CASE STUDY - FOOD SECURITY

MALAWI

CONTEXT

The economy in Malawi is heavily based on rainfed agriculture. 80% of the population is engaged in subsistence farming.

Climate projections indicate a warming trend, a decrease in the number of rainy days, and an increase in heavy rainfall.

Climatic shocks such as floods and droughts resulting from these changes significantly impact local livelihoods.

Malawi is one of the countries with the largest percentage of area experiencing a decreasing rainy season.

As a result there is uncertainty around seeding time, crop diversification planning and postharvest management.

All this calls for improved seasonal climate prediction, delivery of seasonal and decadal products and characterisation of future weather extremes.

> Food scarcity and quality may deteriorate with climate change and further affect malnutrition rates. Reliable forecasts are crucial for informing food security and humanitarian intervention planning.

CLIMATE INFORMATION & SERVICES COPRODUCTION

BASELINE
Uncalibrated seasonal and decadal predictions, CMIP5 data

INNOVATION
Bias adjusted seasonal and decadal predictions, RCM and high resolution GCM data

BASELINE
ASAP warning system

INNOVATION
ASAP upgrade using new seasonal and decadal predictions

BASELINE
WOFOST

INNOVATION
WOFOST (ECroPS) upgrade using local agricultural data, new climate projections and decadal predictions

BASELINE
APHLIS post-harvest tool

INNOVATION
APHLIS upgrade using seasonal data

Analysis of state-of-the-art climate information.

Analysis of local socio-economic contexts, values and venerabilities.

Engagement of stakeholders through communication and awareness raising.

Knowledge exchanges with users and stakeholders through interviews and workshops.

Participatory trials and applications of new climate services to support adaptation pathways and improve food security.

THE TEAM

RESEARCH	SERVICE PROVIDER	USERS
BSC JRC EUROPEAN COMMISSION	DEPARTMENT OF CLIMATE CHANGE AND METEROLOGICAL SERVICES Amigo	Local farmers' associations Agricultural research organisations Ministry of Agriculture and Food Security

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