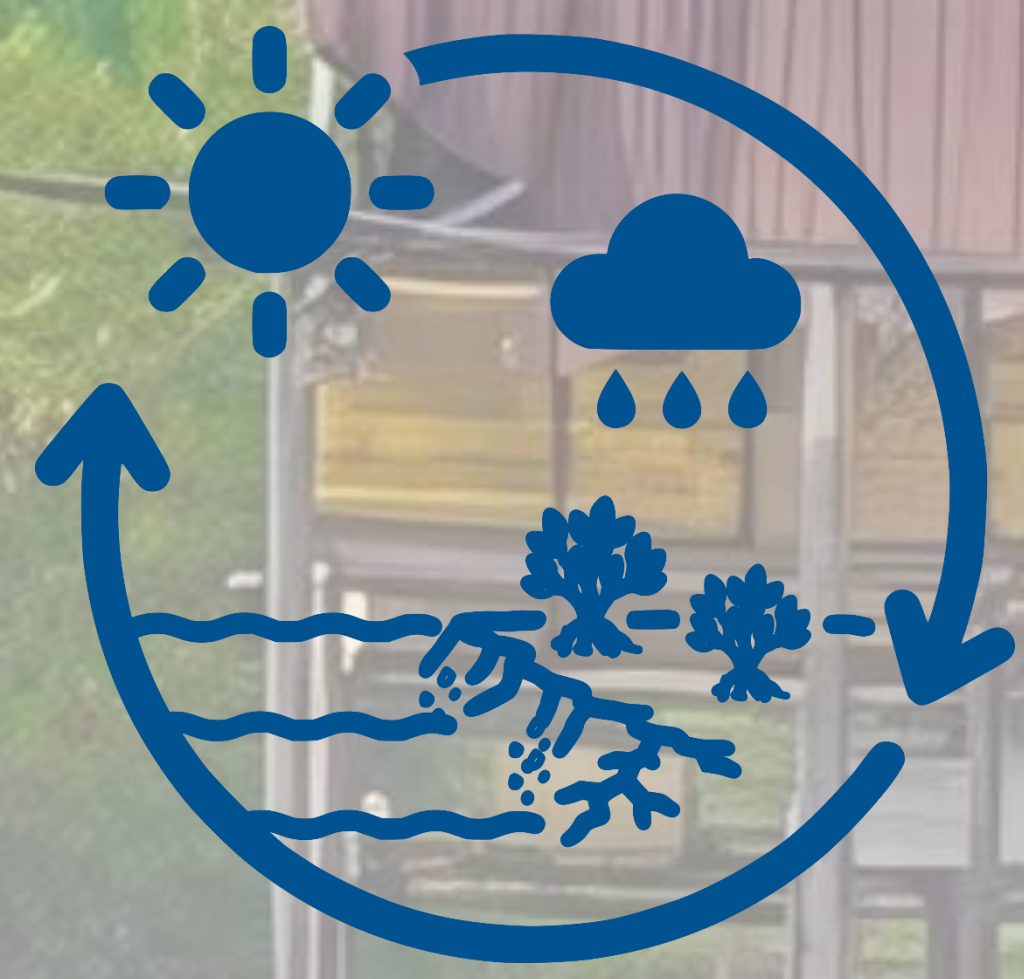




Hazard Impact Reference: severe weather preparedness



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 – **tool for information collection developed, training to analyse will follow**
- Literature review - **under preparation**

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.

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.
- **TMA:** Tool to support decision and accuracy of issuing weather early warning with its severity.

Early warning in Kenya

Tanzania Meteorology Authority (TMA) issues and distributes warnings with impact information for the following phenomena: heavy rain, strong wind, large waves and tsunami for land, sea and three lake areas. During the on-going collaboration between FMI and TMA through the FINKERAT project, funded by the Ministry for Foreign Affairs of Finland, a need to specify impact information for **thunderstorm, storm surge and low temperature** was identified.

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

TMA 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 Kigamboni

Where did the high temperature occur?

Babati Tanzania

When the the high temperature event start and end?

09 09 2025 07:00 - 09 09 2025 14:30

Can you tell us something about the high temperature event?

uncomfortable condition with sensible heat

High temperature impacts

Which impacts did you experience?

A digital tool to collect hazard impact was developed

- FMI team together with ALBATROSS partners developed digital tool to collect impact information by official representatives or volunteers/citizen.
- Severity levels (thresholds) of phenomena can be assessed by analyzing weather information (wind, amount of precipitation) relative to observed impacts. The project will provide training to local experts on analysis of collected information.

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Hub coordinator and main implementer of interventions:
Ardhi University



Funded by
the European Union

Funded by the European Union under G.A. NO 101137895. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Commission. Neither the European Union nor the European Commission can be held responsible for them.