Weather and Climate Ready Nations – Barbados Demonstration Implementation Overview

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Workshop on Impact-Based Forecast and Warning Services (IBFWS) for the Pacific Small Island Developing States (SIDS) of RA V
Honiara, Solomon Islands
September 16 – 20, 2019
Presentation Overview

- Background
- Stakeholder Communications Workshop
- Barbados WCRNs Ambassadors Programme
- DEWETRA Upgrades for Impact Based Warnings in the Region
- Integration of Common Alerting Protocol Messaging
- Standard Operating Procedure Updates
- Expansion of WCRN in the Caribbean
Background

The Weather and Climate Ready Nations (WCRN) is based on the very successful Weather Ready Nations (WRN) programme and partnership implemented in the US which has transformed the utilization and delivery of early warning information to emergency managers, first responders, government officials, businesses and the public.

Project: Impact-based Forecasting and Warning Services: Barbados

Start date: February, 2017
Funding: United States Agency for International Development
Beneficiary Agencies: Barbados Meteorological Service, Barbados Department of Emergency Management, national agencies

Outcome: Strengthening of the hydro-meteorological and climate early warning systems on the island through the establishment of an operational impact-based forecasting workflow and the strengthening of the relationship between BMS and DEM
Stakeholder Communications Workshop

Conducted a Stakeholders Communication Modes and Methods workshop in March 2018

Meeting Objectives:

- Review and refine the ideal impact, risk, and response matrices with local stakeholders
- Review and refine Standard Operating Procedures
- Review resource needs and action items for WCRNs Demonstration
- Introduce Common Alerting Protocol
- Development of Ambassador Program for Barbados

A. DESCRIPTION OF ACTIVITY:
WRN: Barbados: Planning and Preparation Meeting and Stakeholders’ Consultation for the Implementation of WRN in Barbados.

The workshop was executed in 3 phases:
- Phase 1: 1st - 2nd March: Planning and Preparation Meeting
- Phase 2: 5th - 6th March: Stakeholders’ Consultation

B. LOCATION:
Caribbean Institute for Meteorology and Hydrology, Hoobank, St. James

C. DATE AND TIME:
March 1st - 2nd, and 5th - 7th, 2018

D. SPONSOR/COORDINATOR OF ACTIVITY:
USACE/OFDA, CDRW, DIFMA, DEMW

E. AGENCIES/UNITS/DEPARTMENTS/ORGANIZATIONS ATTENDING:

a. Phase 1:
1. Department of Emergency Management
2. Barbados Meteorological Services
3. Caribbean Institute of Meteorology and Hydrology
4. University Corporation of Atmospheric Research (UCAR) COMET
5. Telecommunications Unit

b. Phase 2:
1. Department of Emergency Management
2. Barbados Meteorological Services
3. Caribbean Institute of Meteorology and Hydrology
4. University Corporation of Atmospheric Research (UCAR) COMET
5. Government Information Services
6. Barbados Civil Aviation Department, Air Traffic Control
7. Environmental Protection Department
8. Barbados Fire Service
9. Royal Barbados Police Force
10. Ministry of Transport & Works
Conducted a Stakeholders Communication Modes and Methods workshop in March 2018

Determined the following:

- Government internal communications are all formal and written. Utilizes mainly email and voice.
- Public Communications are mainly video, pictures and jingles. Utilizes social media.
- Workflows during EOC operations need to be clearly understood
- Existing protocols need to be considered
Barbados WCRN Ambassadors Programme

Building a set of 15-20 slides to be used by government volunteers to get the public involved in WCRNs programme.

- Volunteers will use the material developed for routine presentations
  - explain the program
  - ask for Ambassador Volunteers.
- Slides maximize use of video of impact events, pictures and jingles.
- 3D PAWS network expansion

Help us become a Weather and Climate Ready Nation!
Dewetra Upgrades to Support WCRNs

Caribbean Dewetra Platform

- Online spatio-temporal data fusion decision making platform
- Support impact-based forecasting and near real time hydrometeorological monitoring
- Multiple hazards can be included
- Auto message generation techniques to support impact forecast was limited
- Improvements were required for WCRN processes
Dewetra Upgrades to Support WCRNs...cont’d

Upgrading the DEWETRA software to generate WCRNs advisory and warning graphics.

- Utilizing GIS polygons to delineate expected impact zones
- Auto message generation techniques to produce impact forecast for WCRN stakeholders
- Multiple hazards can be included

Caribbean Dewetra Platform - WebAlert Application
Integration of CAP Messaging

Upgrading the Caribbean Dewetra software to generate WCRNs advisory and warning graphics.

- Impacts forecast and response information bulletin produce by Dewetra
- Authorized messages can be passed via the CAP protocol to local stakeholders, Barbados CAP Server or otherwise
- DEM can review impact/response information
- Workflows utilizing Dewetra and CAP to support both BMS and DEM responsibilities and integration with the Barbados CAP Server
Integration of CAP Messaging...cont’d
Integration of CAP Messaging...cont’d

CAP Messaging – Website Integration