DBCP Capacity Building Workshop on Ocean Observations for Operational Services in the Indian Ocean Region

National Reports

COMOROS – ANACM / National Meteorological Authority

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Hyderabad, India

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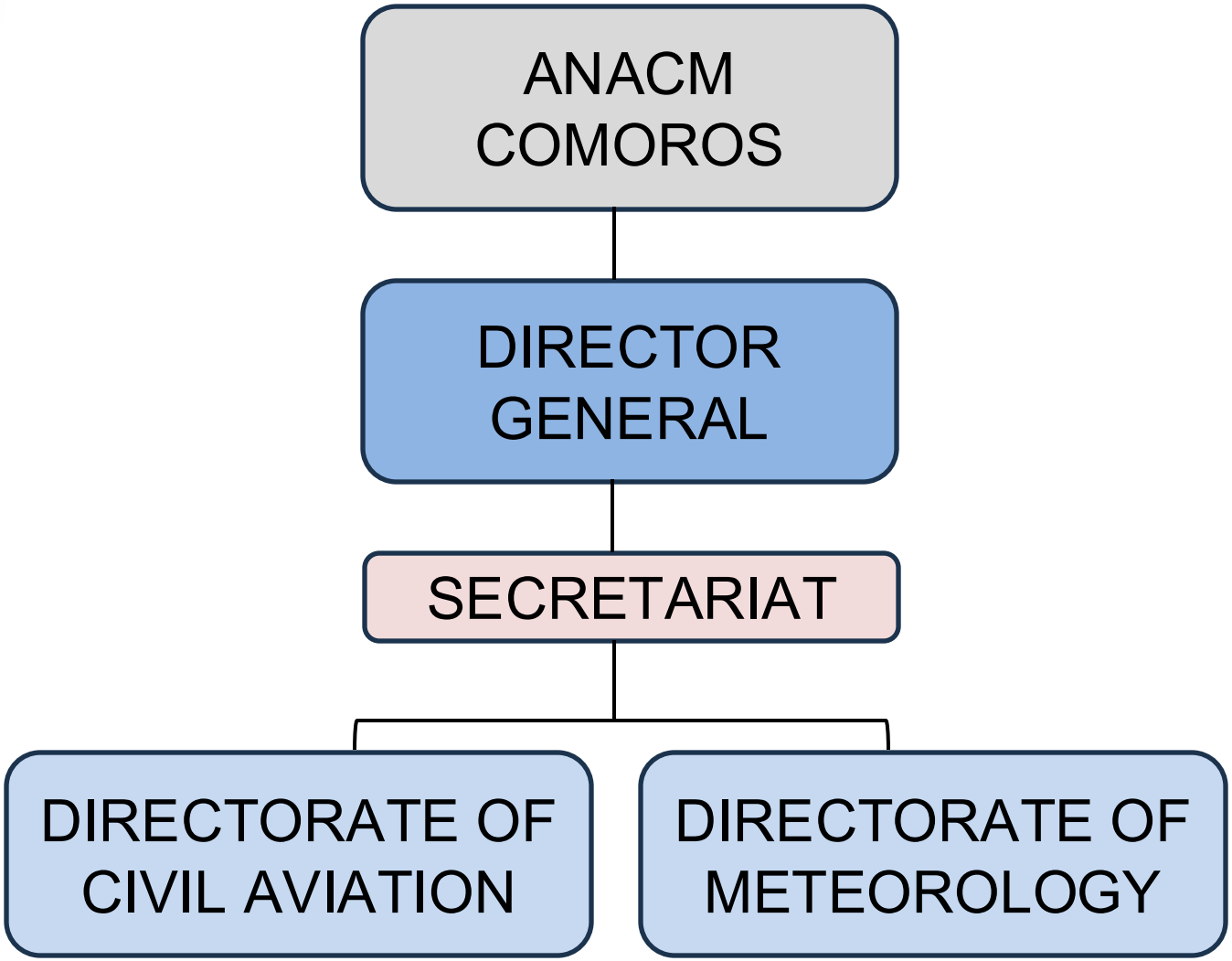
Institutional Positioning & Project Management Approach

- The Technical Directorate of Meteorology is attached to the National Agency of Civil Aviation and Meteorology (ANACM), but also serves as the National Meteorological Authority.
- Projects such as Hydromet COI, CREWS, or IBFWS are generally managed in a cross-sectoral framework involving collaboration between various directorates.

Organigram of ANACM



1. Existing Capacities/Activities for Observation /Forecasting 1/2

Satellite Data as the Main Source

- Marine observations and forecasts rely mostly on satellite imagery.
- We use products from EUMETSAT, NOAA, and Copernicus (e.g., SST, wave height, wind).

Meteorological Forecasting Systems

- Operate short-range forecasts using atmospheric models.
- The dedicated marine forecast service is not yet operational.

1. Existing Capacities/Activities for Observation /Forecasting 2/2

Limited In-situ Observations

- We had a buoy installed, but it stopped functioning just a few months after testing. Moreover, it was vandalized by local fishermen who seized it.
- Occasional ocean observations from research or port operations.

Human Capacity

- Staff trained in meteorology; limited marine forecasting expertise.
- Some skills in satellite data analysis through regional collaboration.

2. Gaps and Needs for Observation /Forecasting

Major Gaps

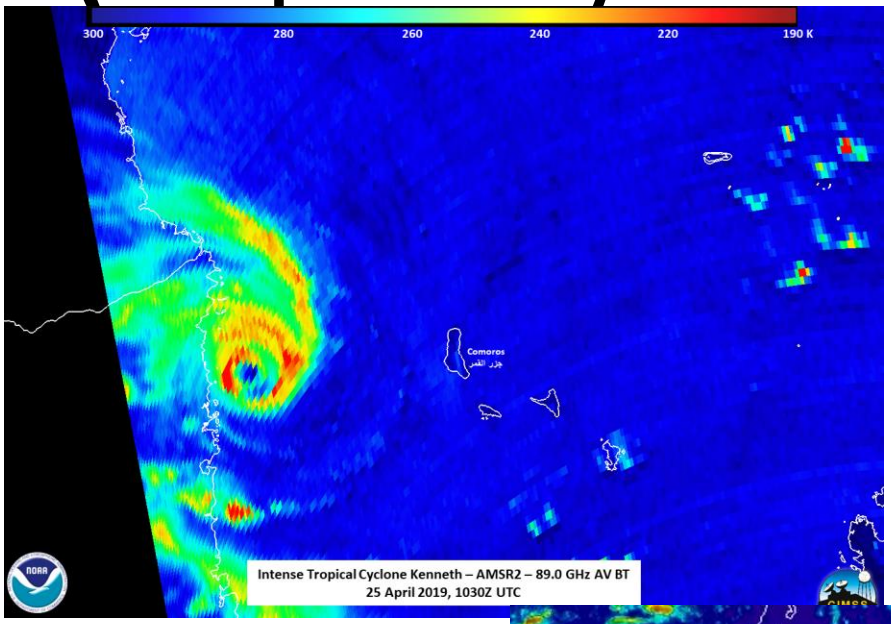
- No in-situ marine observations (temperature, currents, salinity).
- No operational marine forecast system.
- Marine data is not integrated into national alert systems.

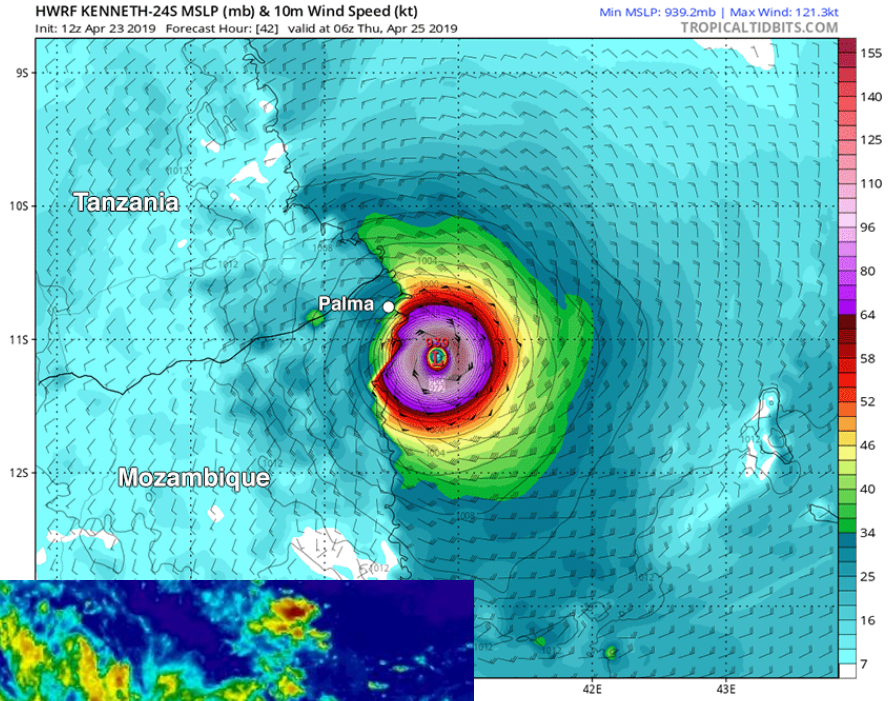
Key Needs

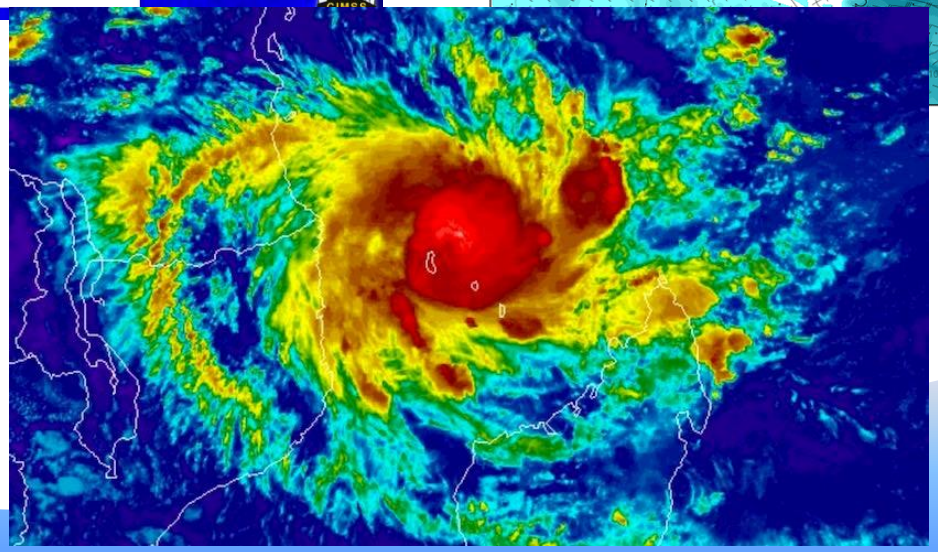
- Deployment of ocean buoys (especially coastal).
- Capacity building in ocean modeling and forecasting.
- Establishment of a national marine meteorology unit.
- Better access to real-time satellite/ocean data products.

3. Case sharing

(Tropical Cyclone Kenneth, April 2019)







Conclusion

- The Technical Directorate of Meteorology, under ANACM, serves as the **National Meteorological Authority** and represents Comoros at the **World Meteorological Organization (WMO)**. It provides essential weather forecasts and early warnings for public safety and key socio-economic sectors such as agriculture, aviation, and fisheries.
- Despite being involved in major regional projects (Hydromet COI, CREWS, IBFWS), the Directorate faces **significant challenges** including outdated infrastructure, limited marine observation systems, and insufficient technical capacity.
- A striking case is **Tropical Cyclone Kenneth (April 2019)**, which struck Comoros with wind gusts up to **280 km/h**, causing widespread damage. This event emphasized the urgent need for **modern observation tools** and **impact-based early warning systems**.

Key priorities moving forward

- Strengthen institutional and human capacity
- Rehabilitate marine observation networks
- Access real-time ocean data through drifting and moored buoys
- Improve marine forecasts and early warnings for coastal safety
- Build technical capacity and benefit from international expertise
- Support sustainable marine services for island resilience that can promote community engagement and disaster preparedness