes that water must be viewed from a holistic perspective, both in its natural state as well as in balancing the competing demands in it e.g. domestic requirements, agriculture need, hydropower, industrial, culture and environment. Management of water resources services needs to reflect the interactions between the various demands. Again these demands should be coordinated within and across the different sectors. More equitable, efficient and sustainable regime will be emerged, provided cross cutting requisites are met.

Those above mentioned is just a theoretical one. Actually, it is required to observe and have a look after in a real field condition as well as interaction with the experienced personnel from different sectors. In this term, I had a chance to join the Training Workshop conducted by Network of Asian River Basin Organization in Sri Lanka from 25-29 April, 2005. During the training program, case studies of two river basins of developed countries: Murray-Darling in Australia and Omonogawa in Japan were presented including one of developing country: Brantas basin in Indonesia.

The case studies focused on standard set of research questions and a common methodology. The key components of the methodology were

- (a) Water accounting
- (b) Analysis of Socio-economic conditions in the basin
- (c) Assessing the current performance of irrigated agriculture in the basin
- (d) Analysis of the existing formal and informal institutional arrangement for managing water resources in river basin

During the training period, we visited the Maha Oya Basin. Maha Oya originates in the mid hill country in the Central and Sabaragamuwa Province and flows 130 km through four provinces and five districts before discharging to the Indian Ocean. It has a basin area of 1528 sq. km. and average rainfall of most of the catchment area exceeds 3,800 mm per annum.

The most important use of Maha Oya is for drinking water for population of 200,000 as the river flows through large number of urban semi urban centers. Minor uses are hydropower, industrial water and irrigation. Though water management in Sri Lanka is known for ancient days, it is lacking in proper management of basin as a whole in the following contexts:

- Clear stages of river basin development
- Organizational model of water policy and water resources management that applied for a model basin
- Improved data collection and transformation of these data into useful management information
- Clear understandings of priority and water rights and effective enforcement
- Adjustment of water allocation to ensure basin scale impacts minimization
- Water quality issues
- Need to build up institutional arrangements
- Effective mechanisms for stakeholders consultations and their cooperation for developing and managing water resources
- Priority in water use
- Public-private partnership in managing water resources
- So far the environmental issues are concerned, the following are required to be kept in mind
  - Sea water intrusion
  - Flora and Fauna
  - Disposal of effluents from factories, vehicle service yards
  - Sewerage disposal
  - Garbages
  - Degradation of watershed
  - Sand and clay mining in the river bed

### **Lesson Learnt:**

Water resources development is a multi-sectoral and inter disciplinary endeavour. So, institutional mechanism for water resources sector management assumes a critical component for the overall success. In water resources development management not only the public agencies, but also various stakeholders institutions, including users organizations, private sector entrepreneurs, NGOs, academic institutions and professional bodies are involved. Thus in order to implement IWRM principles in a river basin, certain structures are needed to be in place with the enabling environment, institutional framework and management instrument or tools for various management decisions such as water resources assessment, water allocation and conflict resolution.

So as to overcome the overall problem as stated above problems encounter in the basin, that is, to management a basin properly, a River Basin Authority is required to be established. This authority would work to

- Allocate water resources to a new water project
- Acquire information on water resources from various governmental and non-governmental agencies
- Acquire and maintain meta data for various uses of water resources within the basin
- Develop and maintain water accounting system for a basin as a whole of water allocation and other planning purposes
- Lastly, orient water related offices to provide inputs for River Basin Management