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AGENDA ITEM 3: REVIEW OF THE 2018 CYCLONE SEASON

AGENDA ITEM 3.2: COUNTRY REPORTS

AGENDA ITEM NO.3.2(14): TRINIDAD AND TOBAGO

Reports of hurricanes, tropical storms, tropical disturbances and related flooding during 2018

Over the period 17th to 19th October 2019, Trinidad and Tobago recorded excessively high rainfall totals which led to devastating floods. With regards to rainfall amounts, duration, and intensity, areal extent of flooding, number of persons displaced, and the number of persons rescued or in shelters, crops and property damage, and flood duration, this event stands out as the mother of all floods in Trinidad and Tobago in modern times.

The rainfall event was national in scope but the extraordinary rainfall totals leading to the Great Flood of 2018 mostly occurred over the eastern half of Trinidad and generated significant impacts, losses and damages. The areal extent of the flood was significantly large. The Office of Disaster Preparedness and Management (ODPM) estimated that 80% of the country was affected by the flooding and indicated an estimated 100,000 to 150,000 people impacted, along with several farms and agricultural fields.

During the event the Water and Sewerage Authority (WASA) was forced to shut down water distribution at several Water Treatment Plants (WTPs) due to various issues including turbid river conditions, clogged intake screens and power failures as a result of the heavy rainfall. The Agricultural Society of Trinidad and Tobago indicated that approximately 75% of local farmers were severely affected through the loss of crops and livestock.

The largest riverine flood event occurred in the Caroni river catchment basin. During the event many roads became impassable and a significantly large number of persons were marooned in their homes for up to 3 to 5 days. A significant large number of vehicles became submerged by flooded water. Thousands of homes became flooded, some with in excess of 8ft of water. North Trinidad became cut off from south Trinidad as the Uriah butler Highway, the main highway connecting the north and south and many primary and secondary roads became transformed into water-ways due to Caroni River, the major river in Trinidad, and its supporting streams and tributaries over-topped their banks in several locations.

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The high quality and timeliness of the TTMS colour coded early warning system that is operationalized within a framework of providing actionable, impact based information was critical in triggering activation of the National Emergency Operation Center (NEOC), the Government's disaster prevention counter-measures and to the success of evacuation and emergency mitigation actions initiated at all levels of government, private citizen and voluntary and non-governmental group activities. The TTMS liaised on a continuous basis and worked together with the Ministry of Public Utilities, its parent ministry, the NEOC, the ODPM, the WRA, the Tobago House of Assembly, Tobago Emergency Management Agency, the Ministry of Local Government and Rural Development Disaster Management Units, to ensure that both the TTMS and other state agencies delivered the level of services required to save lives and property during the event.

Using the knowledge gained about the characteristics of the type of possible extreme rainfall events that can occur locally, the range of magnitudes and interactions of the various background climate state and other hydro-meteorological factors associated with large-scale floods, Trinidad and Tobago Meteorological Service is in a better position to advance its early warning system. This evaluation of the October 2018 Great Flood could provide new insights for large-scale flood hazard assessment, planning scenarios for national disaster response, spatial risk assessment, as well as, return periods for cumulated flood losses and related assessments. These insights may also be used to further advance approaches for flood frequency analyses and design of appropriate flood drainage estimation.