On the eve of the World Water Day 2012, the South Asia Network on Dams, Rivers & People (SANDRP) is happy to publish its new report: **Water Sector Options for India in a Changing Climate**. The report highlights that for the poorest sections, also most vulnerable in the climate change context, the water, food, livelihood and energy security, closely linked with the environment security, is already getting severely affected in the changing climate. It is well known that water is the medium through which climate change impacts are most dominant. South Asia is considered possibly the most vulnerable region in terms of number of people that would be affected by climate change impacts, and within South Asia, India has the largest vulnerable population. The importance of understanding the Water Sector Options in such a situation cannot be underestimated. The report highlights the options for coping and mitigating climate change challenges in water sector in India.

This report tries to capture the relevant issues for Indian Water Sector in the context of changing climate. The 93+ix page report divided in 12 chapters (including on Rainfall, Himalayan Glaciers, Groundwater, Rivers, Floodplains, Wetlands and water bodies, Big Water Infrastructure, Agriculture, Urban water options and Positive local water adaptation cases). It includes a case study each on Organic Farming (by Shripad Dharmadhikary) and on Forest-Agriculture settings in Western Ghats (by Dr Latha Anantha and S Unnikrishnan).

The report concludes that Climate change offers a unique opportunity to revisit our water resources development and management Plans, policies and practices. It also provides an opportunity to learn lessons from past approaches to development and management in a credible way. The purpose for a revamped water management strategy in changing climate could be that of equitable, sustainable, participatory, decentralised, democratic and transparent approach to water management; an approach based on sound knowledge and data to make decisions. Further, this approach would need to include a protection strategy for the rivers, forests, wetlands, water bodies, biodiversity, critical ecological habitats and groundwater reserves, as well as demand side management measures, along with a definition of the clear linkages between these domains. In water scarce situations, all demands cannot be sacrosanct, and there is a need to prioritise the just use of water with right based approach that includes right to drinking water, livelihoods and health. The final chapter gives a list of recommendations in this context.

The opportunities provided by climate change are still within reach. India, with the world’s largest water infrastructure also has the biggest performance deficit in terms of what that infrastructure can deliver and what it is delivering now. Groundwater is India’s water lifeline and opportunity beckons to make it sustainable, in the changing climate when demands and losses would go up. Our foodgrains requirements and water for the same would go up, but there are huge opportunities like increasing soil moisture holding capacity, taking up chauka systems in grazing lands, organic farming, System of Rice Intensification, also applicable to other crops on the one hand and water saving crops like millets on the other. Glaciers *are* melting, the IPCC glacier-gate notwithstanding, but we have the options of creating large number of local storages and also using underground aquifer storage space. Urban water demands are going up and will put greater pressures in future, but we also have the slew of hardly explored options including local water harvesting, protection of local water systems, achieving proper sewage treatment and recycling, participatory governance, among others.

Some of the sections of Indian population that are most vulnerable to the impact of climate change in the context of water and agriculture include: farmers dependent on rainfed agriculture, coastal populations, communities from Himalayas, Eastern & Western Ghats, Fisher-folks, Adivasis, Dalits, Rural populations, Urban Poor and Women. Any climate action needs to begin with identifying and listing such sections and than proceeding to prepare plans in a participatory way that would reduce their vulnerabilities through mitigation and adaptation. India’s National Action Plan for Climate Change, or the National Agriculture and Water Missions do not take this first crucial step and hence have remained directionless, ineffective and have not inspired much confidence.
Are we using these options and opportunities? If we go by the contents of the National Action Plan for Climate Change, National Water Mission, National Mission for Sustainable Agriculture, National Mission for Himalayan Ecosystems and also the 12th Plan documents, including the direction of 12th Plan indicated in the Union Budget for 2012-13, the answer is, unfortunately, in the negative. But we hope better sense prevails and the existing opportunities and options also highlighted in this report would be given heed to.

The World celebrates March 22 as the World Water Day, following the recommendation of the 1992 United Nations Conference on Environment and Development (UNCED). As the World prepares for the Rio + 20 conference in Brazil later this year, the theme of the World Water Day 2012 is Water and Food security (see: http://www.unwater.org/worldwaterday/about.html). In reality, there is a close nexus between water, food, energy and environment security. The Bonn meeting organised in Nov 2011 (see: http://www.water-energy-food.org/en/home.html), floated the theme that there is a nexus between water, food and energy security. This was welcome, but it forgot to add the crucial fourth leg of this nexus, namely ENVIRONMENT SECURITY, without which none of the other three pillars are secure. The India Water Week 2012, to be held during April 10-14, 2012 with theme (Water, Energy and Food Security Call for Solutions, see: http://www.indiawaterweek.in/) almost identical to that of Bonn conference, also needs to remember not to forget the fourth leg of this nexus. Truly democratic governance holds the key to address these issues.

The soft copy of the report is available at: www.sandrp.in/news, the executive summary of the report is available at: www.sandrp.in/news. The Hard copy of the report (price Rs 200/-) can be ordered by writing to ht.sandrp@gmail.com.

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