



Disaster risk reduction efforts in the Caribbean

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The European Union has provided support to a number of disaster risk management initiatives in the Caribbean

The Caribbean region is particularly vulnerable to severe weather systems, such as hurricanes and floods, which have often proven to be devastating, and in some cases fatal, to many of its citizens. Mindful of this situation, the European Union (EU) has provided support through its 9th European Development Fund to a number of disaster risk reduction initiatives in the Caribbean. We highlight below two of these projects, one regional and one national.

Regional weather radar warning system

The National Meteorological Services in the region are mandated to provide warning of severe weather

for the protection of life and property. While the capability exists to predict the occurrence of major weather systems as determined by satellite coverage, there is limited capacity to determine their severity and the likely effect in localised areas.

Weather radars are able to provide detailed data, which more accurately predict the severity and localised impact of severe weather systems. The EU funded Regional Weather Radar Warning System Project commenced in 2005 for a period of five years with the objective of reducing the vulnerability of the Caribbean region to adverse weather effects (primarily floods and hurricanes). The Project produced the following main results:

- Establishment of Meteorological Radar Systems. Four meteorological Doppler radar systems were installed, tested and appropriately transferred to local authorities in Barbados, Belize, Guyana and Trinidad.
- Creation of a Communications Network. A telecommunication system, linking the new and existing radars, to extend the benefits of the radar system to CARIFORUM countries and territories in the region. The radar data are exchanged across the region using the existing regional meteorological telecommunication system.
- Expansion of Strategic Human Resource Capacity. The Caribbean has increased its human resources capacity to utilize technological improvements in radar systems, partially as a result of the training received by key personnel.
- Improved access to reliable weather data. Through the digital technology of modern weather radars and communication systems such as the Internet, radar images will, for the first time, be made available in real-time and in an easily understood form to emergency managers, the media, special users and the public, thereby improving awareness, decision-making and response.

It is expected that the provision of contiguous coverage from each of the weather radars in the Caribbean region



Doppler Meteorological Radar System, Belize



would greatly improve the hurricane warning system for the region as a whole. This improvement will lead to the availability of more accurate, real-time weather data to the relevant services in the region in an easy, accessible way and contribute to the economic and social development of the region. The budget committed to this project was 13.2 million EUROS.

National disaster preparedness initiatives

In addition to the radar project, the EU has also provided funding for the institutional strengthening of the Office for Disaster Preparedness and Management (ODPM) of Trinidad and Tobago, through technical assistance for policy development and staff training.

The ODPM functions under the Ministry of National Security, and is a coordinating agency with responsibility for leading the national effort in protecting public health and safety, restoring essential government services and providing emergency relief to those affected severely by hazards. By its very mandate, the ODPM is committed to formulating an all-hazard approach to emergency/risk management. This all-hazard approach encompasses a comprehensive framework that includes mitigation, preparedness, response and recovery.

The geology and geography of Trinidad and Tobago is such that the twin-island state is vulnerable to a variety of natural and man made hazards including floods, landslides, forest fires, hurricanes, tropical storms, earthquakes and tsunamis, as well as several technological threats, principally associated with the presence of large chemical and petrochemical complexes.

A recent assessment of Trinidad and Tobago in terms of its hazard and vulnerability profile has emphasised that the extreme hydro-meteorological events result in frequently and often under reported flood impacts. Hydrological and agricultural drought is a persistent problem and storm water runoff from high rainfall events has been accelerated by environmental degradation, in addition to Tobago's history of tropical storms and hurricanes. Seismic activity is also a key component of the hazard risk profile, since fault lines and the Caribbean plate margin are major drivers of the threat of high impact earthquakes.

Being an oil and gas economy with heavy investments in associated petrochemical industries, the threat of technological hazards looms large. Oil spills, pipeline rupture, chemical release, explosion and fires constitute the main exposures with these industrial assemblages.

Specifically, European Union funding provided technical assistance to the ODPM to prepare a National Response Framework. This Framework presents the guiding principles and structure that will enable all response partners in Trinidad and Tobago to prepare for and provide a unified national response to disasters and emergencies. Support was also provided for the finalisation of the Shelter Management, National Disaster Relief and Hazard Mitigation Policies and training for personnel in the efficient implementation of these policies by the Government of Trinidad and Tobago.

The two projects are a natural complement at regional and national levels of the overall priorities of environmental protection and climate change policies the EU is promoting at global level.

In this respect we are delighted that we were given the opportunity to share information on our projects and look forward to collaborating with all regional organisations and agencies , such as the ACS who are important stakeholders in this development cooperation process in the Caribbean. ■

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Doppler Meteorological Radar facility, Guyana