

Training of Trainers (ToT) in Integrated Water Resources Management

One of the impending crises of twenty-first century that the world has witnessed, is the water crisis. Despite the series of initiatives that have been taken to address the problem of over exploitation of water resources, water pollution and meeting the increasing demands for water, a large section of world's population still remains unserved. With the burgeoning literature emerging on myriad issues of water management and its problems, it has become evident that there is a need for a more integrated approach to address the water crisis. Integrated Water Resources Management (IWRM) is a normative concept that prescribes an inclusive (socially just) management of water based on scientific evaluation of resources that ensures sustained ecological services and economic benefits. The concept of IWRM has attracted attention following the international conferences on water and environmental issues in Dublin and Rio de Janeiro held during 1992 where some broad principles were suggested to achieve the multiple goals of equity, efficiency and sustainability in water management. According to a popular definition, IWRM is a process which promotes the coordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (Global Water Partnership 2010).¹

IWRM provides a flexible framework to deal with the multifaceted problems looming water sector across the globe. It helps the multiple institutions involved in governing water to move towards achieving sustainable water management. However the flexible and all encompassing nature of the IWRM principle has attracted lots of criticism yet IWRM as a concept has emerged influential in setting policy agenda throughout the world in the last decade. Therefore capacity building in IWRM is now considered as a pre-requisite to facilitate water sector reforms and to provide the necessary person power for reformed new institutions.

Driven by the demand of capacity building in IWRM, a Training of Trainers (ToT) was organised by the Crossing Boundaries (CB) Project in collaboration with the Cap-Net at Kandy, Sri Lanka during 16-25 September 2010. It attempted to train academics in South Asia (especially Water Resources Engineering faculty) to impart training to other academics, practitioners and policy makers on this important paradigm shift in water resources management and development. The training was organized around the Dublin Principles – the four guiding principles that the international water community adopted in 1992:

- Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment
- Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels
- Women play a central part in the provision, management and safeguarding of water.
- Water has an economic value in all its competing uses and should be recognized as an economic good

The present training manual is based on the course modules developed for the ToT. The training aimed to disseminate knowledge on IWRM to academics of higher educational institutions in South Asia, review and reformulate IWRM curriculum, develop a training manual on IWRM in South Asia and expand the IWRM capacity building network in South Asia. A brief on the ToT has been provided in the subsequent chapter.

There are ten modules in the manual. The conceptual framework and the essence of IWRM principles are elaborated in Module 1. It focuses on the need for deploying IWRM principles to encounter the problems faced by water sector. Module 2 sheds light on the determinants of power in a society, their origin and the way through which they are practiced in reference to water management. The importance of bio-physical, socio and cultural aspects governing water are discussed in Module 3. The economic and financial aspects of IWRM are elaborated in Module 4, following which the relationship between water and ecosystem is diagnosed in Module 5. The intimate relationship between water supply, sanitation and health is explained in Module 6 and Module 7 deals with sewage and water management. The management of river basins are discussed in Module 8. The issues of water rights and laws are analyzed in Module 9 following which the issue of water policy, regulation and governance are elaborated in Module 10. An overview of the readings along-with the references is provided in the chapter III 'Resource Material in a Nutshell'.

¹ Global Water Partnership. 2010. 'What is IWRM'. Available online at <http://www.gwp.org/en/The-Challenge/What-is-IWRM/> (accessed in November 2011).

The manual has been developed taking the south Asian context into consideration and can be used by trainers, researchers, students and practitioners of IWRM.

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Jayati Chourey, Sumathi Sivam and Hamsini Ravi