

ABSTRACT

Topic: THE FLOOD EARLY WARNING SYSTEM IN TRINIDAD & TOBAGO: A WORKS IN PROGRESS

Authors

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Flooding is a significant recurring problem in Trinidad and Tobago that imposes serious economic and social costs each year. It occurs frequently in both urban and rural areas, resulting in substantial damage to property, crops, and infrastructure, health problems, and generally creating severe inconvenience to entire communities.

The establishment of a Flood Early Warning System (FEWS) in Trinidad and Tobago has been documented since the year 2005.

The leading government agency responsible for managing, operating and maintaining FEWS is the Water Resources Agency (WRA). The WRA collects information and works collaboratively with the Drainage Division, the Office of Disaster Preparedness and Management (ODPM) and other agencies in the production of flood mitigation strategies and flood maps. Data collected is analysed in order to assess/identify areas that are prone to flooding, the factors that exacerbate flooding and solutions are proffered. WRA focuses on river flooding caused by natural occurrences. Over-land flooding is handled by the Drainage Division of the Ministry of Environment and Water Resources (MEWR).

The WRA has a rain gauge network of one hundred and ten (110) recording and non-recording rainfall gauges and a network of twenty-eight (28) streamflow stations, for the monitoring of the hydrological regime. These stations are well distributed over both islands but major deficiencies exist in relation to their upkeep and the quality of information provided. The groundwater network in the twin island state boasts of one hundred and sixty-eight (168) production wells and one hundred and ten (110) observation wells. The Agency has also completed the installation of a telemetry network consisting of eighty-one (81) sensors with the objective of providing automatic recording and transmission of hydrological and hydro-meteorological data from the river basin to the central office. However, Much still needs to be done by way of the quality control process before the telemetry system can have the desired impact on data provision and on flood management nationally.

The Drainage Division has been undertaking different initiatives related to Flood Risk Management and in particular various river basin studies are underway as part of the development of a Comprehensive National Drainage Study which, once completed, will aid in the strategic placement of additional rain gauges throughout the country. It is anticipated that the placement of these additional gauges will result in the strengthening of the national FEWS.

Within recent times, the International Development Bank embarked on a Flood Alleviation and Drainage Program which is geared to sustainably alleviating the problem posed by flooding in the capital city of Port of Spain (POS). A specific objectives of this project is the undertaking of drainage works to critical areas in POS to mitigate flooding , and institutionally strengthen the Drainage Division (DD), while facilitating its transformation into a modernized, autonomous agency with institutional arrangements supportive of national water resources management.

Although there is some degree of collaboration between the various stakeholders involved, there is also major on-going organizational transformation of both the WRA and the Drainage Division. This transformation process, combined with lack of human and financial resources and inaccurate forecasting and data, continue to impede the process of a quick and effective implementation of a FEWS and therefore impact significantly on mitigation and response.

Sources:

- National Report on Integrating the Management of Watersheds and Coastal Areas in Trinidad and Tobago
- National Flood Contingency Plan for Trinidad and Tobago

Biography for STACEY-ANN PI OSORIA

Stacey-Ann Pi Osoria has been a marketing practitioner for over 15 years, holding a Diploma in Marketing from the Chartered Institute of Marketing.

Being an entrepreneur by nature, she opened PODS Emergency Management Consultancy & Solutions in 2004 with the introduction of flood mitigation products and is currently the sole provider of specialised emergency management equipment and training in Trinidad and Tobago.

Stacey-Ann and PODS has become a partner to the emergency response agencies in Trinidad and Tobago and continue to support the Disaster Management system in Trinidad and Tobago.

Biography for COLONEL DAVE WILLIAMS

Colonel Dave Williams (ret) served with the Trinidad and Tobago Defence Force for 34 years.

His introduction to the world of disaster management took place in 1989 when he was put in charge of a 68-man relief contingent from Trinidad and Tobago that went to St. Kitts- Nevis and Montserrat in the wake of Hurricane Hugo.

He later benefitted from the USAID's programme of disaster management courses run in the English –speaking Caribbean during the 1990s. Qualifying as an Instructor, he has taught (and continues to teach) courses on behalf of the USAID's Office for Foreign Disaster Assistance (USAID/OFDA) in the Cook Islands (South Pacific), Botswana (Southern Africa), Florida (USA) and throughout most CARICOM countries. Col Williams headed the now-defunct National Emergency Management Agency (NEMA) for just over seven years (Jan 1998 – Mar 2005).

Col Williams holds an MSc in Risk Crisis & Disaster Management from the University of Leicester, UK, and a BA in History as well as Diploma in International Relations, both from the University of the West Indies. He also has Certificates in International Disaster Management from the Cranfield Disaster Management Centre, UK and the Civil Defence Academy, Singapore.

He recently completed a two-year stint with the Ministry of Local Government as its Chief Disaster Management Coordinator and saw as his main task the building of the capacity of the disaster management systems of the Municipal Corporations to effectively cope with Levels I and II emergencies.