CariCOF Dry Season 2014-2015

Concept Note

The combination of climate variability and change pose significant risks for the Caribbean region. Pressures on regional resources are anticipated to increase along with demands due to population growth and the expansion of tourism. Coupled with these risks are:

- The threats already posed to society from today's climate extremes and variations
- The potentially high-impact but uncertain additional risks presented by climate change

While the seasonality of climate in the Caribbean has been well documented, major gaps in knowledge exist in terms of the drivers in the shifts of amplitude and phase of seasons as evidenced from the recent (2009-2010) drought in the Caribbean. In addition as noted by the IPCC (2007): *"The region must prepare for the possibility that 1 and 2 degree C temperature increases superimposed on interannual and decadal scale variations will physically change the nature of extremes."* There is thus a strong need to link present preparedness and adaptation strategies over time to mitigate the loss and damage in the particular context in which they arise. Early warning information systems across climate timescales become significant as input into preparedness, risk reduction and adaptation. The disaster research and emergency management communities have shown that effective early warnings of impending hazards need to be complemented by information on the risks actually posed by the hazards and pathways for action.

Regional Climate Outlook Forums (RCOF), sponsored by the World Meteorological Organization (WMO) are active in several parts of the world. These RCOFs are critical for the development and effectiveness of early warning systems in that they provide real-time seasonal climate forecasts and interpretation across relevant time and spatial scales. Appropriate climate services, tailored to the Caribbean islands, must rely on such early warning information systems if the goals of supporting adaptation and disaster risk reduction are to be realized in practice.

In June 2010, a workshop was convened to re-establish the Caribbean Climate Outlook Forum (CARICOF) in order to develop a sustained collaborative process that provides

credible and authoritative real-time regional climate products. In February/March 2012 a CARICOF was held that consisted of three separate but complementary activities:

- A Technical Training Workshop that developed a draft seasonal (three-month) rainfall outlook,
- A Partnership Workshop that brought together key partners and users of climate information and
- The Outlook Forum that discussed the rainfall forecast with users which determined the final product.

It was agreed that such forums be held once or twice per year just prior to the beginning of the wet and dry seasons in the Caribbean. In this vein in May 2013, a technical workshop and an Outlook Forum, this time focusing on the wet/hurricane season as agreed, were held in Port of Spain, Trinidad and Tobago. The training focused on verification and effective communication of forecasts. The Forum was followed by the rolling out of the World Meteorological Organization's (WMO) Global Framework for Climate Services (GFCS) in the Caribbean, which has established a roadmap for the delivery of climate services to key climate sensitive sectors including Disaster Risk Management, Agriculture and Food Security, Health and Water Resources. Since then a roadmap was drafted for Climate Services in Belize after a stakeholder meeting held there in October to November 2013, and more recently in August 2014 a stakeholder meeting was held in Dominica with a similar roadmap to be developed, but with a major emphasis being placed on health.

The most recent wet/hurricane season forum was held in Kingston Jamaica in May 2014. It began with a training session for meteorologists and climatologist followed by an Outlook Forum, as stakeholder agencies and social scientists from across the region joined regional meteorologists and climatologists to discuss the climate outlook and its implications for the 2014 wet/hurricane season. The training built on the two previous training sessions in 2012 and 2013, with the focus now on drought, which yielded an innovative drought forecast, as well as temperature forecasts. This CariCOF was unique in that it was supported by partners Columbia University (through the International Research Institute for Climate and Society – IRI) and the University of Arizona under the USAID/NOAA[1] funded International Research and Applications Project's (IRAP) ***Integrating Climate Information and Decision Processes for Regional Climate Resilience***, that focused on exploring research-based approaches to:

[1] United States Agency for International Development/National Oceanic and Atmospheric Administration of the USA.

- Understanding the structure and functions of formal and informal networks for climate information production, communication and use,
- Assessing vulnerabilities of affected communities to impacts of climate variability and change,
- Assessing risks incurred by sectors impacted by climate variability and change, and
- Evaluating effectiveness of products and processes of the existing system of production, provision and use of climate information.

Whereas recent forums focused on information for the wet/hurricane season, the importance of dry season forecasts and stakeholder meetings was not being ignored, as this season poses a totally different, but serious threat to regional sectors that rely on an adequate, reliable water supply. Sectors such as agriculture and water resources management can be significantly affected by low rainfall and water supply. Even the vital tourist industry can be impacted during what would be peak season that coincides with the northern hemisphere winter. Below normal rainfall, as has been the case during past El Niño events, exacerbates the situation. Climatologists from around the globe have been monitoring conditions in the Pacific from earlier in the year in anticipation of an El Niño event commencing during the fall. This has been very slow in occurring, but there is still some chance of a weak to moderate event occurring. So the region should continue its watch for an occurrence by the end of the year and take the necessary precautions.

With this background, CIMH and its partners, including the Antigua and Barbuda Meteorological Services, the American people through the USAID, WMO, NOAA, Columbia University and University of Arizona propose to host the first dry season CariCOF during 24th November to 02nd December, where the focus will be on the upcoming 2015 Caribbean dry season. Training for meteorologists that builds on previous pre-COF training sessions will take place from 24th - 28th November, followed by the stakeholder Outlook Forum on 01st – 02nd December in St. John's Antigua. Apart from **discussing the forecasts and their implications for the dry season**, there will be some emphasis on:

- improvement of existing forecast product delivery
- interpretation of existing forecasts and other products,
- media engagement and enhancing communications
- other information needs
- building on the IRAP activity in the Caribbean.

CIMH and its partners are eagerly looking forward to this first Dry Season CariCOF, and are anticipating the keen dialogue and engagement that will ensue, but most importantly

their contributions to enhanced product delivery and stakeholder understanding and decision-making.