

Country Presentation-Malawi

By

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Malawi

DCCMS Capability-Current setup

- 21 manual (conventional) stations and 53 AWS with 11 reporting in real-time
- Currently DCCMS using common alert protocol (CAP) to disseminate its warning and information
- Developing a mobile weather app (for local radios to quickly transmit early warning messages)
- Linkages also in Rainwater harvesting, Groundwater Monitoring, Disaster Risk Reduction, Early Warning System; Environmental Protection and Management
- Awareness campaign done together with water department and DoDMA
- Integrating SWFDP with our own forecast to provide early warnings at a local scale
- Use of Community radios to provide area specific forecasts and warnings

Sample message using met link to enhance EWS



Malawi Weather Chasers

Abdul, Adams, Albert, Alex, Alexander, Allick, Alufeyo, Amidu, Amos, Anati, Andrew, Anne, Anne, Arthur, Asafu, Assan, Awodala, Ben...



Solomon Gadiel Kalima

The Department of Water Resources under Shire River Basin Management Programme is implementing the Operational Decision Support System (ODSS) whose objective is to improve early warning systems in the Shire River Basin. In this regard, the system is under trial of forecasting floods in some of the hydrological stations in selected rivers. As of today this is the forecasted water levels in the stations.

13:20

The following is the list of stations:

- 1M1 is mkulumadzi@Moffat;
- 1P2 is Shire @matope;
- 1B1 is shire@liwonde;
- 1G1 is shire@chilomo;
- 1G2 is shire@nsanje;
- 1G3 is shire@tengani;
- 1L12 is shire@chikwawa;
- 14D3 is ruo@sandama;
- 1K1 is mwanza@tomali;
- 14D1 is Ruo@sinoya

13:20

Mike 11 Forecasting - Water Level (Max. next 24 hours)

	Name	Threshold	Simulated WL [m]
Yellow	1G1	Warning	47.52
Yellow	14D3	Warning	368.78
Green	1B1	OK	472.32
Green	1G3	OK	41.14
Green	1K1	OK	110.62
Green	1L12	OK	76.69

Future Realistic State

- We intending to upgrade our AWS to use GPRS system
- Acquire synergy-web to improve communication of early warning messages
- Department of Water Development is relocating its river gauges which are now on high grounds due siltation
- Intend to upgrade our communication network through use of Single Side band Radios
- Acquire a weather radar to assist in severe weather monitoring and forecasting
- Upscale our district climate information centers(current we have 7)
- To provide more realistic weather information and warnings at a local scale eg. village
- Nearly a meteorological ACT

Gaps

Strength and Weakness of DCCMS

Gaps:

- Internet speed is a challenge and Power blackouts
- No coverage at night and the role is covered with Airports
- MOU with water is still in draft format
- Capacity building with respect to fast growing technology
- Awareness is a challenge due to limited resources
- Network problems for our AWS

Strength:

- Able to provide area specific forecast with assistance of our NWP model(COSMO)
- Improved communication through use of WhatsApp and Facebook
- Procured Single side band Radio for quick communication
- Dissemination of climate information at district level in local languages
- Provide early warnings messages tips and guidance on TV and Social Media

Major Blocks to fill the gaps

- Taking advantage of other projects to fill in the GAPS eg. Green Climate Funds
- Collaboration with other stakeholders to provide technical assistance and resources eg. ECRP under Christian Aid, DoDMA Farm Radio and WFP under GFCS projects
- Using social media under CAP to provide early warning and weather information and get feedback
- Strengthen collaborations with others stakeholders such as construction and insurance industries, energy sector and others

Financial Resources Required

Funding needed to

- upgrade the meteorological observing station networks,
- forecast production systems
- Human resource capacities to a level where NMHS would be able to provide basic services
- estimated to be about US\$5.5 million