ENACTS

TRANSFORMING CLIMATE SENSITIVE DECISIONS

Maximizing the Impact of Malaria Investment within the Changing Climate of Tanzania and Zanzibar

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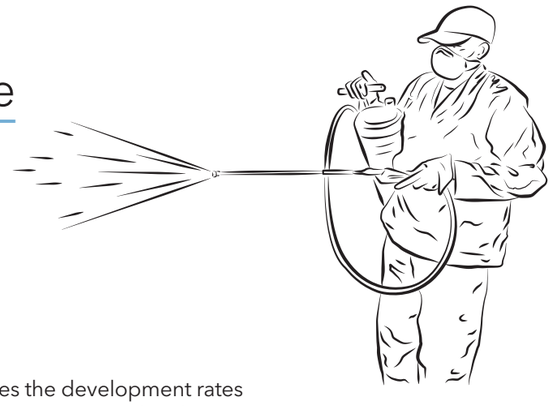
The Enhancing National Climate Services (ENACTS) initiative delivers robust climate data, targeted information products and training for policy makers and practitioners, enabling them to apply climate information to development decisions with confidence.

TANZANIA METEOROLOGICAL AGENCY
MAMLAKA YA HALI YA HEWA TANZANIA

MAXIMIZING THE IMPACT OF MALARIA INVESTMENT IN A VARYING CLIMATE

Malaria is a complex disease. In many regions, climate drives the seasonality of transmission. While fewer cases of malaria may occur in drought years, they can spike during warm and wet ones, making control and elimination more difficult. When it comes to evaluating the impact of malaria interventions, climate can be an important confounder. Therefore, climate should be considered an essential part of measuring the impact of national and international investments in malaria control and elimination.

Overcoming the data challenge



Climate significantly influences the geography and seasonality of malaria and affects the year to year fluctuation of risk (e.g. the emergence of epidemics).

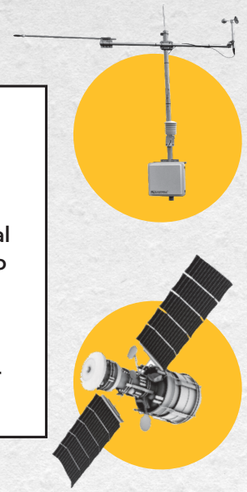
Temperature drives the development rates of both the mosquito vector and malaria parasite, while rainfall and humidity provide essential environmental conditions for mosquito development and survival.

Many developing countries have gaps in climate observations records, which undermine the reliability of the climate analysis, short-term forecasts and long-term projections.

Tanzania's National Meteorological Agency is pioneering efforts to dramatically improve the availability, access and use of climate data and information through the development of ENACTS, maximizing the impact of Malaria Investment in a varying climate.

ABOUT...

The ENACTS data products combine information from local observations and also from satellites and global models. This allows for superior accuracy and sharper analysis.



Local climate observations

Global climate products

THE ENACTS DATA & MAPROOMS

1. **Online data from robust sources**
2. **Enhanced forecasts & risk characterization**
3. **Best information to empower decision makers**

IMPACT ON MALARIA PROGRAMMING

- **Allows for an understanding of variability and trends in temperature and rainfall on national, regional, and district scales.**
- **Contibutes to improvements of the timing and scale of malaria interventions.**
- **Can trigger early warning systems to alert for potential food insecurity, infectious disease epidemics and hydro-meteorological disasters.**
- **Can trigger early warning systems to alert for potential food insecurity, infectious disease epidemics and hydro-meteorological disasters.**
- **Helps predict malaria cases at various timescales and facilitates mapping of populations and systems at risk.**
- **Contributes to improvements of the timing and scale of malaria interventions.**
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- **Strengthens activities to support climate smart sustainable development, including multisectoral approaches.**

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RBM (2015) recommends malaria programmes to

> **Build alliances between malaria programmes, ministries of health and relevant environmental and development partners (including the national meteorological agencies) as a way of securing access to adaptation funds, to manage climate-related risks to the success of malaria programme**
>
> – **RBM (2015)**
> *Action and Investment to Defeat Malaria 2016-2030*

The ENACTS Advantage

Availability

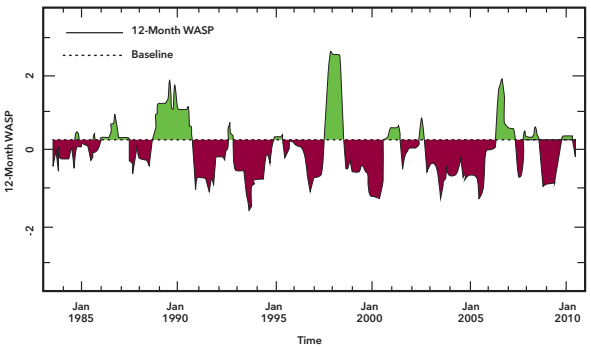
- Blended data to overcome observational gaps
- Result: Over 30 years of high-resolution rainfall and temperature data now available, enabling climate analysis from community to national levels.

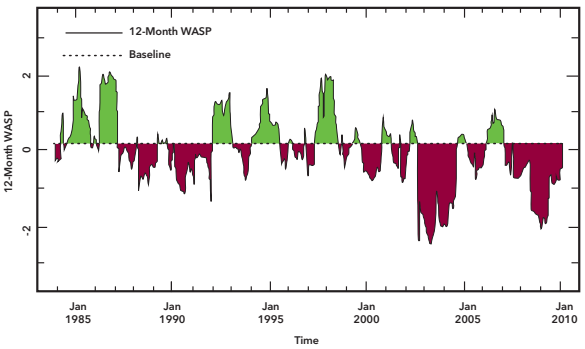
Access

- Online Maprooms
- Result: User-friendly tools for the analysis, visualization, and downloading of climate information.

Built capacity and empowerment

- Empowered stakeholders with increased capacity
- Result: Strengthened policy analysis, relevant for multiple sectors.





ENACTS data can be converted "on the fly" to user-oriented products such as WASP index, which provides a simple visual means of displaying significant year-to-year changes in rainfall. In particular, above normal rainfall is clearly displayed in during the 1997/98 El Nino in the province (a) Singida Province, Tanzania. The drought across the province of (b) Kaskazini-Unguja Province, Zanzibar, is also noticeable for the majority of 2000-10.

FIND OUT MORE...

Maproom.meteo.go.tz/Maproom/

iri.columbia.edu

Partners

GFCS GLOBAL FRAMEWORK FOR CLIMATE SERVICES

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CDC USAID FROM THE AMERICAN PEOPLE President's Malaria Initiative

SERVIR

CGIAR RESEARCH PROGRAM ON Climate Change, Agriculture and Food Security CCAFS