



# SHOCS - Strengthening Hydro-Meteorological Operations and Services in the Caribbean SIDS



## Background

Statistics on natural disasters in North and Central America and the Caribbean indicate that majority of events, casualties and economic losses are related to meteorological, hydrological and climate related hazards and associated effects. Although the Early Warning Systems on natural hazards in the Caribbean are recognized to be at a relatively high level, the estimated implications of climate change with the possibility of intensification of hurricanes, sea level rise, increase of torrential rains and concurrently the increase in vulnerability of the Caribbean societies, have set even higher requirements and urgency on the enhancement for preparedness to mitigate impacts of natural disasters.

The overall objective of the SHOCS projects is to help Caribbean societies be better prepared for the adverse impacts of natural hazards and climate change. This will be achieved by enhancing the role of the Association of Caribbean States, consisting 25 members and 4 associate member states in the Greater Caribbean, in its strategic planning of Disaster Risk Reduction (DRR). The purpose of the project is also to provide, through a cooperative approach, new skills and tools for National Meteorological and Hydrological Services (NMHS) and Disaster Management Agencies (DMA) for further development the Multi-Hazard Early Warnings Systems (MHEWS) in the region.



**Source of funding:** Ministry for Foreign Affairs of Finland

**Type of Project:** Institutional Cooperation Instrument

**Total:** 500,000 EUR

**Duration:** 1 Sep 2010 – 31 December 2012

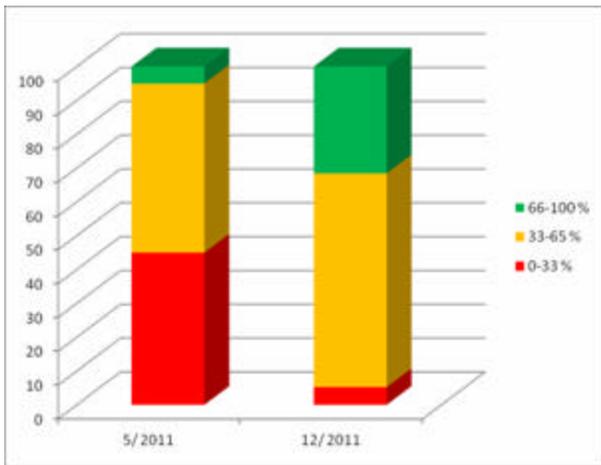
**Partner:** Association of Caribbean States

**Project Manager s:**

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## Results

- Enhanced coordination between NMHSs and DMAs in the Caribbean was achieved through technical workshops in collaboration with regional organizations and by carrying national planning meetings on MHEWS and DRR;
- Increased capacity of 21 Caribbean Aeronautical Meteorological Services was achieved on building Quality Management Systems (QMS) according to the ISO 9001:2008 standard, as required by the International Civil Aviation Organization (ICAO). The progress on the completion of the QMS requirements was assessed between two Workshops held in Bridgetown, Barbados 9-13 May 2011 and in Rodney Bay, Saint Lucia 5-9 December 2011 (see Figure);



Degree of completion of the QMS requirements (colored groupings) between workshops for Caribbean Meteorological Services. Vertical axis indicates the cumulative proportion (%) of Services within the readiness groups.

- Capacity Assessment on the provision of MHEWS and DRR was carried out in the 16 beneficiary Small Island Developing states (SIDS) of SHOCS (see map above). The assessment, published in form of country specific and regional reports, can be used to identify key topics for further development of methodology and services. The assessment was based on meetings organized in the SIDS between several agencies involved in the provision of MHEWS and DRR.

To coordinate SHOCS with similar initiatives in the region, members of the Project Board include representation from regional organizations: Caribbean Disaster Emergency Management Agency (CDEMA), Caribbean Meteorological Organization (CMO) and World Meteorological Organization (WMO).



QMS training at CIMH in Barbados 9-13 May 2011

The second phase of SHOCS is scheduled for implementation in 2013 - 2014 with a budget of approximately 1 Million EUR. It is planned to form a seamless continuation of capacity building activities, started during the first phase, with the aim to implement systems involving investments on capacity development, meteorological observation instruments, and methods, including hardware and software, for forecasting and communication of severe weather. Preparation of SHOCS II is currently underway to arrive with a set of activities that would best complement the on-going work in the region.



Participants of the QMS workshop, Rodney Bay Saint Lucia 5-9 Dec 2011

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