

# Ghana planning and implementation progress report for the CGIAR Initiative on Sustainable Intensification of Mixed Farming Systems

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The [Sustainable Intensification of Mixed Farming Systems Initiative](#) aims to provide equitable, transformative pathways for improved livelihoods of actors in mixed farming systems through sustainable intensification within target agroecologies and socio-economic settings.

Through action research and development partnerships, the Initiative will improve smallholder farmers' resilience to weather-induced shocks, provide a more stable income and significant benefits in welfare, and enhance social justice and inclusion for 13 million people by 2030.


Activities will be implemented in six focus countries globally representing diverse mixed farming systems as follows: Ghana (cereal–root crop mixed), Ethiopia (highland mixed), Malawi: (maize mixed), Bangladesh (rice mixed), Nepal (highland mixed), and Lao People's Democratic Republic (upland intensive mixed/ highland extensive mixed).

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## Abbreviations and acronyms

<b>ABC</b>	<b>Alliance of Bioversity International and CIAT</b>
<b>Africa RISING</b>	Africa Research in Sustainable Intensification for the Next Generation
<b>CAAFS</b>	CGIAR Research Program on Climate Change, Agriculture, and Food Security
<b>DEED cycle</b>	Describe, Explain, Explore, and Design cycle
<b>GDP</b>	Gross Domestic Product
<b>ICARDA</b>	International Center for Agricultural Research in the Dry Areas
<b>IITA</b>	International Institute of Tropical Agriculture
<b>ILRI</b>	International Livestock Research Institute
<b>IRRI</b>	International Rice Research Institute
<b>IWMI</b>	International Water Management Institute
<b>MELIA</b>	Monitoring, Evaluation, Learning, and Impact Assessment
<b>MFS</b>	Mixed Farming Systems
<b>MoA</b>	Ministry of Agriculture
<b>NGOs</b>	Non-governmental organizations
<b>SI</b>	Sustainable intensification
<b>SI-MFS</b>	Sustainable Intensification of Mixed Farming Systems Initiative
<b>SIAF</b>	Sustainable Intensification Assessment Framework
<b>WP</b>	Work Package

## **Overview**

This report captures key outputs, and follow-up actions since the Ghana Country Planning and Inception Meeting for the Sustainable Intensification of Mixed farming Systems Initiative was held in Accra, Ghana, on 12 July 2022. Various partners have been engaged in the Initiative in Ghana so far, including the National Agricultural Research and Extension Systems (NARES), Universities, and National governments/ agricultural administrations (See participants list in Annex).

## Highlights

- 1** A critical review, assessment, and collaborative refinement of proposed activities and implementation sites for the Sustainable Intensification of Mixed Farming Systems Initiative in Ghana was done by participants.
- 2** Potential partnerships to fast-track Initiative implementation were identified.
- 3** Key stakeholders from the National Agricultural Research and Extension Systems (NARES), Universities, and National governments were sensitized about the Initiative and its work packages.

# The planning and inception workshop

## Objectives

**Create a shared understanding of the Initiative amongst implementing institutions.**

**Discuss and agree on important Initiative-wide implementation arrangements necessary to achieve set out goals at both work package and in-country levels across collaborating entities.**

**Lay the groundwork for implementing the One CGIAR Sustainable Intensification of Mixed Farming Systems Initiative activities in Ghana.**

**Discuss, agree, and confirm activities related to the Initiative Gantt chart, and plan out roles and responsibilities regarding contributing members for each work package among the different entities.**

**Clarify partner/team member roles and responsibilities.**

## Welcome and opening remarks

To kick-start the meeting, welcome, and opening remarks were given by IITA West Africa Hub Director, Prof. Michael Abberton; CSIR Director for Crops Research Institute, Dr. Brandford Mochiah; and CGIAR Ghana Country Convener, Dr. Olufunke Cofie. See below summary of their remarks.

### ***Prof. Michael Abberton, IITA West Africa Hub Director***

- Welcome to the planning and inception meeting of the Sustainable Intensification of Mixed Farming Systems Initiative in Ghana.
- The Initiative aims to provide equitable and gender-transformative approaches to improve the livelihoods of smallholder farmers who engage in mixed farming systems worldwide and in six countries, including Ghana.
- The potential for this Initiative to contribute to Ghana's national goals on food security, nutrition, health, and sustainability is quite promising, given the current partnerships that the Initiative will engage.
- The Initiative is also well positioned to inform policy and program decisions, not only by the government but also by diverse food systems actors who seek to promote better food security, nutrition, health, and sustainably.
- This Initiative will build on evidence already generated by successful projects implemented in Ghana, such as Africa RISING, N2 Africa, and CCAFS, whose partnerships have been essential to the delivery and success of these projects.

***Prof. Brandford Mochiah, Director CSIR Crops Research Institute***

- I am pleased to welcome all stakeholders to this meeting, where we will begin planning to implement the Sustainable Intensification of Mixed Farming Systems Initiative.
- For colleagues from outside Ghana, I also welcome you to the country.
- My Initial remark is that as Ghanaians, we are fortunate to have many activities coming for implementation here. We, therefore, need to be ready to work and implement them successfully for the benefit of our farmers.
- Our agriculture systems are strained in Ghana (and across the globe). We have systems that have been predominantly heavy on extensive production. At the same time, the vital resources (e.g., land, water, etc.) for production are also quite limited. We must therefore change how we produce food. This affirms why we need this Initiative on Sustainable Intensification.
- As part of this Initiative, we are happy with the prospect of creating a mutual understanding among the implementing institution. This project is expected to significantly contribute to the livelihoods of Ghanaian farmers and other actors.
- The capacity development opportunities embedded in this project will also facilitate the dissemination of environmentally friendly technologies.
- This project, therefore, aligns very well with the priorities set by the government of Ghana.

***Dr. Cofie Olufunke, CGIAR Ghana Country Convenor***

- Welcome to the planning and inception meeting of the Sustainable Intensification of Mixed Farming Systems Initiative. This is one of the 32 initiatives presently implemented by CGIAR globally.
- The CGIAR Centers are coming together under One CGIAR to strengthen the work we have been doing in the more than 70 countries where we work.
- In Ghana, this Initiative is one of about ten other Initiatives that are going on, and we will be hearing more about that later. The plan is to, at some point, hold a joint event where stakeholders will learn about all these Initiatives being implemented in Ghana.
- We are delighted to see that as the stakeholders of agricultural research and development in the country, you have joined us today for this meeting.



# Sustainable Intensification of Mixed Farming Systems: An overview presentation

Presenter: Fred Kizito, ABC/IITA

Download presentation here: <https://bit.ly/3BxBUpd>

- This is a global initiative by the CGIAR, implemented in six countries – three in Africa (Ethiopia, Ghana, and Malawi) and in Asia (Bangladesh, Laos, and Nepal).
- In Ghana, our focus will be on the cereal-root crops mixed farming systems.
- The development of the Initiative portfolio has received some important input from the national partners since October 2021. Many of you in this room contributed to that process and effort. So, thank you for giving support to this Initiative.
- In Ghana, the Initiative activities will build mainly on the achievements of Africa RISING. Still, I must also note that this success would not have been possible if we didn't have strong national partners working with the international institutions. I hope that we can continue working in that way.
- It has taken more than a year to develop this Initiative. We, therefore, don't expect that with only a couple of presentations today, you will be able to understand all aspects of this Initiative. However, we hope this process will jumpstart, trigger, and demystify this Initiative for you!
- Another goal of this meeting is for each of us to start identifying where you (and the institutions you represent) can make an early contribution to the proposed work in Ghana, considering your institution's comparative advantage. So, this meeting is a start, but we will have a couple of follow-up meetings with various partners in Ghana after this one.
- The Initiative will apply a systems research approach to bring the different components of mixed farming systems together. Sustainable intensification is the ability to produce more food from the same piece of land and look at the technology's social, economic, environmental, and human aspects.
- The site selection within this Initiative was based on agroecology that straddles the different countries to ensure that the validated technological innovations could be applicable in other places with similar agroecological characteristics.
- Some sites have therefore been proposed from Ghana, but these are not set in stone, and through this meeting, we hope to get feedback from you and if you think others should be added.
- A key element for how we will implement the planned activities is to ensure that partners integrate the proposed activities with what other colleagues are implementing and generally avoid compartmentalized working. Closely related is the emphasis that we would like to co-locate these activities for easier coordination and maximized impact.
- The Initiative has five work packages: WP 1: Status, trends, and future dynamics of MFS; WP 2: Building methods and tools (M&T) for SI of MFS; WP 3: Participatory co-design of MFS with evidence-based, validated SI innovation packages; WP 4: Advancing and supporting scaling of innovations; and WP 5: Capacity building for MFS design and analyses.

- We hope that on 28 – 29 July, we shall have a virtual meeting where each partner can share a list of activities we can integrate into the initiative workplan in Ghana.

### **Comments and responses**

*Comment: Livestock is very integral in the systems thinking approach. However, the seven cropping systems you presented for various countries – are generally silent about livestock components.*

Response: We're working very hard to ensure the livestock work is in the Initiative. When I use the term mixed, I refer to a crop-livestock integrated mixed system. We have a very able team led by ILRI in the Initiative who will also contribute specialty in livestock husbandry. A key element of livestock is that they contribute to climate change mitigation which is quite crucial. Our work packages 2 and 3 feature livestock work quite prominently.

*Comment: You mentioned policy, but it is not mentioned amongst presentations as something that needs to be discussed more closely.*

Response: Policy would be important, which will be tackled appropriately by work package four, focusing on government, institutions, and policy. We have the agriculture sector, a working group.

*Comment: You mentioned that each work package already has a technical lead. How will this be coordinated?*

Response: Yes, each work package will have a technical lead. However, the focal persons mentioned by Fred will mainly play a facilitation role within the Initiative.

Response (additional): At the country level, there will be two focal points – Nurudeen and Powell. However, there will be global, and country-based leads at the work package level. For example, our colleague Francis Muthoni leads Work Package 1 globally. At this meeting, he will be listening in and engaging with the team members at the local level based on the known competence of each partner and the proposed activities. Something else that is equally crucial to note is that this is the first meeting, so the global work package leads are in place, however at the country level (amongst yourselves as partners), you will also be expected to nominate who will lead each of the work packages for the Ghana work. This individual will therefore be a liaison between what goes on at the country and global levels.

*Comment (Dr. Cofie): Many initiatives are coming to operate in Ghana, and we will seek an opportunity to present them to Ghanaian stakeholders.*

*Comment (Dr. Kizito): In addition to Dr. Funke's point, I would also like to clarify that although I presented a map that only represented activities to be in northern Ghana, we shall not be missing out on some work in the transition zone as well. So again, this is a very good thing that partners are here. Feel free. It is time for us*

*to look at the activities based on our knowledge of the agricultural landscape in Ghana.*

## Unpacking the work packages



Participants were introduced to the five work packages of the Sustainable Intensification of mixed farming Systems Initiative through a bus stop process poster session. This section highlights the posters presented for each work package and some of the participants' comments at each stop.

# Work Package 1: Status, trends, and future dynamics of mixed farming systems

Presenter: Francis Muthoni, IITA

Download the poster here: <https://bit.ly/3BATrNz>

## Sustainable Intensification of Mixed Farming Systems

Sustainable Intensification of Mixed Farming Systems

### Work Package 1: Status, trends and future dynamics of MFS

Work Package Leader: Francis Muthoni (f.muthoni@cgiar.org)

**Work Package focus and prioritization**

- Characterize the status, trends, and future dynamics of the MFS regionally and globally
- Identify drivers of change in MFS
- Identify the entry points for socio-technical SI innovation practices to mitigate negative impacts of change
- Identify gender transformative SI strategies and approaches that enhance equity and social inclusion within MFS

**WP Research Questions**

**Key Demand, Innovation and Scaling partners**

Demand and scaling partners	Innovation partners
<ul style="list-style-type: none"> <li>• Regional and international organizations: 09-FAO, 1078-FARA, 194-ECOWAS, 1089-African Union, 862-ASEAN, 144-ASARECA, 2005-SAC</li> <li>• National governments: ministries of agriculture, food, planning, environment, rural development</li> <li>• Donors: e.g. 156-USAID, 154-BMGF, 285-IFAD, 218-European Union, 1407-GIZ, development banks</li> <li>• 1-WENR, 218-IASA, 156-USAID Innovation Labs, CGIAR Initiatives and Centers</li> <li>• International research institutions including CGIAR</li> <li>• International private sector entities: e.g. 190-Bayer Crop Science, 1658-Syngenta Foundation for Sustainable Agriculture, 5316-The Coca-Cola Foundation</li> </ul>	<ul style="list-style-type: none"> <li>• CGIAR Initiatives and Centers</li> <li>• International agricultural research institutions including 1-WENR and 218-IASA</li> <li>• 156-USAID Innovation Labs</li> <li>• NARES</li> </ul>

**Linkages to other WPs of SI-MFS**

- **WP1** will provide empirical settings, demand specification and data for devt. and application of M&T in **WP2**
- **WP1** will apply methods and tools (M&T) developed in **WP2** to characterization and foresight of MFS
- Evidence generated by **WP1** on system drivers, constraints and opportunities in MFS, will be applied for context-specific targeting of SI bundles in **WP3** and to guide scaling of SI innovations in **WP4**.
- Knowledge gaps identified in **WP1** will be help assessment of capacity development needs for global actors and guide their investment in capacity building on MFS in **WPs**

**Participating Entities**

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Some of the key issues emerging were:


- Partners from CSIR-SARI noted that they could contribute some data to the activity on the production of a synthesis report on the status of the cereal-root mixed farming system.
- We also discussed site selection with some partners involved in WP 3. This was noted because additional, more elaborate objectives and criteria were needed.
- Characterization of the changes and trends that are going on in the livestock value chain was also raised as a possible activity to focus on by the WP team.

# Work Package 2: Building methods and tools (M&T) for SI of MFS

Presenter: Powell Mponela, ABC

Download the poster here: <https://bit.ly/3QBr31Y>

## Sustainable Intensification of Mixed Farming Systems



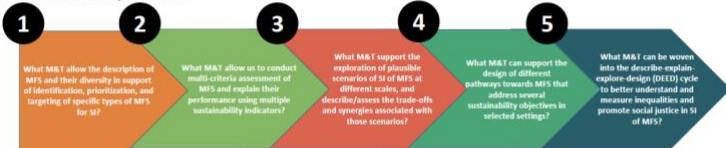
Sustainable Intensification of Mixed Farming Systems

**Work Package 2: Building methods and tools (M&T) for SI of MFS**  
 Work Package Leader: Santiago Lopez-Ridaura (s.l.ridaura@cgiar.org)

**Work Package focus and prioritization**

- WP2 develops, adapts, and applies new and existing M&T for the analysis of current mixed farming systems (MFS), and the design of more intensified and sustainable systems.
- The set of M&T developed in WP2 supports decisions on what kind of sustainable intensification (SI) might work where, and for whom, in specific contexts.
- Quantitative, qualitative, and mixed M&T provide the basis for prioritization, foresight, targeting, and implementation of SI innovation packages in the process of co-designing sustainably and equitably intensified MFS in specific agro-ecological and socio-economic settings.

**WP Research Questions**



- 1** What M&T allow the description of MFS and their diversity to support identification, prioritization, and targeting of specific types of MFS for SI?
- 2** What M&T allow us to conduct multi-criteria assessment of MFS and explain their performance using multiple sustainability indicators?
- 3** What M&T support the exploration of plausible scenarios of SI of MFS at different scales, and describe/assess the trade-offs and synergies associated with these scenarios?
- 4** What M&T can support the design of different pathways towards MFS that address several sustainability objectives in selected settings?
- 5** What M&T can be woven into the describe-explain-explore-design (DEED) cycle to better understand and measure inequalities and promote social justice in SI of MFS?


**Key Demand, Innovation and Scaling partners**

Demand partners	Innovation partners	Scaling partners
<ul style="list-style-type: none"> <li>• Donors: e.g., 156-USAID, 1354-ACIAR, 125-World Bank, 285-IFAD, 69-FAO, 154-BMGF, 1407-GIZ</li> <li>• NARES</li> <li>• Local development agencies, departments, ministries</li> <li>• Local and international NGOs: e.g., 3174-Helvetas, 111-CRS</li> <li>• Private sector: e.g., local input/output dealers, value chain actors</li> </ul>	<ul style="list-style-type: none"> <li>• IARCs: e.g., 1-WUR, 1398-Cornell University, 1270-CIRAD, 145-IRD, 218-IIASA, 433-INRA</li> <li>• 156-USAID Innovation Labs</li> <li>• CGIAR Initiatives and Centers</li> <li>• NARES</li> </ul>	<ul style="list-style-type: none"> <li>• NARES</li> <li>• Local NGOs</li> <li>• Farmer groups</li> <li>• Local governments</li> </ul>


**Linkages to other WPs of SI-MFS and other initiatives**

- M&T will be used through capacity development (WPS) supporting the co-design of MFS (WP3) and their scaling (WP4) in specific cases.
- The M&T developed, and their application in case studies of MFS in different regions, allow mainstreaming of both SI of MFS, and the M&T (WP1).
- Interactions with other RAFA, ST, and RII Initiatives will be formalized, as innovation platforms, knowledge hubs, and learning modules are used to adapt, develop, and apply M&T and integrate local and disciplinary knowledge into a systems perspective to address the main challenges faced by SI of MFS.


**Participating Entities**




ICARDA  
Science for resilient livelihoods in dry areas




IITA  
International Institute of Tropical Agriculture




IRRI  
International Rice Research Institute




IWM  
International Water Management Institute



ILRI  
International Livestock Research Institute



Alliance



CIAT  
International Center for Tropical Agriculture

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- Key questions arising from the round table discussions with partners:
- There was a question from several participants regarding how the SI tools will be developed, who is bringing them, and what these tools are. At what point will the tools be available to the work packages?
  - There was also a proposal/suggestion to develop and have innovation platforms.
  - A suggested activity should also focus on the middlemen in the livestock production value chain. This could also apply to the crop side, and the key question was how we treat them as equal partners in the system.
  - The climate was also noted as one of the main issues to focus on, especially forecasting and ensuring that farmers get advisory services.

## WP 3: Participatory co-design of MFS with evidence-based, validated SI innovation packages

Presenter: Job Kihara, ABC

Download the poster here: <https://bit.ly/3qyW1k>

# Sustainable Intensification of Mixed Farming Systems



**Work Package 3: Participatory co-design of MFS with evidence based, validated SI innovation packages**

**Work Package Leader: Aymen Frija (a.frija@cgiar.org)**

**Work Package focus and prioritization**

- WP3 focuses on the participatory design, implementation, critical reflection, and monitoring of approaches and interventions for SI of MFS
- It targets, field-tests, and pilots specific SI options that are responsive to improving efficiency, equity, and resilience, in regions where MFS dominate the landscape.
- It also identifies, characterizes, and validates the features of innovation packages that are likely to propel users along SI pathways.
- WP3 will generate strong evidence that promotes adoption and highlights aspects contributing to uptake and delivery at scale

**WP Research Questions**

**1**

What are the opportunities, constraints, and preferred entry points for improving equity, resilience, and efficiency along SI pathways? (co-diagnosis)

**2**

Which features of socio-technical innovation packages for SI of MFS enhance uptake and improve sustainability, resilience and equity of MFS? (Participatory handling in Selected Farming Systems)

**3**

Which are the most scalable SI innovation packages that improve sustainability, resilience, and equity in the selected MFS? (Co-evaluation)


**Key Demand, Innovation and Scaling partners**

Demand partners	Innovation partners	Scaling partners
<ul style="list-style-type: none"> <li>• NARES, universities</li> <li>• Local and international NGOs: e.g., 3174-Helvetas, 111-CRS, 1271-CARE International, 87-OXFAM, 1683-UN Women</li> <li>• Farmers' associations</li> <li>• Agricultural administrations</li> </ul>	<ul style="list-style-type: none"> <li>• NARES, universities</li> <li>• NGOs</li> <li>• Farmers' associations</li> <li>• IARCs: e.g., 1-WJUR, 1398-Cornell University, 1270-CIRAD, 145-IRD, 2209-KIT</li> </ul>	<ul style="list-style-type: none"> <li>• National governments/ agricultural administrations</li> <li>• Policymakers</li> <li>• NARES</li> <li>• NGOs</li> <li>• Farmers' associations</li> <li>• Private sector; e.g., local input/output dealers, value chain actors</li> <li>• 7408-MoGCSP</li> </ul>


**Linkages to other WPs of SI-MFS**

- WP3 provides empirical settings, demand specifications, and data to develop/adapt and apply M&T from WP2
- WP3 will provide local co-design examples and empirical evidence on SI options for global and regional analyses in WP1
- With support from WP4, WP3 will generate evidence on enabling environments for scaling and will support the related capacity development (WP5)
- WP3 will engage in pilot sites where other initiatives are operating (e.g., Foresight & Metrics, EIA, SAPLING, TAFSSA).


**Participating Entities**




ICARDA  
Science for resilient livelihoods in dry areas




ITA  
Improving African Agriculture




IRRI




IWM  
International Water Management Institute



ILRI  
INTERNATIONAL INSTITUTE FOR RESEARCH IN DEVELOPING COUNTRIES



Alliance



CIAT  
Biodiversity


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## WP 4: Advancing and supporting scaling of innovations

Presenter: Nurudeen Abdul Rahman, ITA

Download the poster here: <https://bit.ly/3U39GtH>

# Sustainable Intensification of Mixed Farming Systems



Sustainable Intensification of Mixed Farming Systems


### Work Package 4: Advancing and supporting scaling of innovations

Work Package Leader: Fred Kizito ([f.kizito@cgiar.org](mailto:f.kizito@cgiar.org))

**Work Package focus and prioritization**

- Seeks to enhance the enabling environment for scaling of socio-technical SI innovation packages in and beyond the target pilots.
- Accomplishes this through strategic partnerships and building the capacity of relevant actors in scaling approaches.
- Generates and identifies context-specific socio-technical SI innovation packages with inclusive support mechanisms
- Amplifies the synergies of MFS components and enhances their scalability.
- Emphasizes gender transformative approaches as central to all innovation and scaling design to enhance equity.

**WP Research Questions**



- 1** What are the constraints and drivers that will affect the scaling of SI innovations over the coming decade, and what opportunities can be harnessed to build more adaptability into the socio-technical SI innovations that the initiative will promote?
- 2** What are contextually relevant scaling approaches for technoeconomic, gender transformative SI innovations, and how can these approaches complement each other at multiple scales (household, community, subnational)?
- 3** What potential market governance and institutional innovations can ensure the scalability of relevant, gender transformative SI strategies in MFS?
- 4** What are the inclusive and demand-driven capacity building needs for scaling the promotion and implementation of SI innovations that support environmental health and resilience, and biodiversity?


**Key Demand, Innovation and Scaling partners**

Demand partners	Innovation partners	Scaling partners
<ul style="list-style-type: none"> <li>• Regional and international organizations: 69-FAO, 1078-FARA, 2138-IGAD, 194-ECOWAS, 3438-SADC, 274-COMESA, 1683-UN Women</li> <li>• NGOs: e.g., 87-OXFAM, 1271-CARE International</li> <li>• Smallholder farmers, public and private sector entities, local implementing partners</li> <li>• Donors: e.g., 156-USAID, 1407-GIZ</li> </ul>	<ul style="list-style-type: none"> <li>• CGIAR Centers</li> <li>• IARCs</li> <li>• Universities</li> <li>• 156-USAID Innovation Labs</li> <li>• NARES</li> <li>• Civil society</li> </ul>	<ul style="list-style-type: none"> <li>• Ministries of agriculture and gender (e.g., 7408-MoGCSP)</li> <li>• Public and private sector partners</li> <li>• Civil society, organizations that advocate for women farmers' or young farmers' rights: e.g., 7408-NCWD (Ghana), 7413-GENET (Malawi), 7445-NETRRIGHT</li> </ul>


**Linkages to other WPs of SI-MFS**

- Evidence generated by **WP1** on system drivers and opportunities, and the methods and tools from **WP2**, will be used to assess the scalability of innovations.
- **WP3** will prioritize SI socio-technical innovation packages, these will be used by **WP4** during the co-design of gender-transformative approaches for scaling partners to implement.
- **WP5** will design the capacity building modules used by **WP4** to develop strategies and implementation options tailored for scaling empowerment.
- Outputs from **WP1** of HER+ will be integrated. The **EIA Initiative**, and **ESA** and **WCA RILs**, will be potential receivers of SI socio-technical innovation packages for embedding in sites for further scaling.


**Participating Entities**




ITA  
International Technical Advisory




ICARDA  
Science for resilient livelihoods in dry areas



IRRI




IWM  
International Water Management Institute




ILRI  
INTERNATIONAL LIVELIHOOD RESEARCH INSTITUTE

Alliance



CIAT

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## Comments and responses

*Comment: How can we know that an innovation/innovation bundle is ready for scaling? What will be the criteria for selecting bundles and sites?*

Response: We will conduct a scaling readiness and initiate activities under WP3 to co-design and generate relevant bundles for relevant sites/agroecology.

*Comment: What dimension of scaling (scaling out, scaling up) will the Initiative focus on?*

Response: The Initiative will focus on all three dimensions of scaling (scaling up, scaling out, and scaling deep) guided by the readiness level.

*Comment: Is the list of innovations to be taken to scale ready?*

Response: A list is available from one of the sessions of the global inception done in Addis Ababa. However, this will still be updated at the country level.

*Comment: How long do we plan to continue scaling innovations in a given location? Some locations have been targets for scaling for over five years.*

Response: Part of the MFS Initiative interventions will ensure sustainability and mainstreaming of innovation bundles with existing/established institutions.

*Comment: MoFA recently received a copy of technology descriptions of all technologies available in the country's farming system. The compilation was conducted by the Department of Extension, University of Ghana*


Response: This is good information – the Initiative can work with this to facilitate intervention design instead of re-inventing the wheel.

## WP 5: Capacity building for MFS design and analyses

Presenter: Cofie Olufunke, IWMI

Download the poster here: <https://bit.ly/3DcZZ6a>

### Sustainable Intensification of Mixed Farming Systems



Sustainable Intensification of Mixed Farming Systems

#### WP 5: Capacity Development for MFS design and analysis

Interim Work Package Leader: An Notenbaert (a.notenbaert@cgiar.org)

**Work Package main focus and prioritization**

WP5 is one of two SUPPORTING Work Packages:

1. WP2 develops Tools and Methods
2. WP5 builds capacity

}

To apply and mainstream systems approaches for

1. Diagnosis/entry points (WP1)
2. Co-design (WP3)
3. Scaling (WP4)

→

What is available? Design and support

What is needed? Capacity Development approach (locally and globally)

↻

Continuous reflection and adaptation

**WP Research Questions**

**1**

How can assessment tools capture actors' multiple capacity needs and priorities for effective engagement in, and analysis of, SI innovation processes (including gender and intersectoral analysis)?

**2**

How does improved capacity for systems analysis influence cross- and transdisciplinary and multi stakeholder ways of collaboration in SI innovation processes, and vice versa?

**3**

How can actor-centered capacity development, conceptualized at the agricultural innovation systems level, influence the identification of problems and sustainable and inclusive solutions, and prompt positive change in MFS sustainability?

**4**

How can continuous (critical) reflection on processes and outcomes from systems approaches support sustainable capacity development and the inclusion of less represented actors in agricultural systems assessment and design?

**Key Demand, Innovation and Scaling partners**

Demand, innovation and scaling partners are the same due to the participatory nature of WP5. Capacity building activities are tailored to the demand from actors, who in turn take part in the process of innovation and scaling of capacity building

WP5 builds capacity of **Educators** of

CGIAR and other researchers


Governments (local and national)

Farmers and local partners (NGOs, private sector)


**Linkages to other WPs of SI-MFS**

- WP5 will design the capacity needs assessment tools for WP1, WP3 and WP4
- WP5 will co-design, monitor and adapt capacity development plans/strategies with/for WP1-WP4
- WP5 will train actors from WP3/4 networks using M&T developed by WP2 → link to regional scaling hubs?
- WP5 will use the knowledge gaps identified by WP1 to provide capacity development of global actors and guide their investment in capacity building in MFS → global virtual institute
- Learning alliances with other initiatives are sought, especially in the frame of the global virtual institute


**Participating Entities**




ICARDA  
Sustainable Intensification of Mixed Farming Systems




IITA  
International Institute of Tropical Agriculture




IRRI  
International Rice Research Institute




IWMI  
International Water Management Institute



ILRI  
International Livestock Research Institute



Alliance



CIAT  
International Center for Tropical Agriculture Research and Education

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## Comments and observations

- What are the tools to be used for needs assessment of capacity? These must be contextualized!
- Not so clear whether there will be an opportunity for postgraduate training in all the work packages.
- Pull the technology together in a university training curriculum as an activity.
- There is a need to build the capacity of farmers, guiding them on what data will be requested from them.
- CSIR College of sciences, UDS, SARI, and ARI would be great partners to involve in this work package.
- I could link this WP to the UDS trimester program focused on community development. We could implement a one-week course on system analysis per year for two years, after which we begin to explore mainstreaming into the curriculum.

## Unpacking the cross-cutting work streams

### *Scaling readiness*

Presenter: Haroon Sseguya, IITA

Download the presentation here: <https://bit.ly/3RAvXxF>

Key points from the presentation.

- The scaling readiness team will be focused on determining which socio-technological innovations proposed by partners for the Initiative are ready for scaling or otherwise.
- The scaling readiness team has got three objectives:
  - To carry out a detailed characterization of the core mixed farming systems innovations.
  - Diagnose their current readiness and use (WP2, WP3); and
  - Lay the foundation for strategies to overcome bottlenecks for scaling. WP3, WP5
- The ambition is to apply scaling readiness to 26–50% of the total innovation portfolio.
- At least 12 scaling readiness assessment studies (six Light Track and six Standard Track) will be published by 2025.
- The focus is on innovation BUNDLES (and not a unique innovation)!
- Two key deliverables from the scaling readiness team will be:
  - Documented scaling ambition, the vision of success, and the roadmap for the use of scaling readiness for selected priority core innovations.
  - Evidence-based scaling readiness assessment reports and related scaling strategies for innovation packages.

## **Monitoring, Evaluation, Learning and Impact Assessment (MELIA)**

Presenter: Bekele Kotu, IITA

Download the presentation here: <https://bit.ly/3QxTnSN>

Key points from the presentation.

- The focus of the MELIA group will be on:
  - Contribute to measuring the Initiative's impacts.
  - It is increasing the Initiative's capacity to track the progress of its outputs and outcomes, as stated in the results framework.
  - Increasing the effectiveness, accountability, and reporting of the Initiative to One CGIAR and donors in collaboration with One CGIAR System (Portfolio Performance Management Unit).
  - Contribute to managing midterm reviews and final evaluations in collaboration with the One CGIAR Evaluation Advisory Service.
  - Contribute to supporting the Initiative to reflect and adapt the full and WPs TOCs based on the results obtained on an annual basis.
- The activities to be implemented by the MELIA team are based on the Initiative's Theory of Change and the Results Framework.
- So far, the M&E team is working on designing a baseline survey in the 6 SI-MFS countries following the RCT approach. A tool is currently being designed based on the results framework using Africa RISING (for Africa) and CSISA (for Asia) as the basis for the design of the tools.
- In the country, level discussions are underway regarding the site selection, which will be an ongoing process. We anticipate that the Africa RISING sites in Ghana will also be considered.
- We shall also carry out a survey at the stakeholder level that will also include key informant interviews. This is closely related to the baseline and will be part of the final report.
- The MELIA team will also develop a MELIA database for monitoring all the data generated by the Initiative.

Participants raised the following comments in response to the MELIA presentation.

*Comment (Dr. Kizito): The MELIA team has indicated plans to implement some baseline studies, but it is also possible that some of the partners here have maybe very recently collected some of the data that the team will be looking for in the baseline. I would therefore like to request that if you have some data collected recently that you believe could help the team in their baseline, we would be happy to share your resources (data) with you.*

*Comment (Prof. Abberton): I am concerned about some of the outcomes where you want to affect the same institutions and sites. It is an outcome that will be very difficult to measure. We know that within the CGIAR and other places currently, we have very few initiatives implementing systems research.*

## ***Gender integration in the Sustainable Intensification of Mixed Farming Systems Initiative***

Presenter: Martina Cavicchioli, IITA

Download the presentation here: <https://bit.ly/3L4SU9I>

Key points from the presentation.

- Global challenges like population growth, land pressure, soil degradation, and climate change have deepened social inequalities in the mixed farming systems due to inequitable norms like resource access, labor burdens, etc.
- The Sustainable Intensification of Mixed Farming Systems Initiative aims to reverse the above inequalities.
- There is still a gap in SI research, primarily work and studies examining how introducing new technologies could reproduce inequalities. We are therefore interested in establishing what is the social impact of sustainable intensification innovations while at the same time ensuring that SI innovations introduced by the Initiative don't promote/enhance inequalities.
- Our work within the Initiative will focus on the two concepts of gender and social inclusion. We shall approach this by combining gender and other socio-economic criteria to ensure an accurate depiction/characterization of farmers' needs.
- A gender transformative approach will be applied, which addresses the underlying causes of inequality and (in the uptake of innovations) including norms and power relations.
- In 2022, the gender team will be focused on the following activities:
  - Establishing a criterion for the selection of suitable innovations
  - Focus on co-designing/bundling 1-2 innovations per country with gender-transformative approaches.
  - Meet with each country's team and partners to discuss the selection results and how to coordinate the efforts.
  - Co-design socio-technical innovation bundles in interdisciplinary teams.

## ***Communications and Knowledge Management in the Sustainable Intensification of Mixed Farming Systems Initiative***

Presenter: Jonathan Odhong, IITA

Download the presentation here: <https://bit.ly/3xe08Ta>

- The Communications and Knowledge Management (CKM) team for the Initiative will be focused on:
  - Enhancing the Initiative's external communication (informing and engaging with its stakeholders).
  - Contributing to translating initiative outputs into outcomes and getting knowledge into use.
  - Enriching intra-initiative learning, interaction, and exchange.
  - Facilitating capturing, organizing, and disseminating research products and outputs; and,

- Ensuring that the Initiative stays in lockstep with the broader One CGIAR goals.
- As a team, the CKM group is also:
  - Embedded into the One CGIAR Communication and Outreach task forces contributing to the broader strategy.
  - Providing support for other One CGIAR Initiatives.
  - The current team comprises ten members drawn from five CGIAR Centres: IITA, ILRI, IRRI, CIMMYT, and ABC.

Participants raised the following comments in response to the CKM presentation.

*Comment (Dr. Kizito): Thanks, Jonathan; please could you also comment about the materials (outputs) from this Initiative event, previous ones, and even future ones, and how partners will be able to access them, should they want to?*

Response: Thanks for bringing that up. All the material will be available for this particular meeting on the event website, which we shared with you the link to before this meeting. We are also working to establish a common web location where all the inputs generated by the Initiative will be housed. Once this is ready, we shall send out an update.

*Comment (Dr. Funke): How will the Initiative reach out to other target groups within the countries, for example, policymakers, etc.? Are there any specific knowledge products you will produce to meet their needs?*

Indeed, the country's needs from the communications team will vary from country to country. What I presented was quite a bit of a globalized outlook, but within the countries, we will be advised (and be responsive) accordingly to the local needs expressed by the partners who know the exact needs very clearly.

*Comment (Dr. Wesseh): I have been involved in Africa RISING, and we used to have regular (monthly) virtual meetings that used to be quite informative. Would this kind of frequent virtual interaction help Initiative partners to stay up to date with the progress?*

Response: Thank you for this feedback. Yes, that is one of the things we have outlined amongst our activities – to have these regular monthly seminars.

## Partnership building and planning progress



### **Overview presentation**

Presenter: Nurudeen Abdul Rahman, IITA/ SI-MFS Ghana Country Coordinator  
Download the presentation here: <https://bit.ly/3LaVXwX>

The SI-MFS country coordinator, Nurdudeen Abdul Rahman introduced the planning session. His presentation highlighted the following key points, which served as an introduction for partners to the planning process for activities in the country.

- Some early thoughts for planning for implementing the Initiative in Ghana started during the global launch event for the Initiative in Ghana at the end of May/ early June.
- A specific template was shared with participants during the above meeting, and they were asked to nominate candidate technologies that build on previous investments for the SI-MFS Initiative.
- Inevitably, in the case of Ghana, most of the proposed examples were from Africa RISING.
- So far, three CGIAR entities – IITA, ABC, and IWMI have shown interest in implementing activities in Ghana.
- As the national partners and stakeholders, we hope you can review the proposed list of activities and provide your insights.

Participants went ahead to brainstorm and proposed several one-liner topics on innovations. These one-liner topics provided the basis for a follow-up meeting where partners expanded on them and added more details for coherent activities. See section on post-inception progress.

## Comments and responses

*Comment (Dr. Avorny): When you presented the information about intervention by Africa RISING. You only highlighted ten of them, but there was much more done, and I believe there was much more about livestock in which I was involved.*

Response: Sorry about that, and we know that the list we shared was not exhaustive. It was meant as a suggestion, and the idea was to ensure that the list presented would trigger further input from partners.

*Comment: Will the Initiative only be restricted to the regions or locations where Africa RISING operates?*

Response: This is also related to the above response. Nothing is set in stone. Partners can propose activities that we will review and revise together.

*Comment: What was the basis/background for selecting the technologies listed in your prepopulated list of technologies?*

Response: We were looking for technologies that have been tested or validated over a certain period and have enough data to back them up. In Africa RISING, we were using the SIAF for evaluating technologies, so we leaned heavily on that because the SIAF assesses a technology on various domains like productivity, social, human, economic, and environmental benefits.

Additional response (Dr. Kihara): In Ethiopia, when we started putting down thoughts for the initial planning of the Initiative. We started by listing down all the technologies we know about in Ghana. So, the technologies you see only go as far as the number of people participating at the Addis meeting. The team here is much broader and therefore represents a more decadent collection of ideas and information about the technologies. Consequently, we think that we can emerge with the right technologies to propagate out of this discussion.

Additional response (Dr. Cofie): An extra consideration to the choice of the listed technologies was also related to the fact that there has been significant CGIAR investment in Ghana in the past. Most of which were developed in partnership with CSIR and the universities. The aim is also to ensure that these previous investments are not entirely abandoned or lost. So, this is a starting point. As we go through the brainstorming exercise, we need to add another lens to the technologies and assess them by asking questions about which ones provide us with the most opportunities to scale for impact.

## **Our way of working and next steps**

Moderated by: Fred Kizito

- Thank you all for the planning and proposals for the new activities/ technologies. Very quickly now, we will switch our attention to aggregating information about each technology that has been proposed. I would therefore like to request that you also share the materials/technical briefs that provide data and background about the proposed innovation.
- With all this brainstorming, we will now take all the activities and share a template where you can fill in more details about the proposed actions. The template will offer details about the systems thought about the activity, the partners involved, and the sites.
- As a next step, a virtual return workshop will be held on Thursday, 25th August. Working groups and action plans will be formed based on outcomes from the CGIAR review process.

## **Closing remarks**

### ***Moses Brandford Mochiah, CSIR Director of Cropping Research Institute***

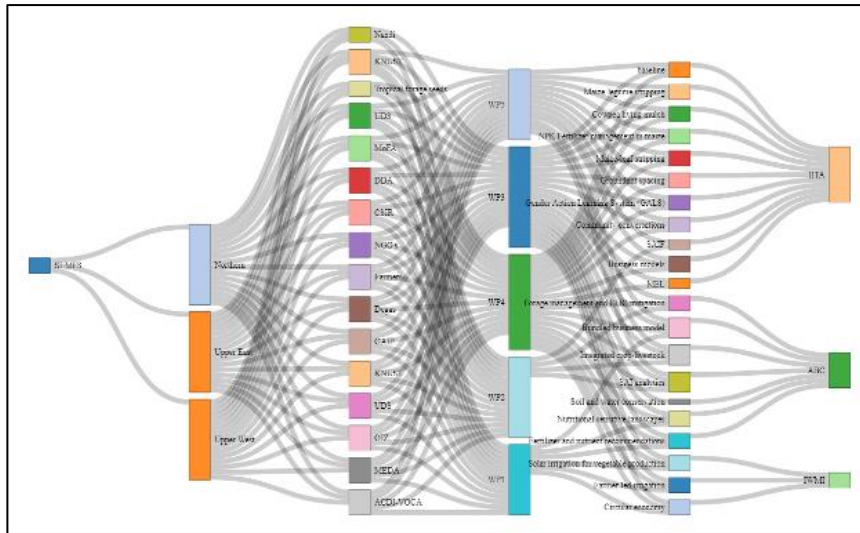
- Thank you, colleagues, and especially the Initiative leaders, for engaging with us during this meeting.
- I want to admit that while coming to this event, some of us didn't know much about this new Initiative. However, we now leave well informed about it.
- A lot of ideas have been generated, and as we sit here, what needs to happen is a proper synthesis of all the feedback and discussions.
- We have conducted many baseline surveys at the Crops Research Institute in most areas the Initiative has earmarked. Therefore, I encourage you to use some of the information we have gathered as you prepare for your baseline for the Initiative.
- I would like to encourage we should work together as partners from different institutions and organizations to ensure that we harness our collective strength. Let's remain committed to our mandate and give it our best.
- As the Director of the national partner organization, I want to express my full support for this Initiative.

### ***Dr. Olufunke Cofie, CGIAR Ghana Country Convener***

- Thank you very much, everybody, for your active participation in this meeting.
- We now have a clear understanding and identified areas for each of us to contribute to this Initiative.
- These things usually work because we must commit ourselves and deliver substantial work this year to guarantee additional funding in the coming year.
- When you return to your respective institutions, I will encourage you to have more robust gender representation in our networks.
- I greatly appreciate that we are building upon some of the great work that Africa RISING has previously done. So, let's work hard to demonstrate what we can achieve for agriculture in Ghana.

## Post-inception workshop progress

After the Inception meeting, partners held a virtual follow-up meeting on 25 July, where they expanded on the one-liner innovations listed during the inception meeting to include background, justification, objectives and research questions, activities and designated roles, methods and tools, capacity development needs and approaches, stakeholder platforms and deliverables within the timeframe. Figure 1 captures a graphic representation of the brainstorming exercise.



**Figure 1:** SI-MFS Ghana preliminary stakeholder and innovation/activity mapping.

As shown in Figure 2, the 60 one-liner activities listed were reviewed by the national coordination team and grouped into six thematic areas (1. Forage, 2. Soil and water conservation, 3. Bundled insurance and climate, 4. Food, feed, and farm soil, 5. irrigation for vegetables and circular economy and 6. MELIA and baseline). Use the link for the presentation on thematic areas. [Thematic grouping presentation](#)



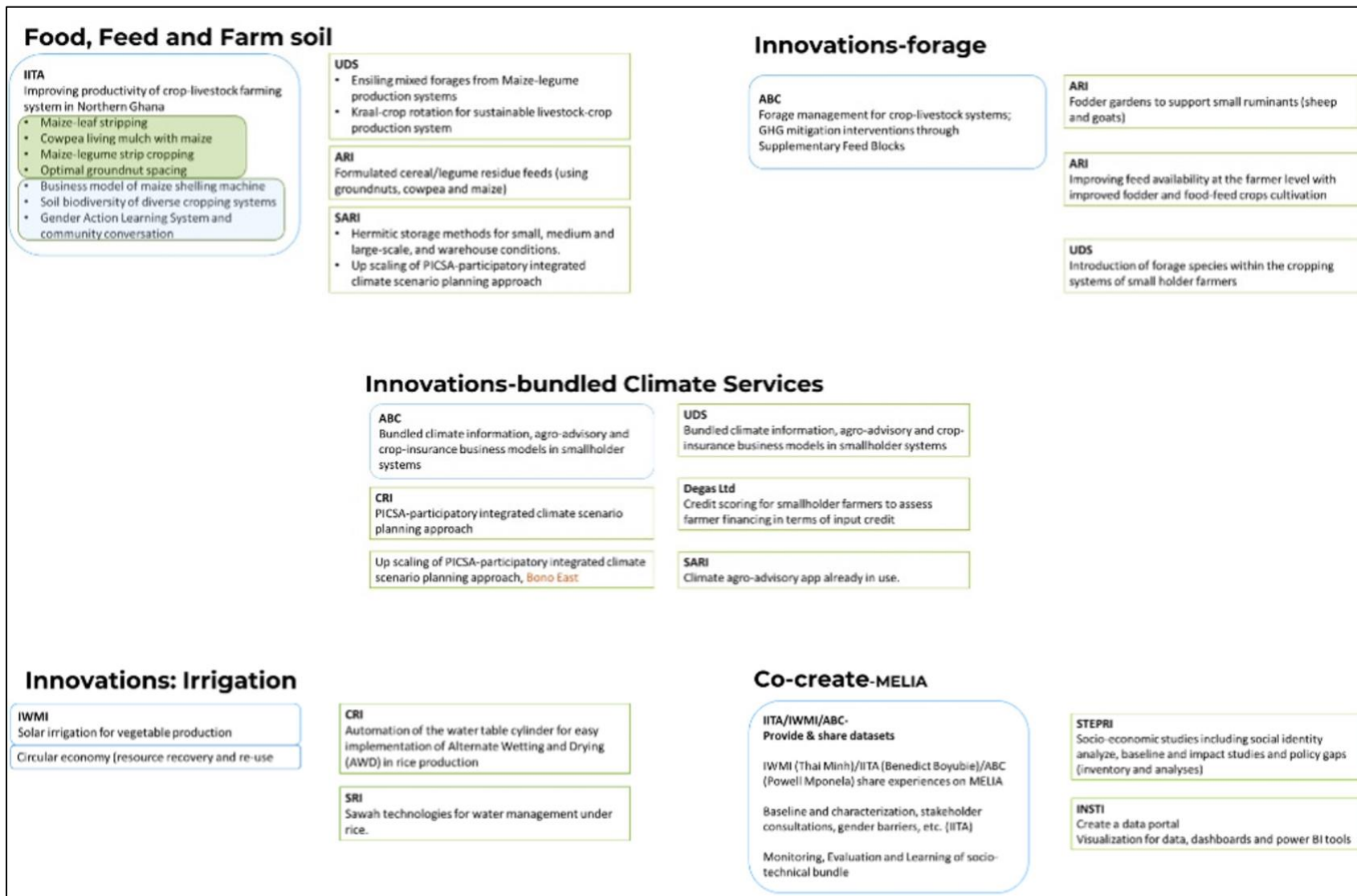
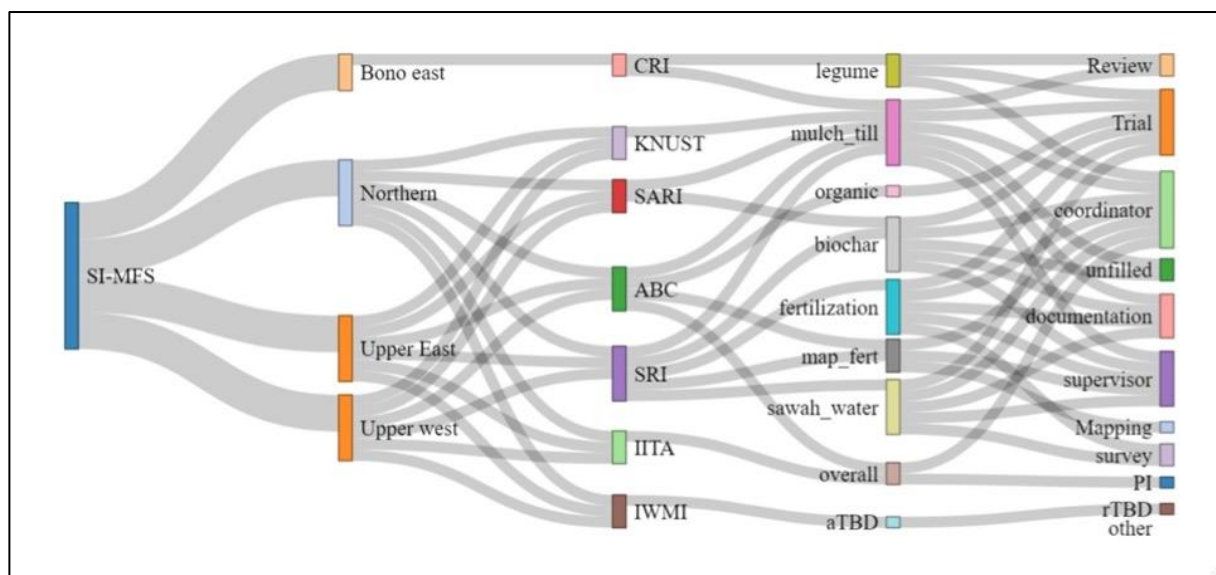


Figure 1: Thematic grouping of the 60 one-liner activities.

A *virtual return workshop* was held on XXXX to brief partners on the themes and form discussion groups. A thematic planning template was then prepared for partners to provide details on their one-liner—for example, a [soil and water conservation thematic planning template](#). Thematic group discussions were held, and the templates were either populated online or individually submitted and merged. During the period, the thematic groups had virtual talks. The linked thematic planning templates were discussed in a second virtual return workshop.

The CGIAR national coordination team then conducted a *sociogram* (Hewitt *et al.*, 2017) around each theme using *Sankey diagrams* identifying potential co-planning teams based on proposed geographical location (such as region/district/community), innovation (structural measures, forage, legume, fertilizer) and activity (trial, review, survey). These have been shared with the initiative lead.



**Figure 3:** SI-MFS Ghana potential co-location, co-design of innovations, and co-implementation of 2022 activities for SWC thematic area.

## References

1. Hewitt RJ, Hernández-Jiménez V, Zazo-Moratalla A, Ocón-Martín B, Román-Bermejo LP, Encinas-Escribano MA. 2017. Strategies and techniques: A living, changing process. In: Hewitt RJ, Hernández-Jiménez V, Zazo-Moratalla A, Ocón-Martín B, Román-Bermejo LP and Encinas-Escribano MA (eds) *Developments in Environmental Modelling: Participatory Modelling for Resilient Futures Action for Managing Our Environment from the Bottom-Up*, 11–48. DOI: 10.1016/B978-0-444-63982-0.00002-1

## Annexes

### Annex 1: Participants' list

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