

Building Back Better: Planning Workshop for Climate Resilient Investment in Reconstruction & Development in Cyclone Affected Regions of Malawi, Mozambique and Zimbabwe

Report Back Session: Topic 1 CIS CAPACITY

ZIMBABWE

Areas of gaps in generating of CIS

EQUIPMENT

No equipment for now casting, to support flood forecasting. E.g. radars.

Obsolete equipment

Limited meteorological data monitoring capacities e.g. Sparse upper air stations, ground network and dependence on internet based satellite images.

Lack of computers in meteorological outstations for ease of data transmission and minimisation of data gaps.

HUMAN

Insufficient staff compliment.

Inadequate skills in model interpretation?

Limited strategies for staff retention.

Limited capacity for data assimilation, model validation and forecast verification.

TECHNOLOGIES

Over-reliance on global models instead of local area models which are at a lower resolution.

Inconsistent local area models due to power and internet challenges among others.

The local area model, running but the model is not refined through data assimilation and model output refinement.

Slow internet (bandwidth)
Power cuts

Areas of gaps in generating of CIS

PACKAGING

No platforms for user engagement for provision of sector specific Climate Information Services (CIS). **NFCS-National Framework for Climate Services**

Limited capacity in the provision of point specific forecasts-the forecast is too generalised to meet the user needs

No weather App for provision of point specific weather and climate information.

DISSEMINATION

Reaching out to the most vulnerable communities.

Limited languages for disseminating the weather.

Areas of gaps in capacitating users in application of CIS

- Limited funding for undertaking training/outreaches/exhibitions at various levels for better understanding of weather climate information.
- Limited interaction with the users for providing feedback and continuous improvement.
- Social media platforms are not being optimally used especially

ROADMAP

Now-casting tools	<ul style="list-style-type: none">-Radar network-Training on the understanding, interpretation and operationalisation of the radars.-Satellite imagery that works independent of internet (Messir Sat.-Lightning detection system network
Equipment for monitoring the vertical profile of the atmosphere	Upper air stations: Radiosondes and pilot balloons**
Enhanced more dense station network	AWS for all manned stations
HPC for the Meteorological Services Department	<p>Continuous production of the local models</p> <ul style="list-style-type: none">-Training/capacitation on model validation-Trainings/capacitation on forecast verification-Training/ capacitation for data assimilation

Resource	Required %	Current %	Gap %	Costs to fill gap (1000*US\$)	How to fill the gaps (Strategies)	Roadmap
Equipment						
Network stations	100	25	75	1.55 million		
Radars	100	0	100	6.5 million		
Satellite imagery system	100	80	20	300 000		
Lightning detection systems	100	0	100	1 000 000		
Radiosonding Systems	100	25	75	300 000		
Flight Documentation Systems (Messir Aero)	100	0	100	120 000		
Automated Weather Observing System (AWOS)	100	20	80	400 000		

Computing equipment	100	25	75	300 000		
Data centre plus High Performance Computing facility	100	25	75	2 000 000		
Software						
models	100	10	90	150 000		
Human						
Climate modellers	100	20	80	200 000		
Diagnosticians	100	20	80	100 000		
User-interface level	100	10	90	200 000		
SEBs on CIS	100	<1		250 000		
Other						
GRAND TOTAL				13 370 000		