WATER CONVENTION

Non-traditional data collection methods for strengthening drought management

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MALAWI RED CROSS SOCIETY

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European Union Civil Protection and Humanitarian Aid

Ministry of Infrastructure and Water Management

UNECE

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Bundesamt für Umwelt BAFU
Office fédéral de l'environnement OFEV
Ufficio federale dell'ambiente UFAM
Uffici federal d'ambient UFAM

United Nations Convention to Combat Desertification

UNDRR
UN Office for Disaster Risk Reduction

WORLD BANK GROUP
Water

WORLD METEOROLOGICAL ORGANIZATION

INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS

STRENGTHENING DROUGHT MANAGEMENT

" Indigenous knowledge and early warning systems in the lower Shire valley 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

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DROUGHT is coming when

Big tortoises near the riveri

Line of starts and moon with circles in the skyi

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.**

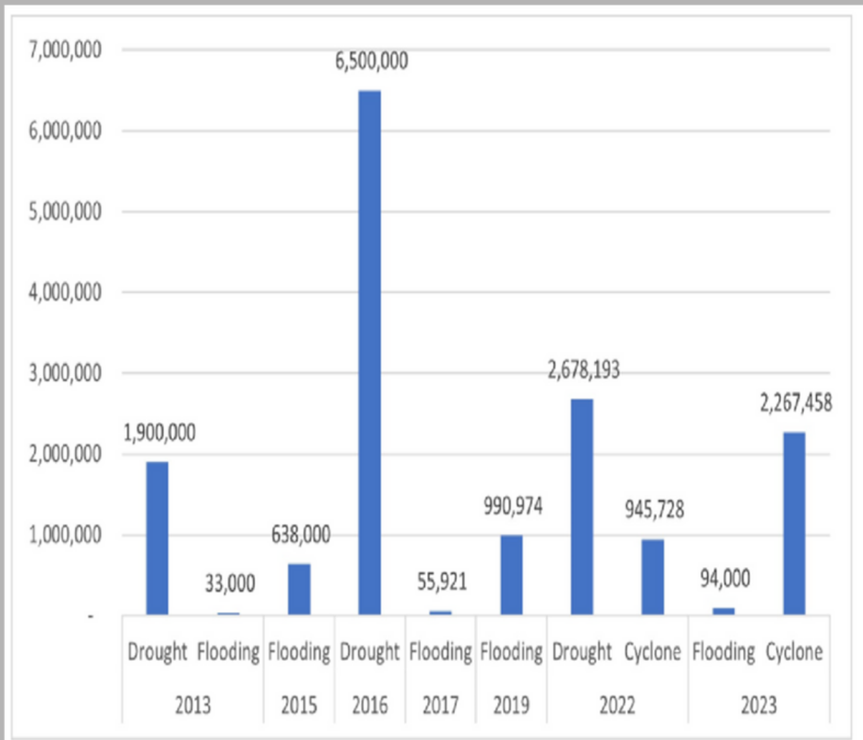

Figure 2a: Disasters in Malawi 2013-2023.
Source: International Database

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

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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.

Flood Marks in Phalombe

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.

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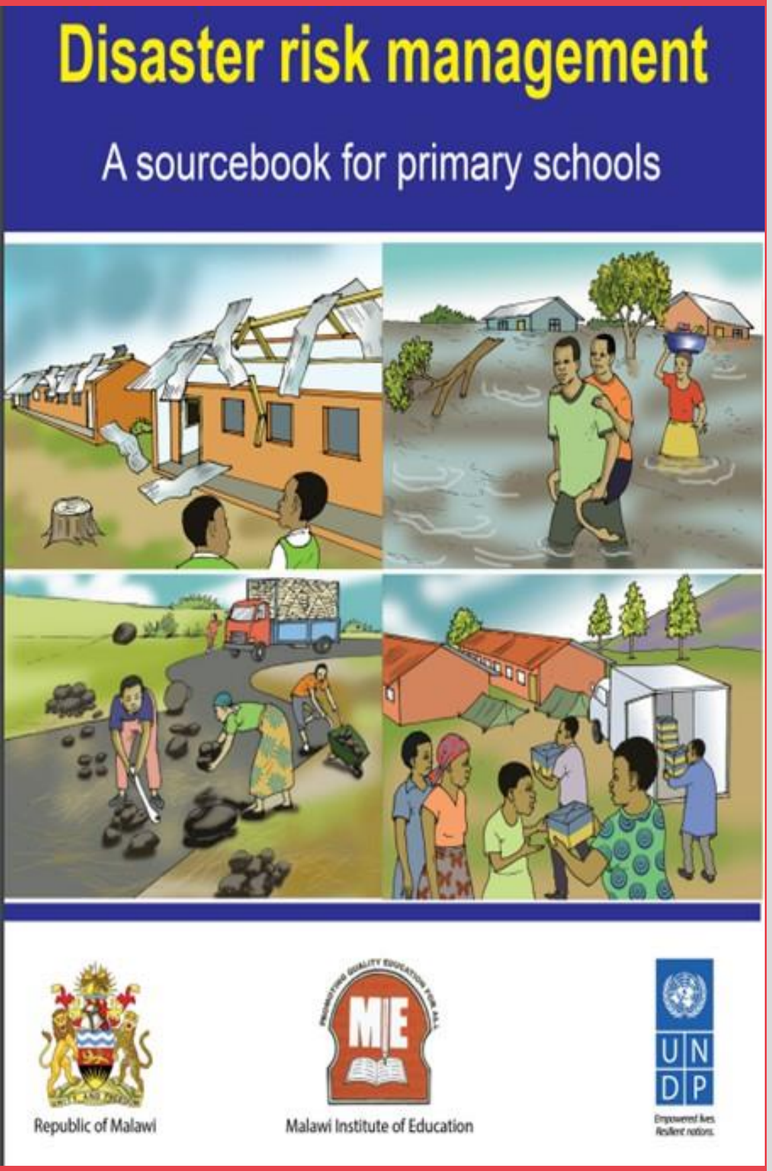

FINDINGS

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

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RINGS AROUND THE MOON YES OR NO

SPIDER HOLE COVERED YES OR NO

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.

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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.

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Blessings Mlowoka

Research Coordinator

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DRM and NRM Committees Community members

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THANK YOU

Blessings Mlowoka

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