

STATUS OF THE REGIONAL SUBPROJECT

QUARTERLY REPORT OF THE REGIONAL SUBPROJECT

PERIOD: 1 June 2007 – 31 August 2007
NMS: NATIONAL INSTITUTE OF METEOROLOGY (INAM – MOZAMBIQUE)

1. HIGHLIGHTS OVER THE PERIOD

- The period in analysis corresponding to the driest season in the country. Thus, heavy rain events are climatologically very scarce and in 2007 the situation was similar. Nevertheless, a maximum 24 hours rainfall event of 43.9 mm was observed on the 17th July 2007 in Pemba (northern Mozambique) and that does not satisfy the criteria adopted for reporting heavy rain. During the period few localized events of strong winds were observed.
- The most remarkable episode of strong wind was observed in Maputo in the afternoon and early evening hours of 1st July 2007 with gust winds of 35 knots being registered at Maputo International Airport. As a result of this event INAM was requested to issue two weather certificates for insurance purposes.

2. OVERVIEW OF PRODUCTS

a. Usefulness of RSMC-Pretoria guidance

The RSMC-Pretoria guidance continued to provide very detailed insights in the weather discussions. And it is worth noting that the use of the guidance has become so familiar to the forecasters.

In the case of the strong wind reported above, the guidance was very helpful on issuing the respective warning.

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

With a predominance of synoptic scale systems and almost absence of severe weather events during the quarter in analysis the SWFDP NWP/EPS products received from the global centres performed well and the EPSgrams depicted very well the few episodes of cold temperatures in the southern Mozambique.

3. PROJECT EVALUATION AGAINST SWFDP GOALS

SWFDP GOAL	IMPACT
To improve the ability of NMCs to forecast severe weather events	The new products introduced by the SWFDP have boosted the forecasters' confidence in predicting severe weather events.
To improve the lead time of alerting these events	In the case where a warning had to be issued for strong winds INAM did it with a relatively lead time.

To improve the interaction of NMCs with Disaster Management and Civil Protection authorities before, during and after severe weather events	During this quarter the interaction between INAM and the DMCPA was more in ways of evaluating the rain and tropical cyclone season.
To identify gaps and areas for improvements	The models tend to underestimate the localized strong winds.
To improve the skill of products from Global Centres through feedback from NMCs	Overall the models have a good skill but improvements are needed in forecasting localized severe events mainly those related to strong winds.

4. **EVALUATION OF WEATHER WARNINGS**

- **Feedback from the Public**

It has not been easy to get a feedback from the public. This is mainly due to the absence of a regular mechanism through which the users could provide any official information on the accuracy and reliability as well as the lead-time of the warnings issued by the NMC.

- **Feedback from the DMCPA**

As described in the Highlights of the quarter only one case of strong winds was reported and there was no formal feedback from the DMCPA. It is our hope to have this channel of collaboration working perfectly during the forthcoming rain season.

- **Feedback from the Media**

One could say that there is no real feedback from the media.

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

It is worth to acknowledge that improvements in forecasting and issuing warnings for severe weather events have been achieved through the implementation of the SWFDP. We greatly support the continuation of the dissemination of the different products beyond the Demonstration Phase.

In most of the cases is not easy to determine the wind speed since the strong winds events have happening in places where INAM does not have an observation station.

Finally, more training is needed, mainly in the field of EPS products.

6. **CASE STUDY (There was no relevant episode for a case study)**

ANNEX VI.1

Evaluation Table

DATE	SWFDP Evaluation Form Event Nr (If Applicable)	Weather Type	Location	Observed amount (rainfall or wind speed)	RSMC Guidance		Which NWP/EPS forecast product(s) used by NMC	Local Warnings issued	Impact
Dd/mm/yy		Mesoscale rainfall or synoptic scale rainfall or strong winds (convective or synoptic)		(mm/period or KTS)	Amount predicted	Usefulness (1-4) 4 is best	List by centre		No major impacts.
01/06/2007	1	Strong winds	Maputo (FQMA)	Wind gusts of 35 kts		4	ECMWF, ALAM, NCEP, UM SA12	Yes	Trees uprooted.