

*Strengthening Climate Information  
and Early Warning Systems for Climate Resilient  
Development and Adaptation to Climate Change*

Country Report for Malawi to the Workshop:

**Creating Value Added Weather and Climate Services through  
Innovative Public Private Partnerships- Kampala, Uganda  
2 – 6 MARCH 2015**

# The Presentation:

- Introduction
- Achievements
- 2015 Planned activities
- Challenges in implementation
- Sustainability: Cases involving PPPs

## IPs

- Dept. of Disaster Management Affairs (DODMA, Leading IP),
- Dept. of Climate Change and Met Services (DCCMS),
- Dept. of Water Resources (DWR)

## Expected Projects' Outcomes

1. Enhanced capacity of the Department of Climate Change and Meteorological Services (DoCCMS) and Department of Water Resources (DWR) to monitor and forecast extreme weather, hydrology and climate change.
1. Efficient and effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans.

	PLANNED ACTIVITY	ACHIEVEMENT
1	Stations' maintenance, rehabilitation and installation of 20 new AWSs and 5 AHSs to improve observation network	<ul style="list-style-type: none"> <li>- Various conventional instruments, digital barometers and AWS spare parts procured</li> <li>- 10 AWS procured</li> <li>- Procurement of others underway</li> </ul>
2	Capacity for operating and maintaining observation networks and related infrastructure developed (trainings and courses)	<ul style="list-style-type: none"> <li>- Courses in telecommunications, Network and system administration, and electrical engineering</li> <li>-</li> </ul>
3	Weather early warning awareness campaign for local communities and the media	<p>For 5 lake-shore districts:</p> <ul style="list-style-type: none"> <li>- Awareness campaigns,</li> <li>- Consultative meetings on early warning information accessibility and utilization,</li> <li>- Instilling the sense of ownership of hydro-meteorological equipment to reduce vandalism, and</li> <li>- Linked community radios to the NMC and PWS as sources of weather information</li> </ul>

	<b>PLANNED ACTIVITY</b>	<b>ACHIEVEMENT</b>
4	Weather and climate information and alerts made accessible to decision makers in Govt., private sector, civil society, development partners and communities	<ul style="list-style-type: none"> <li>- An assessment of existing EWSs conducted</li> <li>- Weather and climate early warning information disseminated through district climate information centres and CSOs (Red-cross, Christian Aid)</li> <li>- CSOs and other Govt. agencies involved in awareness campaigns and FFGS training workshop</li> <li>-</li> </ul>
5	Human capacity building in weather observation and forecasting	<ul style="list-style-type: none"> <li>- Flash-flood guidance training workshop</li> <li>- NWP training (COSMO)</li> <li>- Severe weather Now-casting training</li> <li>- Human capacity building in CLIMSOFT</li> <li>- Data rescue exercise conducted</li> <li>- Procurement of NWP computer initiated</li> </ul>
6	Governmental and non-gov. communication channels and procedures for early warnings information dissemination are reviewed and strengthened	<ul style="list-style-type: none"> <li>- Consultations made to incorporate weather and climate early warning in the national DRM communication strategy</li> </ul>

	<b>PLANNED ACTIVITY</b>	<b>OUTPUTS TARGETS</b>
1	Stations' maintenance, rehabilitation and installation of 20 new AWSs and 5 AHSs to improve observation network	<ul style="list-style-type: none"> <li>- Completion of conventional instruments procurement – 30 Evap. pans</li> <li>- Completion of AWSs procurement - 10 AWS</li> <li>- Rehabilitation of old met stations (at least 3 targeted)</li> <li>- Construction of DCP houses for AHSs</li> <li>- 21 met stations interconnected through WAN</li> <li>- Operationalize CLIMSOFT in 21 Met stations</li> </ul>
2	Capacity for operating and maintaining observation networks and related infrastructure developed (trainings and courses)	<ul style="list-style-type: none"> <li>- 2 Courses in telecommunications, Network and system administration, and electrical engineering – on going</li> <li>- Factory training for 4 technicians during AWSs installation</li> <li>- Procurement of Calibration equipment</li> </ul>
3	Weather early warning awareness campaign for local communities and the media	<ul style="list-style-type: none"> <li>- Produce information, communication and education materials on weather related disasters such as leaflets, posters, pamphlets and documentaries targeting the general public and schools</li> <li>- Conduct 1 training of all ACPC/DCPC / VCPC and District media staff and community radio stations on interpretation and utilization of weather forecasts and warnings</li> </ul>

	<b>PLANNED ACTIVITY</b>	<b>ACHIEVEMENT</b>
4	Weather and climate information and alerts made accessible to decision makers in Govt., private sector, civil society, development partners and communities	<ul style="list-style-type: none"> <li>- Report on the assessment of existing EWSs</li> <li>- Undertake study on indigenous weather and climate early warning indicators</li> <li>- Develop and publish a Hydrological Year Book for the 7 Flood Prone Districts</li> <li>- Develop and promote a general early warning system information platform and database and alert dissemination system.</li> <li>-</li> </ul>
5	Human capacity building in weather observation and forecasting	<ul style="list-style-type: none"> <li>- Data QC and digitization</li> <li>- Operationalize COSMO model for NWP,</li> <li>- Trainings in forecast verification; NWP interpretation; GIS and hazard mapping, etc</li> <li>-</li> </ul>
6	Governmental and non-gov. communication channels and procedures for early warnings information dissemination are reviewed and strengthened	<ul style="list-style-type: none"> <li>- Conduct user need assessments for supporting production and dissemination of weather and climate information and warnings.</li> <li>- Develop and implement coordination protocols and agreements among DCCMS, DWR, DoDMA and other related institutions as well as EW alert dissemination System</li> </ul>

- Late inception
- Direct payment mode of implementation resulted into high transaction costs incurred; and
- Lengthy procurement process being followed.
- Delay in getting feedback on requests for implementation of project activities that led to some activities done outside the scheduled time.
- Lack of clarity on the scope of undertakings by IPs



1. Agreement with Globe Internet Ltd (ISP) to allocate DCCMS space in their server to host the ftp link for receiving data from DWD
  2. Access Malawi (MSP) hosting AWSs and lightning detection system (demo with Earth Networks)
  3. FFGS training and subsequent activities jointly conducted with Hydrologic Research Centre (HRC), California
  4. Hosting of AWSs by Lilongwe Water Board, incl. support staff
  5. Weather EW messages dissemination by NGOs and private radio stations
  6. MOU with the Physics Dept, UNIMA, for creation of a microwave link between Weather Studio and MBC studio, and possible similar linkage between NMC and all Met stations in the future
- *etc?*



END