

Towards Best Outcomes for Communities

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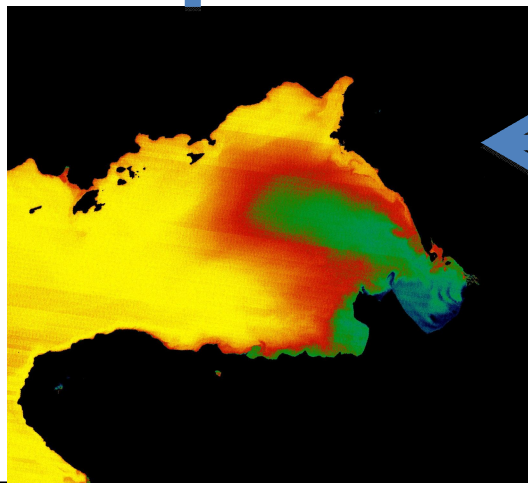
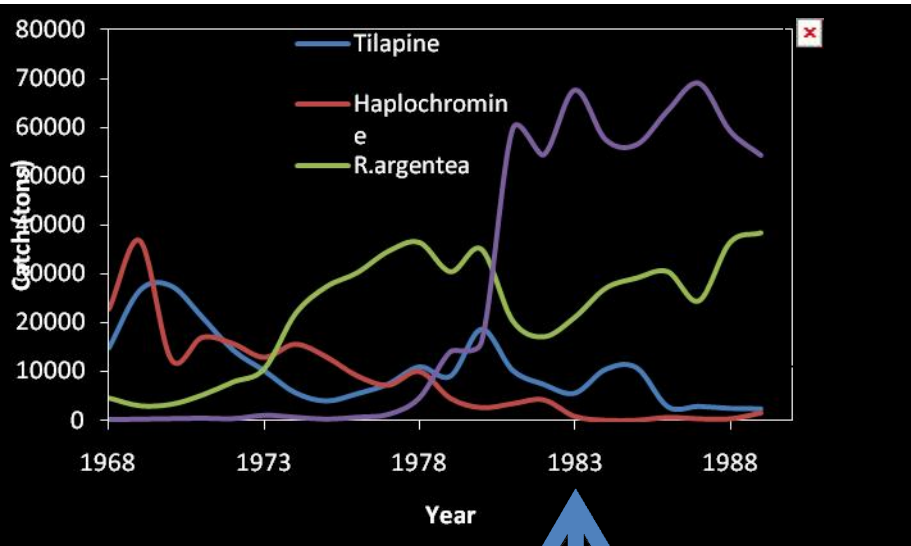
Faculty of Arts and Sciences, Aga Khan University

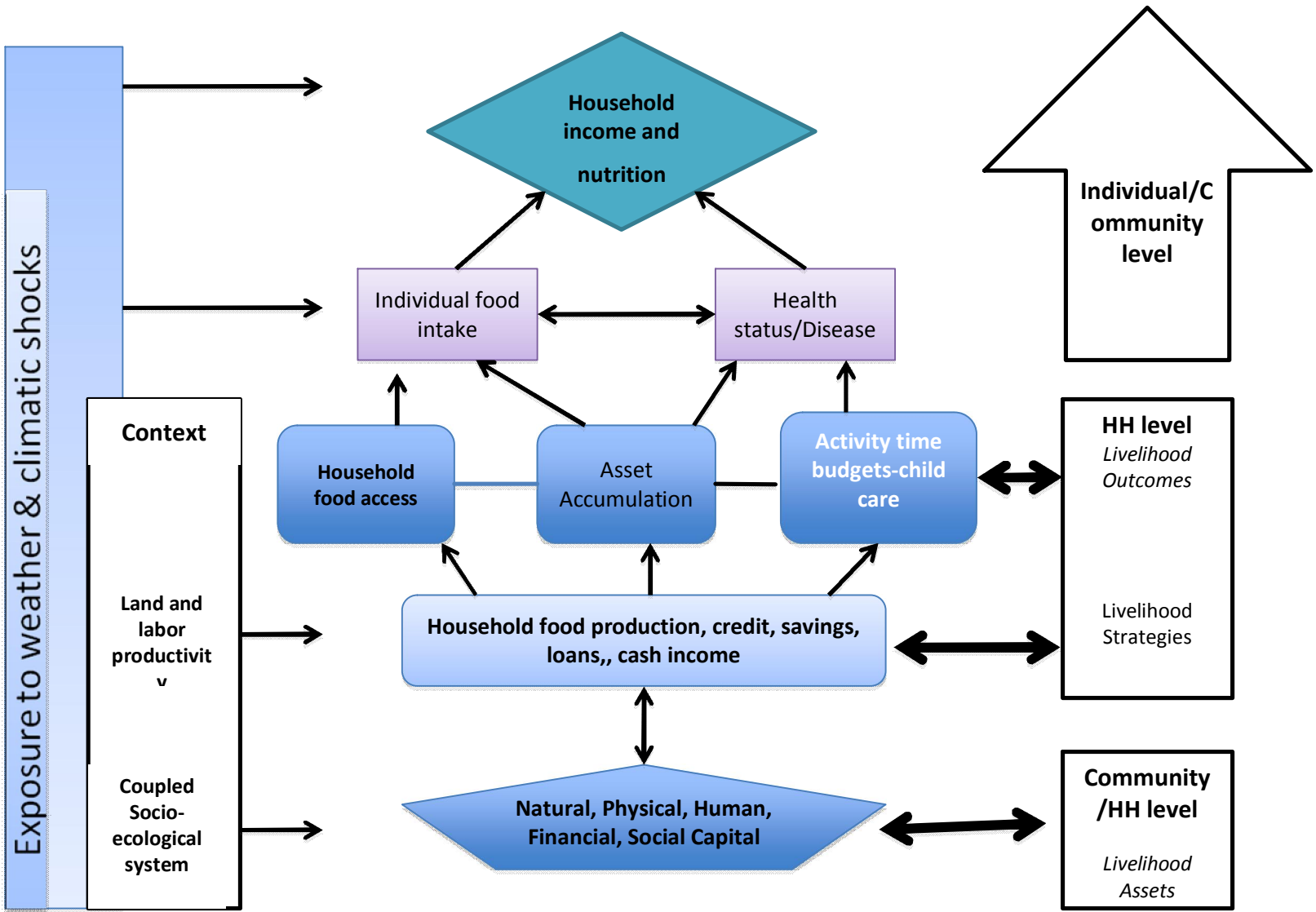
Workshop on Achieving Benefits of Enhanced Service Delivery by National
Meteorological Services in Eastern and Southern Africa
21-24 February, Dar es Salaam

Coupled Socio-ecological Systems

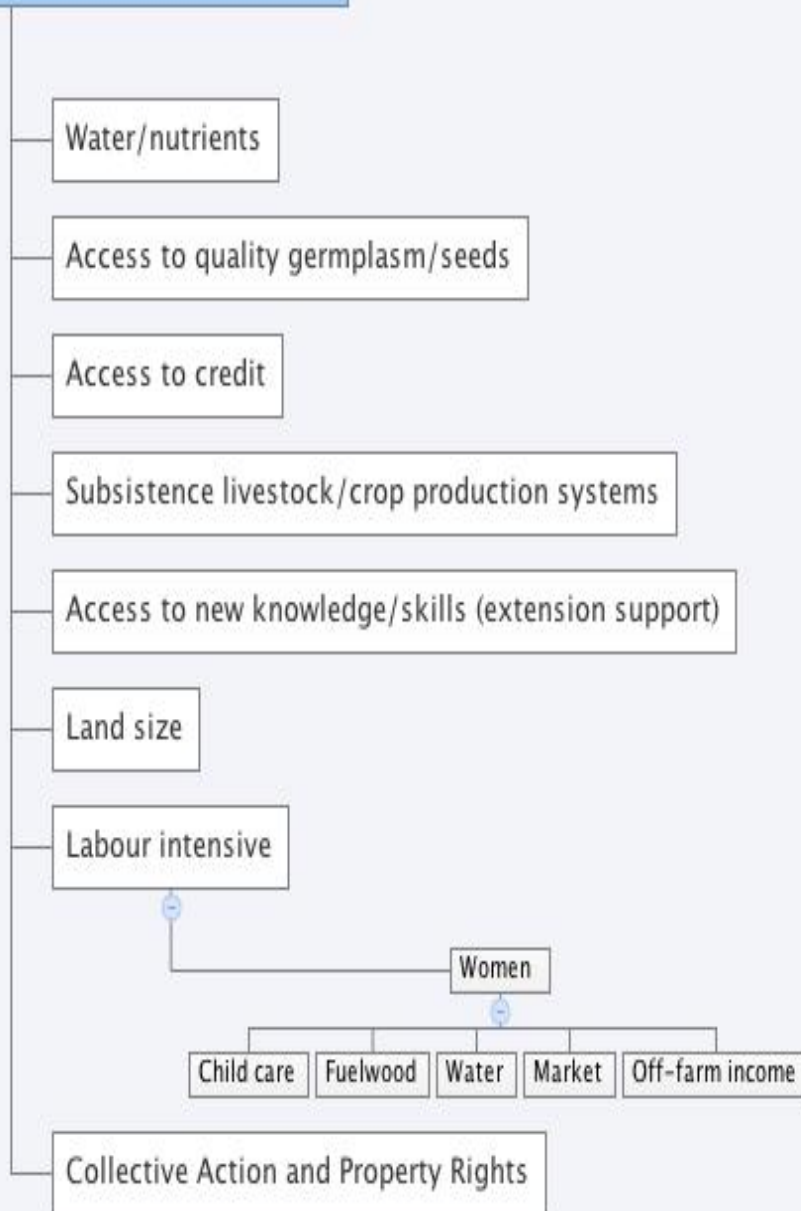


Strong Climate/Anthropogenic Effects

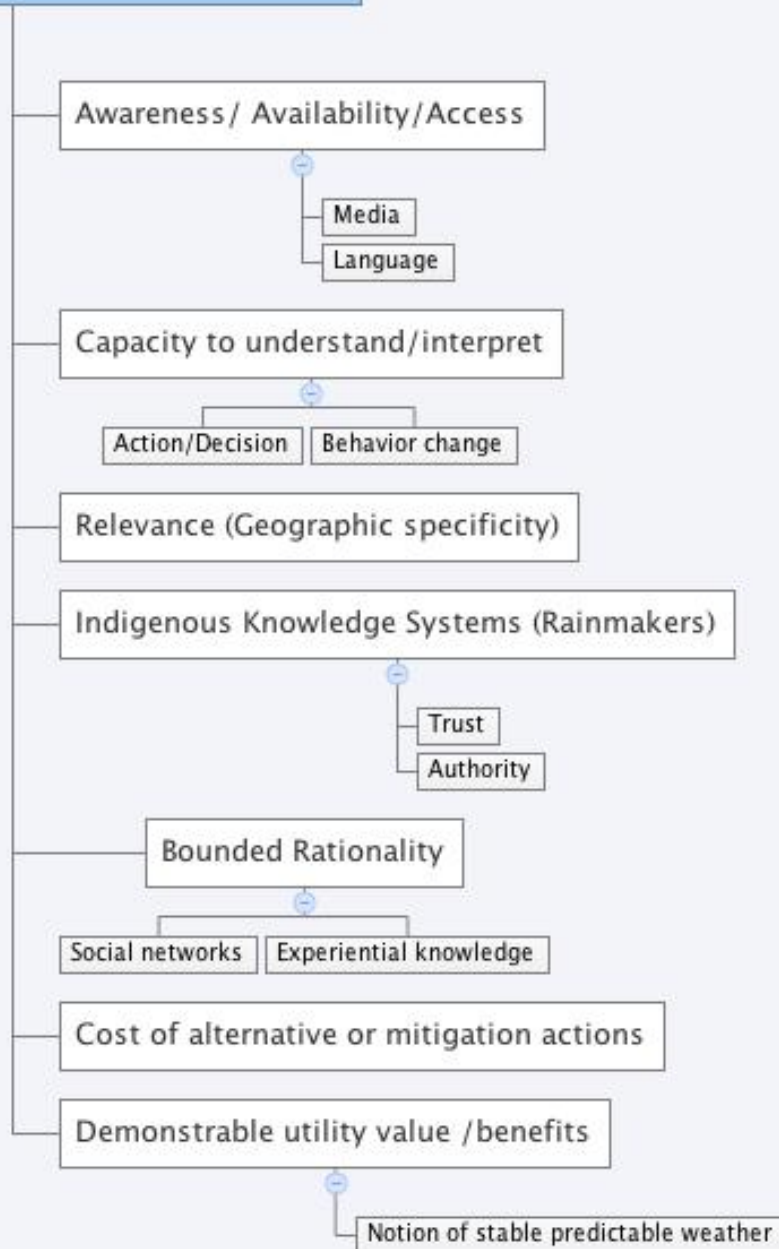




Constraints in Decision Making



Ability/Willingness of Users

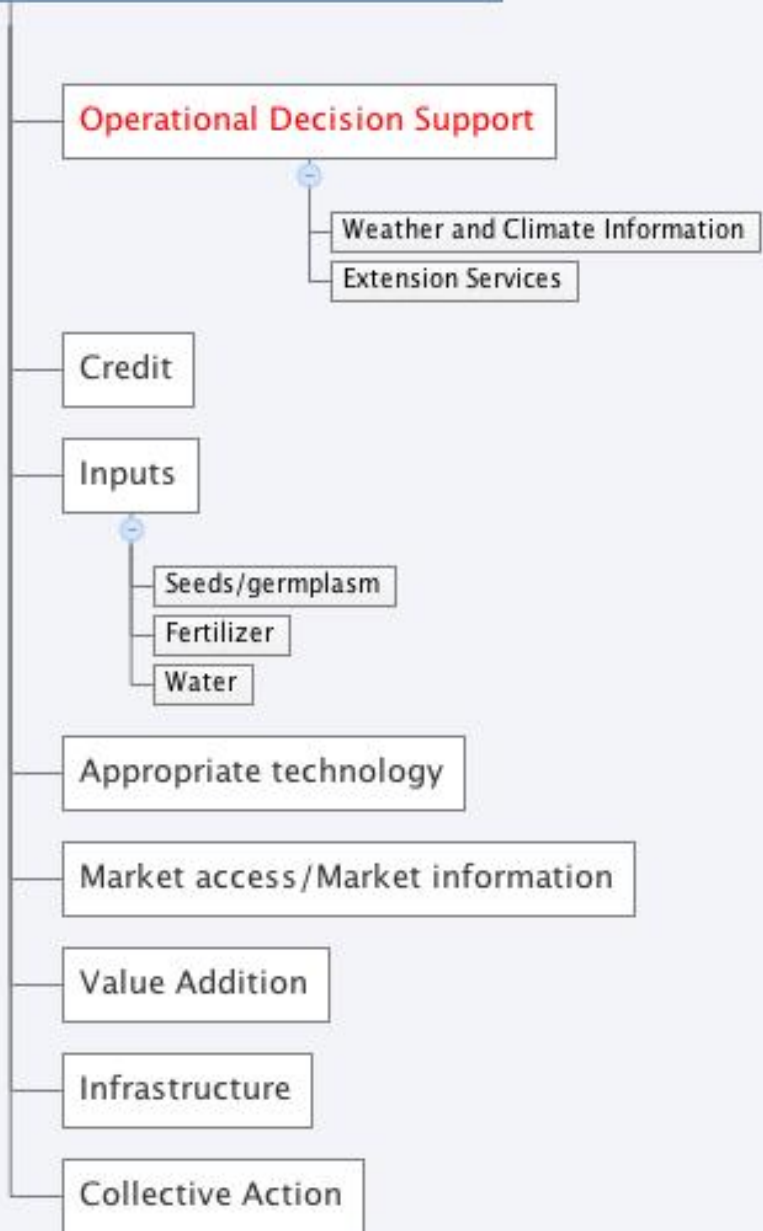


Overcoming Constraints and Enabling Application of Weather and Climate Information

- The use of weather and climate information by smallholder farmers must be promoted in the broader context of incentives to enhance rural livelihoods.

- If agriculture is intended to be the driver of rural economies;
 - A holistic value chain investment framework must account for weather and climate services
 - Fertilizer
 - Seed
 - Extension Services
 - Markets
 - Value Addition

Agricultural productivity/profitability



Weather and Climate Information

Season and daily forecast

Rainfall

Temperature

Humidity

Outlook/Early Warning

Disaster Risk Reduction/Management

El Nino/La Nina

Drought

Floods

Disease outbreaks (RVF)

Insect pest outbreaks

Operational Decisions

On-set/amounts/cessation of season rains

Land preparation

Planting time

Optimizing farm inputs

Seed/germplasm choice

Soil nutrient management

Water/soil moisture management

Pest /management/ control

Management of pastoral systems

Migration (when and where to move)

Stocking densities

Risk/Uncertainty

Floods

Landslides

Drought

Disease outbreak

Dry season base flow

Irrigation - water allocation

Municipal water authority - Demand and supply management

A Framework for Enabling Application of Weather and Climate Services

