



Sustainable  
Intensification of  
Mixed Farming Systems

# One CGIAR, Resilient Agrifood Systems Action Area and the Sustainable Intensification of Mixed Farming Systems Initiative

---

Martin Kropff

CGIAR Global Director, Resilient AgriFood Systems (RAFS)

Initiative Planning and Inception Meeting

31 May – 2 June 2022, ILRI Campus, Addis Ababa, Ethiopia.

# Why now?



Sustainable  
Intensification of  
Mixed Farming Systems

- For 50 years, CGIAR has been a leader in agricultural science and innovation for development.
- Our institutions – working independently and together – have produced science that has brought benefits to hundreds of millions of the world's poor.
- But today, we need to
  - improve food and nutrition security
  - increase biodiversity
  - reduce environmental degradation
  - spur economic growth and
  - strengthen resilience in the face of the climate crisis
  - ALL AT ONCE.



# What will change for stakeholders?

- **One focal point** in each country – to engage with partners around all CGIAR activity there
- Easy access to full range of **CGIAR capabilities** through **single entry point**
- Better aligned to **identify joint priorities** and **plan work together**
- New Division devoted to **improving engagement and partnership** at global, regional and country levels
- **Country and regional engagement frameworks** to ensure our work is more relevant and responsive
- Demand-driven: based on **country and region-specific strategies** in support of national /regional priorities

# What is new in the 'One CGIAR'?



Sustainable  
Intensification of  
Mixed Farming Systems



# New 2030 Research and Innovation Strategy

- New approaches to confront food, land and water crises through scaling, action areas, performance measurement
- Fresh portfolio of Initiatives to deliver a new 10-year strategy
- 5 impact areas

## Nutrition, health & food security



## Poverty reduction, livelihoods & jobs



## Gender equality, youth & inclusion



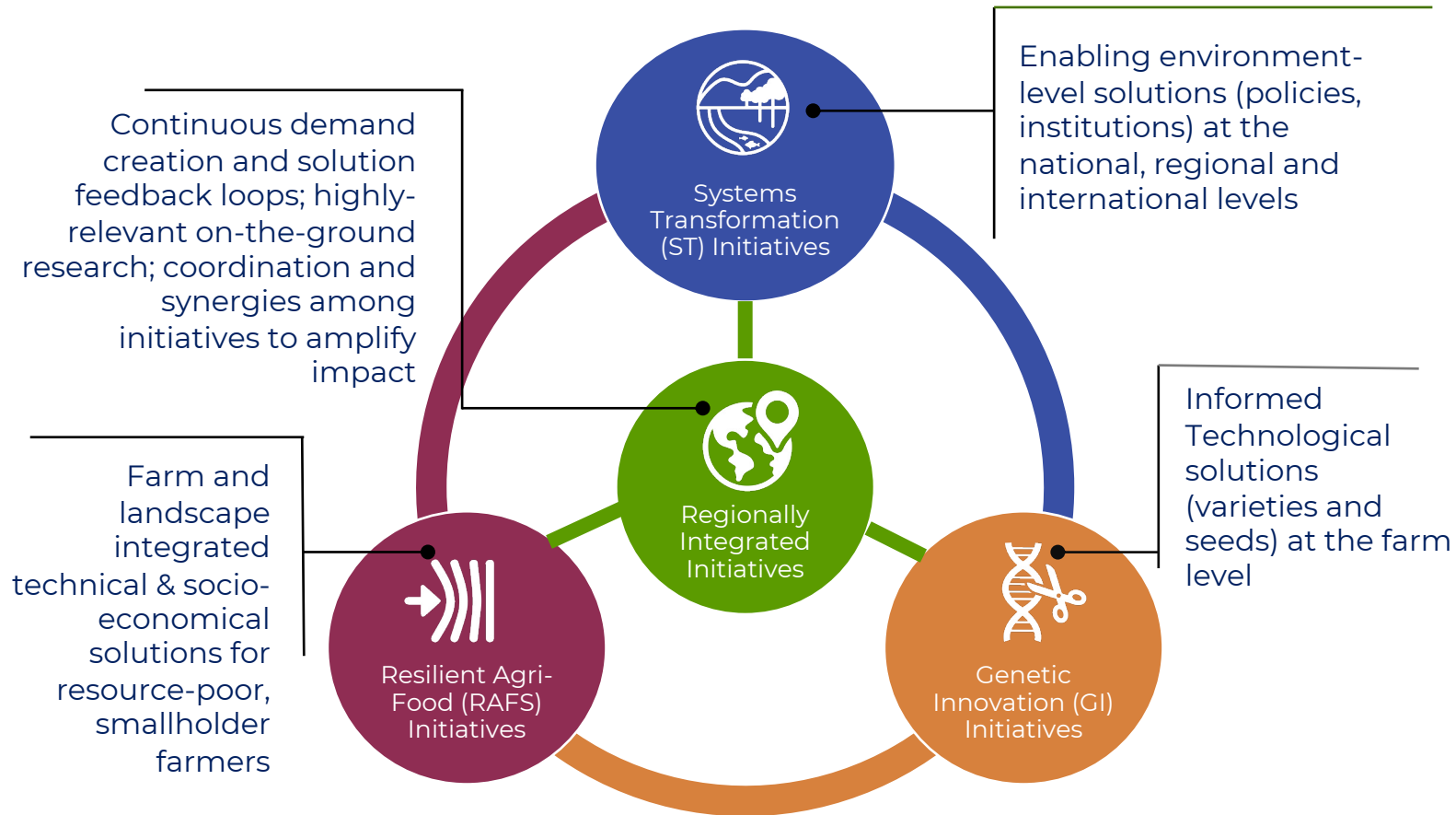
## Climate adaptation & mitigation



## Environmental health & biodiversity



# Science and Regional Groups Deliver Integrated Research and Innovation Solutions



## CGIAR's Impact Areas

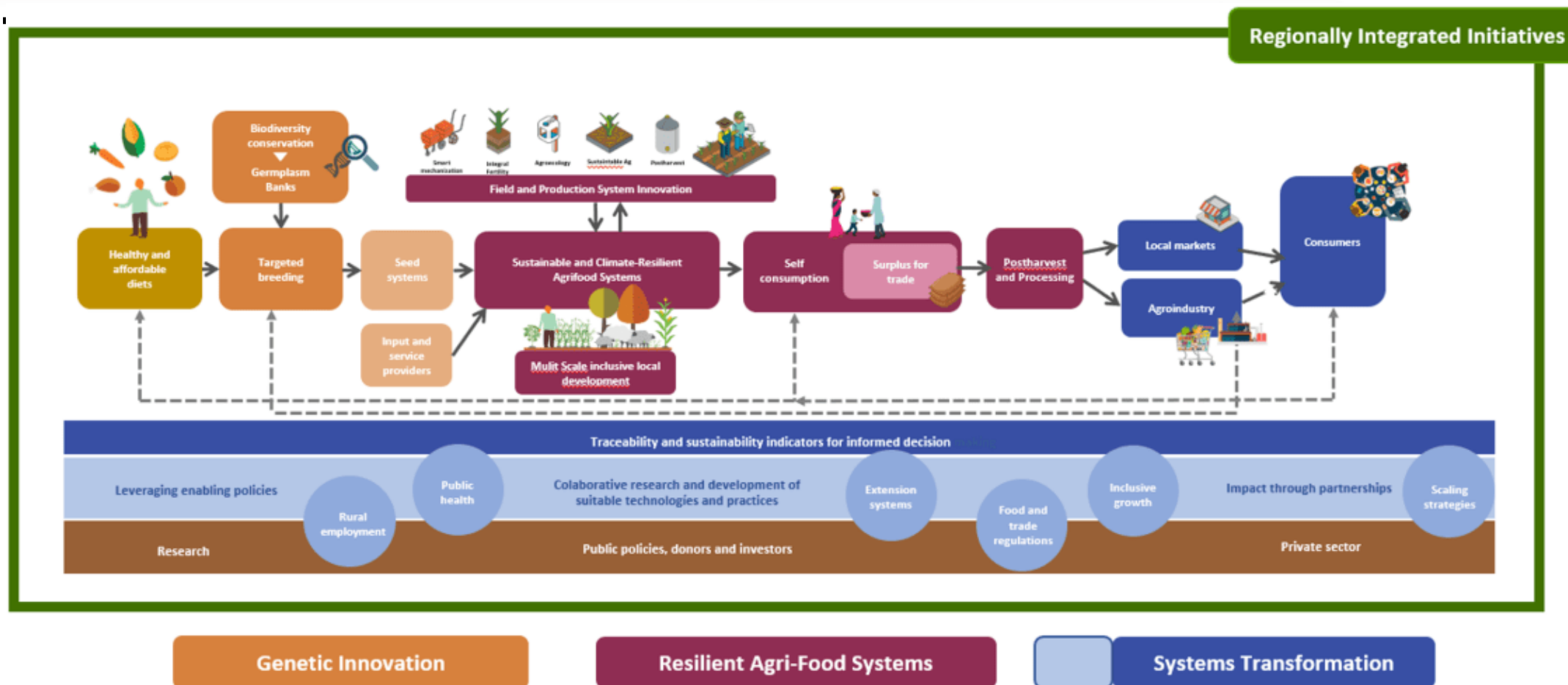
-  Nutrition, Health & Food Security
-  Poverty Reduction, Livelihoods & Jobs
-  Gender Equality, Youth & Social Inclusion
-  Climate Adaptation & Mitigation
-  Environmental Health & Biodiversity



# RAFS: The integrative, cross-disciplinary science group for CGIAR's research on agri-



Sustainable Intensification of Mixed Farming Systems



Global thematic initiatives respond to demand from Regionally Integrated Initiatives (RIIs); at the same time, RIIs adapt, apply, and amplify the outcomes of CGIAR research with regions and countries.

# Resilient Agri-Food Systems

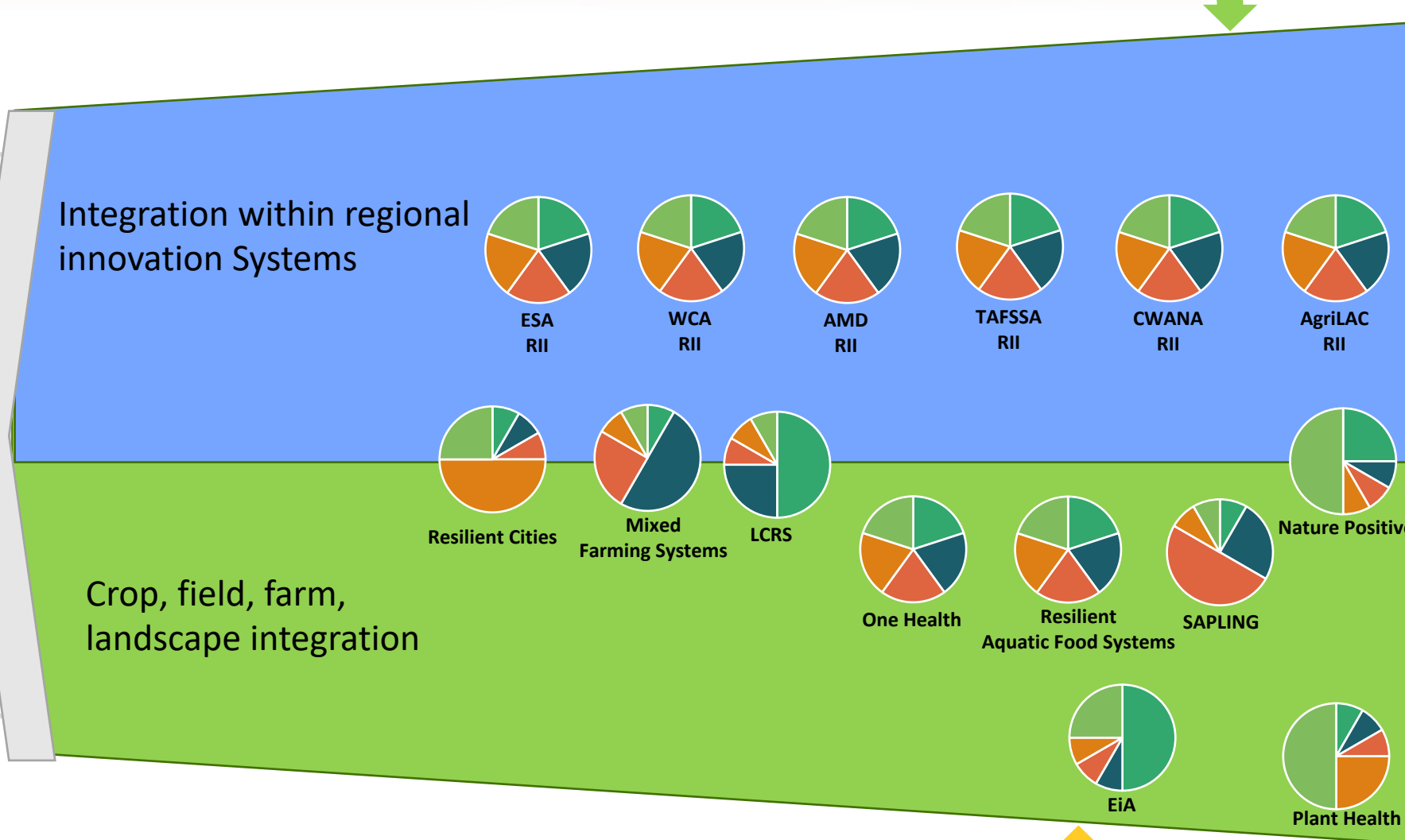
## Integration at different levels

ST promoted  
enabling  
environment



Sustainable  
Intensification of  
Mixed Farming Systems

- Nutrition, Health & Food Security
- Poverty Reduction, Livelihoods & Jobs
- Gender Equality, Youth & Social Inclusion
- Climate Adaptation & Mitigation
- Environmental Health & Biodiversity



GI varieties  
and seed



# Regionally Integrated Initiatives



Sustainable  
Intensification of  
Mixed Farming Systems

**LAC:** Resilient and sustainable LAC agrifood systems: Driving global food security, inclusive growth and reduced out-migration

**WCA:** Market-driven, resilient and nutritious agrifood systems in the humid zones of West and Central Africa (WCA)

**CWANA:** From fragility to resilience in Central and West Asia and North Africa (F2R-CWANA): Transforming responses to drought and climate variability

**ESA:** Ukama Ustawi (U2) water-secure and climate-resilient agricultural livelihoods in East and Southern Africa (ESA)

**SEA:** Securing the Asian mega-deltas against sea-level rise, flooding, salinization and water insecurity

**SA:** Transforming agrifood systems in South Asia (TAFSSA)



Nutrition, Health & Food Security



Poverty Reduction, Livelihoods & Jobs



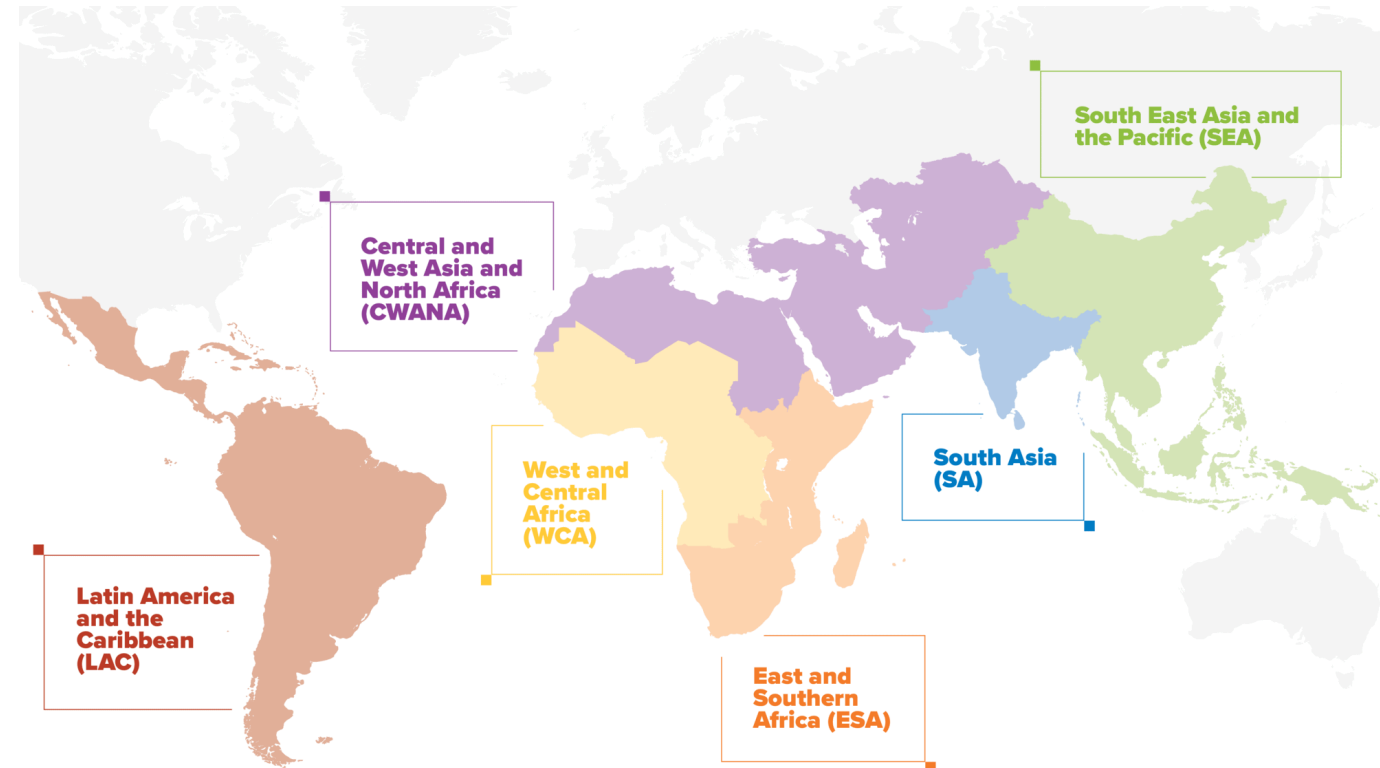
Gender Equality, Youth & Social Inclusion



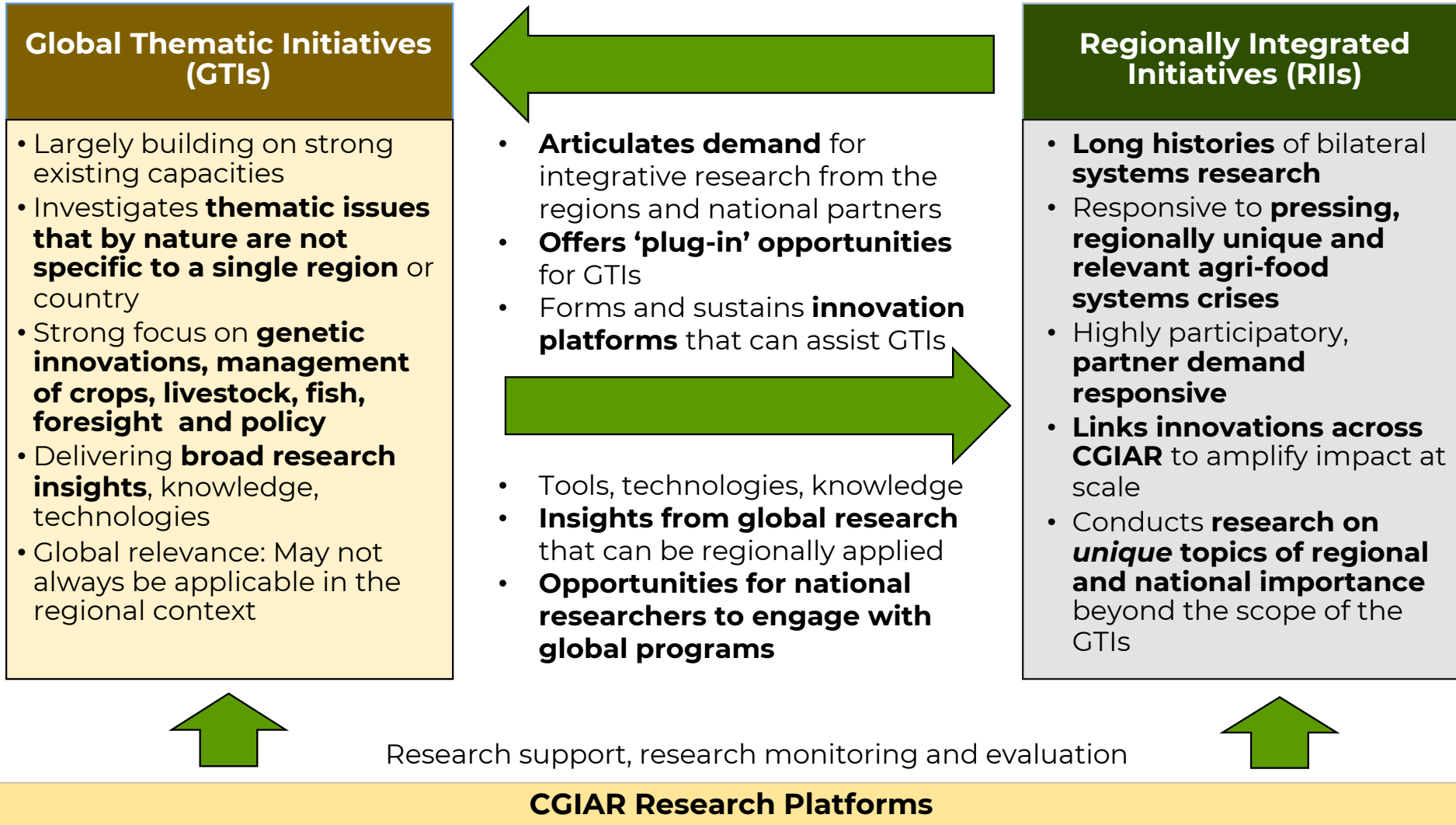
Climate Adaptation & Mitigation



Environmental Health & Biodiversity



# Structure of CGIAR's Initiative Portfolio



# How is duplication avoided, and how are synergies achieved?



Sustainable  
Intensification of  
Mixed Farming Systems

## COORDINATION

By the RAFS Science Group and led by a Principal and Co-Principal Investigator with strong systems science and collaboration credentials, supported by Regional Directors and Country Conveners (Task Force)

## COMMUNICATION

Regular coordination meetings across the Science Groups and with GE&I

## SYNERGIES

Within regions and countries, cross-initiative scientific and technical coordination is addressed by Science Group Regional and Country Leads

## PARTNERSHIP

Regional Directors and their country teams (a) facilitate partner engagement and operations, (b) flag risks of duplication, and (c) aid in priority setting

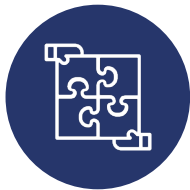
## ACCOUNTABILITY

GTI and RII leads accountable for cooperative planning, implementation

## ADAPTIVE MANAGEMENT

Inception period learning, adjustments, and fine-tuning

## This assures



Internal and external scientific synergies



Internal portfolio coherence: coordination between RIIs and global thematic initiatives



External portfolio coherence: Alignment with partners' demand



Maximization of research investments and partnerships

Specific roles and responsibilities finalized by Q22022

# The Regional Integrated Initiatives will:



Sustainable  
Intensification of  
Mixed Farming Systems



Assure responsiveness  
to partner demand



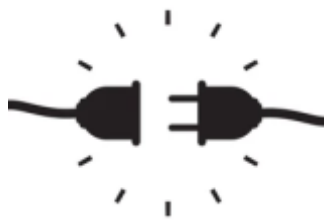
Ensure accountability  
and relevance to  
national demands



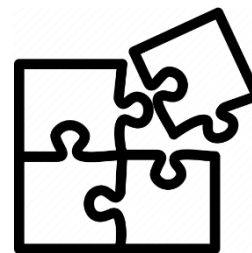
Provide coordination  
and cohesion among  
the initiative portfolio



Apply, test, provide  
feedback on relevance  
of global initiative  
innovations



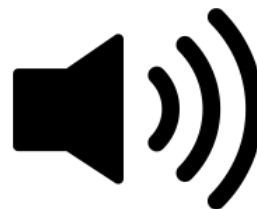
Offer 'plug-in'  
opportunities for global  
initiatives



Maximize cross-portfolio  
synergies

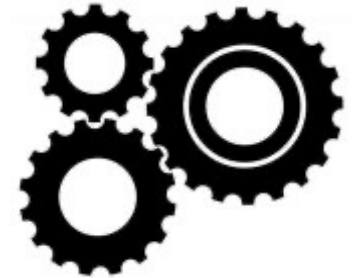


Maintain, build-on and  
launch established and  
new regional  
partnerships



Amplify impact  
potential

Align research efforts



Multiply development impact

# Emerging and Evolving Conditions/ Landscape

## THE 'PERFECT' STORM IN AFRICA AND SOUTH ASIA

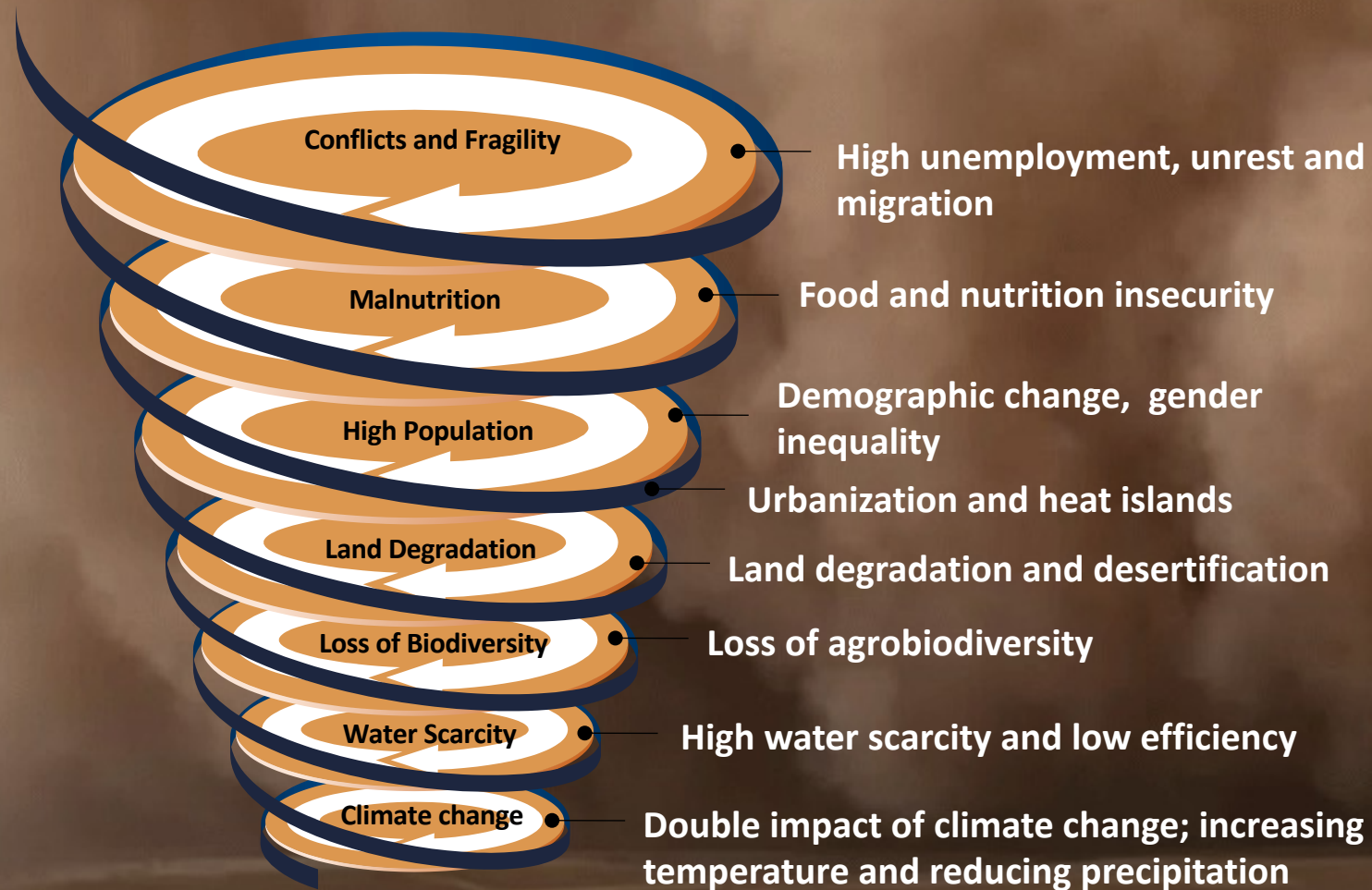
- Number of hungry people now: **700+ mln.**
    - Located mainly in SA and SSA
  - **2 billion more people** in 2050 mainly in SA and SSA
  - Climate change reducing yields, especially in SA and SSA
    - Drought
    - Heat
- + COVID
  - + Ukraine war !!!
    - Food Prices
    - Fertilizer cost
    - Energy cost



# THE PERFECT STORM



BY 2030



But with only nine harvests left, we need to move fast to accomplish our vision of thriving and resilient dryland livelihoods



Sustainable  
Intensification of  
Mixed Farming Systems

# **Sustainable Intensification of Mixed Farming Systems Initiative (SI-MFS)**

# SI-MFS: General description

Systems approaches form the backbone of this initiative to:

- i) understand the diversity of farming systems and their multi-functional ability to interact across crop-livestock components, and
- ii) develop, adapt and scale sustainable intensification options suitable to mixed farming systems across a wide range of agro-ecologies.

The interdisciplinary nature of the SI-MFS, and the importance given to capacity development, offers the opportunity to develop adapted solutions with gender transformative approaches that consider the system as whole for improved resource use efficiency and better social inclusion and equity at different levels within agri-food systems.

It conducts activities at different scales, from the field, farm, landscape, country and regional levels, in close collaboration with multiple relevant actors to co-develop, adapt and support scaling of sustainable intensification options for mixed farming systems.

Participatory approaches coupled with prioritization and validation of socio-technical SI innovation packages, systems analysis and modelling, together with an important focus on capacity development play a central role in the core activities of the SI-MFS initiative.



# SI-MFS: Key aspects/ elements



Crop-livestock  
integration



Sustainable  
intensification



Multi-criteria  
assessment



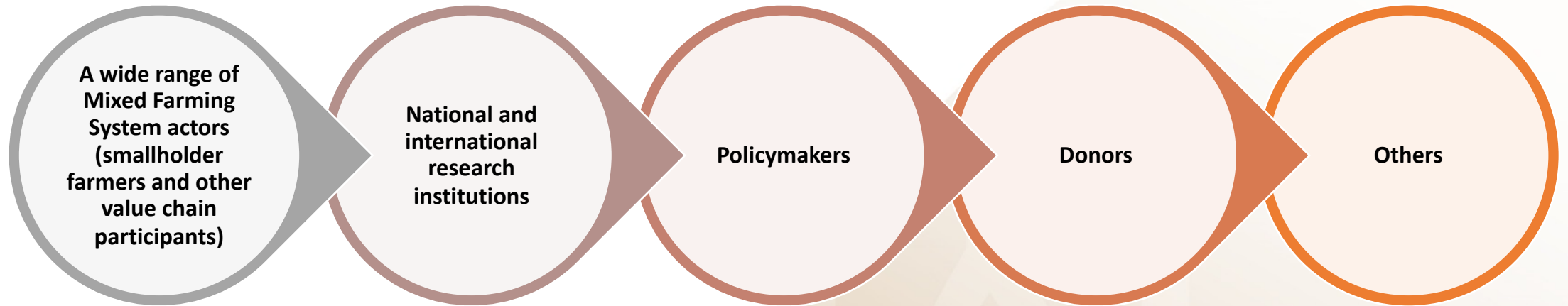
Resilience



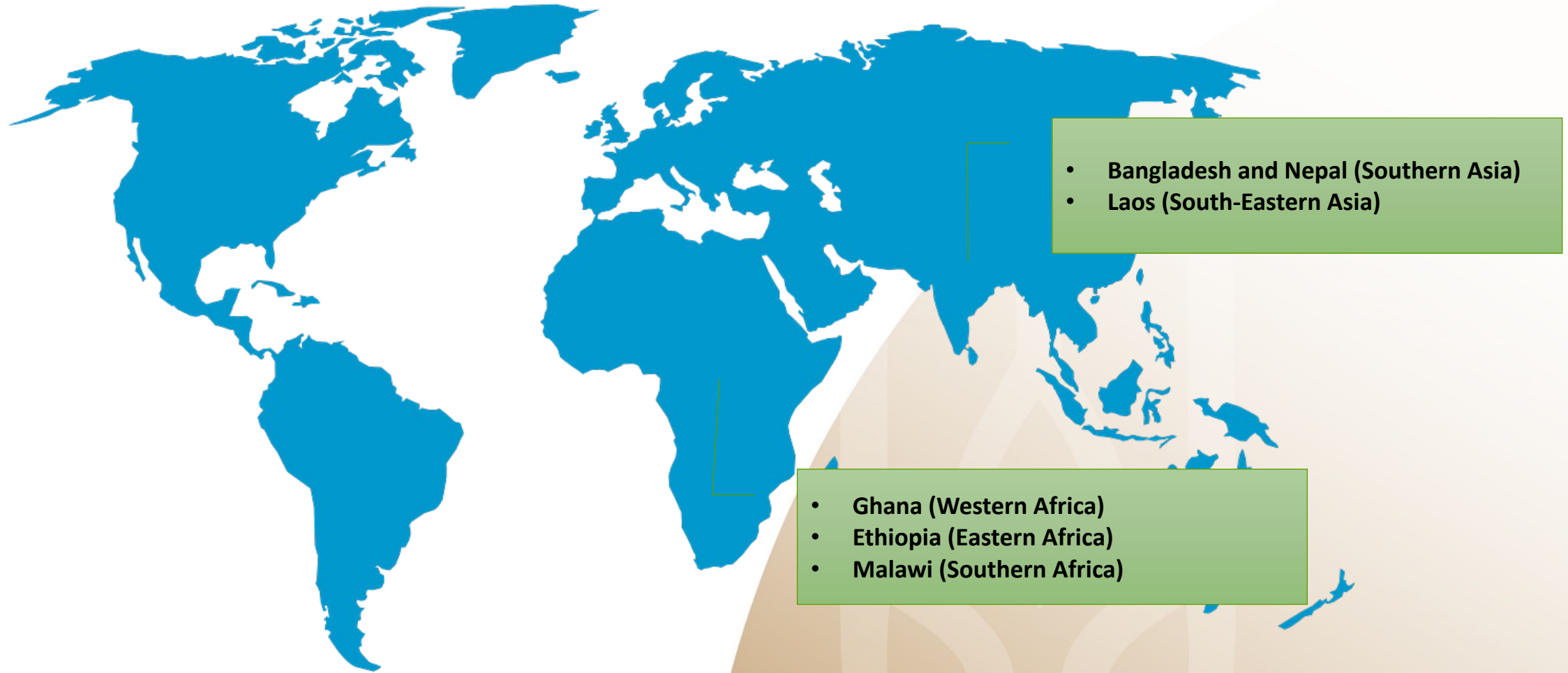
Food security



# SI-MFS: Beneficiaries



# SI-MFS: List countries where this work will take place



- Bangladesh and Nepal (Southern Asia)
- Laos (South-Eastern Asia)

- Ghana (Western Africa)
- Ethiopia (Eastern Africa)
- Malawi (Southern Africa)





Sustainable  
Intensification of  
Mixed Farming Systems

**Thank you**

