INTERACTIVE WORKSHOP ON THE BETA VERSION OF THE SOUTH ASIA DROUGHT MONITORING SYSTEM (SADMS)

Collaborative Project of Global Water Partnership South Asia (GWP SAS), International Water Management Institute (IWMI) part of the WMO/GWP Integrated Drought Management Programme (IDMP)

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CONCEPT NOTE

General

Together with demographic, economic, environmental, social and technological forces, climate change has developed into a major driver that influences water resources management. Global warming and its associated consequences are manifested in increased climate variability, extreme weather events such as floods and droughts are expected to increase in frequency and intensity in many regions. Stable food production is dependent on how well we adapt to this increasing climate variability and change.

South Asia, with 20% of the world's population and 40% of the world's poor, is one of the most food insecure regions of the world. It has been estimated that of the total 1 billion food insecure people in the world, 30% live in South Asia. The economic damage caused by drought in agriculture is huge and growing. Effective tools for monitoring drought, for an objective quantification of damages or for the design and implementation of preventive measures, remain limited. Information on the development and the possible drought threat is based solely on meteorological data, which are limited in principle. Conditions of vegetation and soil moisture are not yet monitored at all. Reliable detection of drought emergence and progression at regional level remains challenging.

A Needs and Capacity Assessment Survey on drought monitoring was conducted in Afghanistan, Bhutan, Bangladesh, Maldives, Nepal, India, Pakistan and Sri Lanka with the support of the relevant GWP Country Water Partnerships. It revealed that there is no validated system of early warning on drought that could meet the requirement for a high spatial resolution in any of the surveyed countries. Challenges that countries face include a lack of hydrological/ meteorological measurement stations, missing access to satellite data, insufficient rainfall prediction capability, or shortage of well-trained staff. In the assessment, the respondents

came to similar conclusions that agriculture is the most vulnerable sector to drought. Some of the recommendations concerned the involvement of users and relevant government agencies throughout the project, as the key to the drought monitor's success and particularly for the housing and ownership of the system nationally and regionally. The report also stated a need for clarity in the system to enhance understandability, considering the political nature of drought and the importance in data verification through on the ground observations.

In the context of the 5th South Asian Climate Outlook Forum (SASCOF-5) in Pune, India, in April 2014, which gathered climate experts from the region to pool knowledge for a seasonal forecast a workshop on drought monitoring was held, which gave further impetus to developing a South Asia Drought Monitoring System (SADMS).

In this context, the project on "***Development of South Asia Drought Monitoring System***" was initiated as a join undertaking of IWMI, GWP South Asia & the WMO/GWP Integrated Drought Management Programme (IDMP). The key partners are other Intergovernmental, governmental and non-governmental organizations involved in drought monitoring, prediction, drought-risk reduction and management. The project has two initial phases, namely; Phase I (July 2014-April 2015) & Phase II (planned for May 2015 to December 2015).
The primary objective of the project is to develop and implement an innovative approach for monitoring and assessment of the drought risk based on integration of meteorological data, vegetation condition from satellite imagery and targeted collection of ground truth moisture and crop-yield data that supports efforts directly at increased resilience to drought. The project will develop an online drought monitoring system for South Asia (encompassing Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka in a first step) that will be based on spatial composite maps of drought indices updated approximately every week or two – as new RS data becomes available from public sources and processed for the purpose of the project.

More information on these activities is available at:
http://www.droughtmanagement.info/idmp-activities/south_asia/

The workshop is scheduled in conjunction with the 6th South Asian Climate Outlook Forum and the Climate Services User Forum (CSUF) for the Water Sector taking place following this workshop from 21 – 23 April 2015.

The South Asian Climate Outlook Forum (SASCOF) implemented since 2010 addresses the climate information needs of nations affected by the Asian southwest monsoon climate. The long-term historical patterns of the summer monsoon rainfall over South Asia, characterized by remarkable spatial and temporal variability, provide the general reference points at the respective locations for the rainfall anomalies indicated in the outlook. The Water Forum aims to bring better synergy between the water community and the climate community within the South Asian countries with the long-term objective of making best use of the climate services and information provided through SASCOF efforts, and otherwise available in the region.

The Objective of the Workshop

At the end of the Phase I of the project, an interactive workshop has been planned to have interim consultation with national counterparts to validate the system before it is made operational and to tailor it with the end user in mind. Therefore, the objectives of the workshop are as follows;

1. Present a beta version of the South Asia Drought Monitoring System (SADMS) in corporation with national partners in South Asia,
2. Have a dialogue with national partners of their country requirements to ensure it responds to the need of users,
3. Start a discussion on how to integrate the results of the SADMS to regional, national and state level decision making processes.
4. To have initial awareness on the final product and attract the attention of key actors in the water & climate community.

The Participants

At this workshop, it is aimed to provide a platform for enhanced interactions between the water community and the climate community within the South Asian countries with the objective of making best use of the SADMS. Key agencies in each countries, many of which have responded to the need assessment survey, with a mandate on drought/disaster monitoring and management.

Therefore, at least 2 participants from each country will be invited. The possible participants may be invited from the agencies such as meteorology, disaster or irrigation. Therefore, 16 participants are expected from 8 countries. In addition, it is suggested to invite experts from the US Drought Monitor as well as Director of SAARC Disaster Management Center and representative from ISRO. Therefore, altogether, 20-25 participants are expected for the workshop.

Holding the SADMS workshop in conjunction with the SASCOF-6 and the CSUF it is aimed to realize synergies among climate and water practitioners and decision-makers.

The Agenda
Attached.

Workshop Outcome:

The South Asia Drought Monitoring System is assessed by the practitioners and further enhancement/customization is identified by the end users. A plan of engagement with the user community is also discussed for implementation following the workshop.