

## **QUATERLY REPORT OF THE REGIONAL SUBPROJECT**

**PERIOD: September to November 2007**

**Tanzania Meteorological Agency**

### **1. HIGHLIGHTS OVER THE PERIOD (SON)**

The months of September to November in 2007 had varied weather from dry to wet conditions in Tanzania. For the bi-modal (northern, northeastern and northwestern) areas the rains normally start in October and continue until end of December although some areas in the northern areas and Lake Victoria Basin these rains started in September 2007. There are two rain seasons in the bimodal area, one in March to May (long rains) and the other from October to December (short rains). In the unimodal modal (central, western and southern) area the rains fall from November to April. The current reporting period would therefore affect both bimodal and unimodal areas. The predominant winds were southeasterly for most of the early part of the reporting period and northeasterly at the latter part. The wind speed ranged between 20 and 40 km per hour (10 to 20 knots) where advisories were issued from time to time to marine vessels and fishermen.

### **2. OVERVIEW OF PRODUCTS**

#### **a. Usefulness of RSMC-Pretoria guidance**

During the period of September to November 2007, the RSMC - Pretoria guidance products were used with products from other centres. These products continued to guide forecasters in their daily weather forecasts.

#### **b. Usefulness of SWFDP NWP/EPS Products received from each global centre and RSMC UM-SA12**

The SWFDP products received from the global centres were still very useful as they continued to assist

forecasters in their daily duties.

### 3. PROJECT EVALUATION AGAINST SWFDP GOALS

<b>SWFDP GOAL</b>	<b>PROGRESS AGAINST GOALS</b>
To improve the ability of NMCs to forecast severe weather events	The Deterministic and EPS products have continued to assist forecasters in their daily duties particulars in forecasting severe weather events. As a result, the visibility of NMC was also improved.
To improve the lead time of alerting these events	The available SWFDP products assisted the forecasters to predict likelihood of occurrences of heavy precipitation and strong winds with better confidence and lead time. However, at various occasions we issued advisories for advert events whose lead time was good enough.
To improve the interaction of NMCs with Disaster Management and Civil Protection authorities before, during and after severe weather events	The interaction was improved resulting in good visibility of the NMC.

To identify gaps and areas for improvements	No particulars gaps were identified during this time.
To improve the skill of products from Global Centres through feedback from NMCs	NMC continued to use products from Global Centres and tried as much to identify which suited our environment most. Unified models continued to be most suitable.

#### **4. EVALUATION OF WEATHER WARNINGS:**

##### **A) feedback from the public**

There was good feedback from the public and most of them were appreciative of advisories issued.

##### **B) feedback from the DMCPA to include comments of the timeliness and usefulness of the warnings**

Apart from feedback from DMCPA, TMA continued to exchange views during the period with DMCPA on timeliness including discussing usefulness of the warnings.

##### **C) Warning verification by the NMCs**

Qualitative Verification of warnings and advisories were always done during any severe weather event. However there is need for development of objective verification techniques for warnings.

**5. SUMMARY (general comments, challenges, etc, details in Annex 1)**

It was very important and essential to have the necessary hardware and software. It is necessary to have good internet system for accessibility of various Global Centres websites. The challenges were therefore lack of these facilities particularly a reliable broadband internet.

**6. CASE STUDY (PowerPoint Presentation to include guidance products (RSMC and NWP), satellite imagery, warnings issued, impact evidence etc)**

None during the period September to November 2007 since the level of activity was generally below normal.

**7. ANNEX 1 – Quarterly Evaluation Table** (to be fulfilled according to the Severe Weather Evaluation Form)

Starting date of the event	SWFDP Evaluation Form Event Number	Type of event Heavy Precipitation or Strong Wind	Region affected	Highest observed value	RSMC Guidance		Which NWP/EPS forecast product(s) used by NMC		Local warnings issued?	Impact of the event	Impact of the warning
					Amount predicted (same unit as in the preceding column)	Usefulness from 1 to 4 1- Misleading 2- Not useful 3 - Useful 4 - Very useful	(RSMC UM-SA12 ECMWF, Met-Office, NCEP)	Usefulness from 1 to 4 1- Misleading 2- Not useful 3 - Useful 4 - Very useful			
dd/mm/yy		Indicate if extreme phenomena are the consequence of severe convection		(mm/period or kts, according to the phenomenon)	Amount predicted (same unit as in the preceding column)	Usefulness from 1 to 4 1- Misleading 2- Not useful 3 - Useful 4 - Very useful	(RSMC UM-SA12 ECMWF, Met-Office, NCEP)	Usefulness from 1 to 4 1- Misleading 2- Not useful 3 - Useful 4 - Very useful			
04/09/07	NIL	Heavy precipitation	Lake Victoria Basin: Bukoba	52.2	NONE	NONE	NONE	N/A	NO	N/A	N/A
01/10/07	NIL	Heavy precipitation	Lake Victoria Basin: Bukoba	73.1	NONE	3	ECMWF NCEP	3	YES	YES	POSITIVE
09/10/07	NIL	Heavy precipitation	Northern Coast: Zanzibar	102.4	NONE	3	ECMWF NCEP	4	RIPPED ROOFS AND FALLING OF ELECTRIC POLES	YES	POSITIVE

05/11/07	NIL	Heavy precipitation	Lake Victoria Basin: Bukoba	65.9	NONE	3	NONE	N/A	NO	YES	POSITIVE
15/11/07	NIL	Heavy precipitation	Northern Coast: Zanzibar	101.3	NONE	NONE	ECMWF NCEP UK MET OFFICE	4	COLLAPSED AND WATER LOGGED HOUSES	YES	POSITIVE
15/11/07	NIL	Heavy precipitation	Northern Coast: Dar es Salaam	56.2	NONE	NONE	NONE	N/A	NONE	NONE	NONE
15/11/07	NIL	Heavy precipitation	Northeastern Highlands: Moshi	62.2	NONE	NONE	NONE	N/A	NO	YES	POSITIVE
25/11/07	NIL	Heavy precipitation	Lake Victoria Basin: Bukoba	56.1	NONE	NONE	NONE	N/A	NO	N/A	N/A

No reported case of severe weather during the period of September to November 2007 except for moderate to heavy precipitation. Where warnings or advisories were given the responses were in many cases positive.