

Global Water Meet: Dharwad Declaration 2016 on Climate Change, Water and Agriculture – R.H. Sawkar and Poddar, Rajendra, Bengaluru. E-mail: gsocind@gmail.com; poddarrajendra@hotmail.com

During the years 1820/1929, under industrial and economic revolution, based on Keynesian theory, State intervention, made western world prosperous and people had all good things. This was broken by oil crises which triggered economic down turn, unemployment and inflation. Doctrine known as Monetarism came up to tackle unemployment and inflation with control of money supply by government and it was not sustainable. USA and Britain based its policies on individual and not Government (State) at the heart of economic thinking, brought back stability, efficiency and market growth but it led to the breakup of Soviet Union resulting in socialist policies taking a back seat. Liberalization encouraged risky borrowings, lead to collapse of firms and banks. Development model based on neo liberal economic doctrine, although brought economic prosperity to USA and some European countries (developed countries) posed economic threat in the form of Global Warming and Climate Change, which is now being dealt at international level.

Climate change influences many parameters among which the critical one is water resource. Fifth Assessment Report (2013) (AR5) of IPCC is categorical in its conclusion: climate change is real and human activities are the main cause. AR5, took stock of where we are and what we now know. For the first time, Working Group 1 could provide a comprehensive assessment of sea level rise, and its causes, over the past few decades. It was also able to estimate cumulative CO₂ emissions since pre-industrial times and provide a CO₂ budget for future emissions to limit warming to less than 2°C. About half of this maximum amount was already emitted by 2011.

Under this back drop Scientists, Researchers, Academics, Policy makers, Social activists, NGO's and farmers from 20 countries met in the Global Water Meet 2016 (GWM 2016) organized by the University of Agricultural Sciences, Dharwad, India during 24-26 October 2016. The meet stretching over three days deliberated upon (i) Climate change and implications; (ii) Global water challenges; (iii) Climate change and agrarian perspectives, (iv) Climate change adaptation and COP22 way ahead under five technical sessions. The meet had deliberations on climate change, water and agriculture by experts from 20 countries including USA, France, UK, Zimbabwe, The Netherlands, Malawi, Iran, Australia, China, Slovakia, Palestine, Thailand.

Two important outcomes of Dharwad Global Water Meet were;

- i) Dharwad Declaration and
- ii) Global Forum for Climate Change Adaptation.

The Dharwad Declaration shows the ways and means for execution of Paris agreement and Sustainable Development Goals (SDG) 2030. It calls for a move forward in this direction. Quoting Gandhiji, who said 'Nature has enough for man's needs, but not enough for his greed' the declaration asserts that each and every inhabitant of the planet has equal right to common goods and natural resources. Therefore, those who use more than their share, need to change their lifestyle to more sustainable consumption patterns that give back to nature what they consume. Climate change negotiations should put people first. At the moment, climate change is addressed mostly as a technical and a political issue. All measures related to adaptation and mitigation should start from the local people's potential and needs, respecting their dignity and right to development. Dharwad declaration focuses upon other related issues;

Water Security: The Dharwad declaration calls for community based decentralized solutions to planning, rejuvenation, conservation and management of water resources, whether it is on a river basin

management framework or revival of water bodies and aquifers.

Agricultural Sustainability: The Dharwad declaration commends ecological agriculture as an important resilience tool for climate adaptation and mitigation, based on local community's wisdom, traditional knowledge and bottom up solutions. Increased public investment is urgently called for, with convergence among the state, civil society, communities and private sector institutions at the policy and implementation levels.

Environment and Ecological Sustainability: Water, air, soil, land, forest and all natural resources are critically interwoven with life on earth. The Dharwad declaration calls for urgent public awareness and joint action of all stakeholders to ensure environmental and ecological sustainability.

Global Forum for Climate Change Adaptation is established with aims to collectivize global efforts of competent academicians and practitioners of climate change adaptation related to water conservation and agriculture; to find out practical solutions for problems of climate change adaptation through water and agriculture; to create awareness among public about relevance of climate change adaptation; to co-ordinate the efforts of people who believe in principles of development through conservation and restoration of natural systems with indigenous knowledge system and to extend worldwide time tested approaches for climate change adaptation.

Based on the content of the special publication No.5 released on 28.10.2016 by the Geological Society of India and Dharwad declaration; Cauvery, Krishna, Godavari, Palar and west flowing river basins should be taken up for basin management. Tungabhadra sub-basin should be taken up for river management. Tunga macro basin should be mapped on scale 1:250000 based on topo maps and satellite imageries. Macro basin of Tunga should be broken up and mapped on scale 1:50,000; showing cropping pattern; forest areas; solar and wind power areas; different soil and mineral zones. Tributaries of Tunga (micro basin) should be further broken up and mapped on cadastral scale 1:8000 to demarcate aquifers, cropping pattern and rural drinking water supply schemes. These maps should be overlaid on cartosat images to prepare action plan.

M.B. Patil, Water Resources Minister, who is fighting fire on the Cauvery and Mahadayi river fronts asks where is the water and suggests that Karnataka should focus on the west flowing rivers. Former BWSSB Chairman, B.N. Thyagaraja also agrees that if Bangalore has to get any water, it must be only from west flowing rivers (source: *Economic Times*, 2/12/16).

While several countries / regions of the world have crossed threshold of water scarcity, some are in transition. Unbridled competition to achieve and maintain high economic growth demands heavy exploitation of natural resources including water. Signs of growing conflicts for water are seen all around - America, Europe, Middle East, Africa and Asia. Water conflicts aggravate into political conflicts and transboundary demographic movements creating geopolitical complexities for which Middle East is the evidence. For quite some time there has been a talk of global tensions leading towards Third World War for which neither wealth nor oil but water could be the cause. Happenings around the world are indications of possible global conflicts with disastrous consequences. India and, in particular, Karnataka are no exception to these ominous trends. It is time we stand up to the challenges and think and act before the nature strikes back at humanity for its mismanagement.