

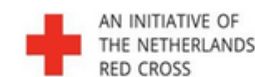


WATER
CONVENTION

Global Workshop on Droughts in Transboundary Basins 26-27 February 2024 - Geneva



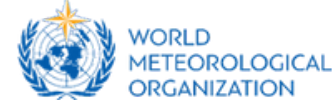
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**DROUGHT
MANAGEMENT
THROUGH INDIGENOUS
KNOWLEDGE (IK) AND
EARLY WARNING
SYSTEMS, IN MALAWI"**



DROUGHT MANAGEMENT THROUGH INDIGENOUS KNOWLEDGE IN MALAWI"

“Because these signs cannot be ignored since that is what our forefathers used to tell us and that is what is happening. When we see all these (signs) we start preparing ourselves...”

FOX - ANTS - DRUMS - SNAKES

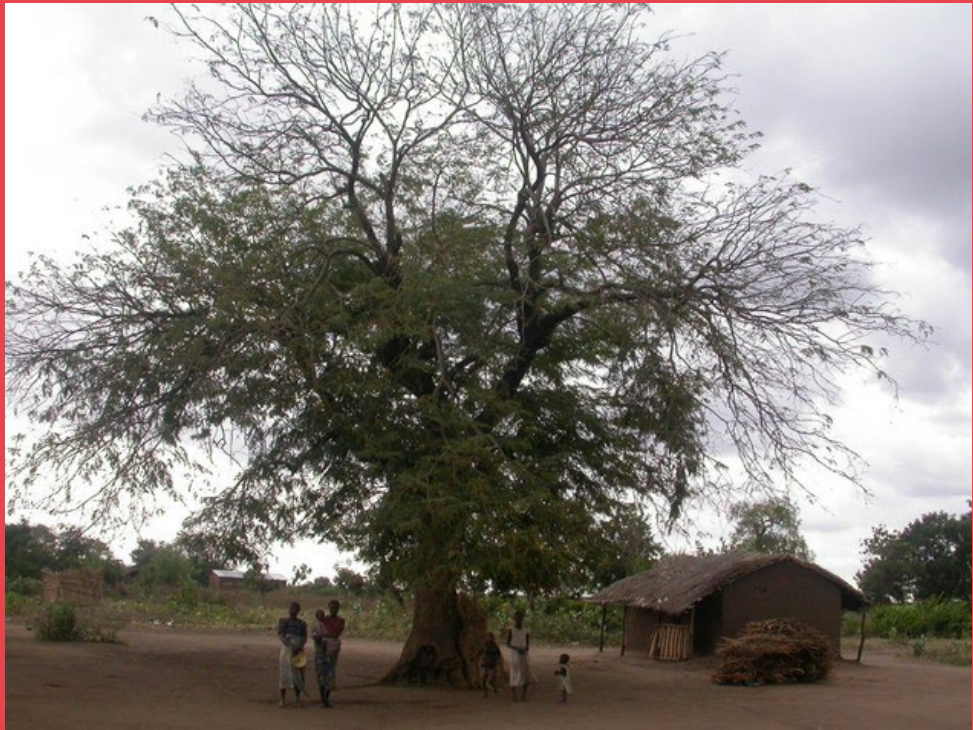
Globally, IK has been shown to be a critical factor in economic growth and sustainable development and is as important as scientific knowledge. However, when it comes to the African narrative, IK research still seems to fall short. IK has always been underprivileged and marginalized, treated as an unsubstantiated type of knowledge that cannot provide any scientific solutions



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DROUGHT is coming when

Sunbird or Wild Mango-Mtondo (*Cordyla africana*) tree with little or no flowers or fruit.



When lower yields



Black ants-Midzodzo moves together in a long queue of colony



PLANT AND ANIMAL BEHAVIOUR INDICATORS



DROUGHT is coming when

Big tortoises near the riveri



Line of stars and moon with circles in the skyi



© Robert Sparks

ANIMAL BEHAVIOUR AND CELESTIAL INDICATORS

No Hissing of a snake at the upstream Catchment Area



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MALAWI CONTEXT

- **Effective adaptation to climate variability and climate change is dependent on access to accurate climate information for the coming seasons and years to enable communities to make decisions for now and the future.**
- **Frequency and magnitude of disasters have increased since the 1990s.**
- **Attributed to climate change, population growth, and urbanization.**
- **No institutional structure for DRM before the 1991 arrangement (Phalombe Disaster).**
- **2023 Tropical Cyclone Freddy: 16 local authorities affected, with an estimated 2,267,458 affected, including 659,278 people displaced (336,252 female; 323,026 male), 679 killed, and over 530 people declared missing.**

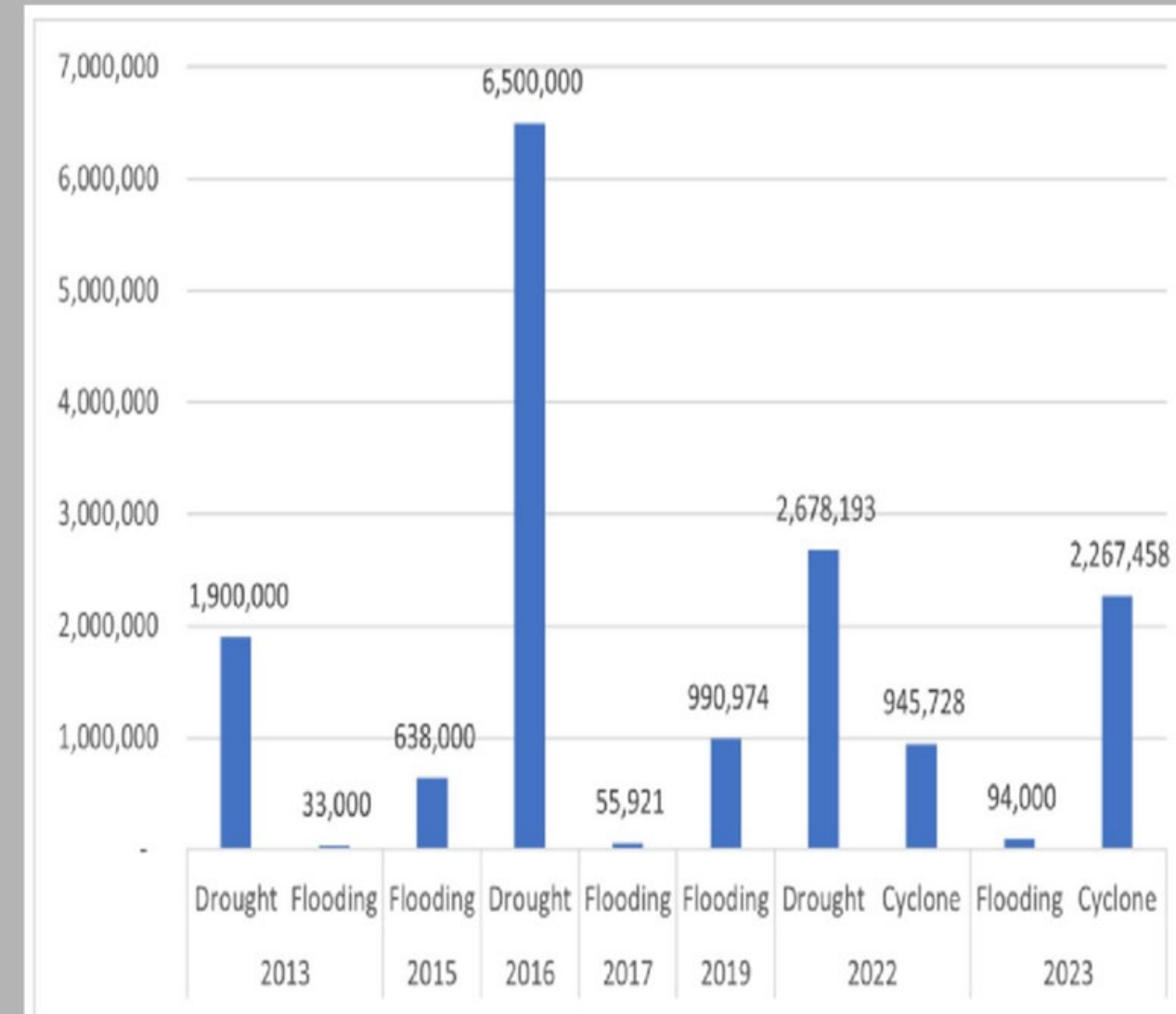


Figure 2a: Disasters in Malawi 2013–2023.

Source: International Database

IN MALAWI: Accurate, reliable, and timely early warning system (IK and Scientific) enhances climate change adaptation efforts at all levels by:

- **Enabling communities and institutions to make informed and timely decisions.**
- **Helping communities to time their activities with the expected impacts.**

2023/2024 is El Niño Season 4.408 million people



INDIGENOUS KNOWLEDGE (IK) AND EARLY WARNING SYSTEMS, IN THE LOWER SHIRE VALLEY IN MALAWI

Objectives of the Study

- To UNDERSTAND and document the indigenous early warning signs for floods and drought.
- To explore the AVAILABILITY of the indigenous early warning signs.
- To understand how IK is used in preparing for and REDUCING the impacts of disasters.

Community Emergency Operation Centre in Chikwawa.



FINDINGS

- There has been an increase in use and utilisation of the both IKs and Scientific Forecast through Participatory Scenario Planning (PSP).
- IK inclusion improves trust in the messages developed by the Department of Climate Change and Meteorological Services (DCCMS).
- The use of IKs by community members promotes ownership and sustainability by passing on messages and values from one generation to the other.
- Timely development of the advisories helped to increase the yield as the farmers used new approaches of farming such as agroforestry, Climate Smart Agriculture, irrigation (Winter cropping) and Permaculture.
- Improved access to and sharing of information at community level.

Flood Marks in Phalombe



FINDINGS

Disaster risk management

A sourcebook for primary schools



MALAWI'S SUPPORTING INSTRUMENTS TOWARDS indigenous knowledge (IK) LOCAL/ PEOPLE CENTRED

Early Warning System (EWS)

- DRM Policy_ (Pillar 3) Development and strengthening of a people-centred early warning system
- Department of Disaster Management Affairs (DoDMA) Strategic Plan-2019/2024
- National Disaster Preparedness and Relief Act March 2023
- National DRM Bill 2023
- The Local Government Act (1998); Decentralisation Policy
- The Malawi Growth and Development Strategy Pillar 3
- DRM-A Source Book for Primary and Secondary Schools



Republic of Malawi



Malawi Institute of Education



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CHALLENGES

- They sometimes based on locality and some indicators are extinct (Fauna and Flora) because of deforestation and variation in climate change.
- **IN SOME CASES, THE DESCRIPTION OF INDICATORS WAS CONFLICTING.**

EXAMPLES: One FGD mentioned for example that if there was no ring surrounding the moon, droughts would come, whereas another FGD mentioned the opposite. Similarly, for the hole of the Spider ('buwe'): one FGD mentioned its hole is covered with a web when a drought arrives, the other FGD mentioned it was opening and not sealed.

These examples indicate the context and space-based nature of indigenous knowledge indicators.

**RINGS AROUND THE MOON
YES OR NO**

**SPIDER HOLE COVERED YES
OR NO**





Volunteer disseminating
forecast messages using
megaphone

RECOMMENDATIONS - ACTION NOW

- Combining local and scientific knowledge systems is **CRITICAL** for making climate information relevant locally and for empowering communities.
- There is a need to **VALIDATE** the EW Signs based on locality.
- **ENHANCE** Participatory Scenario Approach (PSP) where IKs and Scientific knowledge are discussed together.
- There is need to **SCALE UP** both vertically and horizontally.
- IKs should be **MAINSTREAMED** in all DRM instruments for all relevant key stakeholders and communities to be familiar so that the use and utilisation should be robust.
- All clusters should **INTEGRATE** IKs in their programming
- **CAPACITY BUILDING** of all stakeholders on different aspects is critical for the value of IK climate information to be realized.



ACKNOWLEDGEMENTS

- Robert Šakić Trogrlić, Heriot-Watt University, Edinburgh, UK.
- Marc van den Homberg, Netherlands Red Cross, 510 data initiative.
- Rene Jinon -Program Manager Netherlands Red Cross.
- Chiotha et al- Lead SEA
- European Union Civil Protection and Humanitarian Aid-Donor
- Malawi Red Cross Society

Blessings Mlowoka
Research Coordinator

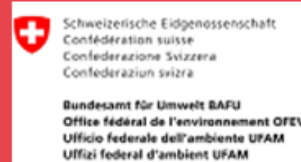
DONE WITH:

Department of Hydrology
Department of Climate change and Meteorological services (DCCMS).
District Disaster Risk Management Committees (DDRMCs)
NGO partners
Malawi Red Cross Society staff and Volunteers,
DRM and NRM Committees Community





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THANK YOU

Blessings Mlowoka

Research Coordinator - MALAWI

RED CROSS

bmlowoka@redcross.mw

Maria Pinzon

Global Head Water - IFRC

maria.pinzon@ifrc.org



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