













# WORLD METEOROLOGICAL ORGANIZATION GLOBAL WATER PARTNERSHIP SOUTH ASIA (GWP SAS)

# Third Climate Services User Forum for the Water Sector in South Asia (CSUF-Water-3)

Colombo, Sri Lanka 26-28 April 2016

Including a joint session with South Asian Climate Outlook Forum (SASCOF- 8)

# **CONCEPT NOTE**

#### Introduction

Climate services develop and provide science-based and user-specific information relating to past, present and potential future climate. They help society cope with climate variability and change. Climate service users include economic, administrative, political and scientific bodies, within and across sectors and disciplines. Information about climate, climate variability and change, and impacts on natural and human systems as well as mitigation and adaptation strategies is tailored to the specific user requirements. The importance of climate services, i.e. providing targeted, tailored, and timely weather and climate information, has gained momentum, but requires improved understanding of user needs.

For risk management and adaptation to the impacts of climate variability and change, regional climate outlook forums (RCOFs) conceived by World Meteorological Organization (WMO) and its partners have been recognized to provide substantial benefit in many parts of the world. RCOFs take the overarching responsibility to produce and disseminate a regional assessment of the state of the regional climate for the upcoming season. Built into the RCOF process is a regional networking of the climate service providers and representatives of various user sectors including agriculture, water and disaster management. The South Asian Climate Outlook Forum (SASCOF) implemented since 2010 addresses the climate information needs of South Asian nations. SASCOF initially focused on the summer monsoon outlook, but recently expanded its scope to cover the winter monsoon as well with the first Winter SASCOF held in October 2015.

The 2015-2016 El Nino is considered to be one of the strongest El Nino events since 1997-1998. Oceanic and atmospheric indicators suggest the 2015/2016 El Niño has peaked with a return to neutral conditions expected during the second quarter of 2016. In South Asia, El Niño conditions generated a weaker southwest monsoon than usual. El Niño is believed to have played a key role in the rainfall deficit in the region. In terms of drought, forecasts can be very useful for agricultural planning. Countries that are at risk of El Nino induced drought could use predictions to help farmers adapt their farming practices before the main growing season in order to mitigate drought risk and impacts. Regional cooperation is critical to ensure better understanding of El-Nino associated risks. Sharing and exchanging risk information among stakeholders and creating appropriate enabling mechanisms to act on risk information would help address and better prepare for the impacts of El Nino.

South Asia needs policy measures and actions to factor in long term climate risk for El Nino and climate change in general. Early Warning and monitoring strategies need to be employed particularly for building climate resiliency in climate-sensitive sectors, for which SASCOF has been making concerted efforts to engage user communities, particularly in the water sector.

## **CSUF-Water for South Asia**

The purpose of the Climate Services User Forum for the Water Sector (CSUF-Water) is to bring synergy between the water community and the climate community within the South Asian countries with the long-term objective of facilitating optimal use of the climate services and information provided through SASCOF efforts, and otherwise available in the region. Water managers may benefit from rainfall forecasts for the planning of irrigation systems, surface water storage, groundwater pumping capacity and trans-basin diversion. Such forecasts might also contribute to a more effective deployment of emergency flood management and relief operations. Information on climate variability, including predictions, can form an important knowledge source in decisions on water security, facility development, and cross-border basin management.

The first CSUF-Water was jointly organized by the International Commission on Irrigation and Drainage (ICID) and WMO in conjunction with SASCOF-5 held in April 2014 in Pune, India. The second CSUF-Water was jointly organized by ICID and WMO in conjunction with SASCOF-6 in April 2015 in Dhaka, Bangladesh. Global Water Partnership South Asia (GWP SAS) had cosponsored both these CSUFs.

WMO and GWP SAS are jointly organizing the Third Session of CSUF-Water in South Asia, in conjunction with the Eighth session of the South Asian Climate Outlook Forum (SASCOF-8) in Colombo, Sri Lanka from 26-28 April 2016. It will include a joint session with SASCOF-8 on 26 April 2016, and both the events are hosted by the Department of Meteorology of Sri Lanka.

#### **Objectives of CSUF-Water-3**

Water managers from the South Asian countries will participate in the CSUF-Water-3 that will expose them to the climate outlook that would be issued with its limitations and give them the opportunity to determine how the seasonal climate outlook could be effectively used in water management operations, particularly during extreme events such as floods and droughts. The objective of the CSUF-Water-3 would be:

- To consider the seasonal climate predictions available for the South Asian Region including the associated implications for water availability and drought;
- To review the regional climatological conditions in 2015 and the associated national water management responses;
- To explore ways to strengthen the use of seasonal monitoring and prediction for water resources management in the region;
- To discuss potential project concepts to demonstrate the utility of scientific advances for sub-seasonal to seasonal water resources management; and
- To explore improvements needed to advance the use of climate information and predictions for water management.

Part of the cost for the organization of the Forum, some of which is requested to be funded by WMO, GWP SAS will provide the logistics for the Forum as indicated therein and coordinate in collaboration with Department of Meteorology Sri Lanka who are organizing SASCOF-8 The detailed technical programme and the faculty for the Forum will be developed in consultation with WMO.

## **Dates, Place, Organizers**

CSF-Water-3 is scheduled to be held at Hotel Hilton Residences, in Colombo, Sri Lanka, from 26-28 April 2016 (including a joint session with SASCOF-8 on 26 April). Technical and logistical aspects of these forum sessions are supported by WMO, GWP-SA, the Sri Lanka Department of Meteorology, the India Meteorological Department and the Indian Institute of Tropical Meteorology. The sessions are financially supported by WMO through the Programme for Implementing GFCS at Regional and National Scales funded by the Government of Canada. All the events will be conducted in English and there will be no provision for interpretation.

## **Participants:**

Irrigation/water managers engaged from each of the country from South Asia will be invited to participate in the Forum. One Participant each will be invited from the South Asian countries Afghanistan, Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal, Pakistan, and Sri Lanka. Sri Lanka, being the host country, will have the opportunity to bring additional participants belonging to different sub-sectors of water.

Experts from WMO, Bureau of Meteorology of Australia, Department of Meteorology Sri Lanka, IMD, IITM, ICID, International Water Management Institute (IWMI), Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES), etc. will support the sessions.

#### **Proposed Structure of the Forum:**

#### 26 April 2016

- Joint session with SASCOF-8
  - Presentation of seasonal outlook for summer monsoon of 2016
  - Overview presentations on climate information needs of user sectors including water and health
  - Interactive discussions between climate, water and health sector representatives, including potential applications of SASCOF process

## 27 April 2016

- Theme: Climate Information for Managing Water Extremes
  - Review of regional climate in 2015 and the associated water management responses
  - South Asia Drought Monitoring System
  - South Asia Water Monitor
  - Advances in medium and extended range weather/climate predictions in South Asia and the potential applications in water sector
  - o Improving climate information for water management

#### 28 April 2016

- Theme: Complementing Monitoring with Prediction for Water Management
  - Sub-seasonal to Seasonal Prediction for Water Management Australian Experience
  - HKH-HYCOS Regional Flood Information System
  - USGS Geospatial Stream Flow Model
  - Next Steps for climate-smart water management approaches, including the development of project concepts

The forum sessions will consist of keynote presentations, case studies, interactive discussions and group work. Groups sessions will come up with a short summary of key issues to be considered in the development of next steps.

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