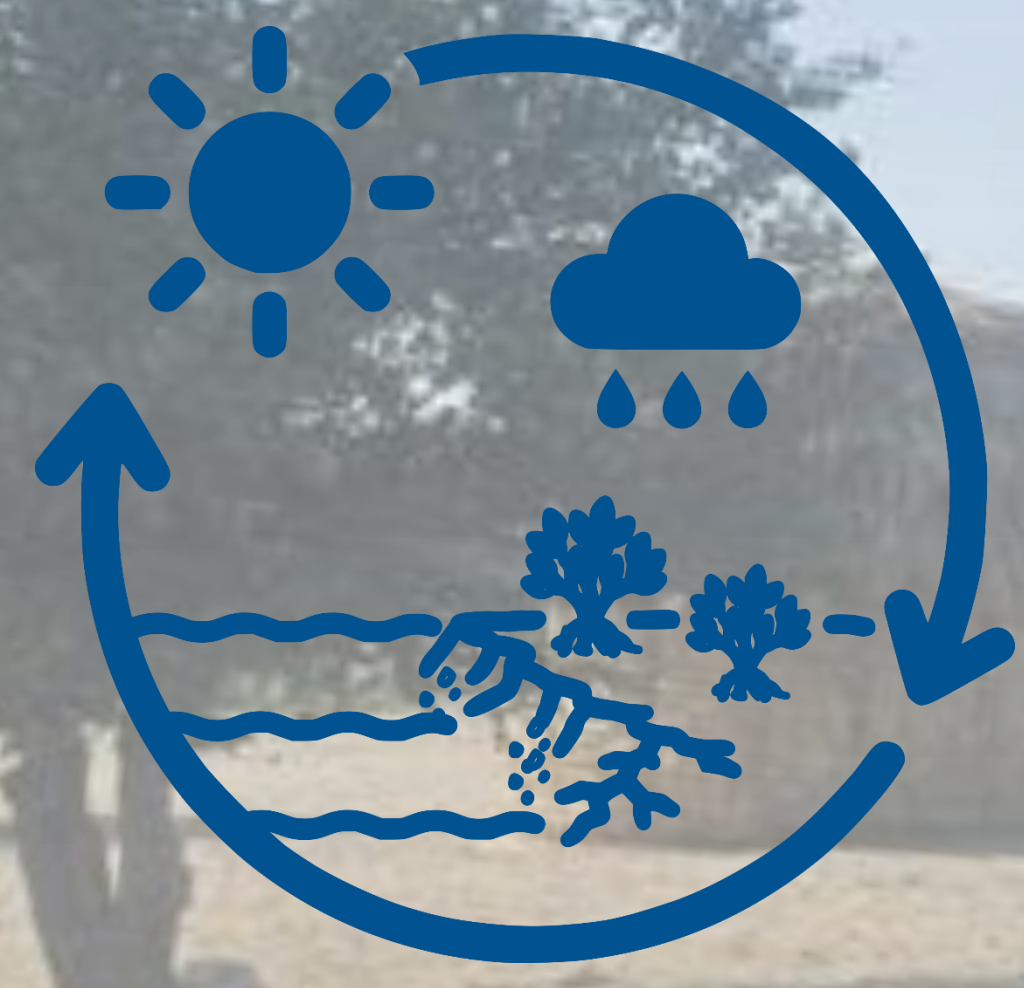




Hazard Impact Reference: severe weather preparedness



Background

- Traditionally, forecasting of weather has been the core role of all National Meteorological and Hydrological Services (NMHSs).
- Most NMHSs issue warnings when dangerous weather is expected.
- Both forecasts and warnings have in past mainly focused on describing what the weather will be.
- World Meteorological Organization (WMO) encourages a shift away from that traditional, weather-centered approach.
- WMO recommends that the emphasis should move toward predicting the impacts of weather.
- Impact-based warnings focus on what the weather will do.
- Impact-based warnings are likely to trigger an action.

How does ALBATROSS develop hazard impact reference?

Scientifically sound early warning reference can be developed through one of the following methods, preferably as their combination:

- Collecting experience-based information in stakeholder workshop ✓
- Observed impacts can be analyzed together with meteorological observations – **not applicable in Kenya**
- Literature review - **under preparation**

Early warning in Kenya

Kenyan Meteorological Department (KMD) issues and distributes warnings with impact information for heavy rain and extreme high temperature for Turkana, the pilot area of the ALBATROSS project. During the ALBATROSS workshop for co-designing climate services in spring 2025 it was identified that impact information lacks scientific assessment.

Each warning typically has different severity levels (yellow, amber, red), depending on the expected impact and probability.

Without knowing the thresholds of severity and potential impacts for approaching phenomenon, accuracy of early warning remains vague and unactionable.

Co-development workshop in Nairobi

KMD and its stakeholders have knowledge of severe weather impacts on community level and how severe weather affects their own operations.

Through stakeholder engagement workshop hazard impact information were collected effectively:

- Experience of different economic sectors
- Experience of people living in Turkana.



Users and envisaged applications

Hazard impact reference aims at **saving life!** Newly developed or improved impact tables (application)

- **Citizens and economic sectors:** Impact tables can be published on official web pages to increase understanding and preparedness in the case of hazardous weather.
- **Authorities:** support decision making when actions are required Ministry for Emergency and Health, NGOs
- **TMA:** Tool to support decision and accuracy of issuing weather early warning with its severity

Generalized impact table example

Yellow	Potentially dangerous, but not unusual phenomena have been forecast. Be attentive if practising activities exposed to meteorological risks and be informed about meteorological conditions.
Orange	Potentially dangerous and unusual meteorological phenomena have been forecast. Be very vigilant. Keep informed about meteorological conditions.
Red	Dangerous and exceptionally intense meteorological phenomena have been forecast. Be extremely vigilant. Keep frequently informed about meteorological conditions.

