

Climate Change Adaptation in Africa Learning Forum

“Improving access to and use of seasonal forecasts for food security in Africa: lessons from CCAA PAR projects”

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8th – 12th of March 2010
Nairobi

Managing risk, reducing vulnerability and enhancing agricultural productivity under a changing climate

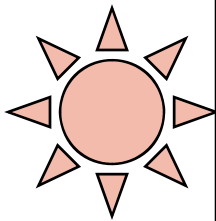
- Enhance the **overall information base** on impacts of climate change and variability and associated physical and economic vulnerabilities
- Develop and avail “**Decision aides**” that support strategic and tactical decision making in selecting appropriate responses to manage risks and capitalize on opportunities created by variable climate
- Assess the **impacts of climate change** on vulnerability of agricultural systems and evaluate the adequacy of the current management options and adaptation strategies to effectively meet the challenges
- Enhance the **operational and technical capacity** of national institutions and key stakeholders to develop, disseminate and make use of climate knowledge, products and adaptation plans

PAR key stakeholders

- **Farmers** – users of climate information for agricultural decisions and management.
- **Extension Services** – advisory services including application of climate forecasts in agriculture
- **NGOs** – advisory services including application of climate forecasts in agriculture
- **MET Services** (Tanzania Meteorological Agency) – Source of climate information
- **Research Institutions** – disseminate research outputs to farmers related to climate forecasts and climate change for agricultural risk management

Climate information products

- Seasonal climate forecasts
- Seasonal climate outlooks
- Decadal weather forecasts
- 1 day weather forecasts



Demand for seasonal climate forecast is **increasing** after awareness of climate change and variability.

Farmers are *increasingly* demanding climate information products

Farmer climate information needs

- The **beginning** of rainy season (in days and months) and ten days weather outlooks
- Rain **distribution** during the rainy season
- **Length** of rainy season (long, short)
- **Amount** of rains during the rainy season (above average, average and below average)
- **Dry spells** during the rainy season

Use of climate information

Farmers

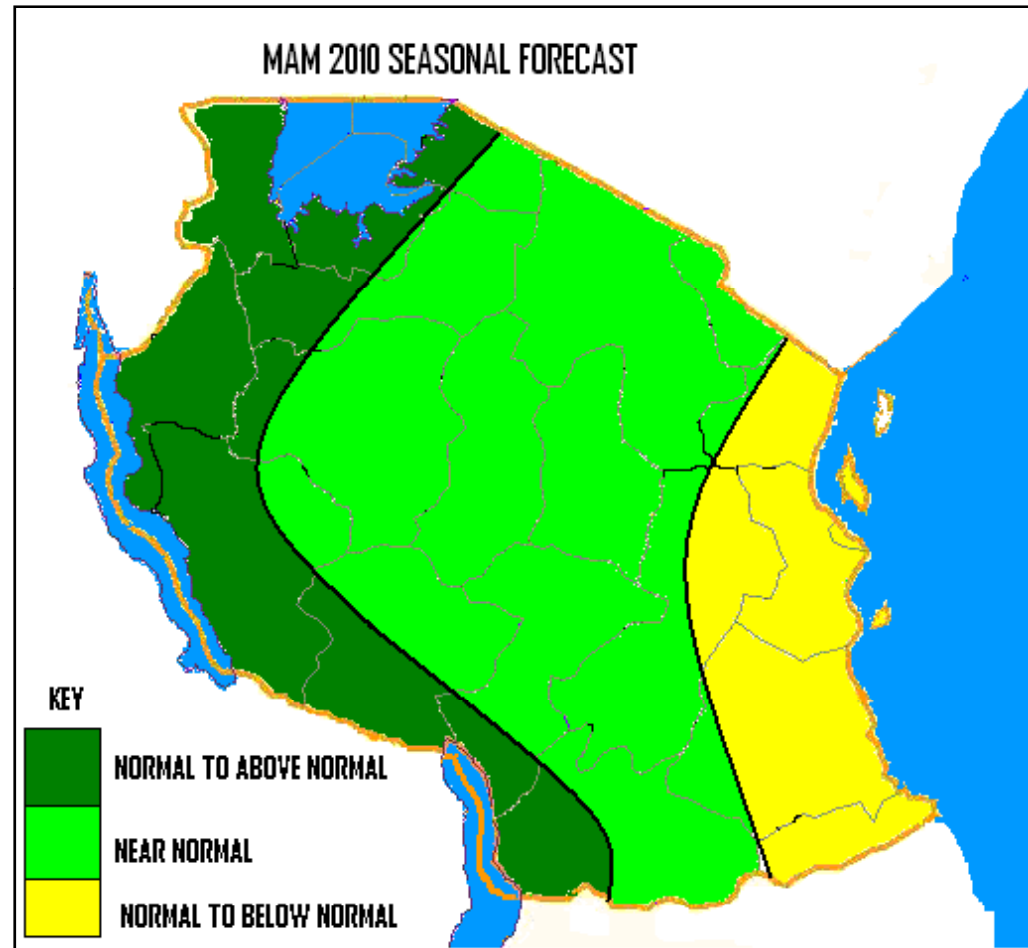
- Crop selection
- Select crop variety
- Decide about acreage allocation, including not to cultivate
- Anticipate purchase of fungicides, herbicide and fertilizer
- Sell or hold grain stocks
- Strategize marketing
- If/when to weed and
- If/when to harvest

Livestock keepers

- Plant dry-season forage
- Anticipate feed purchase to avoid high prices
- Adjust/regulate stocking rates
- If/how many livestock to shift to other locations/relatives
- If/when to apply chemicals spray/dip

TMA: climate information forecast

- Seasonal climate forecasts
- Seasonal climate outlooks
- Decadal weather forecasts
- 1 day weather forecasts



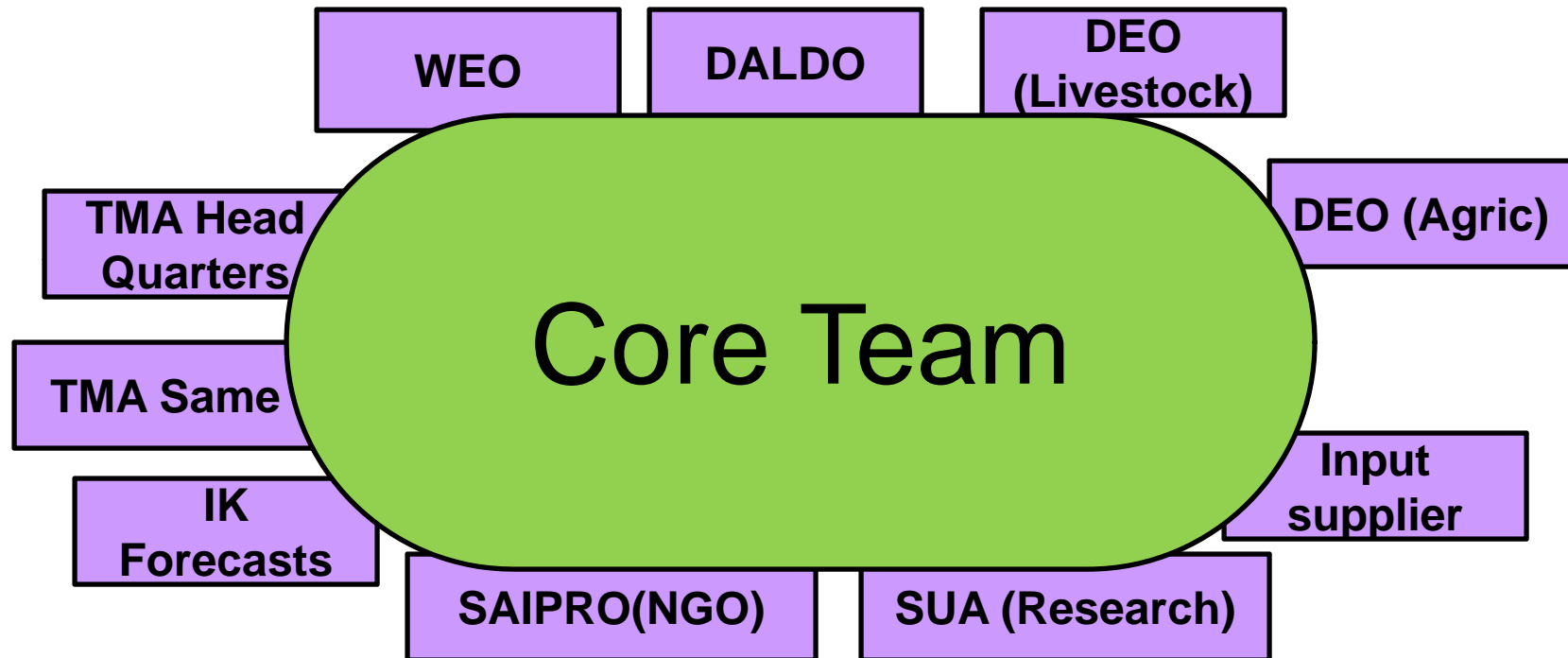
Integration of IK with TMA forecasts

Issues to be addressed

- Capacity building
- Team building for consensus forecasts
- Supporting documentation of IK
- Assess the relationship between IK indicators and climatic variables
- Investigate the potential impacts of future climate changes on the IK systems



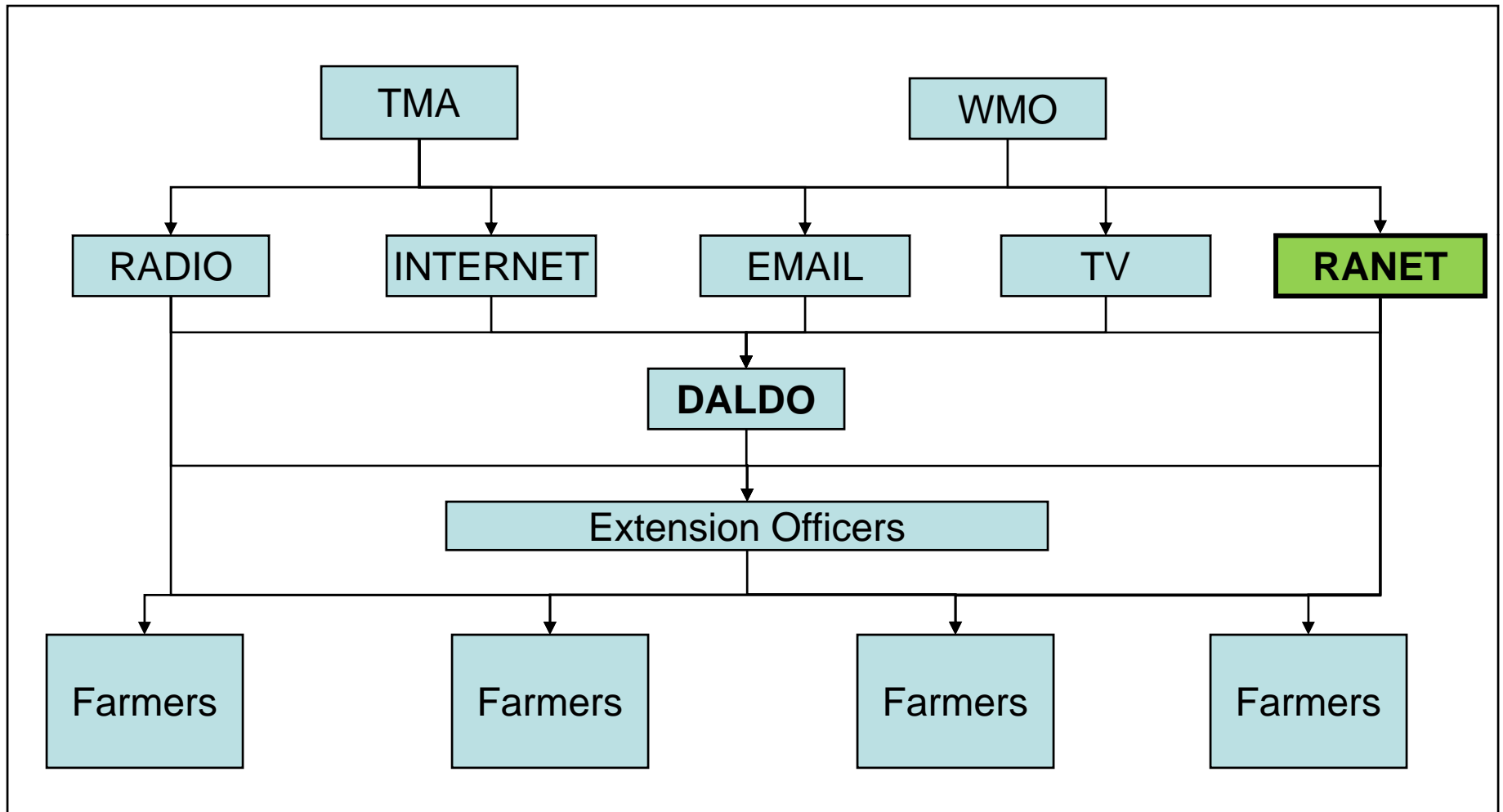
Communicating climate information: Core Team



Consensus forecast



Communicating climate information: RANET



Challenges: climate information

- **Timely delivery** of climate information
- **The format** of climate information is not usable to farm level decisions
- The climate information is not qualified to the extent of **likelihood** of the event forecasted
- Existing climate products communication media does not favour prompt **feedback** from farmers
- Farmers have **limited access** to improved knowledge

Capacity constraints

- **Lack of knowledge** in climate change issues
- **Inadequate extension services** and required skills
- **Insufficient infrastructure** for communicating climate information
- **Sustainability of Core Team** for generating and dissemination of climate information products



This project is supported by the **Climate Change Adaptation in Africa (CCAA) program**, a joint initiative of Canada's International Development Research Centre (IDRC) and the United Kingdom's Department for International Development (DFID). This support is highly appreciated.

The end

Thank you for your
attention