CLIMATE CHANGE
AGRICULTURE AND FOOD SECURITY

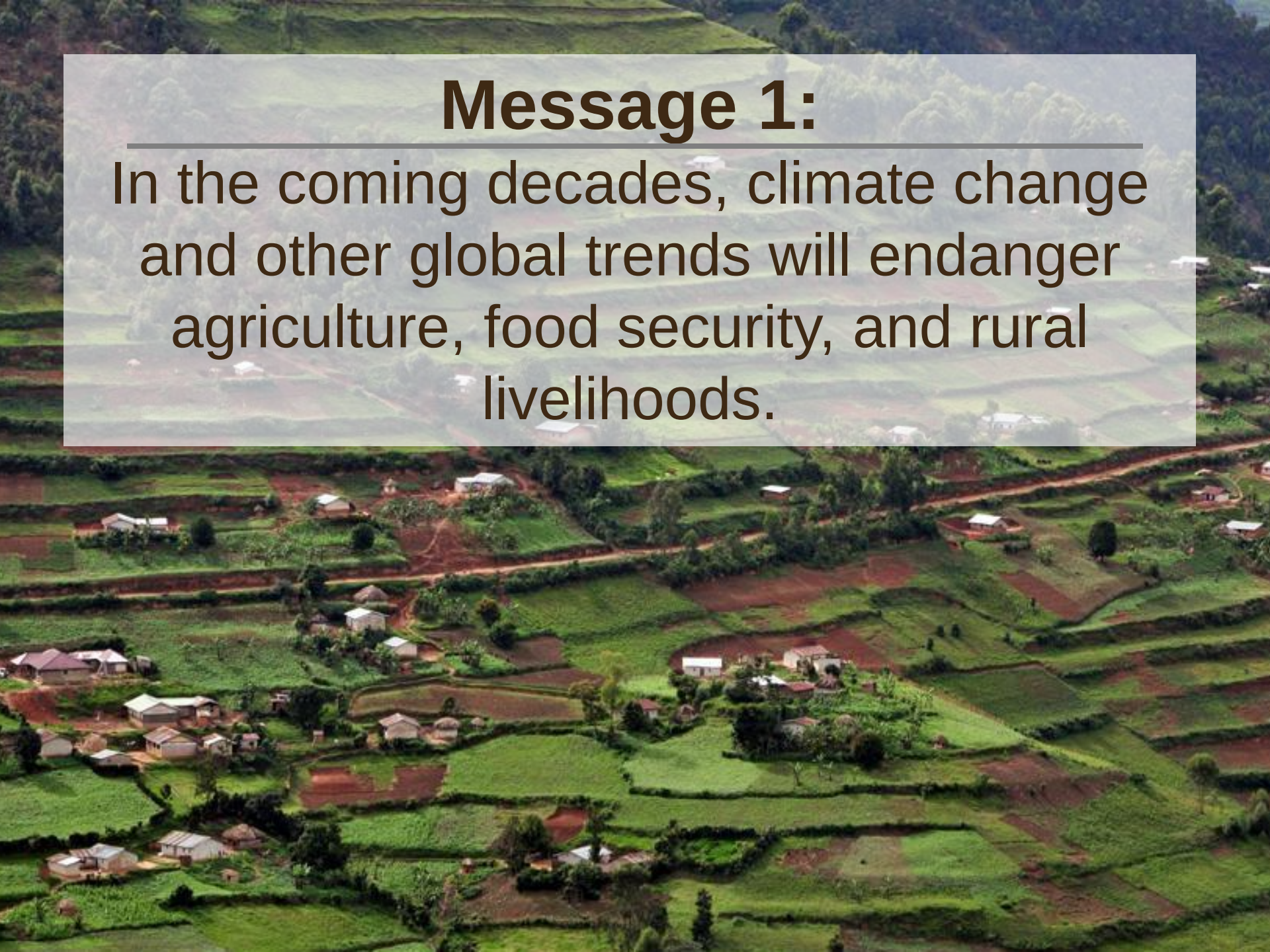
Communication and social learning: supporting local decision making on climate change, agriculture and food security

CGIAR

Earth System Science Partnership

CIAT
Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture
Consultative Group on International Agricultural Research

FACULTY OF LIFE SCIENCES
UNIVERSITY OF COPENHAGEN



Message 1:

In the coming decades, climate change and other global trends will endanger agriculture, food security, and rural livelihoods.

Message 2:

With new challenges also come new opportunities.

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CCAFS: the partnership

Earth System Science Partnership

CGIAR

ICSU
International Council for Science

DIVERSITAS

GLOBAL CHANGE
IGBP

IHDP

WCRP
World Climate Research Programme

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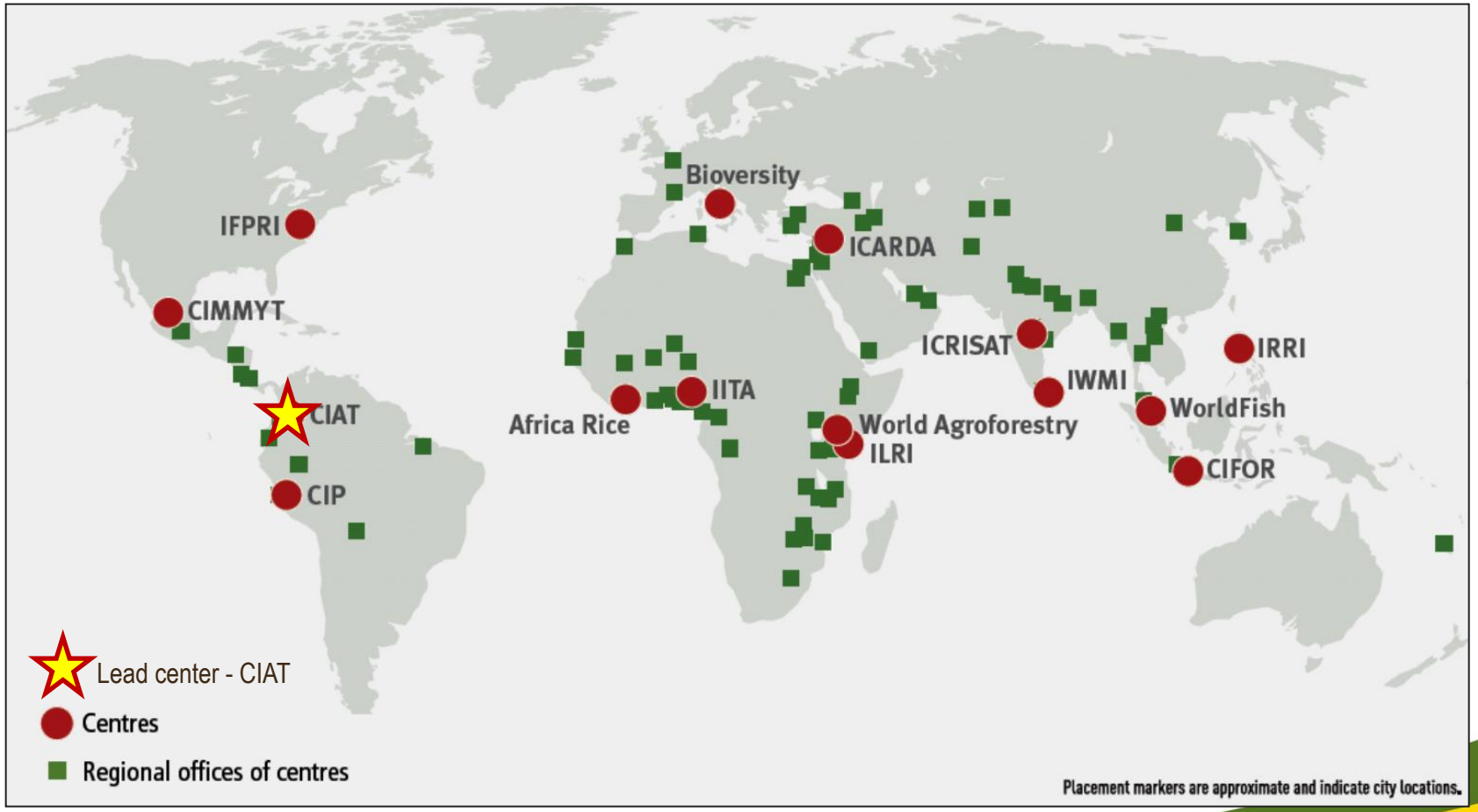
The CGIAR Research Centers

Where is the research being done?
>> At our 15 CG centers and ~70 regional offices

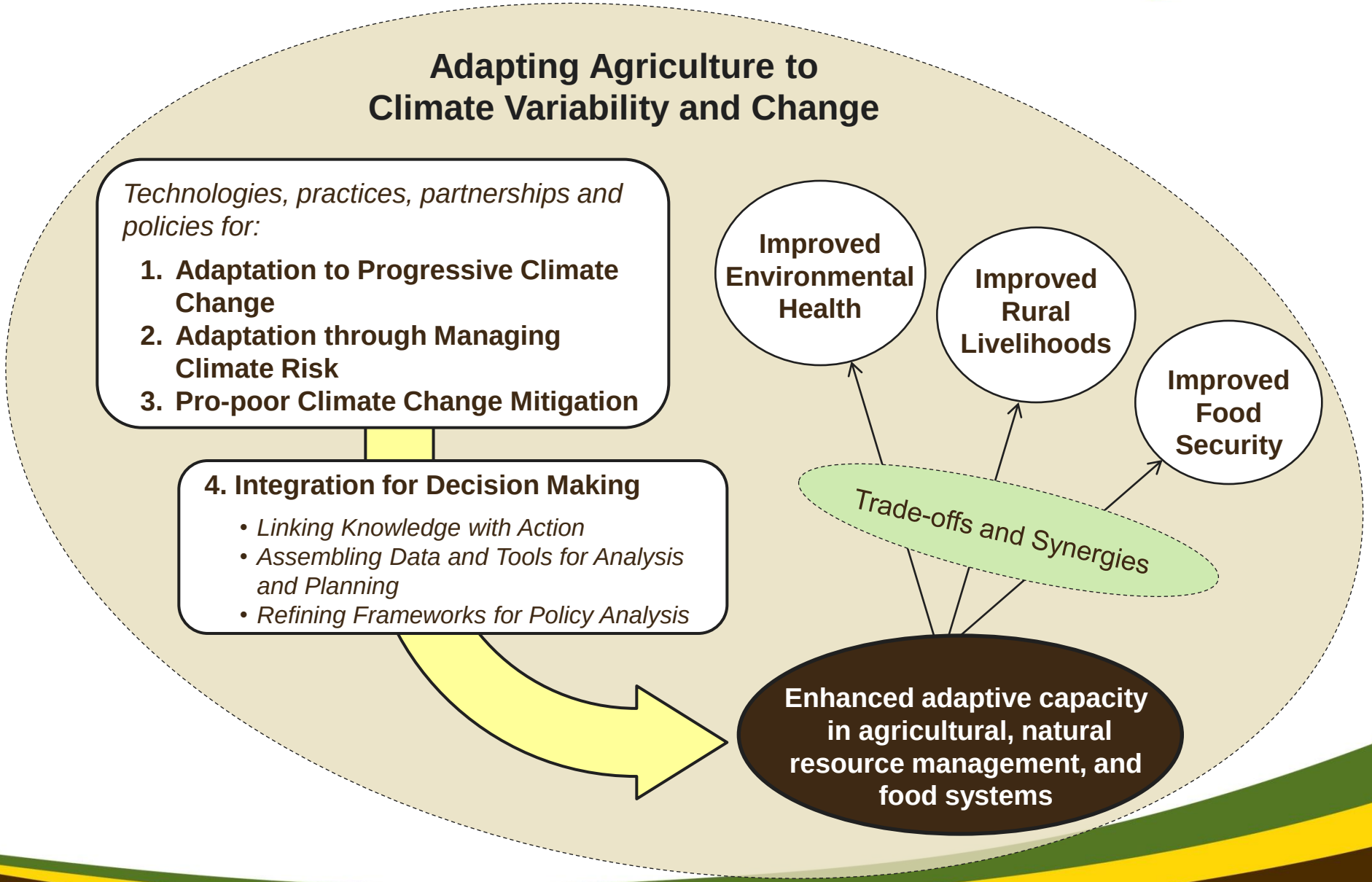


CCAFS objectives

1. Identify and develop **pro-poor adaptation and mitigation practices, technologies and policies** for agriculture and food systems.

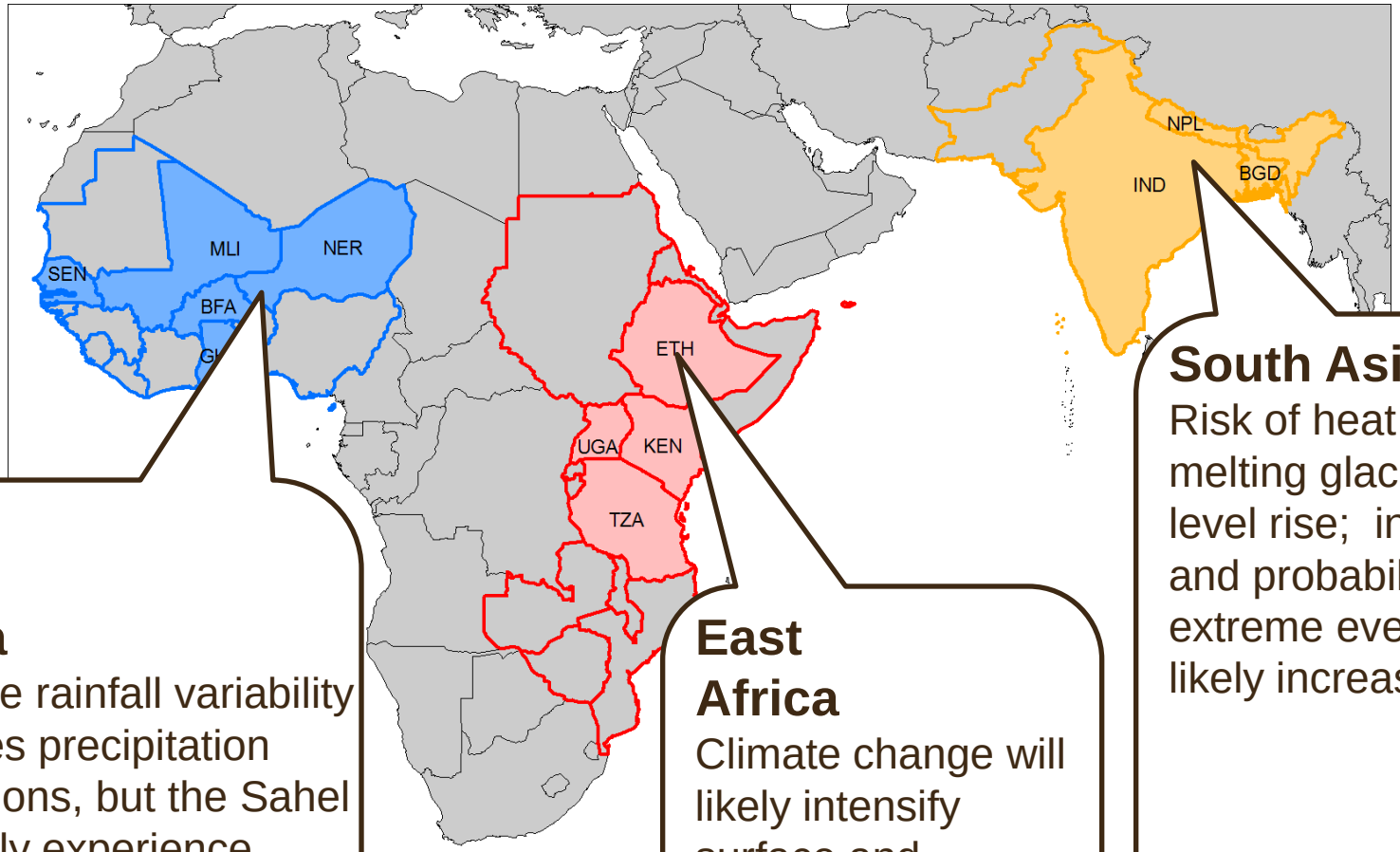
2. Support the inclusion of agricultural issues in **climate change policies**, and of climate issues in **agricultural policies**, at all levels.

The CCAFS Framework



Regional activity (including place-based field work)

SE Asia, Latin America being added in 2012



West Africa

Extreme rainfall variability impedes precipitation predictions, but the Sahel will likely experience shorter growing periods.

East Africa

Climate change will likely intensify surface and groundwater stress

South Asia

Risk of heat stress, melting glaciers, sea level rise; intensity and probability of extreme events will likely increase.

Progressive Adaptation

THE VISION

To adapt farming systems, we need to:

- **Close the production gap** by effectively using current technologies, practices and policies
- **Increase the bar**: develop new ways to increase food production potential
- **Enable policies and institutions,** from the farm to national level

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Adaptation to progressive climate change · 1

Objective One:

Adapted farming systems via integrated technologies, practices, and policies

Objective Two:

Breeding strategies to address abiotic and biotic stresses induced by future climates

Objective Three:

Integrated adaptation strategies inserted into policy and institutional frameworks

Risk Management

THE VISION

- **Climate-related risk impedes development**, leading to chronic poverty and dependency
- **Actions taken now can reduce vulnerability** in the short term and enhance resilience in the long term
- Improving current climate risk management will **reduce obstacles to making future structural adaptations**.

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Managing Climate Risk · 2

Objective One:
Building resilient livelihoods (*Farm level*)

Objective Two:
Food delivery, trade, and crisis response (*Food system level*)

Objective Three:
Enhanced climate information and services

Pro-poor Mitigation

VISION

Short-term: Identifying options **feasible for smallholder mitigation** and trade-offs with other outcomes

Long-term: Addressing conflict between achieving food security and agricultural mitigation

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Pro-poor climate change mitigation · 3

Objective One:

Identify low-carbon agricultural development pathways

Objective Two:

Develop incentives and institutional arrangements

Objective Three:

Develop on-farm technological options for mitigation and research landscape implications

Integration

VISION

- Provide an **analytical and diagnostic framework**, grounded in the policy context
- **Synthesize lessons learned**
- **Effectively engage** with rural stakeholders and decision makers
- **Communicate** likely effects of specific policies and interventions
- **Build partners' capacity**

Integration for Decision Making · 4

Objective One:
Linking knowledge with action

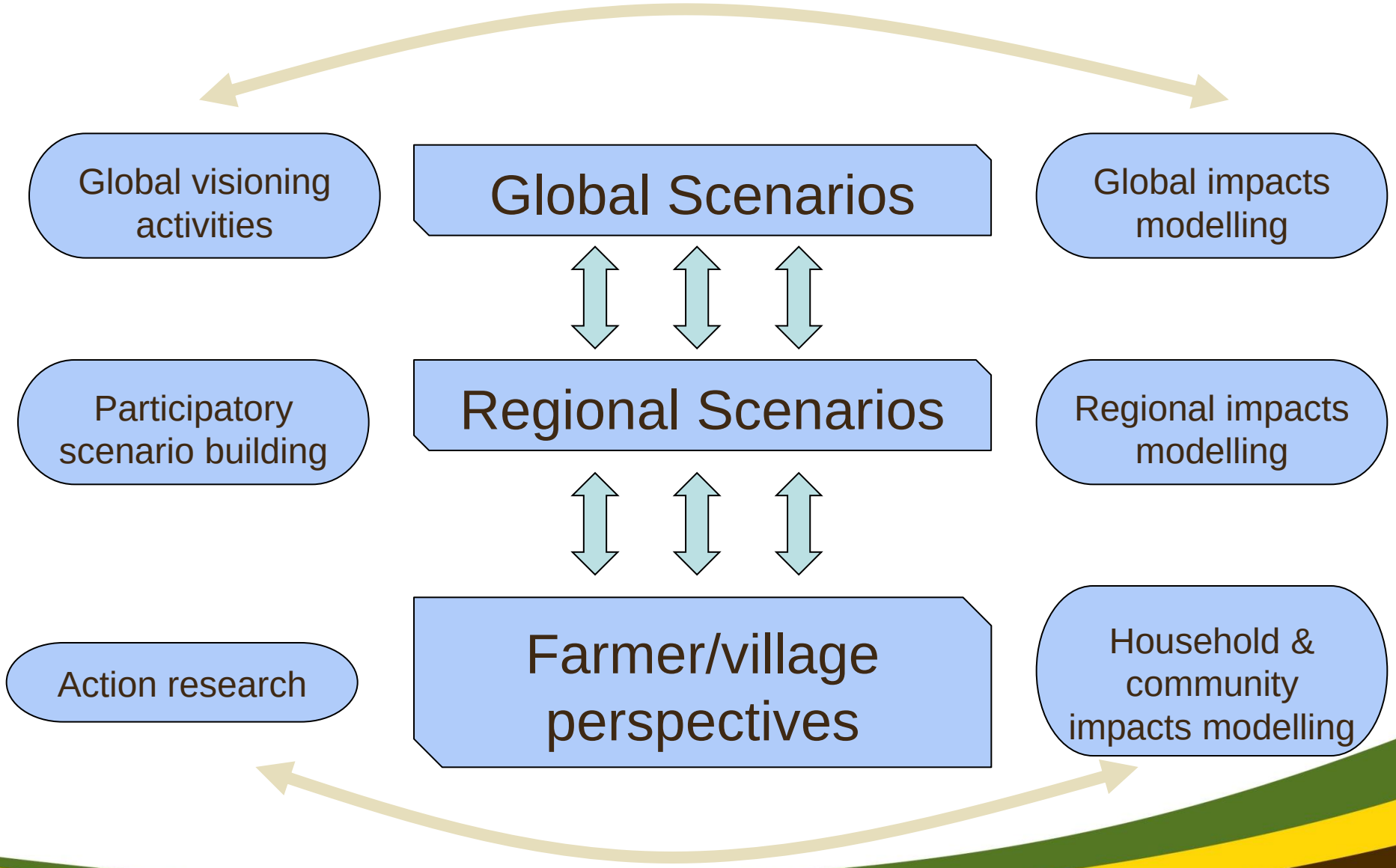
Objective Two:
Data and tools for analysis and planning

Objective Three:
Refining frameworks for policy analysis

Cross-cutting principles

- Building a user-driven agenda (local -> regional -> global)
- Mainstream outputs and outcomes
  - For ***research partners*** to generate useful data, tools, and results
  - For ***policy partners*** to demand and use data, tools, and results
- Capacity enhancement
  - People or organizations **increasing their own ability** to achieve their objectives effectively and efficiently
  - Adaptation requires **embedded local capacity,** not external solutions
  - CCAFS aims to enhance both (a) **research** capacities and (b) capacities to **link knowledge and action**
- Social differentiation
  - Social groups differ in (a) vulnerability to climate change and (b) abilities to respond

Linking research at different levels



Theme 4: 2012-15

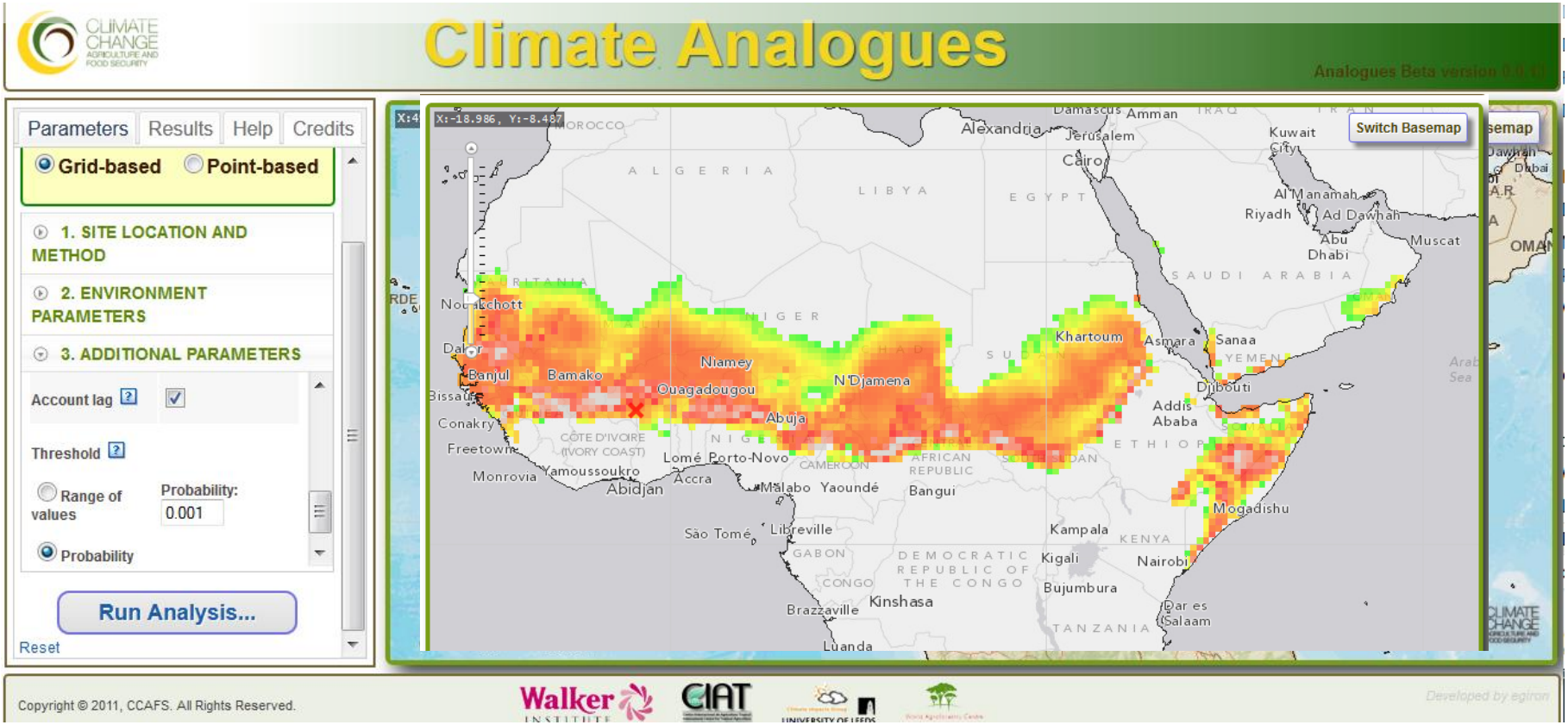
- Partner-led communication & engagement
- Focused initiatives on gender and social differentiation
- Decision aids developed and tested in selected sites that build on information needs of socially-differentiated target groups
- Decision aids and tools utilized for prioritizing adaptation and mitigation actions at sub-national scales

Existing Initiatives

Benefits of an analogue approach

- **Large uncertainties** remain regarding future projections of climate, and their resultant impacts on farming systems, especially at the local level.
- The **adaptive capacity of communities is a factor rarely taken into account in the global/regional models** on which policy makers often rely
- The use of climate analogues for locating future climates today **can ground models in field-based realities**, significantly enhancing our knowledge of adaptation capacity and supporting the identification of appropriate interventions.

Analogue Tool: Finding Tomorrow's agriculture today



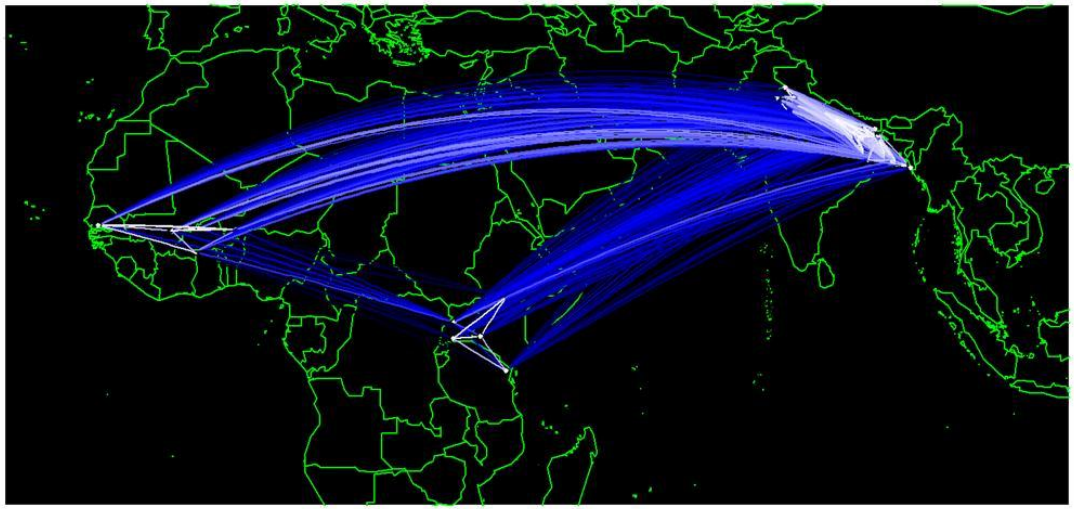
- ✓ Permitting validation of computational models and trialing new technologies
- ✓ Facilitating farmer-to-farmer exchange of knowledge
- ✓ Learning from history

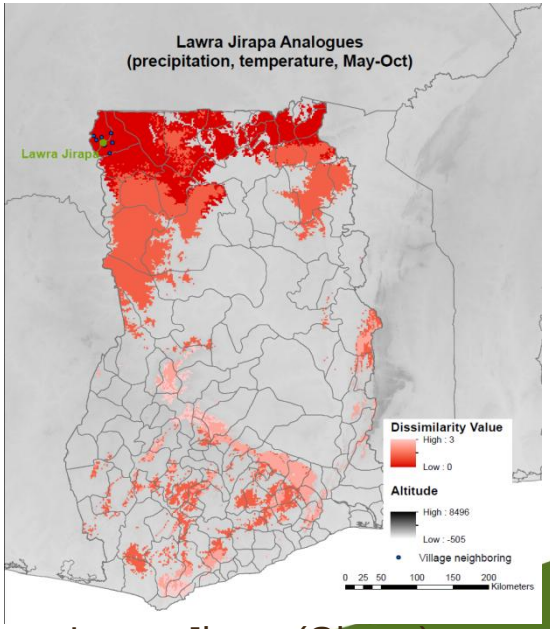
Farms of the future

Taking the analogue concept to the field

➢ Study of farmer's social, cultural and gender specific barriers for enabling behavioral change and improve adaptive capacity.

Farmers' exchanges between climatic analogues locations in the tree CCAFS initial regions (Ghana: Lawra-Jirapa, Tanzania: Lushoto and Nepal: Rupandehi district)





Lawra-Jirapa (Ghana)

Communication & social learning

Review – IDS/IIED discussion paper

Workshop

- Strengths, weaknesses, possibilities of existing approaches/tools
- Identify/prioritize **researchable issues** that CCAFS is best suited to address, itself or through collaboration
- Set out main elements of a **CCAFS strategy** and define priority activities for CCAFS and partners to implement it
- Key pathways of **engagement** with partners, networks and organizations
- Identify potential donors that could be approached to leverage additional funding for this multi-year activity
- Reminder: balance between regions and themes…

Next steps….

What CCAFS brings

- Long-term program and new set-up
- Global brand to help leverage funding
- Access to CGIAR expertise – research, tools, models, impact assessment, etc.
- Global reach of CGIAR – scalability, regions, comparability, partners & linkages, facilities
- CGIAR commitment to producing international public goods, not serving a specific agenda
- CCAFS as a testbed for new approaches
- Amenable to questions you would want to ask

Criteria

- Focus on local / rural
- Social differentiation
- Scalability & potential size of impact
- Probability of success
- Durability
- Communicating uncertainty
- What can CCAFS do directly and what with partners?

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