DHSK College, Dibrugarh

# Workshop on 'Adapting to Climate Change Impacts on Water in the Upper Brahmaputra basin in Northeast India'

**Organised by Aaranyak (Guwahati) & DHSK College (Dibrugarh)**
**With support from India Water Partnership (New Delhi)**

**Venue: Shankardev Sabha Kakhya, DHSK College, Dibrugarh 786001**
**Date: November 17, 2012 Time 10 am - 4.00 pm**

The Brahmaputra river basin is considered as highly vulnerable to climate change impacts according to recently published scientific literature. The information and the knowledge base on the dynamics of causal factors and impacts are still emerging. Awareness about the climate change impacts, the means of mitigation or the need of adapting to the same is limited in the NE region. Most of this knowledge-base and understanding has developed at large spatial scales such as the Ganga–Brahmaputra-Meghna basin, Brahmaputra basin, upper Brahmaputra basin, eastern Himalayan region, the Indian sub-continent or large river catchments. It is difficult to generate reliable estimates of climate change impact at regional or local scales because of inherent contacts of models that are used to simulate the behaviour of global atmospheric circulations or the hydrological cycle. To compensate for such limitations of model based scientific assessments, local indicators or observations need to be studied to understand the changes happening on small spatial scales (such as small river catchments, valleys, wetlands, forests ecosystems, agro-ecological zones). Supplementing technical knowledge with locally derived information on changes and impacts is necessary to understand how lives and livelihoods of local communities are affected and how the same can be dealt with appropriately to achieve goals of environmental security and sustainable development.

The eastern part of the Brahmaputra basin especially the hilly region of eastern Arunachal Pradesh and the Brahmaputra valley covered by the districts of Dibrugarh, Tinsukia, Sibsagar, Jorhat, Lakhimpur and Dhemaji are prone to water induced hazards such as flood, flash flood, river bank erosion, land degradation due to siltation as well as landsides. Many parts of this region also suffer from localised drought situations making people suffer from scarcity of water for drinking and agriculture. This region is drained by several large rivers like the Sing, Dibang, Lohit, Burhidihing, Noa-Dihing, Subansiri. Most of the rivers in this region are being developed with heavy structural intervention for generating hydropower. The environmental and social impacts of such projects have not been assessed properly and remain largely unaddressed in terms of mitigation by the developers. Agriculture in this region is dependent mainly on rainfall and the sustenance of flood plains through natural cycles of nutrient supply. Natural hazards, local hydrological cycle, flood plain properties and agriculture, all these aspects of this landscape are likely to be affected significantly by climate change and consequent impacts.

A workshop with the title mentioned above is being organised jointly by Aaranyak and Dibrugarh Hanumanbux Surajmal Kanoi (DHSK) College at the college premises on November 17th, 2012 to (i) spread awareness about climate change impacts in the Brahmaputra basin as a whole, but referring especially to the water sector of the eastern part of the basin (ii) to generate information about local observations and indicators of climate change impacts; and (iii) to explore local and regional issues for research, documentation and advocacy (RDA). The workshop will feature several thematic presentations by reputed experts and practitioners on the core subject of discussion in the first half. The second half will be dedicated to interactive discussion in a consultation mode to come out with a set of recommendations for effective strategies of climate change adaption, required RDA, and governance reforms all aimed at empowering the people of the region to manage the climate change impacts n different sectors of society effectively.

Aaranyak (www.aaranyak.org) is a premier environmental research and advocacy organisation of India recognised by Government f India as a Scientific and Industrial Research Organisation (SIRO). DHSK College (www.dhsk.edu.in) is an old and reputed educational institution of Dibrugarh. The proposed workshop is the second in a series of three workshops/consultations being conducted by Aaranyak with support from the

Global Water Partnership (GWP)-India. It is an attempt to identify major issues and concerns arising out of how climate change has affected and will affect the water resources of the region and how these issues can be addressed by influencing governance and policy making of the national and state governments as well as capacity building of civil society for reducing vulnerability and achieving resilience to climate change impacts.

Suggested below is a list (which is indicative only) of themes/issues that can be brought to the table of discussion by participants depending on their area of expertise and knowledge:

- Impact of climate change on river regimes (hydrology, geomorphology, channel dynamics, sediment load etc.)
- Major water induced natural hazards and how these can get affected by climate change
- Local observations and indicators of events that may be linked climate change
- Localised drought like situations and mitigation/adaptation
- Agro-meteorology and crop productivity (crop cycle, soil fertility, pest attack etc.)
- Local coping and adaptation to flood, erosion and land degradation
- Rainfall variability, distribution and trend
- Irrigation infrastructure and its improvement
- Alternative cropping practices in flood , and sand affected area
- Mainstreaming of climate change concerns and implications in water management
- Climate change and large river dams
- Climate change and trans-boundary river management
- Governance and policy instruments for climate change adaptation

The proceedings of the consultation will be published in next one month incorporating the views and suggestions of the participants into five sections:

- Recommendations for research
- Recommendations for action research
- Recommendation for awareness and education
- Recommendations for policy advocacy
- Recommendations for governance reforms

We will soon make the programme available to all invitees.

For further information please contact: Partha J Das, Aaranyak (9435116558); Sanchita Boruah, DHSK College (9435721999); Partha Ganguli, DHSK College (9434330310).

*To know about Aaranyak's research and advocacy on climate change and be a part of it, you may communicate to:*

*Partha J Das*
*Programme Head, Water, Climate & Hazard (WATCH) Programme*
*AARANYAK (A Scientific and Industrial Research Organisation of India)*
*50 Samonwoy Path, Survey, Beltola, Guwahati-781 028, Assam, India*
*Telefax: 91-361-2228418(Office), Phone: 91-361-2230250, Cell: 91-94351-16558*
*Email: partha@aaranyak.org, www.aaranyak.org*