

## Staff Training on Water and Climate Change: Vulnerability and Adaptation

### Background Note

Climate change is now a recognized phenomenon, the manifestations and effects of which may differ from one geographic/ecologic region to another. One of the most significant effects of climate change is expected in hydrological systems – both at global and local levels. This may bring changes in the occurrence and distribution of water resources and their seasonal and annual replenishment systems. Such changes may have direct impacts not only on the natural ecosystems but also on the lives and livelihoods that are thriving within the ecosystems. Changes in hydrologic systems will pose different types and degrees of vulnerabilities to the societies living under various ecological settings. These factors will add new challenges to the already complex problem of water resource management. Various adaptation strategies will have to be devised in order to develop resilience in societies under different physical, socio-economic and political settings.<sup>1</sup>

The SaciWATERs organized a training program on 'Water and Climate Change: Vulnerability and Adaptation' during August 2-9, 2009 in Dhaka. The training focussed on issues such climate change as a phenomenon, its manifestations and impacts on ecosystems, and implications on water resources management in South Asia. It also dealt with the vulnerabilities to livelihoods and the strategies for adaptation in the context of Integrated Water Resources Management(IWRM). This training was organized for the faculty members from the Partner Institutions (PIs) of the Crossing Boundaries (CB) Project, which is being implemented by SaciWATERs. The CB Project has an aim to contribute to the paradigm shift in water resources management in South Asia, summarized in the concept of IWRM (Integrated Water Resources Management). This is being undertaken through a partnership-based programme for capacity building of water professionals on IWRM and Gender & Water through higher education, innovation and social learning focused research, knowledge base development and networking.

The interdisciplinary training allowed the participants to understand and critically evaluate issues that lie at the heart of water and climate change debate in South Asia region. The training included five days (August 2 to 6) of classroom session. This included intense briefing given to the participants on issues that are of concern to South Asian region in the backdrop of climate change. Two days (August 7 to 8) field trip to two char areas (riverine islands of Brahmaputra and Jamuna rivers) that are prone to flooding was organized post classroom sessions. The purpose of the field visit was to familiarize the participants with the impacts of climate change on the lives of the people residing in the region. Following the field visit, a one day (August 9) of discussion for developing a course module was organized. The field program was coordinated by a local Non Governmental Organisation, Gana Unnayan Kendra, Dhaka, Bangladesh.

### Lead Co-ordinators

- Dr.Dibya Ratna Kansakar, Former Director, SaciWATERs, Hyderabad, India.(dib.kansakar@gmail.com)
- Ms. Sreoshi Singh, Research Fellow, SaciWATERs, Hyderabad, India.(sreoshi@saciwaters.org)

### Sessions and Resource Persons

- Climate Change: Concept, Science and Debates, Extreme Climatic Events as a Effects of Climate Change: Their Impacts on Water Resources in South Asia by Dr. Madan Lal Shrestha, Nepal Academy of Science and Technology, Kathmandu, Nepal. (madanls@hotmail.com)
- IPCC Interpretation to Climate Change Phenomena by Dr. Atiq Rahman, Executive Director, Bangladesh Centre for Advanced Studies, Dhaka, Bangladesh. (atiq.rahman@bcas.net)
- Impacts of Climate Change on Water Sector in Indian Sub-Continent: Arid, Coastal and Deltaic Ecosystems and Adaptation to Climate Change: A Practical Tool- Concepts, Ethics and Politics by Prof. S. Janakarajan, Madras Institute of Development Studies, Chennai, India. (janak@mids.ac.in)
- Implications of Climate Change on Water for a) Economy b) Agriculture and Food Security and c) Livelihoods by Dr. Mozaharul Alam, Regional Climate Change Coordinator, Regional Office for Asia & The Pacific United Nations Environment Programme, Bangkok, Thailand. (Mozaharul.Alam@unep.org)

1. The introductory paragraph is based on the background note provided by Dr. Dibya Ratna Kansakar, for the Staff training on Water and Climate Change: Vulnerability and Adaptation.

- Social Impact of Climate Change: Vulnerable Social Groups and Gender and Implications of Climate Change on Water Supply, Sanitation and Human Health and the Ways to Cope with Them by Dr. Govind Kelkar, Coordinator, United Nations Development Fund for Women, New Delhi, India. (govind.kelkar@unifem.org)
- Economic Implications of Climate Change by Dr. Khandaker Mainuddin, Bangladesh Centre for Advanced Studies, Dhaka, Bangladesh. (khandaker.mainuddin@bcas.net)
- Climate Change Risks: Physical, Social and Economic by Mr. Dwijen Mallick, Bangladesh Centre for Advanced Studies, Dhaka, Bangladesh. (dwijen.mallick@bcas.net)
- Climate Change and Vulnerability Analysis: Methods and Their Significance in a) Adaptive Capacity b) Sensitivity c) Exposure by Prof. K.S. Kavikumar, Madras School of Economics, Chennai, India. (kavikumar@gmail.com)
- Non-Structural Solutions for Adaptation to Climate Change by Mr. Tauhidul Anwar Khan, Bangladesh Unnayan Parishad, Dhaka, Bangladesh. (tauhidulakhana@gmail.com)
- Climate Change and IWRM by Mr. Jalaluddin Md Abdul Hye PEng, Director General, Water Resources Planning Organisation (WAPRO), Dhaka, Bangladesh. (jmahye@gmail.com)
- Responses to Climate Change: Global, National and Local by Dr. Qazi Kholiquzzaman Ahmad, Chairman, Bangladesh Unnayan Parishad, Dhaka, Bangladesh. (ak\_ahmad@hotmail.com)
- Climate Change Mitigation Technologies (Structural Measures) by Prof. Rezaur Rehman, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh. (rezaur@iwfm.buet.ac.bd)