Southern Africa Session on SEWA-AMSAF

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Question 1

Which early warning services or hazards would most benefit from enhanced satellite based nowcasting in your region?

- Malawi: Flash floods; severe thunderstorms; strong winds (Lake Malawi); dry season fires; fog
- Namibia: Severe storms and rain; fog (early morning/coast); hailstorms; lightning; strong winds
- Zambia: Flash floods; urban flooding; severe storms incl. lightning; strong winds
- Zimbabwe: Strong winds (Lake Kariba); floods; landslides; mudslides; storms; tropical cyclones; droughts; dry spells
- Mauritius: Extreme rainfall (NWP limitations); heavy swells; strong winds; thunderstorms; reliance on nowcasting

Question 2

What are the main constraints limiting effective use of nowcasting satellite products today (access, skills, infrastructure, integration, staffing, etc.)?

- Limited training and capacity development
- Insufficient ground observations, constraining data integration and reducing warning accuracy
- Human and financial resource constraints, including limited forecastersConnectivity challenges, particularly unreliable internet access
- Forecast uncertainty, including model disagreementWorkforce sustainability issues, including capacity gaps and brain drain
- Gaps in specialised products, particularly for aviation
- Challenges in disseminating warnings effectively to broader audiences

Question 3

How should NMHSs best engage with AMSAF outputs (regional training, pilots, on the job support, co development, online resources)?

- Investment in capacity development and technical skills
- Stronger regional collaboration and networking across NMHSs
- Active participation in regional initiatives and knowledge exchange
- Integration of nowcasting into operational workflows (not yet embedded in routine forecasting)
- Rebalancing focus to include short-term nowcasting alongside longer-range forecasting
- Use of regional platforms and tools (e.g. RSMC portals) to support uptake

Question 4

How do you see the AMSAF-Nowcasting strengthening early warnings in your national context?

Filling Observation Gaps

Improvement of observation networks with satellite data to better forecast high-impact hazards like flash floods.

Capacity Building and Training

Training and capacity development on flood-focused nowcasting is essential for effective early warnings and resource mobilisation.

Collaboration for Awareness

Collaboration between weather services, disaster management, and communities to strengthen early warning systems.

Leveraging Regional Networks

Share data and expertise to strengthen regional networks and enhance collective resilience.

Nowcasting Product Displays and Training Needs

Animation and Replay Features

Animating and replaying nowcasting products enhances situational awareness and supports detailed post-event analysis.

Improved Mapping and Visualization

Enhanced geographic context and intuitive overlays improve interpretation of Convective Rainfall Rate and other products.

Historical Data Archiving

Longer data archiving allows forecasters to verify past events and supports learning and capacity development.

Targeted Training Needs

Identifying specific training needs ensures nowcasting tools are effectively used and trusted by forecasters.