Independent Advisory and Evaluation Service

CGIAR

Systems Transformation Science Group: Evaluation Report

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Acknowledgments

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You can explore various knowledge products on the CGIAR dedicated portal on Science Group evaluations [link].

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Acronyms

A4NH	CGIAR Research Program on Agriculture for Nutrition and Health
ANH	Agriculture, Nutrition & Health
AFS	Agricultural and Food Systems
AICCRA	Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA)
CAS	CGIAR Advisory Services
ClimBeR	CGIAR Initiative on Climate Resilience
CRMAE	Climate Risk Management in Agricultural Extension
CRPs	CGIAR Research Programs
CoP	Community of Practice
COI	Conflict of Interest
CS	Case Study
DD	Deep Dive
DE	Developmental Evaluation
EA	Evaluability Assessment
EoI	End of Initiative
FLW	food, land and water
FRESH	Fruit and Vegetables for Sustainable Healthy Diets
GI	Genetic Innovation
GTIs	Global Thematic Initiatives
HER+	CGIAR Initiative on Gender Equality
IA	Internal Audits
IAES	Independent Advisory and Evaluation Service
IFA	Integration Framework Agreement
IPCC	The Intergovernmental Panel on Climate Change

ISDC	Independent Science for Development Council
KII	Key Informant Interview
KM	Knowledge Management
LMICs	Low- and Middle-Income Countries
MARD	Ministry of Agriculture and Rural Development
MD	Managing Director
MEL	Monitoring, Evaluation, and Learning
MELIA	Monitoring, Evaluation, Learning and Impact Assessment
MER	Monitoring, Evaluation, and Research
MOU	Memorandum of Understanding
NARES	National Agricultural Research and Extension Systems
NDCs	Nationally Determined Contributions
NPS	CGIAR Initiative on National Policies and Strategies
NRM	Natural Resource Management
PCU	Project Coordination Unit
PIM	CGIAR Research Program on Policies, Institutions, and Markets
PPU	Portfolio Performance Unit
PRMF	Performance and Results Management Framework
PRMS	Performance and Results Management System
QoS	Quality of Science
QoR4D	Quality of Research for Development
R4D	Research for Development
RAFS	Resilient Agri-food Systems
RII	Regional Integrated Initiatives
RTE	Real-Time Evaluation
SDG	Sustainable Development Goal
SG	Science Group
SHIFT	CGIAR Initiative on Sustainable Healthy Diets
SMART	Specific, Measurable, Achievable, Relevant, and Time-bound
SME	Small and Medium Enterprises
ST	Systems Transformation
TAFSSA	CGIAR Initiative on Transforming Agrifood Systems in South Asia
ToC	theory of change
ToR	Terms of Reference
UFE	Utilization-Focused Evaluation
UNFSS	United Nations Food Systems Summit
WCA	West and Central African Food Systems Transformation
WP	Work Packages

Executive Summary

The CGIAR 2030 Research and Innovation Strategy (the 2030 Strategy) set the stage for ensuring that research provides solutions for development. The Strategy has been delivered through 33 initiatives grouped within three interlinked Action Areas: Systems Transformation (ST), Resilient Agri-food Systems (RAFS), and Genetic Innovation (GI). The ST Science Group (SG) contributes to food, land, and water (FLW) ST across CGIAR's five Impact Areas, supporting policy and decision-makers at multiple governance levels with timely policy-relevant insights.

This independent evaluation of the **ST SG** was carried out under the framework of the CGIAR SG evaluations in response to the umbrella evaluation Terms of Reference (ToRs). The evaluation combines summative and formative aspects, to support learning and accountability among key users and stakeholders. This evaluation report summarizes the findings, conclusions, recommendations and lessons learned from implementing the 12 initiatives under the ST SG from 2022-24. The evaluation also considers the SG's objectives, activities, and management processes with a forward-looking perspective for the next science program portfolio 2025-30.

Evaluation Purpose, Scope and Methodology

The evaluation purpose is to contribute to the steering of evidence-based decisions, support institutional learning and provide accountability in CGIAR. The evaluation provides an independent performance assessment of the SG pooled funding portfolio, and key lessons learned and recommendations to foster organizational learning and enhance the next portfolio. The evaluation scope covers the implementation period of the SG portfolio from January 2022 to February 2024, and the 12 initiatives within the ST SG. Key users for the evaluation are the CGIAR System Council, SG management, senior leadership team, centers and external partners.

The evaluation adopted a mixed methods design. The data collection relied on desk research, key informant virtual and face-to-face interviews: 119 interviewees, three case studies, one deep dive, field observations, focus group discussions, portfolio analysis and an online survey. Quality of science (QoS) was assessed with key informant interviews, three case studies, and one thematic deep dive. Quantitative and qualitative data from primary and secondary sources were triangulated for consistency and credibility.

Evaluation Findings

Relevance: There is mixed evidence on whether the ST portfolio adequately meets country level stakeholder needs and research priorities for evolving FLW transformations. The limited consultative process to identify country-specific ST needs and partnership opportunities led to stakeholders demanding regular engagement and adaptation. While combining a thematic (e.g., climate) with enabling themes (e.g., foresight) worked well in some countries, there was limited success in translating this to substantial outcomes in specific contexts.

The theory of change (ToC) brought scientists together to understand complexity for multi-level collaboration, but exposed limitations in evidence use, assumption validity, and practical application of planning and reporting. However, the understanding of impact pathways varies across countries, requiring a better understanding of FLW systems in specific contexts and an examination of knowledge, policies, and capacity gaps to optimize CGIAR's contribution. A lack of a common understanding of the ST vision across stakeholders remains an issue.

QoS: Initiatives under the ST SG generally maintained high standards of scientific quality through robust management processes, credible methodologies, stakeholder engagement, and capacity building. Cross-center and cross-initiative collaboration ensured diverse scientific perspectives and promoted

standardized methodologies. Difficulties with coordination and consistency across initiatives suggest room for improvement. Limited scientist understanding of effective ways of working with networks and communities hindered output quality and relevance.

ST initiatives demonstrated strong scientific credibility through publication of high-quality research in peer-reviewed journals across disciplines. ST's research outputs reveal growing influence within scientific and policy discourses. However, some challenges compromise the QoS, such as small-scale field trials, lack of guidelines for intellectual property and research ethics, and difficulties adopting interdisciplinary approaches.

Coherence: Success in internal collaboration and coherence was evident during the planning phase, but challenges were faced in implementation due to funding uncertainties and operational issues. Programming coherence requires involving external stakeholders to conduct joint problem/need assessments, as well as joint identification of niches, priorities and successes. There is a lack of unified vision of ST principles and strategies, especially on influencing transformation at national level.

The comparative advantage of CGIAR is well known among stakeholders. The ISDC guidance is useful but challenging to implement. Key stakeholders recognize CGIAR's niche and comparative advantage in generating transformative research and policy agendas. CGIAR needs regular reviews of its role at a national level and among global stakeholders, requiring internal capacity and resources.

Efficiency: Strong leadership and management roles were evident largely at ST SG level. Most initiatives operated well, with scientists collaborating in multi-disciplinary teams. Multiple roles and resource constraints sometimes resulted in low accountability and motivation at initiative level. Stakeholders recognized that a strong and effective coordination role is crucial for CGIAR leadership, engagement, and teamwork toward more concrete ST contributions.

Financial management efficiency was a central concern, due to funding uncertainties, instability, and delayed disbursement. These vulnerabilities impacted staff motivation, sustainability and scaling of partnerships, and use of outputs, compromising outcome achievement.

The 2022-24 CGIAR research portfolio was accompanied by a large, hard to navigate database and monitoring system which many stakeholders found hard to navigate. Issues included excessive focus on potentially trivial output reporting for contributions to ST outcomes, and limited capacity for providing system inputs.

Effectiveness: In 2022-23 considerable progress and achievement was reported at output level across initiatives with virtually all work packages reporting on-track progress on ToC (plan of results) despite funding shortages and capacity challenges. Furthermore, adaptive strategies such as adjusting targets, reducing coverage areas/partner funding, and using bilateral funds, make it difficult to assess effectiveness.

Engagement with Impact platforms had mixed success, as newer, less funded platforms evolved slowly as compared with more established ones. For some Impact, resource limitations and lack of clarity on effective engagement with the SG is a concern. The Case Studies highlighted several successes and good practices, which could be considered in future program design and implementation.

The partnership framework was useful but had limited application, as building new partnerships takes time and funding constraints restricted this. Most partnerships were a continuation of previous relationships and faced sustainability difficulties due to budget constraints. National-level partnership mapping and mobilization are seen as key for ST initiative success but are lacking. Strategic engagement and communication are crucial to build partnerships for ST at national level.

Recommendations

Recommendations for CGIAR's Work on ST (for action by ST SG and then hand over to chief scientist, end of 2024 and beyond):

1. Develop a cross-CGIAR's system transformation strategy using learning from the SG implementation. The strategy should provide further clarity on ST principles, approaches, and processes.
    a. Use the ST Strategy to mainstream transformative policy research in a sizable number of countries beyond the focus countries. The countries should be determined based on country-specific needs, opportunities, and CGIAR's comparative advantage.
    b. Consolidate work on transformation of FLW systems, especially in countries where various initiatives are already engaged with a ST focus, by enhancing collaboration with national governments, research/policy institutions and development partners.
    c. Maintain and incentivize leadership on the topic of ST and build organizational capacity to conduct transformative research and policy work.
2. Improve balance between thematic and geographic convergence as a strategy for improving synergy and impact, by undertaking periodic assessments of knowledge/research, policy, and capacity gaps in FLW systems in specific contexts and explore new opportunities considering thematic and geographic convergence options.

Recommendations for CGIAR, Overseen by Chief Scientist

3. Develop incentives for interdisciplinary team collaborations across disciplines and centers to tackle interconnected issues effectively under the Integrated Management Framework (2022).
    a. Continue using platforms and communities of practice to promote collaboration across all science programs and accelerators, fostering a holistic approach to reducing food system vulnerabilities to climate change.
    b. Develop/revise policies on intellectual property (and guidelines on research ethics) and establish mechanisms for their enforcement across science programs and centers.
4. Enhance systematic inclusion of partners in the portfolio design, implementation, and scaling as per the 2024 Partnership & Advocacy Framework to raise visibility and strategic positioning of CGIAR at country level.
    a. Develop country strategies for more coherent and coordinated planning among CGIAR centers, to ensure mobilization of national and sub-national stakeholders in implementation.
    b. Strengthen CGIAR's country-level leadership and coordination capacity (including budgetary provisions) for effective engagement with stakeholders to advocate for a transformative research and policy agenda. Continue with regular listening sessions and monitor and evaluate stakeholders' needs and perceptions.
5. Revise PRMF, strengthen MELIA processes and capacities to ensure that these capture how ST SG outputs (present) and future system transformation-related outputs link to outcomes and impact:
    a. Review and rationalize PRMF and MELIA processes: indicator number/quality (e.g., implement standard definitions of what is an output and outcome) to ensure they are fit-for-purpose
    b. Develop and apply improved qualitative and quantitative approaches for measuring scientific quality, policy influence, and the effectiveness of capacity development in the research for development environment.
    c. Address internal capacity gaps in data management, monitoring and reporting.

6. Address funding shortages and inefficiencies in financial and human resource management through a regular review and feedback mechanism involving internal stakeholders and informing external partners of changes. Improve budget transparency and accountability through outcome-based budgeting and related reform measures to maximize transformative and sustainable impact from CGIAR's investments (in concert with global finance and HR responsible offices).

Recommendations for Portfolio 2025-30 Science Programs (for science program proposal authors/program management):

7. Build on CGIAR's comparative advantages in climate resilience research: mainstream climate adaptation and mitigation across the entire portfolio by continuing to provide evidence of the transformative impacts of national policies and strategies in building the resilience of FLW systems to climate change, using integrated systems frameworks.
    a. Strengthen the ability to forecast climate related trends and impacts on food systems, using evidence-informed scenario approaches.
    b. Integrate solutions to climate change across value- and stakeholder chains, using multi-scale systems approaches.
8. Invest in local capacity development for integrated systems research. Enhance in-country research capacity to apply integrated systems approaches to research. Develop mechanisms to regularly assess and refine innovations on the ground, in collaboration with local communities, ensuring technical soundness and social acceptance before wider implementation.
9. Elevate nutrition and diet diversification across the entire Science Program portfolio, and not relegate this critical work to a single program.
10. Expand the research focus on consumer demand, food environments, food safety, loss and waste, and connect supply to demand across value chains.
11. Science programs should develop joint research activities and innovations for responding to global polycrises at national, sub-regional and global levels with strategic research partners.

1 Introduction

1.1 Background and Evaluation Context

The CGIAR 2030 Research and Innovation Strategy sets the stage for doing business differently to ensure that research provides solutions for development. The priorities set out in the strategy have been delivered through 33 initiatives grouped within three interlinked Action Areas: Systems Transformation (ST), Resilient Agri-food Systems (RAFS), and Genetic Innovation (GI). The ST SG contributes to food, land, and water ST across CGIAR's five Impact Areas, emphasizing supporting policy and decision-makers at multiple governance levels with timely policy-relevant insights. Five Impact Area platforms administratively fall under the ST SG, although functionally they cut across SGs, so they are out of scope for this evaluation.

This independent evaluation of the **ST Science Group (SG)** was carried out under the framework of the three SG evaluations in response to the umbrella evaluation Terms of Reference (ToRs). The evaluation is commissioned by the CGIAR System Council and executed by the CGIAR Independent Advisory and Evaluation Service (IAES), which contracts the external evaluation team. This evaluation report presents findings, conclusions, recommendations and lessons learned from the implementation of the 12 initiatives housed under the ST SG in the period 2022-24. The evaluation also considers the SG's objectives, activities, and management processes and adopts a forward-looking perspective in view of the next science program portfolio 2025.

1.2 Purpose and Scope of the Evaluation

In line with the CGIAR-wide Evaluation Framework, SG Evaluation ToR, and the Evaluation Inception Report, the purpose of the evaluation is to contribute to the steering of evidence-based decisions, support CGIAR's institutional learning, and provide accountability: an overall independent assessment of the performance of the 2022-24 SG pooled funding portfolio; share key lessons learned, emerging good practices, and recommendations to foster organizational learning and to inform and enhance the design of the next portfolio through early findings.

The evaluation combines summative and formative aspects, to support learning and accountability among the key users and stakeholders. The evaluation is intended to contribute towards evidence-based efforts by CGIAR to adapt its portfolio design to reach the ambition and vision of the 2030 Research and Innovation Strategy. A **forward-looking perspective** was adopted in the analysis of the obstacles and enabling factors encountered in the two years of implementing the initiatives, and the opportunities envisaged for in-house coordination, external outreach, mainstreaming of cross-cutting themes and continued relevance and coherence of the SG's rationale, with the following specific **objectives:**

- Assess the relevance of the ST SG portfolio.
- Analyze the coherence and value-added of the ST SG work.
- Assess the effectiveness of the ST SG work.
- Examine the efficiency of the ST SG organizational setup.
- Assess the Quality of Science (QoS), in terms of scientific credibility and legitimacy.
- Analyze the mainstreaming of cross-cutting issues (gender, climate change, partnerships).
- Identify lessons learned and provide recommendations to improve future programming.

The **key users** for the evaluation are the CGIAR System Council; the SG management, which will gain evaluative evidence to reinforce the evolution of the current portfolio and the design of the new one; senior leadership team and centers for learning and steering; and external partners and stakeholders, such as

policymakers, national governments and National Agricultural Research and Extension Systems (NARES) researchers after the publication of the report (see ToRs). The evaluation **scope** covered the implementation period of the SG portfolio from January 2022 to February 2024. The portfolio included 12 initiatives under the ST SG (Table 2).

The evaluation questions presented in Table 1 provide the basis for the Evaluation Matrix contained in Annex 4. It includes sub-questions, indicators, data collection tools and sources of information.

Table 1. Key Evaluation Criteria and Questions

CGIAR evaluation criteria	Key evaluation questions ST
Relevance	1) To what extent does the ST SG research portfolio respond to the needs and priorities of its internal and external stakeholders? 2) How well have the ST SG strategies and objectives been articulated in terms of a theory of change (ToC), impact pathways and drawing on comparative advantage?
Effectiveness	3) To what extent have the selected ST initiatives/work packages (WPs) achieved and/or are expected to achieve, their objectives, including any differential results across subgroups of users/clients? 4) How well were the cross-cutting themes of gender and climate change integrated into ST Initiative design and implementation? 5) To what extent does the ST SG draw on the capacities of the Impact Area Platforms and vice versa? 6) To what extent did the ST SG design enhance internal and external **partnerships** of CGIAR, and how aligned was it to the Partnership Framework?
Efficiency	7) How has CGIAR's Integration Framework Agreement (IFA) design and roll-out aided the ST SG to effectively stimulate the learning, monitoring, and adaptability of the ST Initiatives? 8) To what extent is the governance and management of the ST SG deemed suitable for achieving the objectives? 9) What are the internal and external factors influencing ST SG efficiency within a system of fully independent centers, and considering the constraints of limited resources?
Coherence	10) How coherent and compatible has the design and implementation of the ST SG portfolio been with respect to the Partnership Framework (2022)? 11) How has the ST SG operationalized CGIAR's collective vision in the 2030 Research Strategy and CGIAR's IFA? 12) In what ways has the ST SG addressed key considerations and opportunities for enhancing coherence across, between, and within the SG?
Quality of Science	13) To what extent do the management processes of the ST SG ensure QoS (including credibility, legitimacy, relevance to next stage users, and potential effectiveness) of the research and operations? 14) In what ways are the research outputs by the ST SG of high quality and influential? 15) How do the research outputs contribute to advancing science?

Drawing on recommendations of the 2021 Synthesis Evaluation of CGIAR Research Programs (CRPs) (see Annex 10 for Status of Implementation), the evaluation assessed how the ST SG initiatives have, as a whole and during the period from January 2022 to February 2024:

- considered relevant areas holistically through trade-off/synergy analyses-approaches to assessing comparative advantage by the Independent Science for Development Council (ISDC) were considered in this line of inquiry.
- adopted strategies and action plans that foster transformative change involving partners–whether claims of transformation are meaningful for fundamental change, or 'business as usual'.
- moved in the right direction towards addressing nutrition, poverty reduction and equity impacts.
- linked environment sustainability and resilient agri-food systems.
- focused on place-based integrated innovation.

1.3 Evaluation Report Structure

Following this introduction, section 2 presents an overview of the ST SG. Section 3 describes the evaluation approach and methodology. Section 4 presents the main findings for each evaluation question and sub-question. Conclusions, lessons learned, and recommendations are in section 5. The report is accompanied by the stand-alone document with Annexes[1]: 1) Methodology, 2) Case Studies Executive Summaries, 3) Deep Dive Executive Summary, 4) Evaluation Matrix, 5) Key Informant Interview Guide, 6) Profile of ST stakeholders consulted, 7) ST SG specific Online Survey Results ; 8) Evaluation of QoS, 9) List of Documents Consulted, 10) Update on status of recommendations from the 2021 Synthesis evaluation of CRPs, 11) Evaluation Team Background and Declarations of Conflict of Interest (COI).

2 Overview of CGIAR's Systems Transformation Science Group

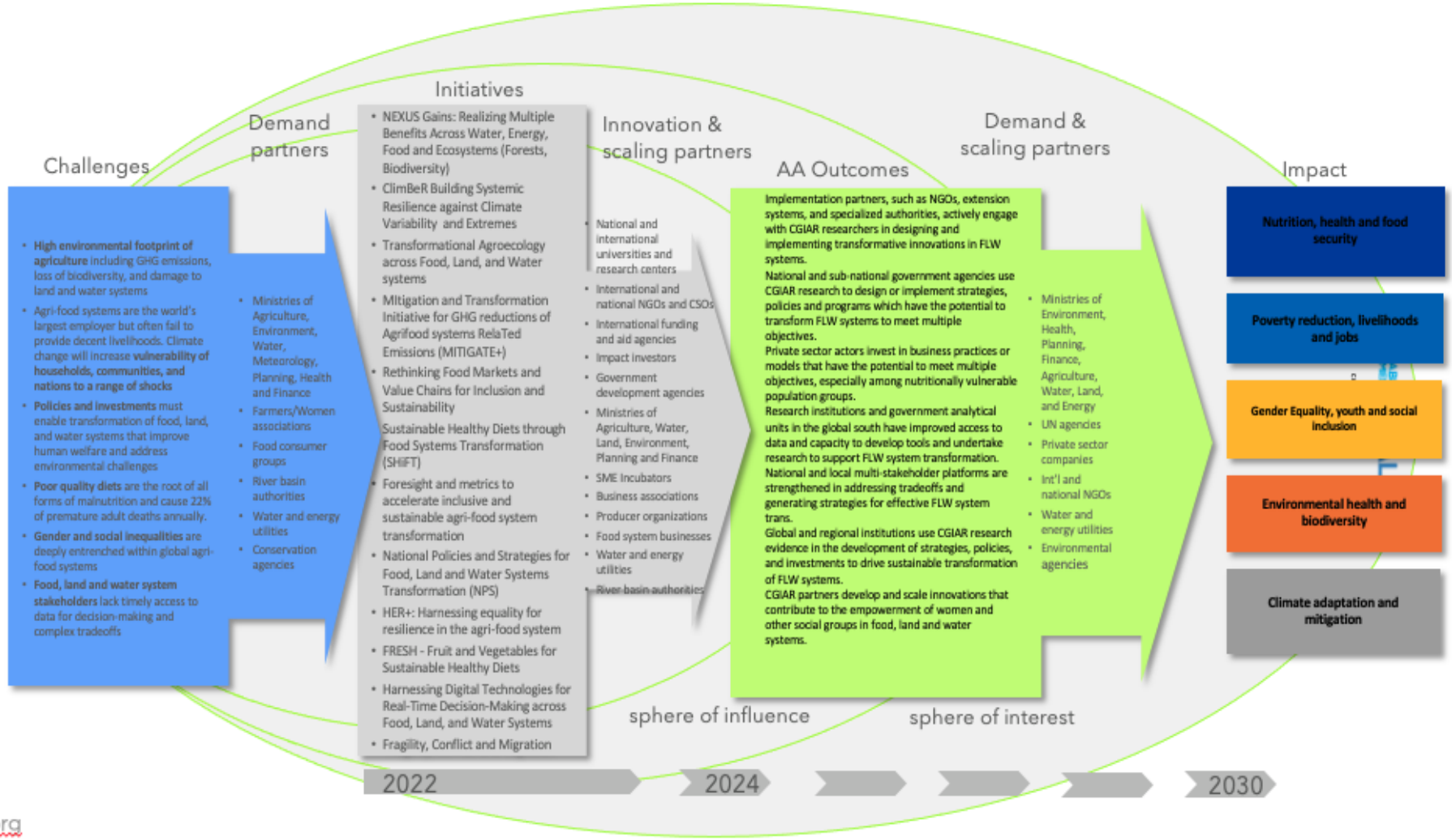
2.1 Purpose and Scope of the Evaluation

The ST SG aims to transform food, land, and water (FLW) systems to support CGIAR's five Impact Areas: climate, environment, nutrition, poverty, and gender (Figure 1). It provides key policy and decision-makers at all levels with timely, impactful insights. CGIAR, in partnership, commits to creating new multi-sectoral policies and strategies for FLW ST in 50 countries across six regions, as outlined in the 2022-24 Investment Prospectus. ST supports these efforts through 12 ambitious initiatives, aiming to:

- Improve access by the poor in low- and middle-income countries (LMICs) to productive resources, knowledge, and finance, and stimulate creation of decent jobs in food systems.
- Generate innovations and strategies to shift food systems toward healthier diets, especially for the poor in LMICs.
- Develop appropriate landscape institutions, national policies, and global actions to address the climate crisis, environmental degradation, water mismanagement, and loss of biodiversity.
- Build resilient food, land, and water systems, including effective crisis response systems to respond to shocks and conflicts, which are major drivers of food insecurity.

[1] Available https://iaes.cgiar.org/evaluation/science-group-evaluations/systems-transformation

Figure 1. Theory of Change of the ST SG



www.cgiar.org

Source: ST ToC as of mid-2023, internal document

Table 2. Initiatives under the ST SG

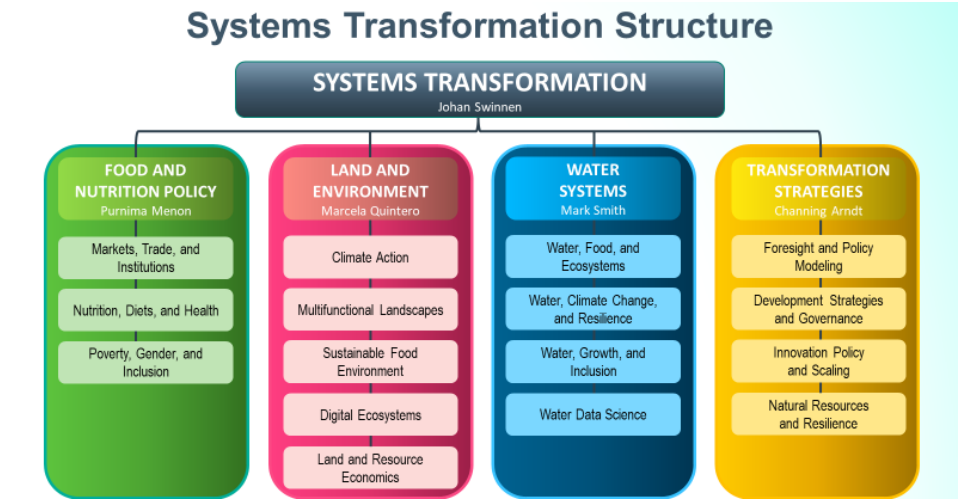
Initiative IDs	Acronym	Full name
INIT_23	ClimBeR	ClimBeR: Building Systemic Resilience Against Climate Variability and Extremes
INIT_24	Foresight	Foresight and Metrics to Accelerate Food, Land, and Water Systems Transformation
INIT_25	Digital	Digital Innovation and Transformation
INIT_26	HER+	Harnessing Gender and Social Equality for Resilience in Agrifood Systems
INIT_27	NPS	National Policies and Strategies for Food, Land and Water Systems Transformation
INIT_28	NEXUS	NEXUS Gains: Realizing Multiple Benefits Across Water, Energy, Food and Ecosystems
INIT_29	Food Markets	Rethinking Food Markets and Value Chains for Inclusion and Sustainability
INIT_30	SHiFT	Sustainable Healthy Diets through Food Systems Transformation
INIT_31	AE / Agroecology	Transformational Agroecology across Food, Land, and Water Systems
INIT_32	Mitigate+	Mitigate+: Research for Low-Emission Food Systems
INIT_33	FRESH	Fruit and Vegetables for Sustainable Healthy Diets
INIT_35	FCM	Fragility, Conflict, and Migration

2.2 Management and Governance of the ST SG

The ST SG is headed by a managing director and is comprised of four senior directors (Food and Nutrition Policy, Land and Environment, Water Systems, and Transformation Strategies), see

Figure 1. The ST managing director is part of CGIAR's leadership team. The senior directors advise the managing director and oversee the 12 initiatives aimed at advancing the ST SG's objectives.

Figure 2. ST SG Structure



Source: ST One CGIAR presentation, 17 July 2023

Initial scoping analysis reveals that the 12 initiatives fall into two clusters:

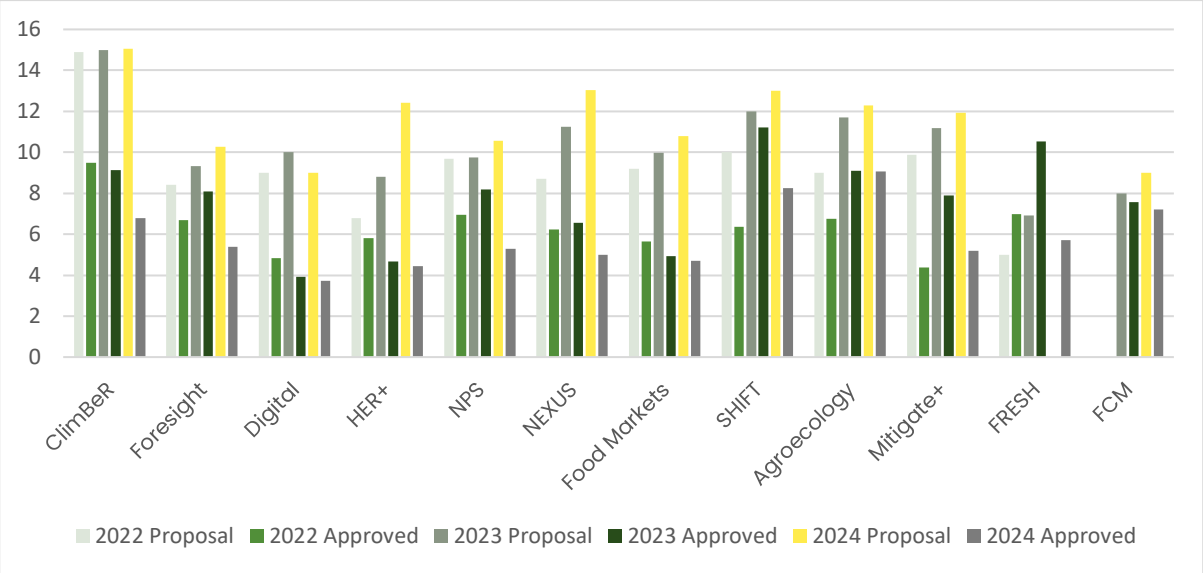
- Initiatives that focus on **specific themes and impacts that are central to ST:** climate change, biodiversity, sustainability, and resilience; better nutrition and healthy diets; and inclusion, food security, and poverty.
- Initiatives that contribute to **ST across themes** by improving data and tools, enhancing foresight, measuring impacts, identifying investment priorities, assessing tradeoffs and synergies between alternative investment options. These initiatives can be likened to a matrix-style organization, with vertical themes representing specific focus areas and horizontal tools and enablers that cut across these themes. This approach facilitates the integration of transformation strategies at global and national levels and influences decisions in both public and private sectors.

2.3 Funding and Budget

Figure 3 illustrates the funding breakdown in budgetary allocation by the ST Initiative. According to Initiative reports, the total funding allocated for the ST portfolio was approximately USD 232.6 million for the 2022-24 period.[2] Funding for all initiatives remain significantly below the levels requested in the proposals. The funding for initiatives constitutes approximately one third of the total annual funding for CGIAR.

[2] This figure shows the proposal and approved budgets for 2022, 2023 and 2024 by initiative (source: Initiative 2023 technical reports).

Figure 3. Annual Budgets (in Proposals/approved) for ST SG Initiatives (USD Million) for 2022-2024



Source: 2023 CGIAR Technical Reports, ST Initiative Annual Reports

3 Evaluation Approach and Methodology

3.1 Approaches and Data Collection Methods

The CGIAR Evaluation Framework and Policy (2022) guided the design and implementation of the evaluation (ToR). SG evaluations merged developmental evaluation (DE), utilization-focused evaluation (UFE) approaches and elements of real-time evaluation (RTE), focused on monitoring and real-time learning. RTE was adopted to ensure that authors of CGIAR proposals for the new 2025-30 research portfolio and CGIAR management, and ISDC reviewers. Namely the following steps were undertaken:

- Evaluation portal was set-up https://iaes.cgiar.org/evaluation/science-groups-evaluations
- Since March, monthly Evaluation Insights were shared with SG teams and key stakeholders, offering methodological insights and updates on early learnings and findings on key topics. The bulletins also kept stakeholders informed about the evaluation process and key events.
- Meetings with SIMEC and SC (June 3rd) were conducted, where strategic findings and recommendations were presented.
- Two presentations were made to ISDC members, during which lessons learned and findings were shared by subject matter experts. These presentations fostered interactive discussions, offering insights through specific case studies and deep dives. Furthermore, three reports with 11 case studies were shared with review teams commissioned by ISDC to conduct *ex-ante*.
- Three meetings with management of each Science Group (Genetic Innovation, Resilient Agrifood Systems, and Systems Transformation) were held to launch evaluations, present preliminary results and validate recommendations prior to submitting of reports to SIMEC.
- Two meetings were held with the 2025-30 Portfolio writing teams, and permission obtained and exercised to share SG evaluations reports and case studies/deep dives by request.
- Regional/Country Briefs and thematic briefs and reports (i.e. QoS, and a report on the survey results were developed and links widely shared. The briefs summarized the learnings across the three SG

evaluations around the priority topics. The Synthesis of Cross SG-learning and additional briefs (on partnerships, climate change, and MELIA) were being developed at the time of endorsing the SG-level evaluation reports.

- Several blogs were made public and shared with key stakeholders, highlighting strategic observations from country visits, particularly from the perspective of external partners.

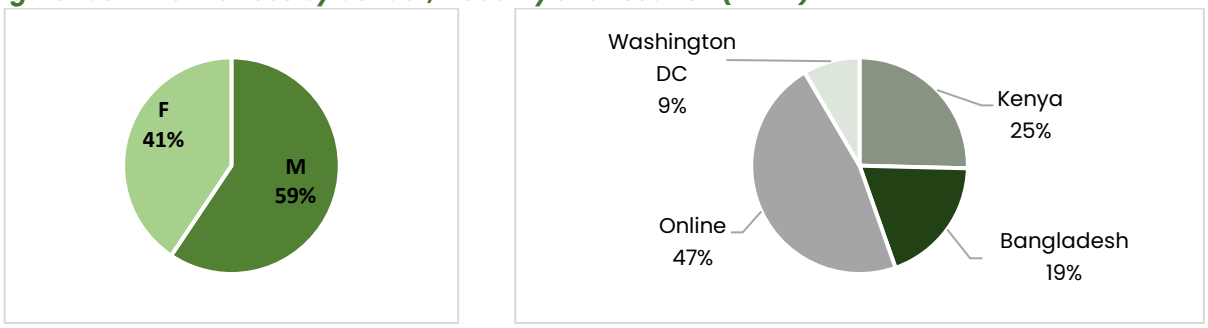
The evaluation adopted a **mixed methods design**, to combine the strengths of quantitative and qualitative methods. Quantitative and qualitative information and data from primary and secondary sources were triangulated to ensure consistency and credibility of results. QoS was assessed by key informant interviews, three Case Studies and one thematic deep dive (DD) (see Annex 2 and Annex 3).[3] The evaluation matrix in Annex 4 served as a key tool for ensuring a systematic and comprehensive approach to data collection and analysis. Specific methods and primary data sources included:

- Semi-structured interviews with approximately 119 key informants: cross-cutting issues and Initiative leads, directors of Impact Area platforms, CGIAR center focal points, NARES partners, international organizations, academia, government representatives, NGOs, private sector, and thematic experts. Interview protocols were tailored to each group of stakeholders.
- Field visits in strategically selected countries (Kenya and Bangladesh) to conduct in-person interviews, focus group discussions, participatory workshops, and observe initiative activities. The visits aimed to cover both successes and challenges.
- An online survey across the three SGs and its core stakeholders[4] to assess stakeholder perceptions regarding performance, success factors, and challenges, governance, coherence, and partnerships.

Secondary sources: a wide range of documents and online resources were reviewed, including:

- Corporate strategic documents (e.g., 2030 Research and Innovation Strategy, Performance and Results Management Framework).
- Programmatic and reporting documents (e.g., SG narrative reports, ToCs, Initiative proposals, technical reports, briefing papers).

Figure 4. ST Interviewees by Gender, Modality and Location (n=119)

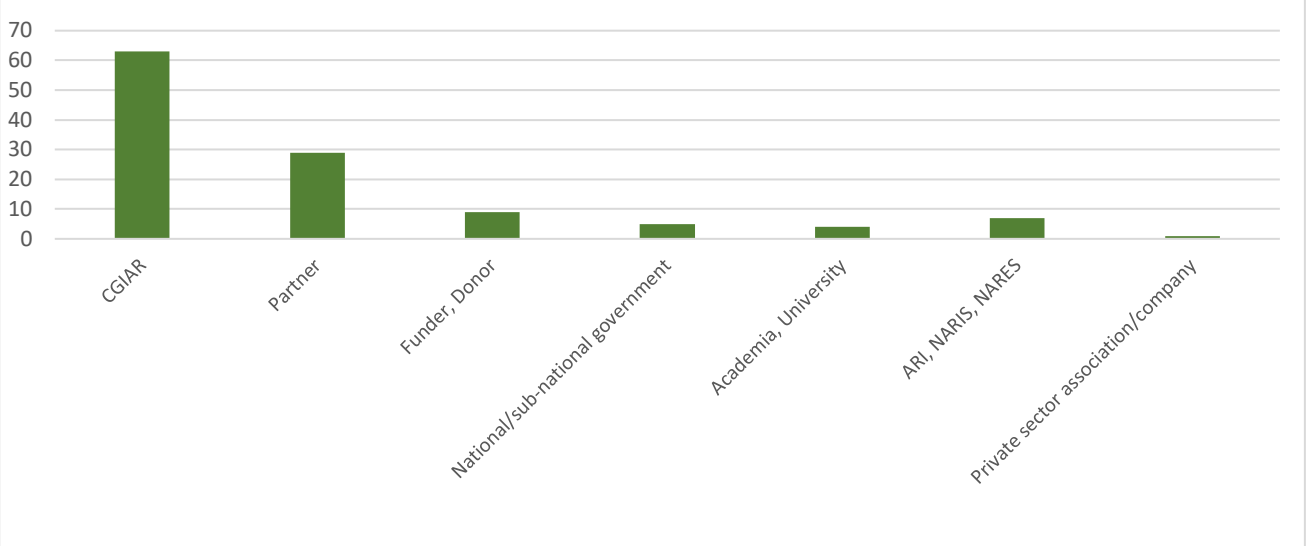


Source: ST SG Master List of Stakeholders, internal document

[3] The ST case studies were: Transformative Agroecology, Diversifying Food Systems and Diets for Improved Nutrition, Strengthening Resilience to Climate Change. The DD: Strengthening Policies and Institutions for Food, Land and Water Transformation. Reports available online.

[4] See Annex 7 for a full report on the ST online survey responses.

Figure 5. Numbers of Interviewees by Type of Stakeholder (n=119)



Source: ST SG Master List of Stakeholders, internal document

Additional analytical approaches included:

- ToC analysis to assess the validity of pathways through which initiatives aimed to achieve intended outcomes and impact.
- ST portfolio-wide and tailored analysis, process analysis of Initiative implementation, and content analysis of quantitative and qualitative data.
- Assessment of the QoS/research for development under the framework of ST initiatives.
- Comparative advantage analysis where relevant.

Case studies and DDs were conducted to generate evidence, learning, and recommendations on specific themes, aligned with the proposed science program areas for the draft 2025-30 portfolio. The case studies and DD summaries are included as Annexes 2 and 3, together with further details on methodology including case study and DD selection and analytical methods.

Quality Assurance

To ensure the quality of the evaluation exercise, IAES followed its layered quality assurance system, which involves: i) an internal peer review within the evaluation teams; ii) a second-level review by IAES; and iii) an external peer review mechanism(s) and the evaluation reference group of IAES.

3.2 Main Limitations of the Evaluation and Mitigation

The evaluations took place two years after the launch of the ST initiatives in 2022[5], which challenged assessing performance against planned outcomes so early. Against this backdrop, the exercise was not intended to assess mid- or long-term effects but rather the presence of the preconditions needed to attain the expected results in the future, as the new (2025-30) Science Program portfolio is emerging.

Monitoring data against the Performance and Results Management Framework (PRMF) was considered at ST SG level. Aggregated summary data on outputs and outcomes achieved at Initiative level against the corresponding Results Frameworks was inconsistent in its availability. On the one hand, information collected on outputs and outcomes is mainly qualitative; on the other hand, the Results Dashboard did not

[5] Fragility Conflict and Migration was purposely excluded from this evaluation as they only started in early 2023.

allow for comparison on what is achieved against what was planned in the ToC, nor does the structure of the annual Initiative reports facilitate conducting such a comparative exercise which limits the scope and quality of the analysis of effectiveness. Nevertheless, the report provides a rich analysis of progress achieved as well as challenges encountered and distills key lessons and recommendations for the future.

Although a broad number of countries and geographic regions were covered by the ST initiatives, only two field visits could be completed within the evaluation timeline, with an additional visit to the HQs of IFPRI in Washington DC. The online survey allowed for a wide range of stakeholders to be reached beyond the field visits (Annex 7 and online).

Finally, tight timing for data collection and completion of the report compared to the wide geographical and thematic coverage of SG's work was another important limitation.

4 Evaluation Findings

4.1 Relevance

EQ1: *To what extent does the ST SG research portfolio respond to its internal and external stakeholders' needs and priorities? Which stakeholders were engaged in the prioritization process, and how? How flexible and adaptable has the research portfolio been to increase its relevance and reprioritize around emergent needs?*

Key finding: There is mixed evidence on whether the ST portfolio adequately meets stakeholder (country-level) needs and research priorities for evolving FLW transformations. There was a limited consultative process to identify country specific ST needs and partnership opportunities, with stakeholders demanding regular engagement and adaptation. Combining a thematic focus (climate, nutrition, agroecology) with supportive/enabling themes (foresight, data/digital) worked well in principle in some countries but with limited success in translating to substantial outcomes in specific contexts. The risk of reactively responding to immediate stakeholder needs could neglect salient long-term priorities highlighted by foresight work and mega-trends analysis.

The launch of One CGIAR and the 2030 Research and Innovation Strategy created opportunities to consolidate past work and address new challenges. The 12 initiatives were seen as comprehensive by internal stakeholders. From 2022-24, the ST SG research portfolio implemented these initiatives through 51 WPs, involving internal and selective external stakeholder engagement. Internal stakeholders believed the ST research portfolio covers both past work and new opportunities. However, the depth of stakeholder interactions varied, and some external stakeholders struggled to relate to the initiatives and felt unable to provide feedback relevant to their country's needs. Some informants noted that the Initiative formulation was mainly internal and that **presentations by scientists** external to the country sometimes lacked local context.

The triangulated evidence from analysis conducted in the three case studies (Climate Change, Transformative Agroecology, and Nutrition) as well as the DD on Strengthening Policies and Institutions and interviews indicate that the research portfolio's response to national needs and priorities seems to vary significantly across countries. In countries such as Kenya and Ethiopia, where CGIAR has a strong presence, the research portfolio is considered highly responsive to country need and priorities. On the other hand, in other countries (e. g., Bangladesh), it was less responsive to national research/policy/capacity needs and priorities related to FLW ST. Those interventions that provided solutions to both national and local food system needs, using an integrated lens, were particularly valued by interviewees.

All three case studies emphasized the need for more targeted stakeholder engagement in aligning interventions with local needs and global objectives, which is crucial for impactful and sustainable

development. Some national stakeholders expressed the need for wider consultation at national and sub-national level and a larger role for CGIAR in the evolving FLW ST initiatives by engaging more effectively with national and regional development partners. A few interviewees mentioned that work packaging was a rushed process by pulling together on-going work and limited assessment of needs and opportunities. Country selection could also have been done more systematically by allowing more time and meaningful consultation.

The evaluation found that the design of the ST SG portfolio aimed to differentiate itself from past CGIAR work in several ways:

- Mainstreaming 'ST thinking' as an aspiration across, and within, initiatives. The intent was to go beyond just linking research to policy influence (which has long been a strength of CGIAR, especially at IFPRI), but to more fundamentally re-orient the research for catalyzing transformation of FLW systems toward more sustainable and equitable outcomes.
- Achieving thematic convergence by grouping initiatives under the ST umbrella based on their contribution to transformative systems change, rather than the traditional sector silos.
- Emphasizing geographic convergence by identifying key regions and countries where multiple CGIAR Initiatives would concentrate efforts to maximize synergies and impacts.
- Elevating climate change, gender equity and inclusion, and nutrition as overarching priorities that Initiatives should intentionally integrate and advance through their work.

However, challenges in operationalizing and implementing these design principles in practice were found. Significant learning occurred in the two years, which many stakeholders found valuable for future efforts.

ST ultimately takes place at national and sub-national levels, and through influencing global discourses– particularly around transformative change in food systems. Perspectives stared during evaluation indicate that in designing the ST portfolio, a systematic assessment of country-specific needs and priorities was not conducted to look more comprehensively at national FLW systems and aligning these needs with global priorities. This approach would have helped identify key gaps in knowledge/research, policy, and capacity.

The ST Action Area initially had 11 initiatives, and later expanded to include a 12th initiative on Fragility, Conflict, and Migration. This addition was viewed as an opportunity to address emerging issues. However, some internal interviewees doubted ST SG's capacity to handle a demanding new initiative, citing implementation challenges and concerns about strategic drift. Nevertheless, it serves as a good example of CGIAR's ability to adapt and reprioritize based on emergent needs, albeit in a reactive manner.

EQ2: *How well have the ST SG strategies and objectives been articulated in terms of a ToC and impact pathways and drawing on comparative advantage? How well aligned are the SG objectives, scope of initiatives, and activities? What is the evidence-base behind assumptions underlying the impact pathways? How valid were they considering internal and external contextual factors?*

Key finding: The ToC brought scientists together to understand complexity and collaborate at various levels but exposed limitations in use of evidence, assumption validity, and practical application for planning and reporting. The notion of impact pathways may vary by country; there is a need to better understand the FLW systems in specific country contexts and examine specific knowledge, policies, capacity gaps that can optimize CGIAR's contribution in specific contexts. Moreover, lack of common understanding of the practical vision for ST across stakeholders globally remains an issue.

As described in the 2030 Research and Innovation Strategy, initiatives in the ST Action Area fall into two clusters (see sub-section: 2.2 Management and Governance of the ST SG).

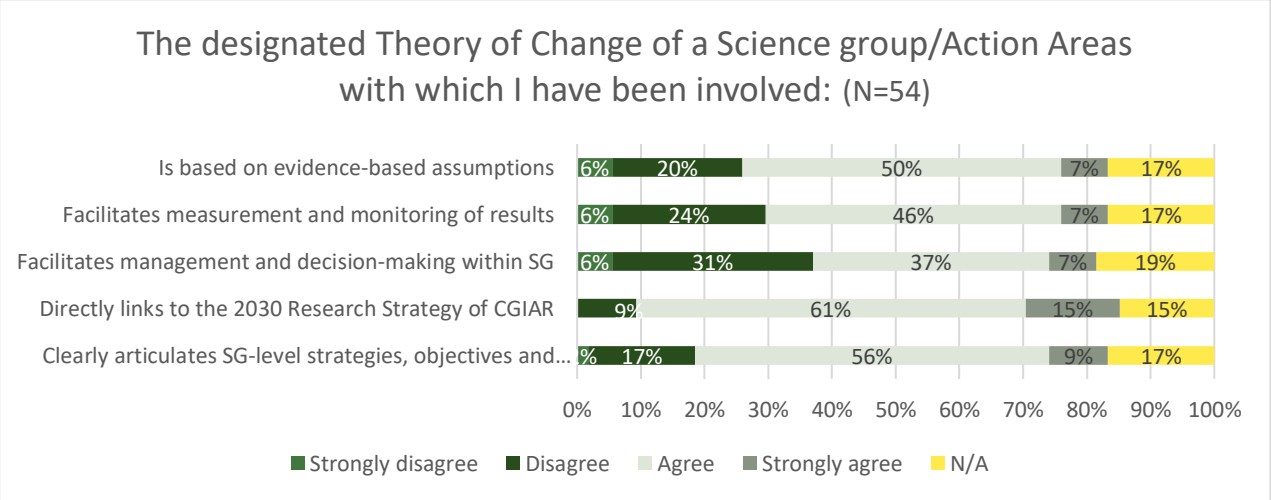
The ST SG ToC (Figure 1) marks the first attempt by CGIAR to formulate a logically coherent framework to explicitly define its work and contributions towards FLW ST. The ToC builds upon CGIAR's experience and

comparative advantage, but no clear evidence base could be identified on which the ToC is based. The ToC originally identified a set of 11 research Initiatives which, when implemented through various national and international innovation and scaling partners, would lead to seven behavioral outcomes. In the longer-term, these outcomes would contribute to five Impact Areas related to the sustainable development goals (SDGs). A key assumption for the ToC is that national and international partners would implement and scale up CGIAR's contributions (outputs) to lead to behavior change outputs and SDG-level impacts, which is seen as both ambitious and unrealistic by many internal stakeholders. The later inclusion of the 12th Initiative complements the other 11 Initiatives, while also enhancing the ambition and scope of the ST Action Area. Moreover, the increasing complexity and broader scope of the ToC revealed its weaknesses, such as gaps in evidence, questionable assumptions, and difficulties in planning and reporting.

While the ST level ToC a broad framework, the Initiative level ToC brought together scientists from different disciplines to develop and implement 51 WPs which respond to the ST SG objectives and suggested pathways.[6] The fact that this was accomplished in a limited timeframe impressed several stakeholders, while acknowledging the challenges and demands it entailed. The online survey included two questions on ToC (one at SG level and one at Initiative level), with relevant responses summarized in Figure 6. While most ST respondents to the online survey felt that the ST ToC is directly linked to the 2030 research strategy, only 57% agree that it is based on evidence-based assumptions and only 45% agree that it facilitates management and decision making within SG. The responses regarding the Initiative level ToCs are more positive, as reflected above. Similarly, only 53% of the respondents viewed that the SG ToC facilitated measurement and monitoring of results.

Several internal stakeholders mentioned the highly ambitious scope of the ToC at ST level considering the limited capacity and comparative advantage of CGIAR in such areas as climate resilience and fragility. Many stakeholders recognized comparative advantages in agriculture and food systems research and policy but noted limited capacities in cross-sector initiatives and driving system-wide transformative changes. In addition, several internal stockholders acknowledged the lack of a commonly accepted definition of ST across the ST SG and other SGs.

Figure 6. Survey Respondents' Views on the SG/Action Area ToC worked with–ST SG (internal)



Source: IAES SG Evaluation Survey, 2024

[6] CGIAR uses a 'nested' ToC approach that progresses from a very high level of abstraction at the overall portfolio level, with increasing detail to Action Areas, initiatives, and WPs.

How well aligned are the SG objectives, scope of initiatives, and activities?

The ST SG ToC represents a significant effort to align research outputs with anticipated outcomes and impacts across various themes, including climate change, nutrition, and gender equality. Many stakeholders viewed the broad objective of ST SG Action Area "to forge, with partners, ambitious new multi-sectoral policies and strategies for FLW ST in 50 countries across six regions" not only ambitious but impractical considering CGIAR's capacity and funding constraints.

Internal interviewees remarked that ToC for majority of the Initiative-level proposals and of WP designs considered pre-existing and on-going partnerships. Wider consultation with stakeholders on their scope of objectives and activities saw conflicting views: on the one hand, they were viewed as better aligned to ST pathways, and on the other hand – pointed to a considerable room for improvements. In most cases, the Initiative-level ToC was viewed as most practical and useful for all (except for those which did not develop specific targets) and was used for measuring progress against promised outputs/outcomes to adapt activities as needed. This was noted as a progress from ToCs under the CRPs, which were used during design but were not used as such in implementation and reporting.

The need for a commonly understood definition and further articulation of CGIAR's vision for and role in ST that is based on evidence and adaptable to various country contexts is captured in the following remarks repeatedly made by stakeholders:

- FLW systems tend to be complex in scope although they have some overlapping elements; they may require distinct ST strategies while emphasizing common elements and feedback.
- There is a lack of clear understanding among internal stakeholders as to how to translate research and policy work to ST results at various levels.
- Influencing capacity change is an ambitious undertaking and requires continued engagement and follow up. CGIAR has limited coordinated engagement with country level stakeholders, which requires reconsidering strategic advantages and internal capacity alignment.
- The need and potential for ST is at national and sub-national levels, so the planning/design process needs to start at country level, involving key national/sub-national and development partners, based on a deeper understanding of country-specific pathways to transformative change.

What is the evidence-base behind assumptions underlying the impact pathways? How valid were they considering internal and external contextual factors?

The 2030 Strategy states that CGIAR measures its effective contributions from research to impact along **three main pathways within innovation systems**:

- Science-based innovation: a co-development of sets of knowledge/research products, technologies, services, and other solutions along a scaling pathway.
- Targeted capacity development: working with individuals, firms, and organizations, designed to improve the utility and use of technological and institutional solutions.
- Policy advice: includes business strategies, institutional arrangements, and investment programs, together with more formal public policy sector instruments.

While the above points seem logical and coherent, when operationalized at the level of the ST SG, the experience thus far has varied across countries and contexts. One recurrent finding across interviews and technical progress reports is that ST occurs primarily at national and sub-national levels. A key assumption is that the demand partners would benefit from the ST SG's outputs and help translate them to outcomes and impacts, but there was no basis to test this assumption in the evaluation timeframe. The review of the past two years' experience could not confirm how CGIAR's current capacity and operational approach will translate such an ambitious agenda of innovation/knowledge or capacity and policy outputs (sphere of control) into outcomes (sphere of influence) expected by donors and other external stakeholders. During

country visits, the team found a lack of clarity on how the concept of impact pathways is to be operationalized at national levels to bring about intended transformative outcomes and impacts as there was no clear evidence that country-specific impact pathways were being developed or discussed.

4.1.1 Conclusion

It is both strategic and beneficial for CGIAR to play a leading role in applying systems thinking to address complex issues at the intersection of land, water, biodiversity, food, climate change, and governance, evident in the Nexus Gains Initiative. However, the rigidly defined initiatives and quick consultation process restricted the potential to explore research and policy gaps, constraining broader engagement with national stakeholders and development partners which limited the scope and relevance of ST initiatives in some contexts.

Evaluation findings (interviews and the survey) on ST ToC show its limitations with respect to its use in planning and results-based monitoring and reporting in the medium term (versus for impact assessments).[7] The fact that the internal stakeholders viewed limited use of the ToC for management and decision-making has further implications for its practical value- that need to be addressed in going forward. In view of the complexity of FLW, learning from the relevant literature and documented evidence as well as wider consultation involving scientists as well as practitioners and program experts is warranted.

For CGIAR to be a more relevant and effective partner in the transformation agenda, there will be a need to be more systematic in understanding gaps in national systems, improve internal capacity to engage more effectively in developing a more tailored research agenda that is responsive to specific country contexts while addressing globally identified challenges. This requires reassessing and investing in CGIAR's strategies, scope of work and capacities to respond more purposefully, and systemically, to the evolving/existing transformation strategies at regional and country levels.

4.2 Quality of Science

The commitment to QoR4D framework shapes CGIAR's institutional identity, making QoS a cornerstone evaluation criterion (Evaluation Policy 2022). The QoS evaluation criterion focuses on scientific credibility and legitimacy (see guidelines). Case studies under the ST SG evaluation mainly provided assessment on QoS.

EQ3: *To what extent do the management processes of the SG ensure the QoS (including credibility, legitimacy, relevance to next stage users, and potential effectiveness) of the research and operations?*

Key finding: The ST SG initiatives upheld high scientific standards through cross-center and cross-initiative collaboration, promoting diverse perspectives and standardized methods. However, there is room for improvement in coordination and consistency across initiatives. Scientists' limited understanding of effectively working with various stakeholders can hinder the quality and relevance of research outputs. It is uncertain whether a consistent internal review process for non-peer-reviewed knowledge products is being uniformly implemented across all initiatives and centers.

The ST SG initiatives generally maintained high standards of scientific quality through robust management processes, credible methodologies, stakeholder engagement, and capacity building. ST initiatives expanded CGIAR research into new areas such as food environments, consumer behavior, and food ST, which are highly relevant to the nutrition, health and food security Impact Area. This suggests the research agenda is appropriate and coherent with CGIAR goals. The Climate Change Case Study identified the use

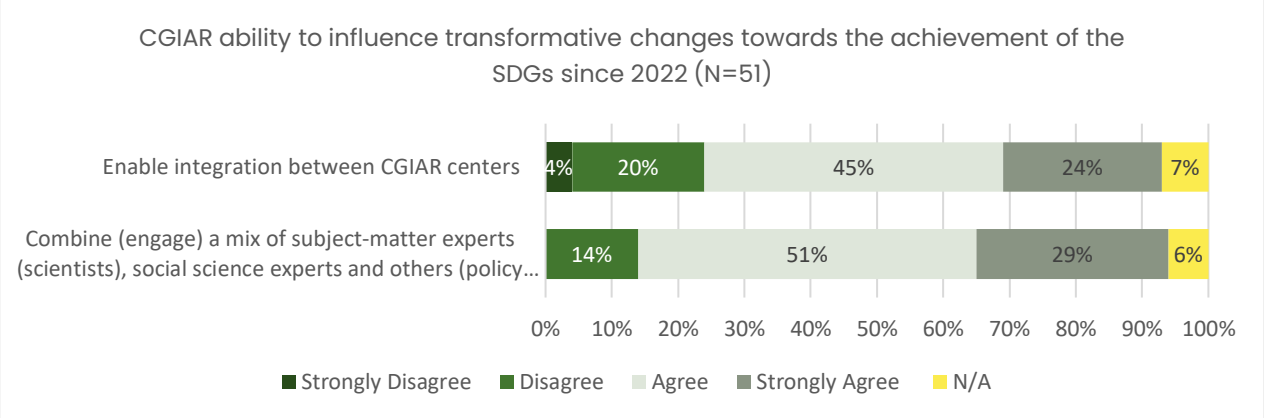
[7] See related recommendations in 2024 Synthesis of Evaluability Assessments.

of interdisciplinary approaches and the integration of traditional and scientific knowledge, where this took place, as positive indicators of research design appropriateness.

Cross-center and cross-Initiative collaboration ensured the integration of diverse scientific perspectives and promoted standardized methodologies and shared protocols across centers to ensure consistency and reliability. The ST structure deepened cross-center programmatic collaboration within initiatives, drawing together diverse skills across CGIAR to address complex food system issues, enhancing research credibility. The importance of diverse research teams, including the involvement of non-CGIAR partners to complement internal skills and improve expertise across disciplines for ST, was noted. **Exposure to different ways of working and collaborating with teams outside of CGIAR was crucial for taking a systems approach.** Co-written publications with globally recognized researchers, e.g., the Intergovernmental Panel on Climate Change (IPCC) authors in the case of climate change, resulted in more widely cited papers in high-impact journals, especially for multi-disciplinary topics of global relevance and conceptual papers.

Figure 7 shows strong support for fostering interdisciplinary collaboration and integration within CGIAR and with external partners, with 69% of respondents advocating for engaging a diverse mix of experts. Additionally, 80% of ST SG-affiliated respondents emphasized the importance of integration between CGIAR centers. However, challenges such as coordination issues across initiatives and unclear criteria for staff advancement through impactful research, which vary by center, need addressing. Journal publications are also disproportionately favored in assessing the QoS.

Figure 7. Respondents' Views about CGIAR's Ability to Influence Transformative Changes (internal)



Source: IAES SG Evaluation Survey, 2024

One of the challenges identified was whether to develop policy briefs before or after research peer review. This points to the potential trade-off between providing timely evidence to policymakers and quality assurance. Policy briefs that precede quality-assured papers should ideally contain a caveat to that effect, with a cautionary note that policy recommendations may be adapted after completion of a quality assurance process, which should preferably include external peer review. Furthermore, limited understanding and engagement by scientists on how to effectively communicate findings to networks and communities can hinder the quality and relevance of research outputs. However, annual reports show that ST initiatives prioritized engagement with local partners throughout the research process to ensure relevance and build capacity with complications having arisen due to changes in CGIAR budget and administrative policies. Strong local networks also enable science quality, but central CGIAR-level management and funding issues constrained this.

It is not clear whether a consistent and rigorous internal review process for non-peer-reviewed knowledge products was being implemented across the initiatives and centers; guidelines for this could not be found. Although every initiative proposal included a general paragraph on research governance, how this is being

implemented is unclear. Similarly, while initiative proposals mentioned abiding by appropriate ethical and scientific standards, guidelines for the oversight process to implement ethics policies across initiatives and centers do not appear to exist.

EQ4: *In what ways are the research outputs by the ST SG of high quality and influential?*

Key finding: ST initiatives demonstrated strong scientific credibility by publishing high-quality, peer-reviewed research across various disciplines, which is influencing global dialogues and national-level actions on nutrition, healthy diets, and food ST. While these achievements are significant, some areas for improvement were highlighted, including the narrow scope of some field trials, the absence of comprehensive policies on intellectual property and research ethics guidelines, and barriers to adopting interdisciplinary approaches.

ST initiatives demonstrated strong scientific credibility through their publication of substantiated, verifiable results in highly cited peer-reviewed journals across disciplines. Journal articles were published in outlets with impact factors ranging from 5.5 to 23.2, covering critical topics like climate change adaptation for livestock, women's resilience in climate governance, social protection systems, and food ST pathways. Many research outputs displayed originality, novelty, and potential to generate new international public goods.

Initiatives are also making important contributions to emerging research areas through peer-reviewed publications that have garnered significant attention. For example, publications affiliated with the SHiFT initiative exploring novel concepts around food environments achieved top Altimetric scores of 580 and 271, indicative of high influence. Complementing the formal scientific outputs, initiatives prioritized accessible knowledge products such as reports, policy briefs, blogs, and social media outreach aimed at next-stage research users, implementation partners, and broader public audiences.

While quantifying the quality and real-world policy or program impacts of materials that are not peer-reviewed remains challenging, there are indications that CGIAR's research is already influencing global dialogues and national-level actions related to nutrition, healthy diets, and food ST in the face of climate change and biodiversity loss. Across several initiatives, renowned researchers and partner organizations are leveraging CGIAR's innovative work to shape policies, programs, and interventions promoting dietary diversification and land- and water use adaptations in focus countries. The four case study initiatives considered in the Nutrition Case Study- CGIAR Initiative on National Policies and Strategies (NPS), Food Markets, SHiFT, FRESH-have significantly expanded CGIAR research efforts and have the potential to influence global, regional, and national strategies in the areas of food ST, food environments, consumer demand, and the fruit and vegetables value chain**.**

However, the Agroecology and Climate Resilience case studies under ST SG identified some challenges that could compromise the QoS. In some cases, the scale of field research trials, such as the agroecology field trials for testing organic manures and integrated pest management, is small. Consequently, the results from such trials may not be representative and reliable enough to draw conclusions.

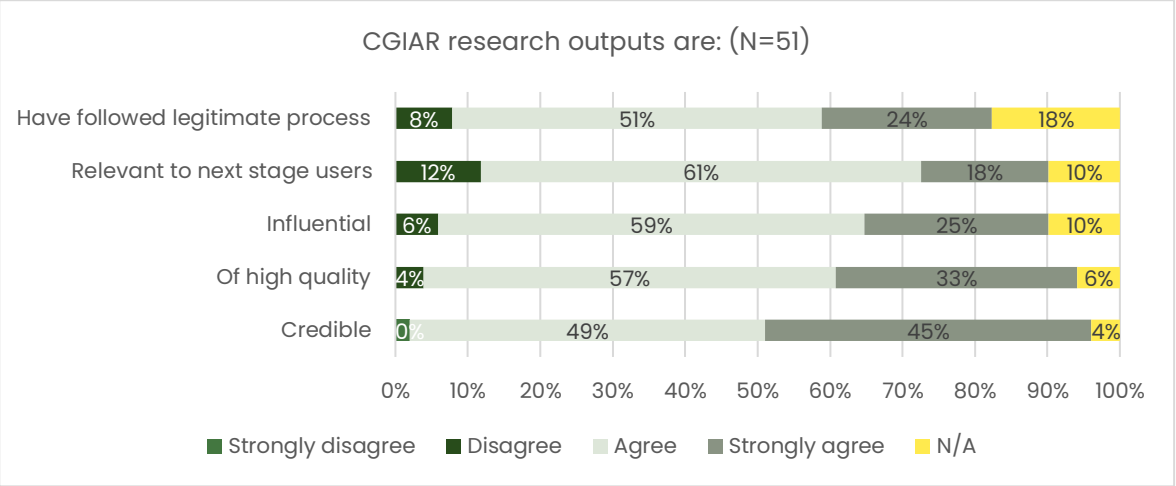
All ST case studies found lacking CGIAR guidelines around managing Intellectual Property and fair benefit sharing. In some instances, the existing research ethics guidelines varied or were not applied consistently across Centers[8]. Challenges were reported to adopt interdisciplinary approaches to addressing complex resilience challenges at the interface of livelihoods and FLW in the face of climate uncertainties. While there were purposeful efforts to work across disciplines and across the value chain in the nutrition-focused

[8] Related is CGIAR Principles on the Management of Intellectual Assets ("CGIAR IA Principles") 2012.

initiatives, respondents expressed concern that the [new] science programs would revert to siloed disciplinary approaches without developing solutions across all nodes of value chains.

According to the online survey results (Figure 8), most ST respondents were positive about CGIAR research outputs across various dimensions—credibility, quality, influence, relevance, and legitimacy. This indicates strong overall confidence in the work produced by CGIAR. Specifically, 94% of respondents said they find CGIAR's research outputs to be credible, while 90% said they agree that the research outputs are of high quality. 84% of respondents view CGIAR's research as highly influential. Regarding the relevance of CGIAR's research to end users, 79% of respondents believe it is relevant and 75% of respondents believe that CGIAR's research follows a legitimate process.

Figure 8. Online Survey Respondents' Views about Quality of CGIAR Outputs–ST SG



Source: IAES SG Evaluation Survey, 2024

EQ5: *How do the research outputs contribute to advancing science?*

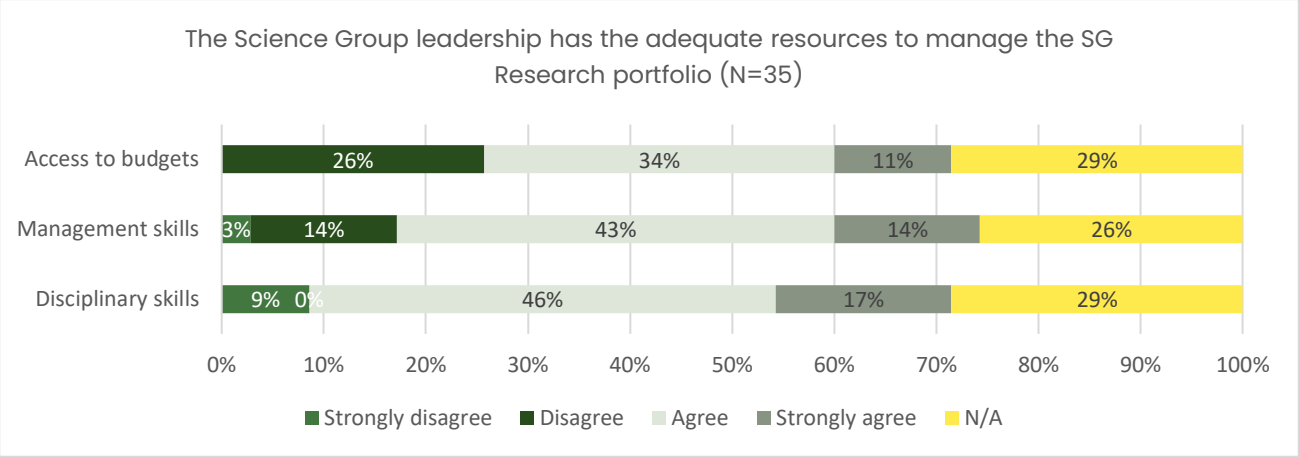
Key finding: The SG structure promoted deeper cross-center programmatic collaboration within initiatives, leveraging diverse skills and funding across CGIAR to address key research topics. This collaborative approach ensured comprehensive, multi-faceted research that built upon existing knowledge within the CGIAR network. ST's research outputs are increasingly influencing global scientific and policy discourses, with widely read and cited journal articles and strategic partnerships positioning ST research to shape global conversations and decision-making processes.

How adequately did ST collaborate with CGIAR centers and/or their grants held bilaterally to enhance the scientific credibility of CGIAR?

Compared to the CRPs, the SG/Initiative structure has facilitated deeper and higher quality cross-center programmatic collaboration within initiatives, drawing together diverse skills and funding from across CGIAR to address key research topics. Leads and researchers from different centers have worked together to design integrated proposals and implementation processes, which had not happened to the same extent before. Previously, cross-center collaboration meant sharing results rather than creating integrated workstreams. This collaborative approach has ensured that research was comprehensive, multi-faceted, and built upon existing knowledge within the CGIAR network. Cross-center collaboration is potentially a key strength, which promotes integration of diverse scientific perspectives, expertise, and resources.

However, there is still considerable room for improvement, particularly in sharing pooled and bilateral funding and avoiding duplication. Initiative leads were not able to control that Initiative budgets allocated to centers were used according to the initiative plan of work, which sometimes created tensions.

Figure 9. Online Survey Respondents' Views on Resources to manage the SG Research Portfolio-ST SG



Source: IAES SG Evaluation Survey, 2024

How aligned is the research adhering to good scientific practice, including aspects such as peer review, to ensure the highest standards of credibility?

The credibility of ST's research is strengthened through consistent references to prior research, the use of established methodologies, and active engagement with scientific peers. This demonstrates a commitment to building upon existing knowledge and ensuring the reliability of research findings.

Journal articles published by ST researchers demonstrated a strong commitment to scientific rigor. This was evident through methodological transparency, adherence to ethical research practices, and the use of peer review standards. By upholding these standards, ST research maintains a high level of credibility within the scientific community.

The number of peer-reviewed publications and innovations reported by the case study initiatives suggests that research leaders and staff were highly productive. However, the long lead time for peer-reviewed publications means that many may derive from research initiated under previous programs rather than the relatively new initiatives. Initiatives building on previous CRP programs[9] (e.g., FRESH, SHiFT) may have benefited from a head-start in terms of publications, partnerships, and other outputs, potentially influencing the volume of publications produced when compared to newer initiatives not directly linked to previous CRPs/programs (e.g., Agroecology, Mitigate+). Clearer CGIAR-wide guidelines could improve the consistency of output reporting across entities, and accuracy of tagging and coding of publications in databases. Moreover, there appears to be variation in the reporting of outputs and outcomes across initiatives. Some initiatives report a wide range of outputs, which included informal materials such as presentations, while others may not have included such materials in their reporting. Establishing a consistent approach to define what constitutes a knowledge product across different types of initiatives (e.g., biophysical vs. policy-oriented) could help standardize reporting practices. CGIAR could set the standards in how to value/assess the quality of various types of research related outputs.

How did the ST SG collaborate with NARES to enhance the scientific credibility of CGIAR?

[9] A clear example of this can be seen in the nutrition-related initiatives (FRESH and SHiFT) which build on the legacy left by the CRPs on Agriculture for Nutrition and Health (A4NH) and Policies, Institutions, and Markets (PIM).

ST SG initiatives collaborated with NARES and other researchers to enhance the credibility and relevance of its research, although the extent and effectiveness of these collaborations varied across initiatives and regions. Positive examples of collaboration were observed in initiatives such as SHiFT and FRESH. Similarly, FRESH and most of the Kenya-based programs drew on a range of non-CGIAR partners, including local universities and national research institutions, for initiative design and implementation. In Kenya, national research partners appreciated the facilitating role of ST initiatives and CGIAR centers in linking them to global forums and funding sources.

However, some regional NARES and other external experts noted and weaknesses of CGIAR's collaborations with NARES in Africa, particularly in capacity sharing and strengthening the ability of NARES to lead the delivery of quality, impactful research in the region. This raise questions about how capacity sharing should evolve over time as NARES capacities expand, and whether there is a need for a more nuanced approach to collaboration that recognizes the varying levels of NARES capacity across different research areas and regions. A concern was raised about the adequacy of CGIAR's commitment to capacity sharing, given growing challenges presented by climate change, food security and growing north-south differences in science capacity. In Bangladesh, the effectiveness of working with NARES in recent years has been mixed, as indicated by external stakeholders who suggested the need for CGIAR to work more closely with NARES on joint initiatives.

While partnerships with NARES facilitated the exchange of knowledge, data, and expertise in some cases, the inconsistency across initiatives and regions was found, which sometimes undermined the credibility and relevance of its research. Evaluation did not find evidence of the CGIAR Partnership Framework's reference in influencing and guiding these collaborations: many respondents were not very familiar with the framework, despite initiatives and researchers making efforts to ensure more inclusive design and implementation. Notably, discussions with external stakeholders from African institutions revealed that African NARES felt disengaged and unheard during the 2022 initiatives roll-out, leading to a multistakeholder delegation meeting with the CGIAR executive management team to develop a Memorandum of Understanding (MOU) and action plan to resolve this issue. However, the lack of resources to implement this plan and the uncertainties due to the future scope of the SGs may have further complicated the process. Ensuring effective communication, meaningful engagement, and adequate resource allocation for partnerships with NARES and other external partners will be crucial for the ST SG moving forward.

To what extent did the Integration Framework facilitate integration of science delivery for the ST SG?

There is insufficient evidence to determine the extent to which the Integration Framework (2022) facilitated the integration of science delivery for the ST SG. Due to inconclusive evidence, it is difficult to draw any substantive conclusions. Further investigation and targeted data collection would be necessary to adequately assess the role and effectiveness of the Framework in promoting integrated science delivery within the ST SG.

What is the evidence that ST SG research initiatives were co-developed with researchers in the global south?

Several ST initiatives actively co-developed research with partners in the global south to ensure alignment with local priorities, promote local ownership, and enhance the uptake and impact of research findings. For example, SHiFT established partnerships with key national actors responsible for implementing follow-up actions to the 2021 United Nations Food Systems Summit (UNFSS) process in its target countries, leveraging these members' participation in stakeholder consultations to collaboratively develop and implement activities. Similarly, FRESH drew on a range of non-CGIAR partners, including local universities and national research institutions, for initiative design and implementation.

NPS rapidly mobilized collaborative research with national partners on their crisis response and social safety net assessment priorities, bringing together national expert teams to co-create analyses and strengthen capacity on topics requested by partner governments. In Kenya, national research partners appreciated the facilitating role of ST initiatives and national CGIAR institutes in linking them to global forums and funding.

However, measuring the extent and effectiveness of partner engagement in research co-development remains a challenge. The 2021 CRP Synthesis highlighted the need for better partnerships at the local level in research design and implementation. An analysis of peer-reviewed publications and other publications with local partners as lead authors, compared to earlier years, could provide a clearer picture of progress in this area. While there are indications of efforts to put more local partners in the spotlight, there is no systematic way to document this. Moreover, internal interviews suggest that scientists who want to expand collaboration with local partners feel they are not adequately rewarded for doing so, as the emphasis for advancement still relies heavily on peer-reviewed publications.

What is the evidence regarding how SG outputs influenced global discourses e.g., citing in scholarly research?

ST's research outputs demonstrated growing influence within global scientific and policy discourses. Journal articles published by ST researchers are widely read and cited, indicating their relevance and impact within the scientific community. ST's research outputs were designed to be influential and scalable through strategic partnerships with key stakeholders, including policymakers, practitioners, and international organizations. By targeting these audiences and tailoring outputs to their needs, ST research positioned itself well to shape global conversations and decision-making processes. Examples include:

- ShiFT is a core partner in the current UN Food Systems Summit process focused on implementing national food system transformation pathways.
- ST researchers are involved in global climate assessments such as the IPCC.
- FRESH and ShiFT researchers are helping to build the evidence base and methods for the emerging field of food environment research, while also engaging directly with national policymakers to inform government action.

Other substantial examples with potential for scaling and influencing broader initiatives included:

- Solar irrigation, tested by the Nexus Gains Initiative in Ethiopia, Nepal, India, Pakistan and Uzbekistan, as a potential game-changing technology to enhance production, groundwater sustainability, inclusion, economic growth, and ecosystem health.
- HER+ successful engagement with various stakeholders through workshops and collaborative approaches, resulting in scalable intermediate outcomes that can be adapted to different contexts.
- NEXUS Initiative focus on strengthening governance at multiple scales, demonstrating how multi-faceted strategies can be effectively scaled to address complex, interconnected challenges of climate change adaptation.
- Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA), a project built on inherited partnerships and knowledge products to materially replicate climate-smart agriculture interventions at regional level.
- The Climate-Smart Agriculture Framework in Ethiopia outlined a structured approach involving stakeholder consultation. identification of scaling domains, and community engagement, which

enabled targeted planning and differential impacts based on regional conditions. While not directly under ST,[10] selected staff of IFRPI and Alliance/CIAT were engaged under bilateral funding.

How effectively are the research findings presented and logically interpreted, reflecting a commitment to clear communication and comprehension?

Overall, ST initiatives' research findings are presented effectively, reflecting a commitment to clear communication and accessibility. Efforts are made to present findings in formats that are engaging and easy to understand, such as policy briefs, infographics, and user-friendly reports.

However, there is a need for better integration of research findings into policy and practice. Evidence suggests that the impact of ST's research on decision-making processes varies across initiatives and regions. Strengthening the linkages between research and decision-making processes, with the help of implementation partners, remains an area for improvement, to ensure that ST's research translates into tangible impact. Further investigation into successful cases of research-policy integration, such as those observed in certain initiatives or countries, could provide valuable insights and best practices for enhancing the impact of ST's research across the board.

For instance, the Nutrition Case Study initiatives (NPS, Food Markets, SHiFT, FRESH) placed significant emphasis on communicating research through a variety of accessible formats, channels, and media. Developing and monitoring a clear research communications strategy that articulates standards for effective, accessible research presentation, could be beneficial. The Climate Resilience Case Study found that initiatives in Kenya played an important supporting role in the development of training courses in agricultural adaptations to climate change, aimed at smallholder farmers. A good working relationship with local non-profit organizations working with farmers on the ground was crucial for the uptake and horizontal diffusion of this training. Producing easily understandable, credible basic information about the impacts of climate change on food security, and farming practices that can increase resilience to climate change, in collaboration with implementation organizations, would facilitate smallholder farmers' awareness.

What factors are influencing the quality and influence of research outputs and how can they be enhanced?

Robust methodological frameworks, interdisciplinary approaches, active stakeholder engagement, and a focus on research outputs with high potential for influence and scaling are key strengths contributing to the influence of ST's research. Complementing the interviews, online survey results (Figure 9) highlight factors that influence the quality and influence of research outputs. Funding uncertainty emerged as a prominent challenge, with respondents noting that it "makes it difficult to plan proper research" and constrains delivery in some initiatives. One respondent mentioned that "spreading work over many regions within initiatives is logistically challenging for global teams," which is especially relevant when forging new teams.

The pressure to deliver a high number of outputs in a limited time was another concern raised by several stakeholders. Some respondents observed that in some instances products were rushed out and therefore resulted in being of a lower quality than they should be. One respondent pointed out that "leaders/teams being overcommitted has driven a push to produce as many outputs as possible regardless of the quality, which has also discouraged work-life balance, impacting wellbeing of staff and their ability to generate quality outputs".

Furthermore, reform fatigue and constant change, which increases the administrative burden, were also mentioned as factors affecting the quality and influence of research outputs, especially when considering

[10] Tasfaye et al. 2021 https://hdl.handle.net/10568/117472.

their effect on staff morale. Some interviewees expressed their preference for delivering on their current commitments without having to engage in more change.

To enhance the quality and influence of research outputs, addressing these challenges is crucial. Stable, multi-year funding that allows for ongoing partner engagement and sufficient time for research to mature is likely to improve research quality and influence. Expanded metrics that better capture the quality and influence of non-peer-reviewed outputs, measure the extent and efficacy of partner engagement and capacity strengthening, and assess policy impact could provide a more comprehensive picture of research for development contributions. Additionally, continued support for and resourcing of the cross-center, cross-disciplinary collaboration facilitated by the ST/Initiative structure will be important for maintaining and improving science quality and influence in the future.

4.2.1 Conclusion

The commitment of ST SG to maintaining high standards of scientific quality is evident across initiatives. The organization successfully integrated robust management processes, credible methodologies, and strong stakeholder engagement to enhance the legitimacy and practical applicability of research. However, continuous improvement in methodology, collaboration frameworks, communication strategies, scaling mechanisms, and capacity building remain essential to further enhance the quality and impact of scientific research.

4.3 Coherence

***EQ6**: How coherent and compatible has the design and implementation of the ST SG portfolio been towards CGIAR's 2030 Research Strategy?*

Key finding: Success in internal collaboration and coherence is evident during planning/design phase, but challenges were faced in implementation due to budget cuts, funding uncertainties, and operational issues (weak coordination in some initiatives/countries, working in silos). Many good examples of coherence in design (and implementation) are also documented in the case studies and DD. Improving structured collaboration and better integration at various levels is needed to overcome challenges.

ST SG initiatives have strived for and accomplished some success in achieving internal collaboration and coherence in the design phase. However, the implementation phase faced challenges due to budget cuts, funding uncertainties and operational issues including the struggle to maintain alignment due to varying priorities and siloed execution. As indicated by several stakeholders, many of these problems stemmed from hasty, unstructured planning of SGs in the initial stages and limited consultation at country level in developing the research, as well as poor incentives for coherence and unclear criteria for differential funding allocation. These mistakes should be avoided when finalizing the future portfolio's science programs. Coherent programming requires a systematic approach and incentives for collaborative effort across initiatives to assess and respond to research, policy and capacity needs in specific contexts. Some positive examples include:

- Collective participation in multi-stakeholder climate adaptation platforms in East Africa.
- The efforts of the Climate Change and Gender Impact platforms, and their associated Communities of Practice (CoP), to bring researchers and outputs together. These efforts are important to take forward and refine, despite their short duration and practical implementation challenges.
- The Climate Observatory is using information on shocks—conflict and violence to allow governments to identify where the conflicts are occurring across space and to allow better allocation of resources. This was done in 13 countries in partnership with IOM, UNHCR and others. There is interest in pulling together tools developed by scientists and promoting their applications more widely.

- Joint activity planning and implementation involving different initiatives, e.g., participation in the CoP 28 engagements, involving HER+ and the Agroecology initiatives (p. 19, Agroecology Case Study).
- HER+ worked with NPS and the Gender Impact Platform to create a video and curriculum to empower women to demand assets for climate resilience in India and associated training using these tools (CGIAR Research Initiative on Gender Equality, 2024).
- Development of a resource guide on multistakeholder platforms, that involved the initiatives on Agroecology; Mitigate+, and NEXUS) (CGIAR Initiative on Agroecology, 2023).
- Foresight collaborated with NPS and national partners in Egypt, Kenya, and Nigeria to analyze impacts of the conflict in Ukraine on prices, incomes, and food security, and to engage with decision-makers to inform policy choices; and to conduct agrifood system diagnostic studies in these same countries, as well as in states in India (CGIAR Initiative on Foresight, 2024).
- The crucial role of CGIAR country conveners, despite their scant resourcing, in linking CGIAR research initiatives to the needs of national and local implementing organizations.

Some stakeholders felt that the SG structure integrated coherent programming compared to the previous CRP model. The ST/initiative structure facilitated this by deepening cross-center programmatic collaboration to a much greater extent than was possible under CRPs. Those tended to function more as loose umbrellas for individual research projects. In contrast, the ST initiatives, smaller than CRPs, enabled joint design of integrated program packages across centers within each Initiative. This allowed diverse CGIAR skills to be purposefully combined to address issues cohesively within the SG. This closer programmatic collaboration facilitated the development of multiple innovations and policies that could be bundled together to meet the intersecting constraints faced by farmers and small and medium enterprises (SMEs). Initiatives such as Food Markets demonstrated how packaging complementary solutions increased the potential for adoption and scaling by comprehensively addressing producers' and value chain actors' various needs.

EQ7: *In what ways have SGs addressed key considerations and opportunities for enhancing coherence across, between, and within each SG?*

Key finding: Coherence in programming requires involving key external stakeholders in conducting joint problem/needs assessments, identifying niche priorities together, and defining success together, which varied across initiatives/countries. There is also a lack of unified vision and understanding of the principles and strategies related to ST, especially on influencing transformation at national level.

A major opportunity and effort for pre-emptively enhancing coherence was noted during the Initiative level work planning and packaging for the 2022-24 portfolio. Desk review findings and interviews showed that coherence across research, policy, data and foresight spheres were explored during the work packaging process. As part of this process, opportunities were explored through consultations with demand partners at national and regional level which were considered in defining coherence at thematic and geographic levels. The process of formulating regional integrated initiatives such as AICCRA to address the complex challenges of climate change provided yet another opportunity.

Several stakeholders indicated that these processes were partly successful and could have benefited from wider consultation with stakeholders, which was not possible due to a limited time frame and in many cases carryover of previous CRP portfolio. National level stakeholders also suggested the need for wider consultations and the importance of looking at system level gaps and opportunities for planning and designing CGIAR's research and policy initiatives.

During implementation, regular meetings among initiative leads were a key consideration in ensuring coherence, though the level of interaction and commitment has varied due to time and other constraints, such as multiple responsibilities. In addition, many initiatives designated a country-level member to

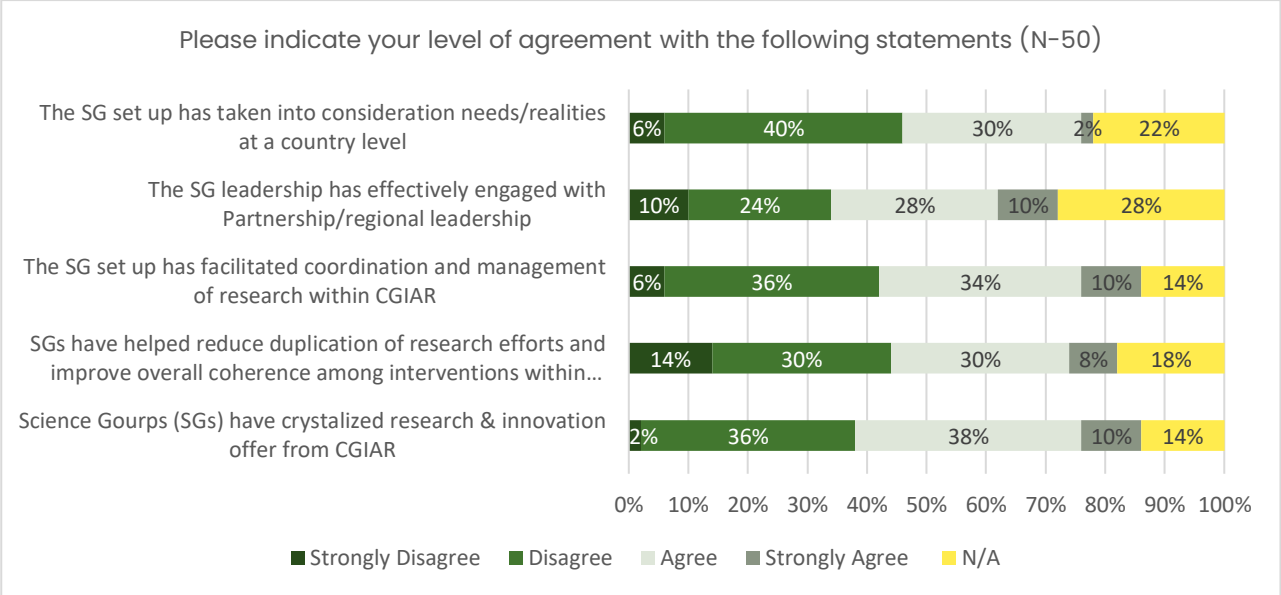
coordinate that initiative's activities in a specific country. These coordinators were expected to ensure coherent implementation of their respective initiative's workstreams at country level. However, while initiatives made efforts to ensure coherence within their own workstreams, there were limited formal cross-Initiative coordination mechanisms functioning at country level.

The CGIAR country convener position provided an opportunity for improving coherence at county level. Experience though varied across countries, generally with insufficient budgets and with variance in levels of responsibility. Internal CGIAR stakeholders agreed that the country conveners feel unempowered given their multiple responsibilities and resource constraints. Nevertheless, many internal and external respondents view country-level coordination and engagement role as a crucial factor for improving coherence across initiatives and collaboration among CGIAR centers, which is critical for moving FLW ST forward.

Survey revealed mixed opinions on the effectiveness of the ST SG setup in research management and coordination (Figure 10). While 48% believed the SGs clarified CGIAR's research and innovation offerings, concerns remained about reducing research duplication and improving coherence. Respondent opinions were divided on the extent to which SG setup has facilitated coordination and management within CGIAR. This is consistent with the findings from key informants who suggested coordination challenges both at the central level as well as at the country level. The central level challenges emanated from the ambitious nature of the ST research and capacity building agenda and issue related to human resources and resource availability. Respondents raised concern about the lack of internal coordination mainly between the SGs rather than withing the ST SG. The country level challenges included lack of clarity on country level coordination (lack of clear ToRs for the country convener role) across centers and offices as well as lack of the past practice of siloed planning and resource allocation which are not conducive to the ST agenda.

Regarding the extent to which the SG set up has been responsive to country needs and realities, 46% of the respondents felt the setup didn't adequately consider country-specific needs, highlighting the need for attention to local contexts and the need to improved coordination. Additionally, slightly more than half of the respondents believed SG leadership effectively engaged with partners and regional leaders, indicating room for improved engagement strategies.

Figure 10. ST SG Views on Coherence (internal)



Source: IAES SG Evaluation Survey, 2024

EQ8: *How has the ST SG operationalized CGIAR's collective vision in the 2030 Research Strategy and CGIAR's IFA?*

The evaluation found considerable commitment among internal stakeholders to the One CGIAR vision and understanding of the IFA. This shared vision benefited planning and implementation efforts under the ST SG. However, desk review findings and interviews showed that the level of institutional commitment and adherence to One CGIAR principles varies across CGIAR centers, and the division of pooled and bilateral funding continues to be an issue, reinforcing the need for a more unified approach.

Some stakeholders mentioned that the key to resolving these issues will be finding ways to accommodate the bilateral funding modality flexibly, while still ensuring coherence and interlinkages between bilaterally funded and pooled initiatives. Effective guidance and incentives from the leadership will be needed to nudge all centers toward institutional alignment around the new funding realities and collaborative mindset required for genuine systemwide integration. Some internal interviewees explained how they were using bilateral funding to fill funding gaps in e.g., supporting post-graduate students to complete their research.

In what ways has the ST SG addressed key considerations and opportunities for enhancing coherence within the ST portfolio and with the RAFS and GI SGs?

The evaluation noticed a growing awareness among both internal and external stakeholders regarding the need to improve coherence at SG level as crucial for achieving measurable impact. Two types of coherence seem most relevant for ST SG and between other SGs under portfolio: thematic and geographic. There are good examples of thematic and geographic coherence in Kenya, India, Ethiopia, Nigeria, Bangladesh, and Vietnam, where some SG and RAFS initiatives (including RIIs) are working together by combining research, policy, advocacy and capacity building interventions in a coherent manner. However, there are plenty of examples where geographic and thematic coherence could be improved. Having a strong leadership and presence at global as well as country level is the biggest opportunity for ensuring both geographic and thematic convergence. Other opportunities to improve coherence include:

- Conduct a joint problem/needs assessment, identify niche and priorities together and define success together. Plan and design programming at country level. CGIAR's approach of defining initiatives and WPs centrally and having limited involvement of key national and international stakeholders is not conducive to coherence in programming.
- Longer term fundings and institutional commitment to build meaningful partnerships through effective engagement to deliver jointly agreed results. This is a challenging undertaking in view of fragmented and uncertain funding scenarios.
- Improve synergies and share data and experiences between programs operating in different regions.

In the case of the ST SG, coherence requires having a common understanding of ST principles and strategies, which has been raised as a concern by many internal and external stakeholders. These could be included in a guidance document.

How and to what extent has the ST SG architecture facilitated coherence, coordination and collaborative research and innovation offers from CGIAR, considering comparative advantage?

Key finding: CGIAR has an opportunity to redefine its niche and adopt a more organized, strategic approach to engaging with and supporting country-led transformation agendas through better contextualized research, policy, and capacity building investments. This requires overcoming persistent challenges with internal coordination across CGIAR's structures and initiatives and provision for an empowered role for country coordinators.

A key advantage of the SG structure has been a well-coordinated effort for joint planning for ensuring collaboration across initiatives through WPs based on a well-articulated ToC. However, actual implementation varied due to funding limitations, structural issues, geographical distribution, and ingrained mindsets. Many initiatives were still dominated by specific disciplines, while others such as FRESH and Nexus Gains exemplified more interdisciplinary approaches. Similarly, much can be learned from the experiences of RIIs[11] in addressing climate change challenges through regional (multi-country) collaboration in planning and implementation involving several initiatives.

Some respondents noted that the initiative structure tends to facilitate disciplinary insularity rather than multidisciplinary collaboration. This issue is exacerbated when WP activities are decentralized across different countries and bioclimatic regions, leading to fragmentation. Several interviewees suggested that basing all WPs within the same ToC in the same country, region, or landscape could enhance coherence.

The ST SG structure has promoted a coherent and collaborative design through many committed initiatives leads and skilled WP leaders. Although a considerable degree of coherence is evident in the planning and design stages, implementation success has varied due to financial and structural challenges, including leadership and coordination issues.

It is recognized that coherence across initiatives and effective collaboration for research and policy work is crucial for ST initiatives at country level. It requires effective leadership and communication skills, which are not common across countries, and which partly explain mixed success across countries and initiatives.

Has comparative advantage been assessed and operationalized effectively within ST SG partners and with external partners? What has worked well, and what needs to be improved?

Key finding: The comparative advantage of CGIAR is well known among internal and external stakeholders. The ISDC guidance is seen as useful but challenging to implement. Key stakeholders recognize that CGIAR's niche and comparative advantage in generating transformative research and

[11] Included in the Climate Resilience Case Study for broader insights, including those not falling under the ST umbrella.

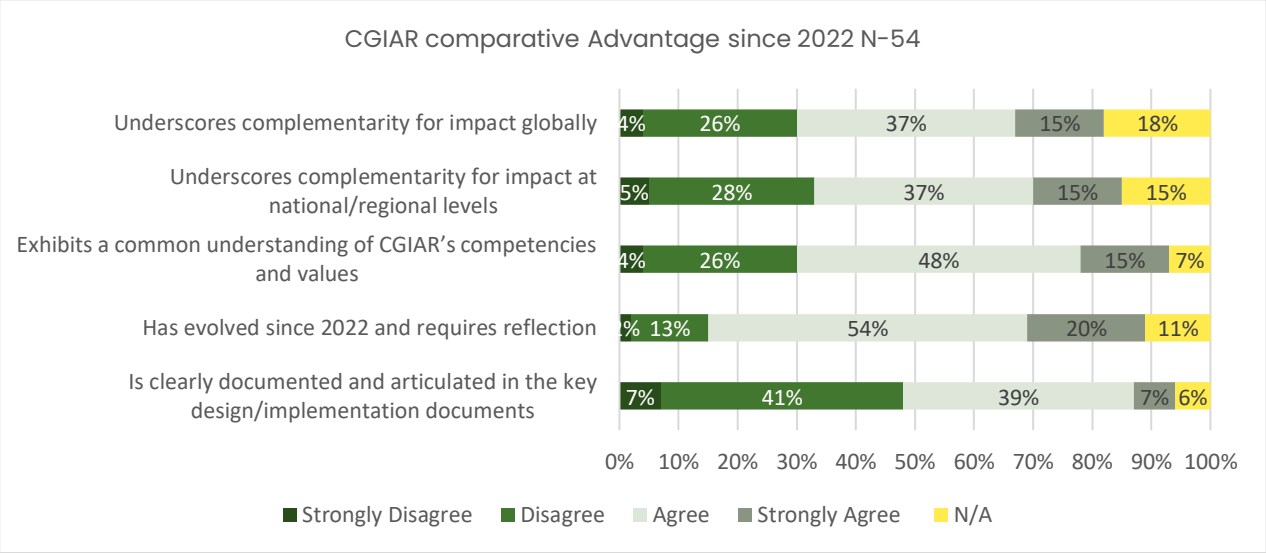
policy agenda demands regular review of its role both at national level and among global stakeholders, which requires increasing internal capacity and resources.

The comparative advantage of CGIAR is well known to internal and external stakeholders given well-established leadership in agricultural research and policy spheres. CGIAR's presence in more than 50 countries and lead in scientific research and policy work is well recognized and the growing network of scientists and policy-level stakeholders is another key strength. The 2022-24 portfolio provided an opportunity to reflect on CGIAR's comparative advantage, but some Initiative level respondents suggested that there was no need for assessment of CGIAR's comparative advantage as a formal step. They indicated that much of the work packaging involved building upon the on-going work as a functional strategy. However, many other stakeholders suggested the need for regularly reassessing CGIAR's comparative advantage and niche in the ever-evolving FLW system landscape, especially at national level where the impact of transformative work seems most relevant. This thinking requires a well-coordinated role for CGIAR teams at national level and use of appropriate tools and multi-disciplinary/participatory team work to understand ST in specific country contexts.

In 2022, the ISDC produced a guidance paper on comparative advantage, suggesting how the initiatives should use it to assess not only what CGIAR should be doing within the initiative, but also the capabilities of potential partners to distribute activities to optimally use resources and reach outcomes. Several respondents said that they found the methodology described in this guidance paper to demand more time and resources than what is available, thereby preventing its implementation.

The perception of CGIAR's comparative advantage in terms of complementarity for impact at national, regional and global levels was generally positive (Figure 11). More specifically, 65% of the survey respondents saw CGIAR's role as complementary and impactful at national and regional levels. Similarly, 63% of the respondents recognized its complementarity for impact globally. Furthermore, 70% of the respondents believe that CGIAR's comparative advantage has evolved since 2022, and 68% confirm that this evolution is clearly documented and articulated in key design and implementation documents. Stakeholders widely acknowledged the evolution of CGIAR's comparative advantage and agreed that continuous reflection was necessary. This recognition underscored the dynamic nature of CGIAR's work and the necessity for ongoing reassessment to remain effective in addressing contemporary challenges.

Figure 11. Online Survey Respondents' Views on CGIAR'sCcomparative Advantage-ST SG



Source: IAES SG Evaluation Survey, 2024

The analysis on the Climate Resilience Case Study noted the following areas of CGIAR's comparative advantage and the lack of in the climate change arena:

Areas of comparative advantage

- ✓ Forecast climate-related trends and their impacts on food systems, using scenario approaches.
- ✓ Provide evidence of impacts of climate change on people and food systems, and evidence of effectiveness of adaptation policies and strategies.
- ✓ Develop and implement innovative, scalable solutions based on 50 years' experience working on sustainable food systems, globally, nationally, and locally.
- ✓ Work with reliable partners in research, development, and implementation of solutions to adapt food systems to the negative impacts of climate change.

Areas without proven comparative advantage

- Climatology *per-sé* beyond the confines of the links between climate and food systems.
- Social dimensions of climate change adaptations; human behavioral factors (including behavioral economics) affecting the adoption of climate change adaptation innovations; direct and indirect cost-benefit analysis of climate adaptation innovations and responses.
- Implementing climate change adaptation interventions on the ground-working directly with farmers and communities.
- Innovations in frontier technologies, notably AI, solar photovoltaics, genome editing, and nanotechnology, to enhance the resilience of food systems to climate change.

EQ9: *How do different role players understand the vision, meaning and real-world relevance of system transformation? To what extent is there a common understanding?*

Findings (desk review and interviews) indicated a lack of unified vision and understanding of the ST principles and strategies, especially on influencing ST at national level. The same concern applied to developing a shared transformative change vision with external stakeholders including national counterparts and development partners. The results of the online survey (

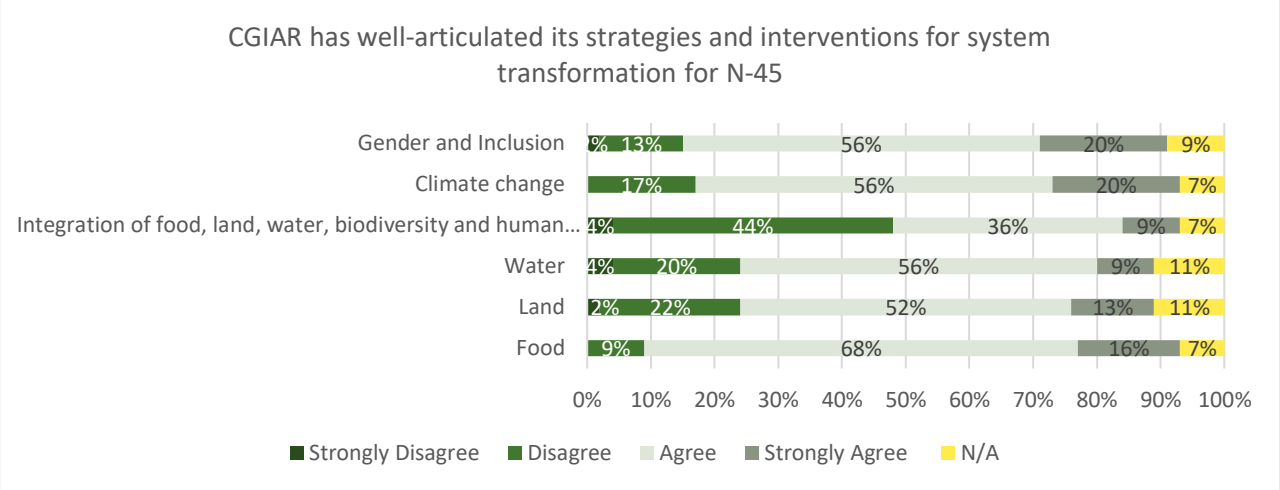
Figure 12) pointed to existence of strategies and interventions for ST across various key areas, while document reviews did not find strategies. Regardless, respondents agree/ strongly agrees that CGIAR has well-articulated its approaches to food (84%), climate change (76%), gender and inclusion (76%), land (65%), water (65%), but less so about the integration of food, land, water, biodiversity, and human well-being (45%). Evaluation noted the following:

- The Gender Strategy was under development following recommendations from the Gender Platform evaluation, CGIAR, 2023.
- CGIAR water integration road map, based on water research across all CG centers, was intended to be launched during CGIARs Science week (postponed from July 2024 to April 2025[12]). To emphasize coherence, in the backdrop, IWMI's new strategy was launched at the World Water Forum in May 2024, and this is nested within the CG integration road map to ensure joined up and coherence across all water work in the CG.

There is considerable appreciation among both internal and external stakeholders regarding the need for CGIAR to expand its involvement in transformative research and policy work, but this requires not only having deeper clarity on CGIAR's approach to ST in various contexts, but also staff capacity (especially at the country level) for engaging more effectively in country-led initiatives. The theory and practice of FLW ST is complex and evolving, which necessitates regular learning and updating of principles and strategies, especially as CGIAR embarks on its 2025-30 portfolio.

[12] https://www.cgiar.org/news-events/event/cgiar-science-week/

Figure 12. Online Survey Respondents' Views on ST Strategies and Interventions-ST SG



Source: IAES SG Evaluation Survey, 2024

EQ10: *What measures have been taken to enhance coherence of the ST SG research portfolio delivery and how effective have they been?*

The emphasis on coherence started during the Initiative and WP planning process, and was continued through implementation, and in some instances, in the reporting of results. The success in realizing coherence in planning was constraining implementation due to funding and real-world challenges, including a lack of understanding of how to ensure coherence in ST. There are several promising opportunities for CGIAR to enhance coherence across its research portfolios and activities related to ST.

First, many countries such as Bangladesh launched their own country-led national food ST initiatives aimed at strengthening and transforming FLW systems-including efforts to address climate change impacts. In Kenya, this took the form of multi-stakeholder climate adaptation platforms. Multiple stakeholders called for CGIAR to play a stronger leadership role in this space, thus presenting an opportunity for CGIAR to redefine its niche and take a more organized, strategic approach to engaging with and supporting these country-led transformation agendas through better contextualized research, policy, and capacity building investments.

However, effectively capitalizing on these opportunities will require overcoming CGIAR's persistent challenges with internal coordination across its own structures and initiatives. Several internal and external stakeholders cited that CGIAR still lacks an effective mechanism to ensure policy and programmatic coherence within its global operations. Too often, initiatives continue working in thematic and geographic silos rather than integrating closely with each other and national stakeholders.

4.3.1 Conclusion

The ST SG saw considerable success in addressing coherence in planning and design across initiatives but had mixed success in implementation due to various financial and operational issues including a lack of empowered coordination at the county level (and limited success in Initiative-level coordination). Intra-initiative integration was more coherent than inter-initiative collaboration, which showed much room for improvement.

Whereas guidance frameworks for strategic alignment and collaboration are in place, challenges related to maintaining consistency and overcoming operational silos persist. Addressing these issues is crucial for enhancing the coherence of initiatives aimed at achieving significant food security, environmental and social impacts, as well as for the successful operationalization of CGIAR's collective vision in system

transformation efforts. In addition, the evolving theory and practice of FLW ST necessitates regular learning and update of principles and strategies, as CGIAR embarks on its 2025-30 science program portfolio.

The role of country coordinators in facilitating cross-Initiative collaboration is seen valuable. In practice, they lacked sufficient authority and support to achieve their potential in stitching together CGIAR's efforts at national level where impact must be derived. Solving this coherence deficiency through strengthened coordination at country level could unlock CGIAR's full potential to add value within the ecosystem of institutions driving ST impact globally.

4.4 Efficiency

EQ11: *To what extent is the governance and management of the ST SG deemed suitable for achieving the objectives?*

Key finding: Strong leadership and management were largely evident at the ST SG level. Most initiatives operated well, with scientists collaborating in multi-disciplinary teams towards the transformative agenda. The rich experience with valuable learning in forming teams and working towards common goals was clear. However, having multiple roles and resource constraints has sometimes resulted in a loss of accountability and low motivation (at Initiative level).

The core governance structure of the ST SG consists of a managing director, four thematic senior directors, one senior program manager and one senior advisor who also plays the role of Monitoring, Evaluation, Learning and Impact Assessment (MELIA) focal point.[13] The broader team/structure includes 12 initiative leads and co-leads and 51 WP leads affiliated with CGIAR centers. At the country level, no documented structure was found: many initiatives appointed country focal points (some based in countries), to drive coherence and engagement in a coordinated way within the Initiative and serve to connect to other initiatives in the country.

The core management team largely fulfilled its coordination and management roles, which are acknowledged widely by internal stakeholders. Most stakeholders indicated that the ST SG team had adequate gender balance, and that the team demonstrated strong vision and commitment for One CGIAR and the implementation of the 2022-24 portfolio aligned to the 2030 Research and Innovation Strategy. Internal stakeholders noted that SG structure leveraged scientists and managers to work together coherently to meet the portfolio objectives. The appointment of initiative leads, and co-leads and WP leads in a short design time and defining/agreeing their role in coordinating the initiative's work planning and management is regarded as an impressive organizational achievement.

Some respondents expressed concerns about multiple roles of initiative leads and co-leads (sometimes as many as three). A few respondents indicated that the appointment of people in these roles was rushed and did not involve sufficient consultation. In some cases, staff were allocated responsibilities without their knowledge and were appointed to country-level Initiative coordination roles without sufficient consultation. A negative work-life balance implication was brought in by such processes: having multiple responsibilities can compromise accountabilities and cause demotivation and confusion. Coordination challenges are also reported to be common within an initiative and among initiatives, given the large number of initiatives in the ST SG (12 in ST, compared to five in GI).

[13] See

Figure 2. ST SG Structure in chapter 3.2

Key finding: Few good examples of effective country-level coordination are evident, but this role is seen as a crucial gap overall. It is well recognized that an effective coordination role is crucial for CGIAR leadership, engagement, and teamwork at country level for more meaningful ST contributions.

At country level, while the country convener role in some countries in recent years contributed to the visibility of CGIAR as one team, facilitated sharing of ideas, and promoted collaboration across initiatives, there was limited evidence of mainstreamed coordinated effort across ST SG initiatives. A key issue in governance and management related to efficiency and effectiveness is the need for stronger leadership, engagement, advocacy and coordinated action at country level to improve the visibility, role and influence of CGIAR's contributions towards ST.

Another area where efficiency is important relates to monitoring and reporting systems. The implementation of the 2022-24 research portfolio was accompanied by a data heavy monitoring and reporting system. While this is seen as a management strength, many stakeholders indicated that the monitoring and reporting system was too demanding and suffered from inadequate quality and inconsistent data in some instances as well as from excessive focus on reporting at output level. Desk review of technical reports showed that in many cases, the linkages between reported outputs/outcomes and progress on End of Initiative (EoI) outcomes was not clear. In some cases, EoI outcomes were overly ambitious for a three-year timeframe. These issues relate to the reporting system design made it difficult to validate the extent to which the initiatives are achieving their objectives. Internal and external stakeholders also noted that the CGIAR's Results Dashboard system is hard to navigate and does not convey a clear view of progress against objectives.

Have the financial and human resources been made available adequately and in a timely manner for smooth implementation of the ST SG portfolio? If not, what are the priorities for improvement?

Key finding: Stakeholders held mixed views on the adequacy of resources for CGIAR's transformational agenda. Some praised the allocation, while others expressed concerns about the need for improved utilization and alignment of these resources to effectively support the organization's goals. As one respondent noted, "While resources are allocated, there's a need for better utilization and alignment of these resources to effectively contribute to CGIAR's transformational agenda."

The implementation of the first two years of the 2022-24 portfolio suffered significantly due to budget cuts, funding uncertainties, and irregularity in fund disbursements. [14] This caused a lack of confidence and a loss of team spirit among many staff, including scientists and managers. External partners also suffered from budget uncertainties, annual (versus multi-year) planning, and late arrival of funds. Some external partners also faced the issue of varying contracting processes between centers, negotiating contracts with several centers for the same piece of work under an initiative, including dealing with different overhead rates across centers. For most initiatives, the large gaps between budgets in proposals and annually approved budgets, and associated uncertainties, came out as a major concern in many interviews with internal stakeholders. Highlighted issues related to funding to address included the following:

- Reduce uncertainty in funding by providing secure funding commitments for multiple years, rather than annual allocations, allowing for more strategic, long-term planning.
- Avoid disbursement delays and unpredictable timing of fund releases, which significantly disrupt implementation schedules and undermine efficiency.

[14] See

Figure 3. Annual Budgets (in Proposals/approved) for ST SG Initiatives (USD Million) for 2022-2024 on page 11

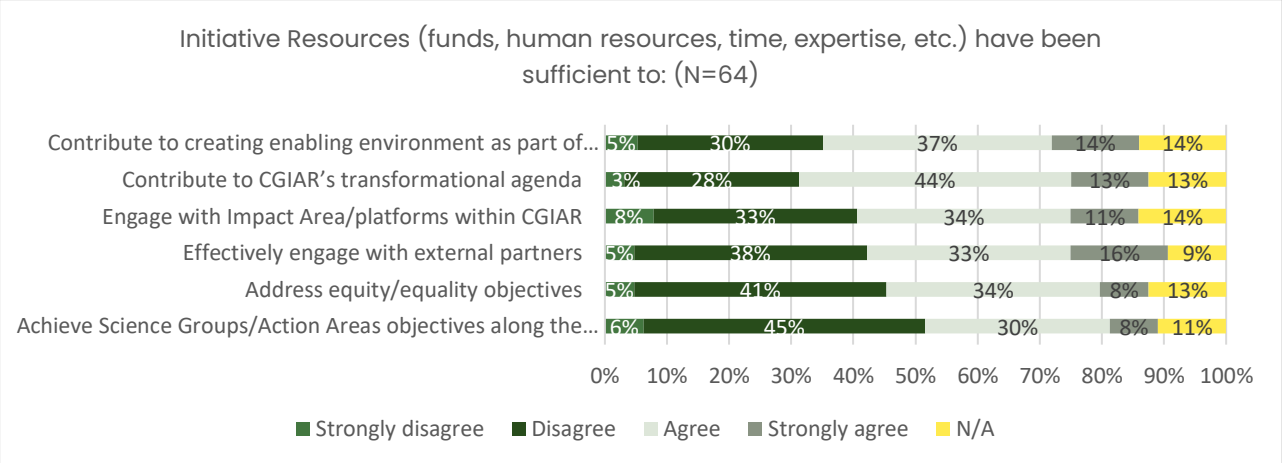
- Employ a more systematic and criteria-based process for allocating funding across Initiatives to align resources with priorities.

An additional issue mentioned by some respondents is the **lack of transparency around salary scales, and the need for harmonization of policies across CGIAR centers.**[15] These gaps have made it difficult for the initiative leads to accurately budget and re-budget when collaborating with staff from centers outside their own, given the variance in compensation structures. This discrepancy also became an issue when national researchers discovered that their internationally appointed counterparts, working on the same project, and performing the same duties, were earning more than they did. There is also a larger question of whether it remains efficient and effective for centers to retain independent HR functions, administrative operations, and varying overhead rate policies. The resulting complexity complicates working relationships and financial dealings, not just among centers, but also with external partners that often need to navigate these bureaucratic idiosyncrasies.

Streamlining and harmonizing policies, while still allowing appropriate specificities, could help reduce administrative friction and budget uncertainties when initiatives require cross-center integration. It may be worthwhile to explore centralizing certain operational functions to create a more seamless integrated operating model aligned with the One CGIAR ethos.

ST respondents to the online survey had mixed perceptions about the sufficiency of resources allocated to SG initiatives (Figure 13). While some stakeholders viewed resource allocation positively, many expressed concerns about adequacy and effective utilization. More than half of the respondents strongly disagreed that resources were sufficient to achieve SG-level objectives, highlighting a need for better resource allocation strategies. Opinions also varied on resources for equity/equality objectives, external partner engagement, and engagement with Impact Area platforms within CGIAR, with notable concerns about effectiveness despite some positive views. These findings have implications for the perceived effectiveness of the initiatives.

Figure 13. Views about Initiative Resources-ST SG, Internal Respondents



Source: IAES SG Evaluation Survey, 2024

[15] Interviewees noted internal coordination related to finance and HR as key problem areas. In some instances, centers maintain separate salary structures and keep budget info confidential, making it difficult for initiative leads to program/re-program resources outside of their own centers. There continued to be some push and pull over who would control budgets under the initiatives. E.g., once budgets were allocated to specific centers sometimes those center finance directors (not the initiative leads) wanted to control and even re-program the resources.

How has budget allocation, timeliness, and management affected ST SGs cohesion, mission, and delivery?

Key finding: Efficiency in financial management has been a key issue, attributable to funding uncertainties, instability, and delayed disbursement. System-level inefficiencies impacted staff motivation, sustainability and scaling of partnerships, and use of research/policy/capacity outputs (compromising outcome achievement).

Most ST SG initiatives developed their proposals based on an anticipated budget, only to discover later that the actual funding allocated was significantly lower that what was foreseen during the Initiative design (see

Figure 3). This funding discrepancy, along with other uncertainties, posed significant challenges in 2022 and 2023 as highlighted in the above sections. Various adaptive management measures were implemented to cope with the situation as highlighted in annual technical reports and mentioned by several interviewees. These included reducing the number of localities for implementation; adjusting targets; reducing funds allocated to external partners; relying more on national/local researchers and scientists both as a cost reduction and capacity building measures; and using bilateral funds to cover ST Initiative activities.

As a result of these adjustments and adaptive measures, the progress/results for virtually all WPs were reported to be mostly on track for both years, with only a few exceptions. While Initiative leaderships tried to cope as best they could, many respondents noted that funding uncertainties undermined planning, leading to haphazard changing of priorities and work plans and, in some cases, disappointing partners. It was also highlighted that ST SG management felt helpless at times, having limited control over budgetary and procedural decisions made at system level. CGIAR may want to consider providing a pool of guaranteed core/reserve funds to support critical partnerships and innovative, scalable research programs during uncertain times.

What are the key opportunities for enhancing efficiency across the research portfolio?

The evaluation findings indicate that achieving greater efficiency and synergy among ST initiatives would require some strategic and operational adjustments:

a. Address funding challenges and resource limitations by pooling unrestricted funds and investing them more strategically across CGIAR. Generating new joint proposals in partnership with governments and other stakeholders could unlock additional co-funding opportunities. If funding challenges remain, programs may want to consider lowering their ambitions in terms of quantity of outputs and number of sites included in experiments. Impact goals, not evaluated here, may be over-ambitious if current financial constraints and uncertainties continue.

b. Enhance allocative efficiency by improving use of criteria-based processes to align resource allocation with priorities. Existing criteria should be broadened, to include capacity development impacts, and future-orientated work flagged by foresight models yet not explicitly identified by stakeholders. Flexibility needs to be improved to reward initiatives demonstrating transformative results with additional investment in scaling.

c. Promote systematic cross-learning among initiatives and across countries and regions to share good practices, lessons, and successful models for cost-effective use of available resources.

d. Invest in strengthening CGIAR's institutional capacities and equitable relationships with national institutions can pay dividends through improved cost efficiency and more sustainable local capacity development over time.

e. Focus CGIAR's ST portfolio on a manageable number of priority countries where initiatives can work together synergistically in an integrated, convergent manner to maximize outcome and impact potential, learning from successful programs such as AICCRA.

f. Empower and adequately resource dedicated country coordinator/leader roles, with their remits extending across CGIAR's initiatives; these positions should contribute to CGIAR's overall objectives.

g. Explore opportunities to streamline CGIAR operations and increase organizational efficiency at country, regional, and global levels. This could involve centralizing or integrating certain functions to create a leaner operating model better fit for CGIAR's One CGIAR mission.

EQ12: *How has CGIAR's IFA design and roll-out aided ST SG to effectively stimulate the learning, monitoring, and adaptability of the SG portfolio, through initiatives?*

The IFA is considered a timely document which formalizes CGIAR's organization-wide commitment to the One CGIAR vision. However, there was limited success in translating the commitment to practice during 2022-23, partly since it was approved only in 2023. The commitment of the centers in allocating staff time to initiatives has been the greatest success which can partly be attributed to the IFA. However, amidst the environment of significant budget cuts and funding uncertainties and the short duration of the transition, there is no evidence that the IFA has had any other significant role in the ST SG portfolio in the last two years.

How has the 2023 CGIAR Integration Framework affected the ST research portfolio and operations? What is different (better and worse) than before the One CGIAR reforms?

The IFA and the 2030 Research Strategy aimed to formalize CGIAR's organization-wide commitment to an integrated partnership vision. However, their effectiveness in stimulating learning, monitoring, and adaptability of the SG portfolio has been limited, particularly amidst significant budget cuts and funding uncertainties. External partners interviewed in Kenya appeared to be mostly unaware of One CGIAR development and continued to work within the organizing framework of Institutes. CGIAR researchers also appeared to favor center affiliations over CGIAR roles in their personal profiles.

EQ13: *What are the internal and external factors influencing efficiency within a system of legally independent centers, considering the constraints of limited resources?*

The ST SG has been an ambitious undertaking, which involved the largest number of initiatives. This required much collaboration among the participating CGIAR centers, the country and regional teams. Collaboration at these levels in adapting to the change in thinking and operations in the limited time (and multiple working roles) has been impressive, as indicated by many internal stakeholders. However, there have been many challenges in working together under the new arrangement, which are further compounded by limited/unpredictable resources. Key challenges (related partly to inefficiencies) include limited time for internal and external consultation and meaningful engagement; inadequate readiness among some staff to respond to the new way of doing business; limited understanding of programming for ST, particularly at country level on how to combine various initiatives/WPs to get synergistic outputs and outcomes that are transformative; fulfilling the Initiative level coordination role at country level; and a highly demanding monitoring and reporting system.

Has the research funding mechanism been effective for funding critical continuous operations and operational improvements?

In view of the budget scenario presented in

Figure 3, and the multitude of issues and uncertainties highlighted in the previous sections, it can be concluded that there is no evidence of an effective funding mechanism in place to support operational improvements during the period covered by the evaluation. Internal respondents sought ways to use bilateral funding to strengthen initiatives as far as was possible. Funders themselves face restrictions in how, what they can fund and the conditions of their funding. It is difficult for some funders to provide funding through pooled mechanisms. One funder complimented the CGIAR Results Dashboard, saying that he found it helpful in knowing and explaining what the money provided to CGIAR goes towards and what is accomplished. Another respondent said a funder told him: "your (CGIAR) priorities may have changed, but mine have remained the same". The challenge is aligning those priorities as much as possible.

How adequately has the ST SG fulfilled their role in raising funds to support the portfolio?

The role of the ST initiatives in raising funds varied across initiatives. There are several noteworthy successes in fundraising, such as by FCM and Agroecology. Nevertheless, most initiatives had limited or no success in fundraising in 2022 and 2023. It was reported to the evaluation team that there is a perceived lack of clarity and transparency in fundraising roles and responsibilities.

4.4.1 Conclusion

While there are strengths in resource management, adaptive practices, and strategic funding use, governance issues, funding shortages and unpredictability, and the need for better data integration and financial planning are areas that require focused improvements at CGIAR level to enhance the overall efficiency of the ST portfolio. The ability to adapt to funding conditions and strategic resource allocation remains crucial for achieving ST objectives.

Instituting a stronger country level governance structure (leadership, coordination roles) seems crucial for CGIAR to mainstream its role in influencing ST at country level. This may require revising the role of country convener as a coordinator with enhanced coordination, advocacy, and partnership leveraging roles.

The 2022-24 CGIAR research portfolio has been accompanied by a heavy database and monitoring system which many internal and external stakeholders find hard to navigate. Issues include indicator number/quality, excessive focus on reporting of outputs that may be trivial for contributing to ST outcomes, and limited knowledge/capacity of some centers/scientists for providing inputs into the system. Going forward, there is a need for a system that is more objective, efficient and is 'fit for purpose' with respect to decision makers' and other users' need and improved reporting of results.

4.5 Effectiveness

EQ14: *To what extent has the selected ST SG initiatives/WP achieved and/or is expected to achieve, its objectives, including any differential results across subgroups of users/clients?*

What progress has been achieved towards planned outputs of the activities carried out by the SG? What conclusions can be drawn regarding the potential or actual achievement of the planned outcomes?

Key finding: From 2022-23, considerable progress and achievement reported at output level across initiatives, with progress on virtually all WP ToC outputs and outcomes (plan of results) on-track despite funding shortages, uncertainties, and other challenges. Adaptive strategies include adjusting targets, reducing coverage areas/partner funding, and pooling/using bilateral funds, which make it difficult to objectively assess effectiveness.

Since 2022, most internal stakeholders claimed major successes in the achievement of results, especially at output level, which is also evident in the number of results reported for 2022 and 2023 for each initiative.

The evaluation used data on output and outcomes from the CGIAR Results Dashboard[16] and from the ST Initiative 2022 and 2023 reports and ST sections of the CGIAR 2022 and 2023 portfolio reports. Reportedly, ST initiatives submitted 2,100 results in 2023, a 145% increase over 2022 (CGIAR Portfolio Narrative Report 2023, 2024). Most results (1,998, or 95%) are outputs, of which knowledge products is the largest category (1,195, or 60% of all outputs). The number of knowledge products more than doubled (an 119% increase) compared with 2022. The number of capacity (e.g., training) outputs is 314, representing a four-fold increase (300%) compared to 2022, while the number of innovations under development is 214 in 2023, up from 105 in 2022 (a 104% increase).

Regarding outcomes, ST initiatives reported 102 outcomes in 2023, compared to 29 in 2022 (a 252% increase) (CGIAR Portfolio Narrative Report 2023, 2024). Among these, 37 (36%) were policy changes, 32 (31%) were innovation uses, and the remainder were other outcomes. There was virtually no outcome-level change in the reported results across the two years for capacity change.

Table 3. Output and Outcome Results by Selected Initiatives for 2023

Initiative	Outputs					Outcome			
	Capacity sharing for development	Innovation development	Knowledge product	Other output	Total	Innovation use	Another outcome	Policy changes	Total
INIT_23 ClimBeR	24	19	218	25	286	12	2	18	33
INIT_24 Foresight	8	16	191	24	239		2		2
INIT_25 Digital	22	40	128	39	229	6	1	6	13
INIT_26 HER+	25	23	123	29	200		11	1	12
INIT_32 Mitigate		11	193	41	245	1		2	3
INIT_33 FRESH	18	10	44	38	110				
INIT_35 FCM	43	15	112	22	192		2	3	5
Total	**140**	**134**	**1009**	**218**	**1501**	**19**	**18**	**30**	**68**

Source: PRMS Results Dashboard, data extracted on 29 February 2024

The Initiative level annual technical reports provide results and targets for each WP and report progress against the plan of results. The reports show that out of the 51 WPs, only seven delayed progresses in 2022, and only one in 2023. Notably, this progress was achieved despite a low level of approved budget, and various funding related uncertainties. In most cases, self-reporting indicated satisfactory progress towards achieving EoI outcomes.

Notably, the figures above are based on reported data from ST, and the ST evaluation team had no means to verify the actual numbers or assess the quality of the outputs and outcomes. As noted in case studies and portfolio review, this self-reported progress could not be validated by the evaluation. For example, the Nutrition Case Study noted "Although nearly all case study initiatives reported they were on track to achieve their EoI outcomes, the outputs and outcome evidence provided makes it difficult to assess progress towards EoI outcomes independently. The ambition of the EoI outcomes, alignment of reporting to targets, tracking of the pathways from outputs to outcomes, varied across the initiatives. In some cases,

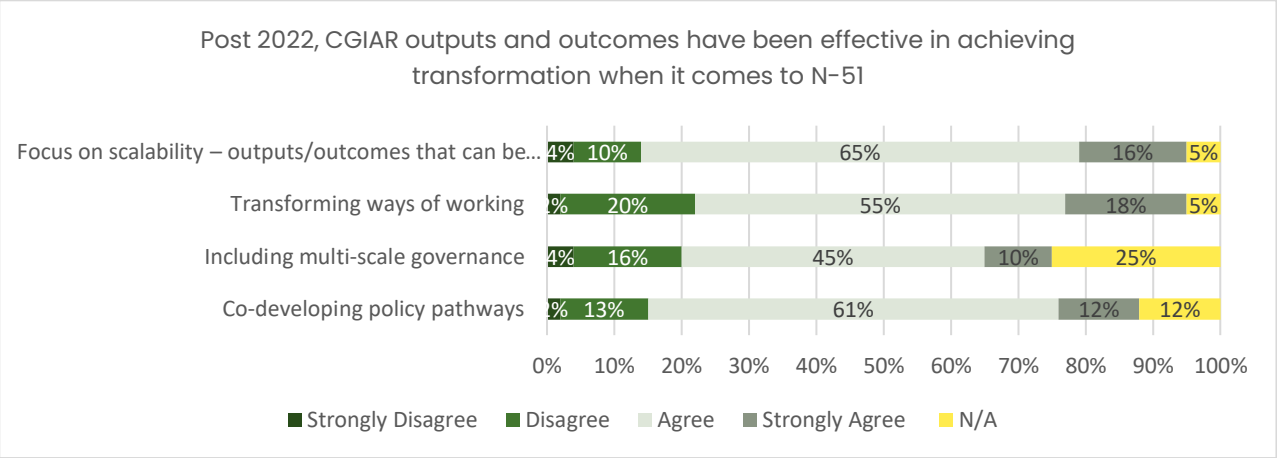
[16] PRMS provided a dashboard extract to the evaluation team carried out on 29 February which was used for the portfolio review. The team acknowledges that any changes to the data uploaded to the dashboard will not be reflected in this report.

planned EoI outcomes appeared overly ambitious for a three-year period, and the progress by 2023 was not expressed against expected achievements." Additionally, without clear targets for comparison and shifting reporting requirements, it is difficult to determine whether these results meet, exceed, or fall short of expectations.

Many internal stakeholders highlighted the role of adaptive management in this context, which allowed the teams to adjust their targets, activities, strategies, and resource allocation in response to the changing financial circumstances, ensuring that critical objectives were still met. It is worth highlighting an example of how the initiatives used adaptive measures in adjusting plans and targets: "…Reduce the number of target countries from seven to four (China, Colombia, Kenya, Socialist Republic of Vietnam) and adjust EoI outcomes for WPs 1, 2, and 4 accordingly, while still being open to leveraging other resources to make cost-effective progress in Bangladesh" (Mitigate+, p. 26).

Several stakeholders identified additional issues with planning and reporting. Some reported that the WP objectives were formulated hastily, and many are not SMART (Specific, Measurable, Achievable, Relevant, and Time-bound); there is lack of clarity in the definition of output versus outcome indicators. In addition, it was mentioned that some initiatives/WPs were a continuation of legacy work from the past, which further complicated monitoring and reporting quality. This lack of clarity and rigor in planning and monitoring data makes it difficult to assess the extent to which concrete progress towards the desired outputs/outcomes have been made. In most cases, self-reporting indicated satisfactory progress in achieving EoI targets. Limited clarity on defining measurable objectives hindered progress tracking and full potential for adaptive management practices.

Figure 14. Online Survey Respondents' Views on Effectiveness-ST SG



Source: IAES SG Evaluation Survey, 2024

The survey results (Figure 14) highlight the importance of strategies, albeit not existing, for CGIAR to effectively influence transformative changes. A significant majority of respondents agree that CGIAR was effective in tackling scalability (81%), co-developing policy pathways (73%), transforming ways of working (73%), and including multi-scale governance (55%).

Success in influencing ST depends on translation of outputs to outcomes and impacts in line with ToCs. Understandably, given the 2 years of portfolio, the numbers of outcomes in 2022 and 2023 are small compared to a disproportionately high number of outputs; this raises the question of how one defines success, echoed by several internal and external stakeholders. Notably, some respondents indicated that some of the outcomes (knowledge use, policy change, capacity change) may be the result of outputs delivered prior to 2022. Additionally, the limited operating period of ST initiatives contributed to this low proportion of outcomes. Transformative change can take several years of preparation and effort and the

SG has shown concrete progress in the first two years. It is imperative to build on this and use the lessons to consolidate and further expand CGIAR's work in ST going forward.

Another way to look at effectiveness is by considering results across countries, also a proxy for geographic convergence. Figure 15 indicates that the largest number of results in 2022 and 2023 were produced in Kenya, India, Ethiopia and Nigeria, which signals the existence of significant geographic convergence potential in the ST portfolio, though it is too early to determine to what extent these countries are yielding outcomes from CGIAR investments.

The analysis of results across initiatives and several internal stakeholder's responses signals the following trend and issues regarding limited success in achieving outcome-level results:

- Lack of sufficient awareness/details in the design/planning phase regarding translating outputs to outcomes (i.e., use of research, policy and innovation, capacity change). This is particularly relevant for capacity building results, as there are issues in translating capacity building interventions to capacity change.
- Lack of explicitly planning for exploratory research/policy work *vis a vis* outcome/impact focused research/policy work (the latter being especially important for the ST SG portfolio).
- Insufficient investments in engagement, advocacy and communication, which are key strategies to influence change.
- Insufficient knowledge regarding drivers of research use and policy change in specific contexts as a part of the planning/design process (the low level of outcomes in 2022 and 2023 may have been due to low level of funds allocated to dissemination and other outcome drivers).

Figure 15. Reported Results for ST SG in 2022 and 2023

Source: CGIAR Results Dashboard accessed June 2024

What are the main constraints-both internal and external–that the ST SG faced in implementing activities? How have these constraints been addressed?

Key finding: Many good examples of success are evident in 2022 and 2023. Transformative outcomes take time but face uncertainties and evolving priorities. Deeper stakeholder engagement in planning the design phase is needed to translate outputs to outcomes. Similarly, more systematic strategies and increased investments are needed for the adoption of communication and advocacy strategies for research/policy/capacity transfer.

The desk review findings and stakeholder responses indicate that the major constraints relate to the low level of approved budgets, lack of predictability related to budget/funding, and delays in fund

disbursements. Some respondents also spoke about staffing issues which included multiple responsibilities and a loss of work-life balance among some staff. Based on the interviews and self-reported adaptive management, initiatives coped with the situation by using a combination of measures which included adjusting the targets to reflect funding realities; reducing the number of locations they worked in; reducing fund allocations to partners; pooling/using bilateral funds; and increasing the proportion of scientists from the global south. Some of these realities and the fact that the reporting may be reflecting the results of investments made prior to 2022 make it difficult to undertake an objective assessment of effectiveness, which is a lesson for the future.

What key successes have emerged during the implementation of ST SG activities? Are there lessons/opportunities that, if applied, could increase the entire portfolio's effectiveness?

The evaluation findings highlighted many successes (and learning) in implementing the SG initiatives.

- Compared to CRPs, the SG/Initiative structure clearly facilitated effective cross-center collaboration, resulting in integrated design and implementation, especially within disciplines.
- Strategic partnerships with regional technical organizations in high-income and LMIC countries enhanced the technical credibility of models and analysis and helped extend and institutionalize capacity-building efforts.
- Facilitating south-south capacity-sharing enhanced CGIAR credibility as a partner and extended the reach of capacity-building and institutionalization efforts.
- ST requires locally sensitive and adapted policy design and implementation. Long-term country presence and the consistent availability of country-based technical expertise is critical to strengthening credibility with local partners and stakeholders and improving program effectiveness.
- CGIAR centers, partners, and stakeholders co-designed key innovations, including the Food Security Simulator, Political Economy and Policy Analysis sourcebook, and Nigerian Social Accounting Matrix. Contributions to national policy included the draft National Agroecology Strategy in Kenya. Collaborative efforts produced a resource guide on multistakeholder platforms and a cross-initiative webinar on gender and climate change research.
- Strategic collaborations successfully engaged stakeholders and advanced their goals. The Gender Equality Initiative empowered women in agrifood systems, enhancing resilience. Adaptive management practices in Low-Emission Food Systems and Climate Resilience utilized real-time data to refine strategies.
- The Climate-Smart Agriculture Framework in Ethiopia enabled targeted planning based on regional conditions, with potential for broader implementation. The NEXUS Gains Initiative demonstrated effective strategies for climate change adaptation, and the Climate Risk Management in Agricultural Extension curriculum aimed to build knowledge for extension workers to manage climate risk.
- Nutrition-focused initiatives expanded CGIAR's influence in food systems but remained siloed and not well-coordinated. End-to-end and consumer demand-focused initiatives showed that better incentives and resources could harness CGIAR's expertise to answer holistic questions about the impacts of improvements on producers, SMEs, women, youth, the extremely poor, consumers, diets, livelihoods, and the environment. Most scalable innovations were more effective in stakeholder engagement than in building climate resilience.

The findings of the evaluation indicate considerable momentum at all levels for ST as the way for making meaningful contributions to the impact areas and the SDGs. Internal stakeholders recognized greater importance and need for making research and policy influential for transformative change. The fact that national governments and other partners highly value CGIAR's mission and capacity and demand a bigger

role by One CGIAR is a positive achievement for advancing the ST agenda at national level There are noteworthy achievements in making concrete progress in implementation of the ST initiatives in several countries, particularly Kenya, India, Ethiopia, Nigeria, and Vietnam. Geographic convergence, continuity and results (outcome) focus are needed for deeper and sustainable results in ST.

How does the experience of the ST SG so far correspond to the ToC? Has the ToC been useful in guiding ST management responses and adaptations? Why or why not?

There is sufficient evidence that initiative level ToCs were used to guide research strategy and ensure that WPs are aligned with end-of-initiative outcomes. The ST ToC provided a unifying framework that brought together scientists to comprehend and appreciate the complexity of transformative research/policy; it has also exposed limitations with respect to lack of evidence, validity of assumptions and challenges related to its practical use in planning and reporting. There is a provision for the ToCs to be updated and validated by ST SG leadership substantially modified after facing budget cuts, to be adaptive and flexible in adjusting their results and targets to funding uncertainties. However, several internal respondents lamented the fact that TOCs were used like log frames, to keep a watch on progress, rather than as guiding frameworks to inform adaptive management and learning.

How has resource availability affected the outcomes/outputs achieved by ST?

The review of annual technical reports and responses by many interviewees indicated that the low level of approved budget and funding related uncertainties were constraining during both 2022 and 2023. A vast majority of the initiatives show strong progress in meeting the EoI and progress against the initiative level ToC as per self-reporting of results provided in annual technical reports. However, liberal use of adaptive management strategies, and various limitations and weaknesses related to planning, monitoring and reporting (as indicated previously) make it challenging to draw concrete conclusions on effectiveness.

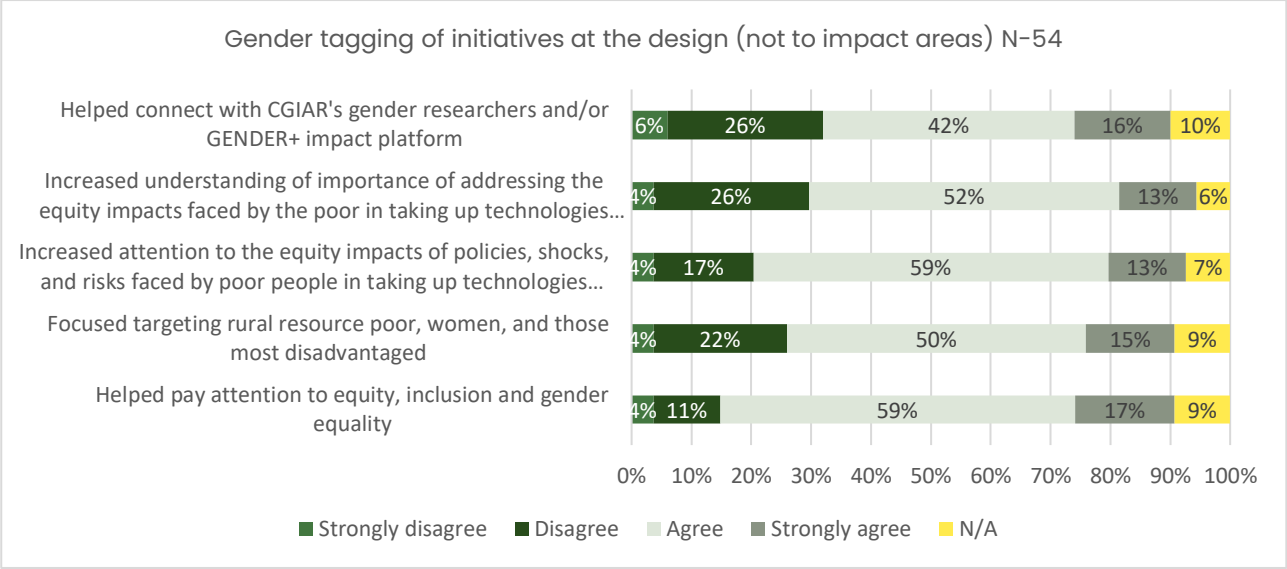
EQ15: *How well were the cross-cutting themes of gender and climate change integrated into design and implementation?*

To what extent were gender considerations considered in designing and implementing the ST initiatives?

To what extent have the ST SG initiatives contributed to the promotion of gender equality and women's empowerment?

Findings from various sources indicate considerable success in integrating gender and climate in the ST initiatives. This is also evident from the high proportion of results tagged as 'principal' or 'significant' for gender and/or climate change (Figure 16,Figure 17). The online survey findings (Figure 16) show the extent to which gender tagging of initiatives during Initiative design contributed to various aspects in planning and awareness creation.

Figure 16. Online Survey Respondents' Views on Gender Tagging-ST SG



Source: IAES SG Evaluation Survey, 2024

Complementing survey results, evaluation found the following examples of integrating gender considerations into designing and implementing the ST initiatives:

- Use of guidance in manuals and tools generated by the Gender Platform. Some key considerations that informed the integration of gender and inclusion mainstreaming are: i) training should target at least 40% of the female participants/beneficiaries; ii) research activities should include participation of both men and women; and iii) gender themes and questions should be included in the research tools/questionnaires.
- Assignment of gender focal points at initiative levels and providing technical advice on gender issues.
- Awareness raising on gender and inclusion at community/farm level and associated targeting and involvement of the different gender categories in research activities.
- Generation of methods and tools for supporting gender integration through the Gender Platform.[17]
- Gender research on specific issues to inform subsequent intervention for advancing gender and inclusion mainstreaming, e.g., under HER+–gender focused research was conducted to understand how technology/innovation affects women and indigenous peoples.
- Development of (e.g., Mitigate+) gender, youth, and social inclusion strategies to guide gender and inclusion mainstreaming.

Further, examples of where ST initiatives contributed to the promotion of gender equality and women's empowerment include:

- Training of more than 15,000 people in rural India, Nigeria, and Malawi using original tools, social innovations, and policy approaches for empowering women in climate-related governance (CGIAR Research Initiative on Gender Equality, 2024).

[17] See CGIAR Independent Advisory and Evaluation Service (IAES). (2023). Evaluation of CGIAR GENDER (Generating Evidence and New Directions for Equitable Results) Platform, Report. Rome: IAES Evaluation Function.

- Implementation of 19 short-term training programs for 862 individuals (335 women) that strengthened their capacities in agricultural data management and sustainable food system transformation (CGIAR Research Initiative on Low Emissions Food Systems, 2022).

To what extent climate change mitigation and adaptation been mainstreamed while designing and implementing ST initiatives?

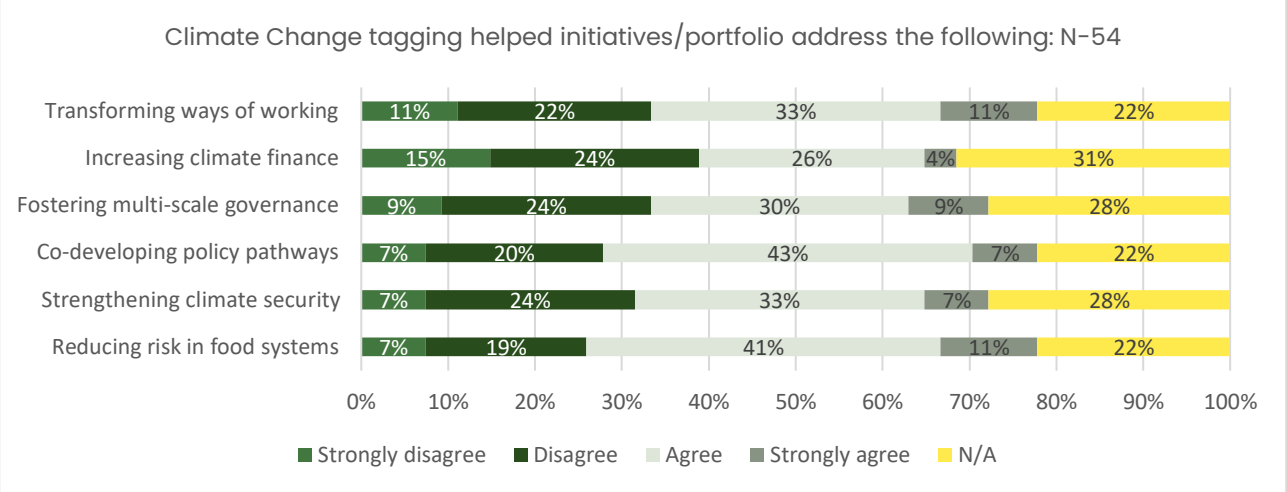
Most ST initiatives contributed to transforming climate adaptation capacity to reduce risks and ensure equitable access to vital resources. Initiatives set ambitious targets, including improving the quantification of climate impacts. Initiatives also explored linkages between climate change and exacerbation of conflicts and forced migration, emphasizing the critical need for integrated strategies that go beyond traditional approaches. Additionally, efforts to transform food systems were thoroughly examined for their potential to decrease emissions and enhance carbon sequestration, supported by robust integrated management practices that contribute to the sustainability and resilience of these systems.

The integrated efforts of these initiatives in promoting adaptation to climate change were demonstrated through the promotion of gender-transformative approaches that aimed to empower all resource users, particularly women and marginalized groups. There was also a focus on the development and strengthening of policies and strategies that address climate change alongside other pressing environmental and social issues. The inclusivity and sustainability of these efforts was also addressed, particularly through the implementation of real-time monitoring systems that facilitate dynamic adjustments and continuous improvement. Furthermore, the Mitigate + Initiative committed to reducing global food systems emissions by 6.5% per annum from 2022. The Climate Resilience Case Study highlighted the importance of these comprehensive, multi-faceted approaches in driving meaningful change and achieving sustainable outcomes.

The Nutrition Case Study indicates that nutrition and diet diversification have not been mainstreamed across the portfolio, and that nutrition remains siloed and not well-coordinated across CGIAR initiatives. The goal of diversifying food systems and diets for improved nutrition also requires adjustments in GI and RAFS initiative priorities, e.g., nutritional value as a clearer breeding priority, expansion of breeding efforts beyond staple commodities, and consideration given to nutrition in the selection of crop and livestock mixes being promoted for resilience. Respondents noted an internal CGIAR resistance to change the historical focus on a handful of staple crops.

A key achievement of the ST portfolio is its success in mainstreaming climate change in the initiatives (Figure 17). Contributions to climate change adaptation featured in almost every ST initiative, described in greater detail in the Climate Resilience Case Study report. The ST Initiatives addressed climate resilience in their design and implementation in various ways. For example, ClimBeR focuses on enhancing climate adaptation in agricultural systems, while Mitigate+ aims to reduce food system emissions and enhance carbon sequestration. Initiatives such as Foresight and Metrics and Fragility, Conflict, and Migration highlight the importance of integrated management and understanding climate impacts on conflicts and migration.

Figure 17. Online Survey Respondents' Views on Climate Change Tagging-ST SG



Source: IAES SG Evaluation Survey, 2024

The Agroecology and HER+ initiatives emphasize co-creation of knowledge and gender-transformative approaches for sustainable practices. National Policies and Harnessing Digital Technologies focus on strengthening policies and using digital innovations for real-time decision-making. Rethinking Food Markets and Sustainable Healthy Diets aim to transform food systems and promote sustainable diets, reducing CO_2 emissions and influencing governance. Each Initiative integrates climate resilience into various systems and sectors effectively.

EQ16: *To what extent does the ST SG draw on the capacities of the Impact Area platforms and vice versa?*

Key finding: There was mixed success in engaging with Impact platforms, with Gender+ and Climate platforms most advanced while newer, less funded platforms evolving slowly. Aside from Gender, other platforms initiated after Initiative approval has little influence on Initiative strategies/proposals. For some Impact platforms, resource limitations and lack of experience/clarity on how to engage effectively with the SG was a concern. There are several key successes and good practices highlighted by case studies (especially Transformative Agroecology and Climate Resilience), which need to be considered in the design and implementation of future programs.

All five Impact platforms operate under the guidance of the ST SG and the ST senior advisor holds weekly meetings with platform directors. For ST initiatives, the level and intensity of engagement with the Impact Area Platforms varied depending on their maturity and capacity.

The Gender Platform significantly engaged with and contributed to the ST initiatives. Key contributions include: the provision/use of guidance in manuals and tools generated by the Platform; assignment of gender focal points at Initiative level; conducting awareness on gender and inclusion at community/farm level and associated targeting and involvement of the different gender categories in research activities[18]; providing technical advisories for the ongoing strategy and review meetings at SG level; and conducting gender research on specific issues to inform subsequent intervention for advancing gender and inclusion mainstreaming. In addition, research was conducted to understand how technology/innovation affects women and indigenous peoples and some initiatives (e.g., Mitigate+) developed gender, youth, and social inclusion strategies to guide gender and inclusion mainstreaming.

Several internal respondents indicated that the **Environmental Health and Biodiversity Platform**, despite being new, provided technical advisories to the ST initiatives (i.e., Foresight, Digital, HER+, NPS, Agroecology

[18] See CGIAR Independent Advisory and Evaluation Service (IAES). (2023). Evaluation of CGIAR GENDER (Generating Evidence and New Directions for Equitable Results) Platform, Report. Rome: IAES Evaluation Function.

and Mitigate+) with respect to aligning their interventions towards the desired impacts on environment, biodiversity, and health at landscape levels across different scales. This was based on an assessment conducted by the platform to identify gaps in this respect across the initiatives. However, it was mentioned that the implementation of responsive/corrective interventions to address the gaps across the initiatives requires additional costs, making implementation difficult.

There was limited engagement of the ST initiatives with the **Poverty Reduction, Livelihoods Improvement and Job Creation Platform**. The director for the platform was not appointed until September 2023. It was indicated that the SG initiatives are tagging their contributions towards this platform based on their ToC, but this is not done in close consultation with the platform.

Despite being administratively housed under the ST SG, the **Nutrition Platform** did not have very active links with the ST initiatives (in terms of drawing connections between them or of providing them with technical guidance). Among the case study initiatives, there was only limited facilitation of initiative linkages by the SG leadership and platforms. The Nutrition Platform was more active, however, in linking initiatives to external communities working at the interface of agriculture, nutrition, and health. For example, the annual Agriculture, Nutrition & Health (ANH) Academy Week, established under the Agriculture for Nutrition and Health (A4NH) CRP and now in its ninth year, continues to serve as an important annual global gathering of CGIAR and other researchers, implementers, policymakers, and funders. CGIAR was a co-host of the 2023 event as was ShiFT, FRESH, and Resilient Cities alongside the Nutrition Platform. The Nutrition Impact Platform also convened the nutrition-focused initiatives to participate in the Micronutrient Forum and COP 28 preparations (Annual Technical Report, SHiFT, 2023).

The **Climate Change Impact Area Platform** includes over 600 scientists across CGIAR, and regular engagement with SG directors, ensuring that the research aligned with broader climate action goals. The platform leverages CGIAR's extensive network and scientific capacity to address climate change, emphasizing CGIAR's unique position and comparative advantage in linking climate science with food systems. One of the important benefits of the platform was to link CGIAR scientists to global science platforms such as the IPCC, where CGIAR has had influence through the platform director's participation in various working groups and report authorships, yet with considerable scope to expand CGIAR's influence in the future. Progress was noted in establishing a CoP for climate scientists, but with challenges integrating climate-related work across various Initiatives, indicating some gaps in achieving comprehensive integration.

While most interview and survey respondents agreed that the mandate and role of the platforms are clear, several interviewees highlighted confusion regarding the role of SGs in relation to the Impact Area platforms. Some perceived that the structure currently exists more on paper than in practice. In some cases, this ambiguity indicates doubt about the relevance and purpose of CoPs clarity and direction regarding the organizational structure.

Stakeholders' perceptions varied regarding the sufficiency of resources for engagement with Impact Area platforms. While some commended resource allocation, others raised concerns about the perceived inadequacy in utilizing these resources effectively. As highlighted by one stakeholder, "Although resources are allocated, there is a perceived inadequacy in utilizing these resources to effectively engage with Impact Areas/platforms within CGIAR." In general, internal stakeholders (especially those involved with the newly created platforms) expressed lack of clarity on how the platforms were expected to engage effectively with SGs and initiatives when platforms have such limited capacity, experience, and resources.

There is, however, considerable awareness among platform directors regarding the need to have a greater focus on equitable impact of CGIAR's work, as evidenced by the following stakeholder remark: "there's a need to shift from output-driven approaches to impact-driven strategies, prioritizing outcomes aligned with reducing inequality."

What are the key lessons learned and good practices in utilization of these capacities for delivery of the planned results?

- Impact Platforms can have a key role in Information exchange and networking by leveraging on the capacity and competences of various partners and stakeholders.
- The provision of small grants to the initiatives can have a catalytic role, e.g., the small grant provided by the Gender Platform for boosting funding to support gender and inclusion mainstreaming across initiatives.
- Workshops and development of gender guidelines is good, but representation of women and youth in the design and farm level assessment is particularly important as it creates ownership of the interventions. They should be actively involved from the start. Women and youth require more targeted engagements, considering the community is male dominated.
- The post-hoc involvement of the Climate Platform in research agendas has slowed efficiency in integrating climate actions from the outset. Lessons include the importance of early engagement of such platforms in research planning and the need for more rigorous processes in tagging and analyzing climate-related activities to enhance integration and effectiveness.
- There are significant opportunities to improve coherence, particularly in earlier engagement of the Climate Platform in setting research agendas. This can ensure that climate considerations are embedded from the start of projects, enhancing coherence across all science programs, leveraging CGIAR's comparative advantage in addressing climate change through its extensive networks and expertise.

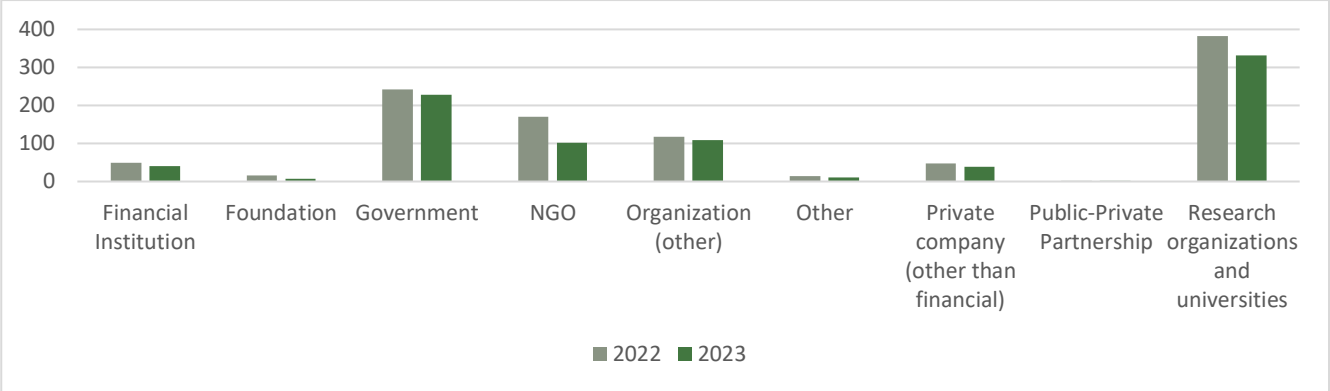
***EQ17**: To what extent did the ST SG design enhance partnerships reach (internal and external) of CGIAR, and how aligned it was to the Partnership Framework?*

Key finding: Most partnerships were a continuation from previous years and faced difficulties in sustaining and scaling up due to budgetary constraints. The partnership framework was found useful but had limited application, as creating, and building new partnerships takes time and funding constraints restricted this. National-level partnership mapping and mobilization are seen as key to success for ST initiatives, but they are lacking as there is no evidence of systematic approach to partnership building at country level. Strategic engagement and communication are considered crucial but in practice they are also inadequate for mobilizing and building partnerships for ST at national level.

To what extent is the 2022 Framework for Partnerships and Advocacy being implemented at SG level?

Interviews with key stakeholders indicated that while the 2022 Framework for Partnership and Advocacy (and the recommendations from the high-level advisory panel on partnerships) is seen as a useful publication for widening and deepening of partnerships, its absorption and use into the CGIAR system has been slow. ST initiatives reported many partnerships, most of which are on-going from the pre-SG era. The following figure indicates that most partnerships are with research organizations and universities, and there is a slightly declining trend between 2022 and 2023.

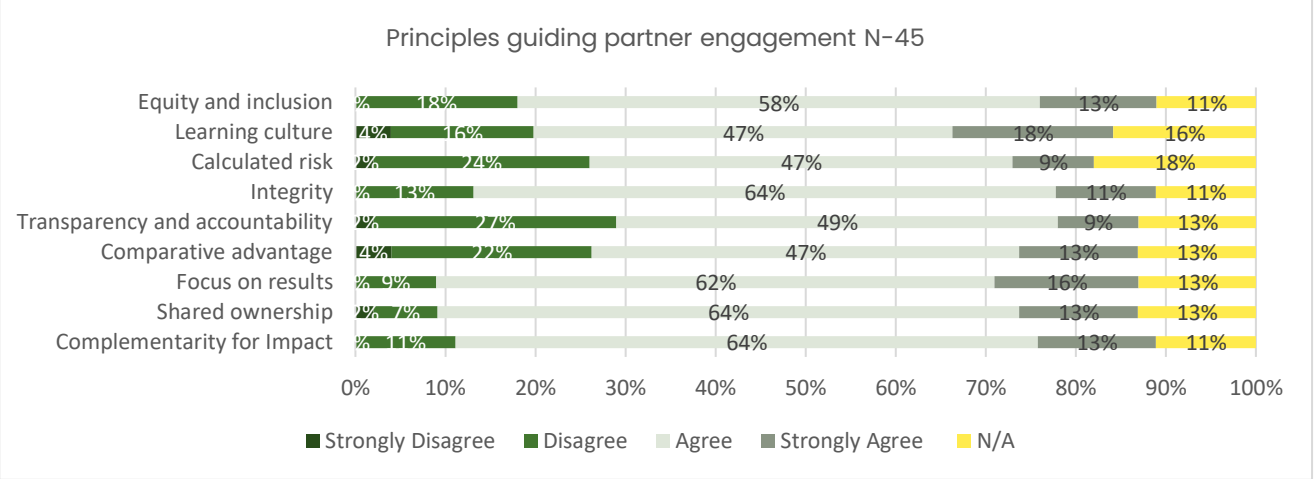
Figure 18. Number and Types of ST SG Partnerships 2022 and 2023



Source: PRMS Results Dashboard, data extracted on 29 February 2024

However, many respondents were challenged by the low level of approved budget and funding uncertainties- not conducive to exploring and building new partnerships. Key informants stressed that budgetary constraints such as budget cuts and delays in disbursements discouraged exploring new partnerships and some cited contextual challenges, making it difficult to maintain existing ones. Several stakeholders emphasized the importance of assessing not only the number of partnerships but also their processes, principles, and results in future assessments. From the survey, potential areas for suggested improvements were in the areas of transparency and accountability (58%), calculated risk (56%), and comparative advantage (60%).

Figure 19. Survey Respondents' Views on Principles guiding Partner Engagement–ST SG



Source: IAES SG Evaluation Survey, 2024

What was the role and comparative advantage of the SG in piloting the research agenda with external partners, including partners' capacity building to do research for/and development?

The role of ST SG in contributing to ST-focused research agenda included capacity building of partners in the focus countries, which was highlighted by external stakeholders, given CGIAR's comparative advantages both at global and national levels. Example of opportunities for wider partnerships as highlighted in the Agroecology and Climate Resilience case studies include:

- "Existence of national and sub-regional actors involved in policy and agricultural research. For instance, at the sub-regional level some of these include Forum for Agricultural Research in Africa, Africa Network of Agricultural Policy Research Institutes, African Women in Agricultural Research and Development. However, further mapping of these is required to inform objective decisions for partnership." (p. 19)
- ST's participation and leading role in Kenyan multi-stakeholder platform for climate adaptation played a significant role to broaden and consolidate science-government-society partnerships around climate change adaptation.
- In Vietnam, the SHiFT Initiative successfully supported strategic partners in embedding the sustainable healthy diet perspective into their food ST agenda. In March 2023, the Prime Minister approved Vietnam's National Action Plan for Transparent, Responsible, and Sustainable Food Systems Transformation (2022–30) (FST-NAP). In the months leading to its approval, SHiFT provided technical support to the Ministry of Agriculture and Rural Development (MARD), which was responsible for drafting the FST-NAP. MARD is now providing guidance on policy implementation to all levels of government and invited the SHiFT country coordinator to join a technical team to implement the FST-NAP. ShiFT also facilitated a cross-country knowledge exchange between Bangladesh and Vietnam so partners could share lessons learned on implementing their national sustainable food systems agendas (AR, 2023).
- In its focus countries,[19] FRESH collaborated with government and the private sector to increase knowledge of how food systems work and can be influenced. This strengthened the capacity of national researchers, partners and farmers through substantial budget allocations, implemented innovations like working with food vendors to incorporate nutritious vegetables and make them accessible to low-income consumers, developed suitable vegetable varieties and seed systems to

[19] FRESH focus countries are Benin, Philippines, Sri Lanka, and Tanzania.

enable production, and raised the interest of policymakers and donors in fruits and vegetables. FRESH successfully partnered with private sector seed companies to identify promising new traits and varieties using their market intelligence and moved promising new varieties more quickly into the private sector seed system to sustainably scale smallholder access to quality seed.

- NPS' on-the-ground presence and trusted partnerships brought together national expert teams, co-created analyses and strengthened capacity on topics of key interest to governments, including model-based assessments in collaboration with the Foresight initiative. Examples of demand-driven, collaborative NPS research and capacity strengthening with relevance for food security, diet diversification, and equity include an impact analysis of Ukraine conflict effects in Egypt, Kenya, and Nigeria in 2022, an assessment of Kenya's Bottom-up Economic Transformation Plan; assessments of social safety net programs in India and Egypt (AR 2023).

While a bilaterally funded effort, the AICCRA Initiative was referenced often in interviews. It built on 50 years of CGIAR experience in climate-smart smallholder farming, to cooperate with a wide range of smaller organizations in improving smallholder farmers' adaptations to climate change.

Capacity transferring/building and partnering has been a core strategy and pathway for the ST initiatives. However, more remains to be done in building partner capacity to bring out ST outcomes using CGIAR's comparative advantage in specific country contexts.

4.5.1 Conclusions

The 2022-24 portfolio pushed for a broad-based and ambitious agenda for FLW ST which needs to be supported by clarity of strategies and interventions, adequacy and continuity of resource availability and mobilization of partnerships at all levels. The significant achievements of the ST initiatives at the output level in less than two years reflect a strong commitment to achieving transformative impacts across FLW. The strategic collaborations, capacity building, and adaptive management strategies have markedly advanced the initiatives' objectives. However, enhancing the conversion of outputs to meaningful outcomes and ensuring the results and sustainability of efforts remain pivotal challenges.

There is considerable momentum at all levels to mainstream and expand ST as a viable approach for making measurable contribution to the Impact Areas and the SDGs. Continued focus on strategic alignments, resource optimization, and innovative stakeholder engagement strategies will be critical in advancing the sustainability and impact of these transformative initiatives. Most importantly, it is crucial to have a more explicit strategy to shift the focus of ST investments from producing large quantity of knowledge/research, policy, and capacity outputs to those that lead to transformative change and results in specific country and regional contexts.

While the key role of building and sustaining partnerships is key to achieving transformative results is acknowledged, CGIAR's 2022 partnership engagement framework has seen limited use in the past two years thus undermining strategic approached to partnering. There needs to be a stronger push in the CGIAR system to apply the processes and guiding principles proposed in the framework to consolidate existing partnerships and build new ones for advancing the ST agenda.

4.6 Review of Uptake of Recommendations from the 2021 QoS Synthesis

Annex 10 provides ST SG related recommendations from the 2021 Synthesis (CGIAR IAES, 2024) and corresponding management response and action plan for each recommendation. The final column provides an update based on the assessment of the ST SG evaluation.

5 Recommendations

The evaluation findings and conclusions informed forward-looking recommendations which were validated by the ST SG through IAES' consultative process. In light of the evolving CGIAR portfolio implementation modality, recommendations are summarized into three categories: (5.1) recommendations for ST SG towards wrapping up, while also relevant beyond 2025 under an assumption of he continued focus on the ST of FLW in the next research portfolio; (5.2) generally targeting various functions of CGIAR; and (5.3) for the forthcoming science programs, largely based on thematic focus from the three case studies and one DD.[20]

Recommendations for CGIAR's work on System Transformation (ST) (for action by STSG and then hand over to chief scientist, end of 2024 and beyond):

1. Develop a cross-CGIAR's system transformation strategy using learning from the SG implementation. The strategy should provide further clarity on ST principles, approaches, and processes.
    a. Use the ST Strategy to mainstream transformative policy research in a sizable number of countries beyond the focus countries. The countries should be determined based on country-specific needs, opportunities, and CGIAR's comparative advantage.
    b. Consolidate work on transformation of food, land and water systems, especially in countries where various initiatives are already engaged with a ST focus, by enhancing collaboration with national governments, research/policy institutions and development partners.
    c. Maintain and incentivize leadership on the topic of ST and build organizational capacity to conduct transformative research and policy work.
2. Improve balance between thematic and geographic convergence as a strategy for improving synergy and impact, by undertaking periodic assessments of knowledge/research, policy, and capacity gaps in FLW systems in specific contexts and explore new opportunities considering thematic and geographic convergence options.

Recommendations for CGIAR, Overseen by Chief Scientist

3. Develop incentives for interdisciplinary team collaborations across disciplines and centers to tackle interconnected issues effectively under the Integrated Management Framework (2022).
    a. Continue using platforms and communities of practice to promote collaboration across all science programs and accelerators, fostering a holistic approach to reducing food system vulnerabilities to climate change.
    b. Develop/revise policies on intellectual property (and guidelines on research ethics) and establish mechanisms for their enforcement across science programs and centers.
4. Enhance systematic inclusion of partners in the portfolio design, implementation, and scaling as per the 2024 Partnership & Advocacy Framework to raise visibility and strategic positioning of CGIAR at country level.
    a. Develop country strategies for more coherent and coordinated planning among CGIAR centers, to ensure mobilization of national and sub-national stakeholders in implementation.
    b. Strengthen CGIAR's country-level leadership and coordination capacity (including budgetary provisions) for effective engagement with stakeholders to advocate for a transformative research and policy agenda. Continue with regular listening sessions and monitor and evaluate stakeholders' needs and perceptions.
5. Revise PRMF, strengthen MELIA processes and capacities to ensure that these capture how ST SG outputs (present) and future system transformation-related outputs link to outcomes and impact:

[20] See Annex for additional detail behind recommendations.

   a. Review and rationalize PRMF and MELIA processes: indicator number/quality (e.g., implement standard definitions of what is an output and outcome) to ensure they are fit-for-purpose
   b. Develop and apply improved qualitative and quantitative approaches for measuring scientific quality, policy influence, and the effectiveness of capacity development in the research for development environment.
   c. Address internal capacity gaps in data management, monitoring and reporting.
6. Address funding shortages and inefficiencies in financial and human resource management through a regular review and feedback mechanism involving internal stakeholders and informing external partners of changes. Improve budget transparency and accountability through outcome-based budgeting and related reform measures to maximize transformative and sustainable impact from CGIAR's investments (in concert with global finance and HR responsible offices).

Recommendations for Portfolio 2025-30/Science Programs (for science program proposal authors/program management):

7. Build on CGIAR's comparative advantages in climate resilience research: mainstream climate adaptation and mitigation across the entire portfolio by continuing to provide evidence of the transformative impacts of national policies and strategies in building the resilience of FLW systems to climate change, using integrated systems frameworks.
   a. Strengthen the ability to forecast climate related trends and impacts on food systems, using evidence-informed scenario approaches.
   b. Integrate solutions to climate change across value- and stakeholder chains, using multi-scale systems approaches.
8. Invest in local capacity development for integrated systems research. Enhance in-country research capacity to apply integrated systems approaches to research. Develop mechanisms to regularly assess and refine innovations on the ground, in collaboration with local communities, ensuring technical soundness and social acceptance before wider implementation.
9. Elevate nutrition and diet diversification across the entire Science Program portfolio, and not relegate this critical work to a single program.
10. Expand the research focus on consumer demand, food environments, food safety, loss and waste, and connect supply to demand across value chains.
11. Science programs should develop joint research activities and innovations for responding to global polycrises at national, sub-regional and global levels with strategic research partners.

Annex

Annexes are available online: https://iaes.cgiar.org/evaluation/publications/systems-transformation-science-group-evaluation-report

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