CGIAR | Independent Advisory and Evaluation Service

Genetic Innovation Science Group Evaluation: List of Annexes

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Annex 1: Methodology

(SG Evaluations Terms of Reference; GI SG evaluation report is available here).

The evaluation adhered to the quality standards, principles, and criteria specified by CGIAR Evaluation Framework (CGIAR, 2022) and Policy (CGIAR, 2022a). Additionally, the evaluation was informed by the CGIAR Quality of Research for Development (Qor4D) framework (CGIAR, 2020), with a specific focus on assessing the quality of science. Throughout the process, CGIAR principles were carefully considered as shown in Table 1.

Annex 1 Table 1. CGIAR Evaluation Principles and Standards

CGIAR evaluation standard/principle	How these were mainstreamed in the GI SG evaluation
Relevance, use, and utility	• Stakeholder engagement, participation, and feedback was sought throughout the evaluation, which started early in the scoping phase. • The evaluation timeline was aligned with key moments for user groups to ensure timeliness and relevance.
Independence and lack of bias	• IAES staff and members of the evaluation team signed statements related to potential conflicts of interest. None of the evaluation team have a conflict of interest. • Evaluation team members are independent external experts selected from the jointly vetted ISDC/Evaluation Function roster. • IAES employs a multi-layered quality assurance system which adds a level of scrutiny, validation, and feedback, ensuring accuracy, consistency, and reliability in the results.
Transparency	• Evaluation approaches, such as participatory and utilization-focused methods, fostered stakeholder engagement, incorporating multiple perspectives and providing feedback loops, check-ins, and sense-making opportunities. • The evaluation outputs—reports, brief, and management response—will be published on the IAES website. • Stakeholders were involved in the review and evaluation validation process. • The evaluation knowledge management, communications, and dissemination plan were co-created and included as a line item in the evaluation budget.
Legitimacy and participation	• Seeking and valuing representation of different voices were key to the evaluation. • The evaluation included stakeholder engagement and use of participatory methods.
Ethics and equity	• Ethical considerations, including confidentiality, anonymity, privacy, and the protection of sensitive information, were prioritized throughout the evaluation process. • The evaluation considered power dynamics and the inclusion of multiple perspectives/representation of groups in data collection and disaggregation.
Evaluability	• Evaluation readiness was pre-informed by an evaluability assessment.
Credibility and robustness	• Evaluation approaches and methods included data triangulation and valuing. • Stakeholder engagement was key to the evaluation.
Measurability	• The evaluation matrix included both quantitative and qualitative data (see section on methods).
Mutual accountability	• Real-time updates on the evaluation process were ensured. • Any possible delays or deviations were promptly communicated.
Efficiency	• Previous evaluations of consequence (on the themes of gender equality, youth, and inclusion from the two CGIAR Platform evaluations [Excellence in Breeding and Big Data in Agriculture], and from the 2021 decadal synthesis of 43 CGIAR evaluations,

CGIAR evaluation standard/principle	How these were mainstreamed in the GI SG evaluation
	along the relevant themes) were explicitly linked, and evidence from these evaluations was mined to ground the findings. • The evaluation was streamlined to minimize the time and resources, and to optimize value.
Comparative advantage	• No key evaluation question addresses comparative advantage, but it was considered in the broader framing to inform and situate the findings.
Fairness, confidentiality, and no harm	• Ethical considerations were embedded in the evaluation processes, including data collection. Evaluation approaches and methods promote multiple viewpoints and considered power relations to avoid harm to individuals, groups, and organizations.
System framing and complexity awareness	• Stakeholder engagement, in-depth desk review, and interviews with stakeholders provided contextual grounding for the team; the evaluation approaches are predicated on these.
Capacity building	• Capacity building was mainstreamed through stakeholder engagement and collaboration. Capacity sharing took place with user groups (e.g., points of engagement and tasks for the evaluand's MEL focal point). Learning events linked to the knowledge management and dissemination plan was developed in collaboration with user groups and the management response process.

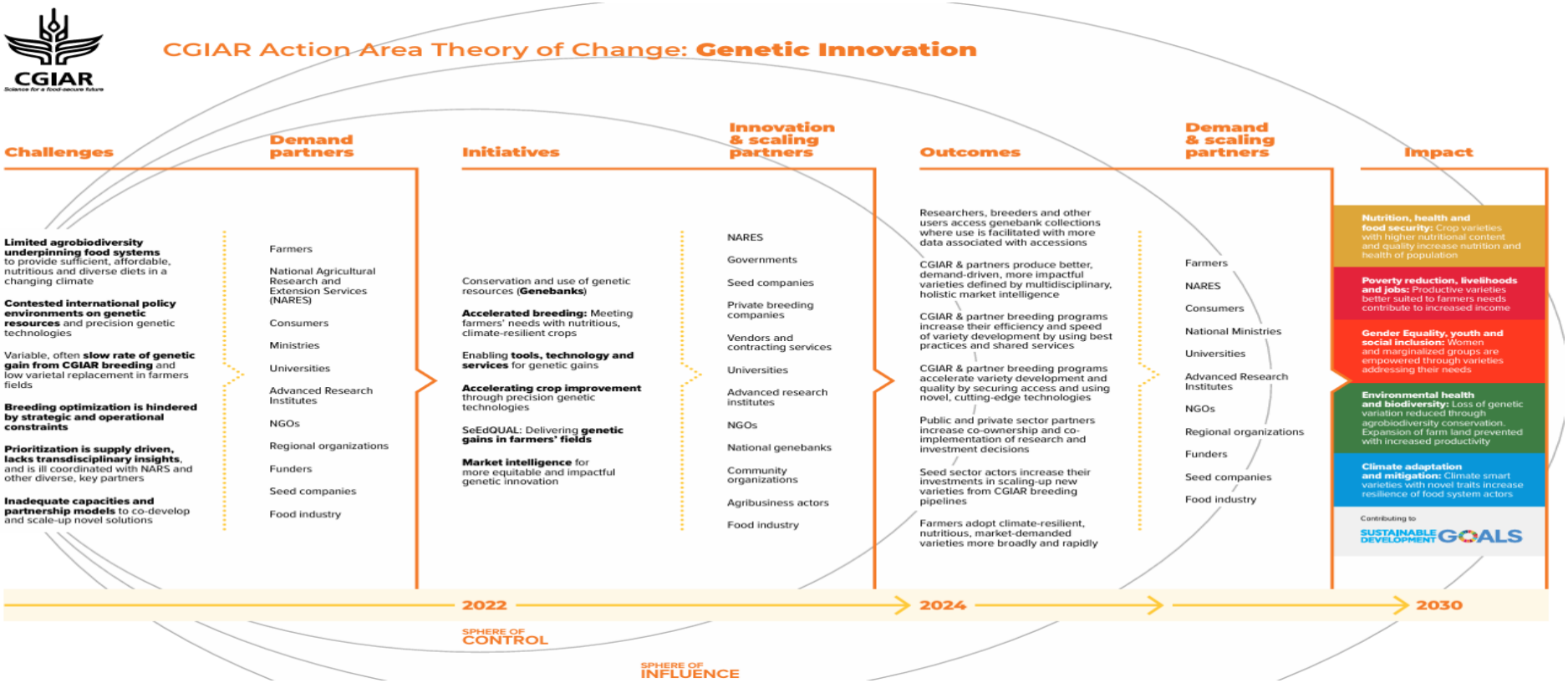
Source: CGIAR Independent Advisory and Evaluation Service (2022)

1.1. Overall Approach

The CGIAR Evaluation Framework (CGIAR, 2022) and Policy (CGIAR, 2022a) guided the design and implementation of the process evaluation. The evaluation integrated developmental evaluation (DE) and utilization-focused evaluation (UFE) approaches, which are suited for the early stage of the two-year CGIAR Portfolio. DE provides real-time feedback and rapid learning, while UFE ensures evaluations enhance findings' utilization, informing decisions and improving performance. Additionally, real-time evaluation (RTE) elements were included to benefit CGIAR's 2030 Research Portfolio and ISDC members with early evaluative evidence. The evaluation assessed how thematic focus areas supported commitments under the 2030 Strategy and considered recommendations from the 2021 Synthesis Evaluation and other relevant assessments (e.g., platforms and genebanks). It analyzed trade-offs and synergies across thematic areas and strategies, aiming to inform strategic decisions on market focus and product development.

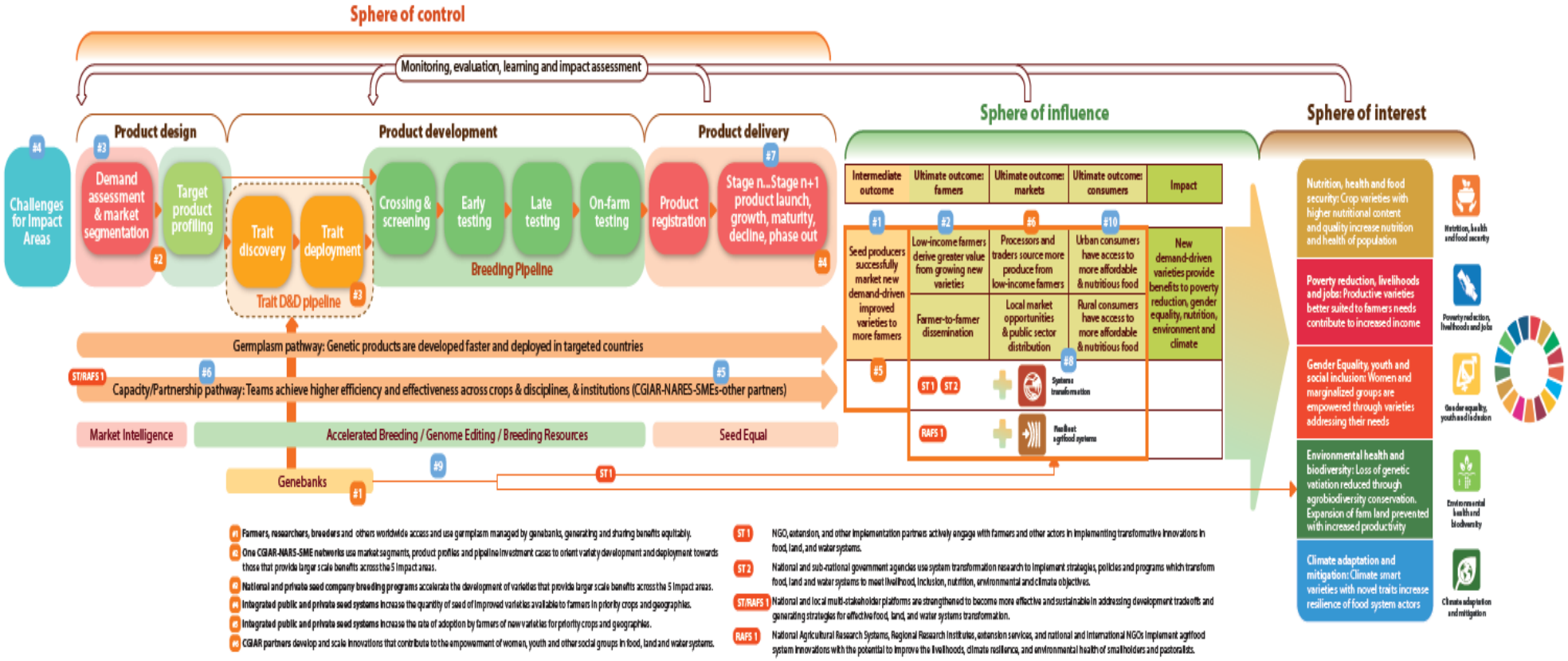
Methodologically, the evaluation emphasized the contextual circumstances of GI SG's design and its strategic significance for ONE CGIAR. It highlighted GI SG's role in enhancing crop breeding systems and processes, contributing to sustainable and inclusive food systems.

Figure 1. Theory of Change for the GI SG



Source: CGIAR 2022–24 Investment Prospectus.

Figure 2. Updated Theory of Change for the GI SG



Source: CGIAR 2022–24 Investment Prospectus

1.2. Data Collection

The evaluation employed a mixed methods approach (see ToR) integrating quantitative and qualitative data from diverse primary and secondary sources, guided by CGIAR evaluation standards and informed by 2021 ISDC reviews, the Genebank Platform Evaluation, and three specific case studies. Primary data collection methods included interviews, focus groups, observations, and a survey, complemented by secondary data from GI SG document reviews and reports. Key considerations guiding the selection of the mixed method include:

- Adherence to evaluation guidelines supporting the CGIAR-wide Evaluation Framework and Policy-that is, the CGIAR Evaluation Framework (CGIAR, 2022) and Policy (CGIAR, 2022a).
- Incorporation of advice and recommendations from the 2021 ISDC reviews and Synthesis Evaluation, Quality of Science, and the Evaluability Assessment, including Action Area briefs.
- Incorporation of evidence and recommendations from the Genebank Platform Evaluation.
- Identification of case studies and deep dives on initiatives, work packages (WPs), or other programmatic/technical topics to ensure diversity and relevance to evaluation objectives.
- Consideration of the emergent draft of the CGIAR Portfolio and intentions related to Big Initiatives, using materials from December 2023 and Q1 2024.

KEY INFORMANT VIRTUAL AND FACE-TO-FACE INTERVIEWS

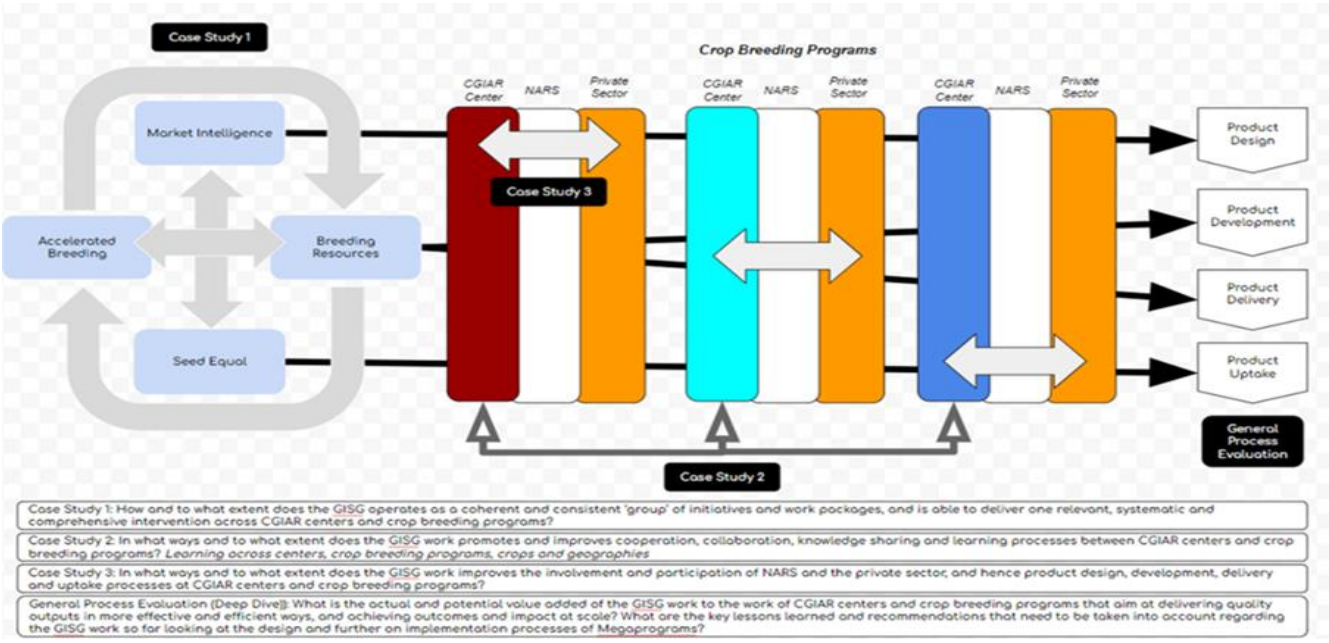
Semi-structured virtual and face-to-face interviews were conducted with internal and external stakeholders, guided by the Map of Stakeholders and in accordance with the interview protocol and guidelines presented in Annex 5.

The three case studies developed were as follows:

- Case Study 1: Feedback loops among GI initiatives.
- Case Study 2: Synergies in CGIAR breeding programs, centers, and targeted markets.
- Case Study 3: Status of partnerships with NARES and the private sector.

These case studies were designed to address both specific (intrinsic) and general (instrumental) questions related to GI SG's theory of change (ToC), conducted in Ghana, Kenya, and through online interviews in Tanzania with NARES and global private sector stakeholders. Findings from the case studies were triangulated with interviews, surveys, and other analytical outputs to provide a comprehensive narrative of GI SG's impact and evolution. Table 2 shows criteria and approaches which ensured a comprehensive and rigorous evaluation of CGIAR activities across the GI SG.

Figure 3. Case Studies feeding and informing the overall Process Evaluation of the GI SG Work



Source: Evaluation team based on case study selections

Annex 1 Table 2. Criteria for the Selection of Case Studies

Criteria	Description
C1. Strategic importance to Portfolio re-organization	Initiatives that are strategically important to be assessed within the SG were prioritized for sampling. This ensured that the evaluation captured key contributors to the overall outcomes and/or informs an upcoming decision about the future of a selected initiative/WP. Strategic considerations include the following sub-criteria: • Maturity level (golden eggs, etc.) based on the number of outputs and outcomes reported Year 1-Year 2 • Weighted mapping to Impact Areas. • Number of SDGs contributed to. • Number of NARES as delivery partners.
C2. Geographic considerations and contextual factors	Each SG includes initiatives/WP in different geographic locations. Sampling will consider regional variations of countries involved in implementation to understand the impact of context on outcomes. Center affiliation balance of initiatives leads and co-leads will be also considered.
C3. Availability of data and stakeholder fatigue	A MEL focal point (as of the inception/initiative and ongoing) is a key conduit to assure availability of data and evidence. Therefore, a staffed MEL position (ongoing) will be considered to select an initiative. The availability of data for each initiative is important. Initiatives with comprehensive, timely and reliable data are more likely to contribute meaningfully to, and benefit from, the evaluation (see also expected limitations). To avoid stakeholder fatigue and duplication of efforts, initiatives subject of a recent EA or of an ongoing impact assessment, will be excluded.

Criteria	Description
C4. Resource availability for the evaluations	The available resources, including time and budget, will likely influence the sampling. Time is an important constraint given the urgency of providing timely evaluative evidence to inform the Portfolio re-design.
C5. Variability in outcomes	Initiatives/WP with variability in outcomes, both positive and negative, will be considered for sampling. This helps to understand the factors contributing to success or challenges within the SG. For the three evaluations, maturity level (e.g., golden eggs) based on the number of outputs and outcomes reported from Year 1-Year 2 will be considered.

Annex 2: Case Studies–Executive Summaries

2.1. Feedback Loops and Synergies among the Genetic Innovation Initiatives

Assuring feedback loops, joint learning and adaptive action are essential to continuously improve relevance, effectiveness, and efficiency in complex structures such as the Genetic Innovation (GI) Science Group (SG) of CGIAR. The present case study aims to assess to what extent and how feedback loops and synergies among the different GI initiatives and with other CGIAR initiatives have been implemented, and to identify gaps and opportunities for further improvement. The evaluation was based on evidence collected during desktop review of various documents and web resources, key informant interviews and a field visit in Ghana. Findings from the 2024 SG Online Evaluation Survey were considered where appropriate. Evaluation criteria included Relevance, Effectiveness, Efficiency, Coherence, Quality of Science, Cross-Cutting Themes such as gender and social inclusion, climate change adaptation, nutrition and health, and finally, partnerships.

The GI SG work was found to be highly relevant to foster high genetic gains in farmers' fields. It is relevant with national development goals in the target countries. National partners feel involved, although they wish to be even more associated and granted leadership and decision-making power. More explicit feedback loops between the product delivery and product design and development activities have the potential to further increase the relevance.

Close collaboration and feedback loops exist between Market Intelligence, Accelerated Breeding and Breeding Resources. Systematic feedback loops with Seed Equal are just being established. A better integration of the GI with product development activities is highly desirable, e.g., for diversity analysis, trait discovery, pre-breeding and even seed systems work. There is a need for mechanisms to encourage linkages between genebanks and breeders, including development of joint objectives and funding for cooperative work.

There is room for stronger integration with the Resilient Agri-Food Systems (RAFS) SG, especially with the Excellence in Agronomy and Plant Health initiatives, to understand with more sophistication how breeding interplays with, and can better support, the wider array of agronomy and plant health interventions beyond breeding itself. Further feedback loops between GI SG initiatives and partners such as the private sector or with development projects experimenting with/scaling the GI SG outputs, could render the GI SG even more effective.

The evaluation team found clear evidence of improvements in efficiency in terms of strengthened partners, shared resources, synergies, and joint learning within the GI SG. However, more could still be done to increase efficiency. Such measures could include (financial) planning security, building more on the comparative strength of each partner, better integration with the Genebanks Initiative, engaging even more with succession planning in breeding programs, and having fewer and more constant CGIAR contact persons interacting with the NARES in each target country, to avoid overlaps, duplication, or conflicting requests. A systems-oriented crop improvement approach and stronger geographic integration with other Science Programs during implementation could be helpful in this regard. Such a systems-oriented and geographically integrated approach would require developing a common understanding of how GI can contribute not only to productivity, but also to more balanced nutrition, environmental health/sustainability, and inclusion/equity in food systems at global, regional, national levels.

The GI SG initiatives and work packages are coherent and well-integrated, for example ensuring that feedback loops, such as those from Market Intelligence, are effectively utilized to provide the product development team with relevant breeding resources. However, national priorities are sometimes

overlooked, with donors influencing what is financed in each country. To mitigate bias and enhance coherence, it would be beneficial to allocate at least a small budget for each partner NARES to conduct basic genetic improvement on locally relevant crops not prioritized by donors. This is especially important for crops that enhance climate resilience, ecosystem services, and/or food and nutritional security. In the context of limited resources, CGIAR should at least continue to support the work of NARES and universities in partner countries to work on diverse crops primarily via capacity support-i.e. including breeding teams of 'minor, 'orphan' and 'opportunity' crops in common data architecture, training opportunities, access to equipment and services (including externally procured services).

GI SG produced high-quality scientific outputs that enable or illustrate feedback loops and synergies. An outstanding example is the integration of Global Market Intelligence Platform (GloMIP) with the Breeding Portal. A similar integration with Seed Equal is being worked on. The Genetic Innovation Toolbox enables standardized procedures across initiatives and programs. Journal Publications on impact assessments, gender-specific trait preferences, environmental stress characterization, and review papers also contribute to feedback loops and synergies. For CGIAR, impact on the ground is as important as academic publications. Therefore, Quality of Science (QoS) indicators should include measures of impact on the ground, such as area under cultivation of GI SG-developed varieties.

The Market Intelligence Initiative ensures that cross-cutting themes are integrated into product profiles and breeding programs. The publicly accessible online platform, GloMIP, leverages over 200 indicators, allowing stakeholders and donors to prioritize impact areas such as gender equality, climate resilience, and nutrition and health outcomes. Systematic feedback loops from Seed Equal back to Market Intelligence should include data on these themes, such as yield stability in variable climates and the impacts of specific variety types on women's livelihood. Additionally, RAFS initiatives, when utilizing GI SG-derived varieties, could provide feedback to GI SG on these cross-cutting themes, further enhancing the program's responsiveness and effectiveness.

Feedback mechanisms with partners exist but could be strengthened and institutionalized. NARES would like to be consulted more throughout GI SG processes from conception over implementation to evaluation. The private sector could interact more with market intelligence on market segments, and with Seed Equal on product delivery, thereby exploring complementarities. Donors could seek feedback from NARES about which local crops to include in GI SG work to enhance impacts for the most vulnerable and poor.

As the next Portfolio 2025-30 is being planned, it is recommended to strategically design a structure that rationally distributes resources and responsibilities among directors, managers, scientists and partners, while also reducing conflicting and redundant requests. There were numerous instances where breeders receive conflicting guidance from various stakeholders and are asked to fulfil similar requests in different formats, which should be minimized. Leaders should prioritize protecting workers from these challenges to accelerate the crucial work that drives impact.

Building on learnings within this case study, the following key recommendations are made for the transition of the GI SG into the Breeding for Tomorrow (BT) science program:

1. One CGIAR and BT program management: Integrate GI initiatives with RAFS (especially with agronomy and plant health activities) and ST SGs at country or regional level. In such a geographic integration effort, transdisciplinary teams consisting of breeders, agronomists, plant pathologists, economists, nutritionists, social scientists, farmers, and end-user representatives would cooperate to address region-specific needs, optimize production/food systems, and collaborate with local partners and policymakers, to enhance climate change adaptation, environmental health, and nutrition. While enhancing the geographic integration and regional implementation focus, maintain consistent methodologies and standards across regions.

2. BT program management: Continue to build effective feedback loops between Seed Equal and Market Intelligence initiatives, to inform product profiles and variety replacement strategies.
3. BT Program Management: Integrate breeding and genebank work on germplasm diversity characterization, trait discovery, and pre-breeding activities.
4. One CGIAR and BT program management: Seek financial stability that facilitates longer-term planning, avoid last-minute budget cuts. Implement unbiased and transparent approaches during budget repartitions, especially after a budget cut.
5. BT program management: Strengthen collaboration with the private sector for more efficient product delivery; foster feedback loops and complementarity with private sector partners.
6. GI SG and BT program management: Use QoS indicators that include measures of impact in smallholders' fields, e.g., area under cultivation of GI SG-developed varieties.

2.2. Synergies in CGIAR Breeding Programs, Centers and Targeted Markets

The purpose of this case study was to provide learnings and recommendations for those working on the BT program that will continue from current initiatives within GI SG. The focus is to ascertain to what extent interconnections and interactions (synergies) within and between CGIAR centers, as well as others (national partners, industry) have facilitated more rapid progress in crop improvement, and to what extent this has created benefits to both internal and external stakeholders, especially NARES. The web of interactions between GI SG and external partners is a complex one, and it must also be borne in mind that there are also interactions with other SGs (e.g., RAFS, ST).

The evaluation was based on evidence collected from a review of many documents (reports, proposals) and web resources, and several key informant interviews along with a summary report from field visits to Ghana and Kenya. Evaluation criteria included Relevance, Effectiveness, Efficiency, Coherence, QoS, Cross-cutting themes (such as gender and social inclusion, climate change adaptation, and nutrition and health), and finally, Partnerships.

There are some clear indications that GI SG has a strong record of achievement during the review period, and moreover that there is clear evidence of relevance, efficiency, effectiveness, coherence, and QoS with respect to synergies between CGIAR, NARES and private sector partners in pursuing their joint goals.

Some of the key **achievements** are:

- Strong partnerships were established at different levels with various stakeholders, both internal to CGIAR and especially with NARES. There is scope for the further strengthening of these partnerships in future programs.
- There is evidence for capacity sharing with NARES partners, and for more involvement of NARES partners in funded projects (bilateral) and peer-reviewed publications, although this can be further enhanced in future programs.
- There is evidence that several activities within the GI SG initiatives are enhancing connectivity between different breeding programs and CGIAR centers. Peer-to-peer learning is also taking place and should be strengthened in future programs.
- There is evidence that traditional breeding approaches based on a solid knowledge of underlying trait genetics, genomic technologies and good quality phenotyping are making good progress for most

target crops. It is evident that more advanced breeding technologies are being adopted in some cases.

- A strong record of high quality and influential scientific publication as well as reports, briefs and web-based platforms that are instructional for others and provide CGIAR with a high level of visibility is evident.
- There is evidence for gender issues being taken into consideration. Gender balance and other issues are well represented within GI SG initiatives.

GI SG has made significant progress in the current project funding period, however, more can still be done to accelerate the introduction of improved crop varieties into farmers' fields, with concomitant impact on farmer livelihoods, nutrition and environmental benefits. It is evident that the teams within GI SG are working in a coordinated manner across the different initiatives and that much of the effort is aimed towards several crops. In some ways, there is a strong parallel here with the Genebanks Initiative, whereby roughly the same germplasm conservation and characterization methods are used, irrespective of crop.

The same applies to breeding which uses similar basic tools, approaches and strategies across crop types with perhaps a few key differences due to their reproductive biology. There is strong evidence for significant sharing of resources and expertise across teams and centers within GI SG. This is particularly evident in the Accelerated Breeding (AB) and Breeding Resources (BR) initiatives, notably the latter, where interdisciplinary teams are working across crops and centers to develop approaches, tools and resources that will facilitate more efficient crop genetics and breeding across the full range of CGIAR target crops. These advances include breeding expertise, common marker platforms, genotyping services, phenotyping and engineering platforms and breeding databases. While these developments are welcome and likely to have major impact in the future, there is a still a significant lag for the less-resourced small area crops with effort being deployed on the major cereals (wheat, maize, rice). While this is to some extent understandable, much more effort needs to be deployed to support the smaller often more challenging crops with respect to newly developed tools and resources.

One concern is that basic breeding approaches based on a good understanding of trait genetics may sometimes be overlooked in favor of seemingly more sophisticated strategies, such as genomic selection. A high proportion of the interconnections between breeding programs and centers are either technical or based on transferable expertise relating to genetics, genotyping, and phenotyping, amongst other disciplines. Perhaps this is not surprising as GI SG work is largely technical, especially the AB and BR initiatives that are the focus of this study.

Therefore, it may be expected that interconnections between programs and centers will be largely due to the sharing of expertise, tools, approaches, and databases rather than direct interactions between the breeding programs themselves, especially as the target crops are so diverse. Key examples are the sharing of expertise and other resources from the major crop breeding CGIAR centers, such as CIMMYT and IRRI, with less well-resourced and equipped centers, notably in East Africa (e.g., Kenya, Tanzania). One potential threat to synergies across breeding programs and centers is the pressure on particular teams imposed by the demands of externally funded bilateral projects which often have strict reporting schedules, and the goals of which do not necessarily address the priorities of target regions and countries.

Sub-study recommendations specific to this case study are:

1. GI SG should encourage further learnings across its crop portfolio and encourage activities that help to pass on knowledge and tools from the more advanced crops to the less developed ones. As new tools are rolled out from science teams to breeders, early adopters can lead presentations and explain the new tools and how they use it. Peer-to-peer learning is highly effective.
2. More programs should follow the success story example of the Roots, Tubers and Bananas (RTB) Breeding Innovation & Integration Fund concept that gives additional financial and other support to

projects which: i) propose activities that facilitate learning and leveraging across crops; and ii) are led by female scientists wherever possible.

3. Efforts should be made to help people understand, and continue to place value on, Target Product Profiles (TPP), and to use them to drive breeding decisions. This can be accomplished by having the successful programs and centers in this area explain why they see value and how they use TPP.
4. Leadership should establish guidelines on basic requirements of breeding programs that must be met before more elaborate tools are supported. Such requirements would include understanding of the genetic architecture of key target traits allied to the ability to phenotype in an accurate high throughput way, along with quality control quality assurance programs. More value needs to be placed on projects enacting the basics of an effective breeding program, without which advanced tools will not reach their potential. There are examples of programs investing in such tools (e.g., genomic selection), when funds could have been more effectively been used on accurate high throughput assays. Effective leaders must ensure that resources are being used in the most effective way possible.
5. A further initiative could be the formation of an 'Emerging technology team' where emerging tools can be explored with discussion on how they can be used to accelerate goals.
6. More structured programs be put in place to learn across crops within and across programs. A Breeding Science Seminar series–where members take turn presenting papers and articles of interest to the breeding group–could be beneficial.

2.3. Status of Partnerships with NARES and Private Sector

The purpose of this case study was to provide key learnings and recommendations that should be used by the writing team as the design for BT and the other science programs are being developed. The focus was on the extent of NARES and private sector involvement, partnership on product design, development, delivery, and uptake at scale. However, these partnerships are part of a larger system across GI SG, with linkages to RAFS and Systems Transformation. Many of the changes needed to improve NARES and private sector involvement and partnership are intertwined within the interdependencies of the landscape in which they are part of and require higher-level systems solutions. The approach of this case study was to put all the key learnings and recommendations in the context of this larger landscape full of interdependencies. It is recommended that the writers of BT also take a holistic systems approach to implementing the improvements/optimization of the new design so that it will result in the envisioned impact.

The evaluation was based on evidence collected during review of various documents and web resources, and key informant interviews along with the summary report from a field visit to Ghana and Kenya. Eva

There were many foundational accomplishments and challenges identified and currently being developed that are making good progress in coherence, efficiency, effectiveness and QoS with respect to NARES and private sector involvement, partnership on product design, development, delivery, and uptake at scale. These accomplishments include:

- Collaborations established between private company and CGIAR/NARES to work on products.
- Inclusive product design teams established in regions that include producer, NARES and private company partners input into product needs.
- These results were incorporated in TPP that provide breeding targets to meet those needs.
- Clear variety development process was made with advancement criteria and who is responsible for which advancement decision.

- Breeding programs are being designed and optimized, within the context of regional breeding and crop networks, to make progress toward products that meet the TPP and build a partnership with NARES and other partners.
- Linkages with more downstream partners including private companies to provide seed delivery systems and agronomic support are being built and becoming more effective.
- There are many publications that show scientific excellence, and Standard Operating Procedures (SOP's)and technical briefs are published to capture key learnings.
- The mindset at many levels is moving from scientific research to seed business, and from research projects to breeding pipelines.

Although progress has been made in leveraging effective partnership with NARES and private companies, GI SG is still on a journey to leveraging them to implement the vision of accelerated genetic gain that is realized in the farmers' field, which enriches their lives and the communities in which they live. For each of these areas of progress, there is an opportunity for continuous improvement of organizational design, process improvement, and training in the criteria areas of **Relevance, Effectiveness, Efficiency, Coherence and QoS**.

Sub-recommendations specific to this case study revolve around the themes of:

1. **Enhancing partnership effectiveness and communication**
    a. Enhance efforts to leverage breeding networks to identify roles and responsibilities of CGIAR/NARES/partners in population improvement-product development and product dissemination/life cycle.
    b. Create training modules for scientists in partnership identification, creation, and management based on recurring themes from evaluation reports
    c. Re-balance the resources for partnerships by reducing focus on product development and increasing product dissemination/life cycle.
    d. CGIAR and BT management should continue to strive for more participatory, inclusive, unbiased, clear and transparent approaches in budget allocation to boost ownership and motivation

Recommendations that effect this case study as well the interdependent landscape it is part of, are part of a new organizational design that will not be fixed unless there are purposeful efforts to build them into the design as much as possible and to identify them as key factors to focus on. These include:

2. **Emphasizing continuity in the new program**
3. **Cultivating leadership with a seed business mindset**
    a. Aim for an effective leadership team that can prevent transitioning from a science organization to a seed business mindset until a balance between the two is accomplished.
    b. Provide leadership training and cascade newly acquired leadership skills throughout the organization to build teams based on empathy, trust, and communication.
4. **Ensuring strategic rollout and operational excellence of new design**
    a. Emphasize the importance of an effective rollout-collaborate with private companies.
    b. Balance resources and the focus between technical solutions and organizational structure, as well as the need to change management skills and the continuous operational improvement.
5. **Encouraging a shift from optimizing individual roles/processes to focusing on the end-to-end system.**

a. Document an understanding of how each role impacts other parts of projects and the overall target outcomes. Establish ways to recognize and celebrate this type of behavior.

6. **Rationalizing resource allocation and ensuring appropriate financial and other incentives are aligned with BT work**

   a. Ensure all funding (Windows 1, 3 and Bilateral) results in complementary goals and activities while providing financial stability and transparent budgeting.

   b. Encourage and establish open dialogue between funders and GI SG leadership to establish credible processes for prioritizing activities and their funding.

Annex 3: Evaluation Matrix for Evaluation of GI SG

Annex 3 Table 1. GI SG Evaluation Matrix

CGIAR evaluation criteria	Key evaluation questions	Sub-questions	Indicator/focus	Data collection method
Relevance	To what extent does the GI SG Research Portfolio respond to the needs and priorities of its internal and external stakeholders?	a. What actions has the GI SG taken to increase the relevance of the Research Portfolio and how effective have they been? b. What are the most important opportunities for enhancing relevance across the research portfolio of GI science? c. How did the GI SG navigate and respond to changes in requirements, policies, and priorities, such as those arising from events such as the Ukraine crisis? Was this addressed in the evaluation report? d. What financial or other mechanisms could CGIAR use to enhance the responsiveness of research and innovation to new challenges without constantly chopping and changing (pivoting) research at multiple levels?	a. Evidence-based on survey. b. Interview response, and document review. c. Evidence from case study and deep dive analysis.	a. Desk review of relevant documents. b. Online surveys with internal stakeholders. c. Focus group discussions with internal stakeholders and/or online surveys. d. Case studies and deep dives- in-depth analysis.
Coherence	a. How coherent and compatible has been the design and implementation of the GI SG Portfolio with Partnership Framework towards CGIAR's 2030 Research Strategy? b. How has the GI SG operationalized CGIAR's collective vision in the 2030 Research Strategy and CGIAR's Integration Framework Agreement? c. In what ways has the GI SG addressed key considerations and opportunities for enhancing coherence across, between, and within each SG?	a. What are the most important opportunities for enhancing coherence across the research portfolio of the GI SG? b. What are the key considerations in the development and consolidation of research initiatives and SG projects within the GI SG? c. How does the GIS G work with the regional initiatives in addressing national challenges? d. What evidence is there of increased collaboration and learning between centers and across crops and cropping systems?	a. Evidence-based on survey. b. Interview response and document review. c. Evidence from case study and deep dive analysis.	a. Desk review of relevant documents. b. Interviews with internal/external stakeholders. c. Online surveys with internal stakeholders/external stakeholders.
Effectiveness	a. To what extent have the selected initiatives/WP achieved and/or are expected to achieve, objectives, including any differential results across subgroups of users/clients? b. How well were the cross-cutting themes of gender and climate change integrated	a. To what extent were risk mitigation strategies integrated into the design of the GI SG to ensure potential risks are mitigated and to guarantee the effective performance of the GI SG? b. How was the general blueprint of ensuring access to financial and human resources to facilitate the achievement of the GI SG objectives?	a. Evidence-based on survey. b. Interview response and document review. c. Evidence from case study and deep dive analysis.	a. Annual progress reports. b. Interviews with internal stakeholders. c. Survey with external stakeholders.

CGIAR evaluation criteria	Key evaluation questions	Sub-questions	Indicator/focus	Data collection method
	into design and implementation (tagging)?	c. How would you consider the SG's internal capacity to broker institutional collaborations and to establish partnerships in countries/regions covered by the initiatives? d. To what extent is the CGIAR architecture suited to the establishment and operationalization of partnerships? e. To what extent has the design of the GI SG ensured achievement of the impact areas? i) Nutrition, Health & Food Security; ii) Climate Adaptation & Greenhouse Gas Reduction; iii) Poverty Reduction, Livelihoods & Jobs; iv) Gender Equality, Youth and Social Inclusion; v) Environmental Health and Biodiversity).		
Efficiency	To what extent is the governance and management of the GI SG deemed suitable for achieving the objectives?	a. What are the most important opportunities for enhancing efficiency across the research portfolio of the GI SG? b. What mechanisms are used in the GI SG to achieve efficiencies in research across the portfolio and how effective are they? c. How is efficiency in research and partnership influenced by the structure of SGs and the wider system? d. What cost recovery mechanisms are in place for services and functions provided across centers, and how could these be optimized for best value-for-money in scientific outputs and outcomes? Needs addressing in the main report. e. In a system of fully independent centers, which coordination mechanisms that the GI SG has tried appear to be most efficient in use of limited resources, drawing on comparative advantage across the system (same here)?	a. Evidence based on key interviews and survey of internal stakeholders. b. Document review.	a. Document review. b. Key Informant interviews. c. Internal stakeholder survey.
Quality of Science (credibility and legitimacy)	a. To what extent do the management processes of the GI SG ensure the QoS (including credibility, legitimacy, relevance to next stage users, and potential effectiveness) of the research and operations?	a. In what ways does the research adhere to good scientific practice, including aspects such as peer review, to ensure the highest standards of credibility? b. To what extent have the GI SG publications influenced global discourses and been cited in scholarly research?	Evidence-based on QoS review.	a. Quality of Research assessment b. Document review. c. Key Informant Interviews.

CGIAR evaluation criteria	Key evaluation questions	Sub-questions	Indicator/focus	Data collection method
	b. To what extent are the research outputs by the GI SG of high quality and influential, and how?	c. To what degree have the GI SG scientific outputs been co-developed through strategic partnerships in the global south? d. How did the GI SG collaborate with research centers to enhance the scientific credibility of CGIAR? e. To what extent does the research demonstrate accuracy in the data used, and are the methods employed to procure this data deemed fit for the intended purpose? f. What are the most important opportunities for enhancing quality of science across the research portfolio of GI SG? g. Has the GI SG Research Portfolio been co-designed with key partners? h. Are planned processes sufficiently gender aware and responsive? i. Is the donor commitment to funding secure and adequate? j. Is capacity building appropriate and adequate for planned activities?		

Annex 4: Key Informant Interview Guide (Combined Version)

This is a short guide on conducting and analyzing in-depth semi-structured interviews for the CGIAR Science Group (SG) evaluations**.** This document is expected to guide the work of team leaders (TLs), Subject Matter Experts (SMEs), and other people involved in data collection through interviews.

Note: The questions to be asked and/or phrases to be quoted are in *italics*. What is not in italics are input for you to conduct the interview (rules, tips, what to say at the beginning and at the end of each interview).

COLLECT DATA

Interview tips

Please bear in mind the following while conducting in-depth interviews:

a. **Prior to the interview, read carefully and understand the questions,** if you have any doubt, contact the SG TL. Learn the questions so you can ensure to ask key questions as interviewers often jump on topics.
b. **Stakeholders wearing multiple hats**: interviewees are likely to be involved in multiple initiatives and/or work packages (WPs) and you may not be aware of all those when you invite them for an interview. At the start of meeting, inquire about participants' roles and adapt the meeting protocol accordingly. Then, inform the other SG evaluation TLs if one of the other roles is related to the scope of another SG.
c. **Be prepared for questions about IAES and the Evaluation Function:** Familiarize yourself with these topics to provide answers. In case Svetlana and/or Ibtissem are taking part in the interview, you can delegate to them for explanation. (Evaluation Policy & Framework Brief). Impact assessments are an input into our evaluations-our focus is on the process/performance evaluations.
d. When asking questions, **try to be as clear as possible, speak slowly** and in a clear voice.
e. **Be open-minded**: Avoiding bringing in your school of (scientific) thought, giving the feeling of being judgmental or critical on what the interviewee is saying. These attitudes could hinder the full and free expression of opinions by the interviewee.
f. **Be a good listener:** Using a proactive listening approach: focus on what the interviewee says, waiting for them to finish expressing their thoughts before moving to the next question; if necessary, paraphrase what the speaker is saying to convey that the interviewer is listening and that the message has been received.
g. **Expect emotions such as frustration and sadness:** This could affect framing of the discussion. Be attentive to signs of anxiety and allow space for individuals to express concerns related to uncertainty and morale due to CGIAR reform, or other work challenges.
h. **Ask open-ended questions**: These types of questions help to avoid close-ended answers such as Yes/No, and require the interviewer to elaborate on their point. Yes or no questions are one-dimensional and do not stimulate discussion, making them better suited for surveys. Similarly, 'why' questions can make people feel defensive and lead them to take a "politically correct" side on controversial issues.
i. **Submit factual questions before opinion questions**: For example, ask "What activities were implemented?" before asking "What are strengths and weaknesses of the activities implemented?".
j. **Use probes:** For example, "Would you give me an example of what you are mentioning?", or "Could you elaborate on that further?". This is very important for evidence of what the interviewee says.

Introduction to the interview for all stakeholders

1. **Thank you**

I want to thank you for taking the time to meet with me today. My name is … and I am an independent consultant working on behalf of the Independent Advisory and Evaluation Service (IAES), formerly CGIAR Advisory Service (CAS) of CGIAR.

2. **Introduction and purpose of the evaluation**

If needed, you can proceed with a short explanation of CGIAR and IAES by summarizing the following:
CGIAR is a global research partnership dedicated to transforming food, land and water systems in a climate crisis. CGIAR works on agricultural research for development (AR4D), science and innovation for vulnerable and marginalized people across the world. The 2030 CGIAR Research and Innovation Strategy provides a good overview of the regions, impact areas and impact pathways. The 14 research centers that are part of the CGIAR system are non-profit research organizations conducting innovative research for development (https://www.cgiar.org/research/research-centers/).

The **IAES's** Evaluation Function delivers and supports **process and performance evaluations,** not impact assessments, which provide accountability, support to decision making, and lessons for improving quality and effectiveness of agricultural research for development outcomes.

This is an external independent evaluation of the CGIAR Genetic Innovation (GI) Science Group (SG). The evaluation is conducted upon the request of the CGIAR System Council.

Note: it is possible that not all interviewees may understand/know what this entails. If necessary, provide a short explanation or reminder of Genetic Innovation SG. Information available at https://www.cgiar.org/research/cgiar-science-groups/.

The evaluation combines summative and formative dimensions; the purpose of the evaluation it to contribute to the steering of evidence-based decisions, support CGIAR's institutional learning, and provide accountability.

The objective of the evaluation is to determine:

- where success lies at the SG and initiative levels, and CGIAR at large.
- roll-out and implementation difficulties of the portfolio.
- reasons and factors behind successes and difficulties.
- good practices, lessons learned and recommendations for future programming at CGIAR.

The evaluation covers **the SG initiatives implemented during the period 2022-24.** This implies that results achieved under previous CGIAR Research Programs (CRPs) and platforms are not considered under this scope.

3. **Introduction to the interview (duration, how the interview will be conducted)**

The interview will take from 45 minutes to one hour.

The questions may be cited to help interviewees know in advance what will be asked; however, preference is for general areas specified above.

You can paraphrase the following suggested statement:

I will be asking you some questions regarding your work on this initiative/under this SG/thematic area in your center.

This will include (1) a bit of background on your involvement in this SG/initiative, (2) any successes that you note, (2) any challenges that affect achieving success, (4) lessons learned and recommendations to improve future programming.

I will be taping the interview to not lose any information (I can't write fast enough to get all information down). *Of course, the recording will stay confidential, and it is just to help me/us (the evaluation team) to remember what you say. If you have any objection or bad feelings towards recording, I will only take notes.*

NOTE: **Normally, recording government officials is not allowed or appropriate.** In the case of CGIAR stakeholder National Agricultural Research Extension Services (NARES), one may or may not be government-affiliated *per se*. Therefore, I suggest not to record in the case of government officials. This requires an additional effort in terms of capturing the most important content of the interview and faithfully transcribing what the interviewee says. In all other situations, I strongly recommend you record the interview (**with an appropriate explanation of the use and explanations of provisions for confidentiality and protection**).

Are there any questions about what I explained?

4. **Confidentiality and consent**

All information you provide will be kept confidential. This means that your interview responses won't be shared with anyone and will only be used by the evaluation team members to elaborate on findings and conclusions. **We will ensure that any information included in the report does not identify you as the respondent, unless you insist to be quoted**. You don't have to talk about anything you don't want to.

Are you willing to participate in this interview?

What to say at the end of each interview

Would you like to add anything else?

I'll be analyzing the information that you and others provided, which will be used to draft the evaluation report. If something is not entirely clear, or if I need more information, I will contact you quickly. Thank you for your time!

ANALYZING DATA

Organize the **interview's notes** soon after the interview when contents are still fresh in mind.

Then take adequate time to **transcribe the interview**, bearing in mind that generally, transcription requires more time than the interview itself. Interview transcripts should be as detailed as possible and faithfully report what the interviewee said, avoiding mixing what was said with interviewer's interpretations and personal opinions (**the latter are indeed useful and can be placed in footnotes).**

During this phase, **verification and validation of the data and findings collected from the interviews is also required**. For example, if the interviewee says that the initiative strongly integrated a gender dimension, this should be supported through concrete examples and verified thorough appropriate desk review, quantitative data, additional interviews.

Considering the evaluation's timeline, interviews' transcripts should be uploaded in the SharePoint **within two days** from the date of the interview.

A final report on main findings from interviews conducted and desk review will be requested to SMEs. The report should also include the description of the evaluation methodology adopted, any limitations and the list of persons interviewed, and documents consulted.

INTERVIEW QUESTIONS

NOTE: All questions below are linked to the evaluation matrix**. The interview may be time-consuming so adequate time should be planned (around one hour).** You may consider providing the key interviewees with a list of themes or copy of the questions to facilitate the process. Although not all interviewees will be asked all the questions (depending on their role and the activities in which they are involved in), by the end, the evaluators and subject matter experts (SMEs) should have collected enough answers to all the questions contained in the core interview guide.

Per each evaluation criteria, select appropriate questions considering the role of the person/organization interviewed.

Although some questions can be skipped, if adequate information is gathered prior to the interview through desk reviews and email exchanges or through other meetings, the interview is challenging. **Do not go in a hurry, it is preferable to skip a few questions rather than asking all of them roughly. You may also consider arranging a follow-up with the interviewee to complete any important pending questions.**

After the interview's introduction (see above, pages 2-3), continue one by one with the questions below according to the type of stakeholder.

Questions marked with X may be eliminated according to what was mentioned in the Note. 'OR' indicates that you can select one of two similar questions.

INTERVIEW QUESTIONS-SCIENCE GROUP LEVEL

SG Directors, Science (thematic) directors, M&E focal points, staff at SG level

GENERAL QUESTION

1. *X Please, briefly describe **your role and involvement** in the GI SG or in CGIAR.*

NOTE: Question 1 is not a requirement but is preferable. The brief description should take no more than five minutes. This is included to provide an opportunity for the interviewee to explain their work in their own words, it can be used as a sort of icebreaker and helps to set the scene for the following questions. If you believe you do not have enough time for all the questions and if you have already gathered enough information on the interviewee's role through desk review and prior email exchanges, you can proceed to the next question.

RELEVANCE

2. *Could you briefly explain how **the SG-specific rationale**[1] was conceptualized, and also mention any (internal and external) **consultative process and co-design that was carried out**?*

3. *What is the evidence-base behind the **assumptions and casual links** underlying the impact pathway contained in the SG **theory of change** (ToC)?*
    a. *Have any **risk assessments** been carried out? If so, could you explain how these risks were identified?*
4. *Have any **contextual changes or ToC developments,** affected the SG rationale? Can you give specific examples of contextual changes in target countries and explain how these affected the initiative rationale or its implementation? If the contextual changes were negative, what actions were taken to address the impacts?*
    a. *Could you share an example of the **SG responsiveness to emerging concerns** and changing contexts, both in terms of rationale and modality of work?*

EFFECTIVENESS

5. Since the start of new CGIAR portfolio, between 2022-24, what would you consider to be the SG's **highest achievements *vis-vis* the SG ToC** (probe if necessary)? How have these achievements contributed to CGIAR Impact areas? (By asking this question, guide the conversation around one or more specific impact areas – i) Nutrition, Health & Food Security; ii) Climate Adaptation & Greenhouse Gas Reduction; iii) Poverty Reduction, Livelihoods & Jobs; iv) Gender Equality, Youth and Social Inclusion; v) Environmental Health and Biodiversity).
6. Could you mention **any success** at initiative or a country level in one or more of the SG thematic areas and explain **which factors you would attribute the positive result?** Please tick the relevant area-one or more-and provide explanations.
7. To what extent has the SG supported **research innovation** at country, regional or global level? Is there any evidence **of innovative solutions or new knowledge** generated by the SG **being used/implemented** by partners and stakeholders, e.g., NARES, ministries, partners? Could you provide examples?
8. What are the **main difficulties or challenges** affecting SG efforts in successfully implementing its portfolio of initiatives, and aligning to ToC aspirations?
9. What have been the **missed opportunities** and how could the SG intervene in those areas?
10. Has the SG adopted any specific **gender strategy/approach** to promote equality and women empowerment across its initiatives and activities? How and why did you tag the initiative for gender? Have you engaged with the Gender Platform? If so, could you provide examples?
11. Broadly, the SG initiatives are labelled as ('principal' or 'significant') for **climate change** adaptation and/or mitigation. Could you provide more information on how climate change is considered/tackled at SG level? Is there any specific guidance for initiative leads existing on this?
12. Are you aware of the **CGIAR Partnership Framework**? How would you consider the SG or initiative or center capacity to broker **institutional collaborations** and to establish **partnerships** in countries/regions covered by the initiatives?
    a. Is the SG able to partner with **different types of stakeholders**? Could you provide examples?
    b. How would you consider the **responsiveness** of these partners so far?
    c. Do you believe that SG partnerships have definite **complementing value** in terms of resources, capacities, advocacy and outreach? If yes, could you please describe?
    d. How helpful/inhibiting is the **CGIAR architecture suited** to the **establishment and operationalization** of partnerships?

EFFICIENCY

13. From the period 2022-24, have **financial and human resources** been made available in an **efficient and timely manner** for the smooth implementation of the SG Portfolio/initiative?
    a. How **timely have financial resources** been identified and implemented to enhance the responsiveness of research to new challenges or **emerging needs**?
14. Do you believe there is adequate **balance between available resources and expected results**? If not, what measures could be taken?
15. What is the role of the SG and/or the centers, in **raising funds** to support the Portfolio?
16. What are the **SG monitoring mechanisms** and to what extent are the **results** linked to the implementation of SG activities effectively **assessed, monitored, and reported?** What **monitoring data and evaluation evidence inform strategic planning and how? How are outcomes measured at SG level?**
17. Has the SG developed any **mechanism to capitalize on results** from different initiatives? If so, could you describe it and explain how it contributes to **organizational learning?**
18. Do you think there is sufficient **complementarity and coordination** among SG initiatives, among different SGs, between the SG and the platforms, and among different CGIAR centers? Could you elaborate on that further?
19. What have been the specific **operational and strategic challenges affecting efficiency** and how can these be improved in the future?
20. What **cost recovery mechanisms** are in place for services and functions provided across centers, and how could these be optimized for best value-for-money in delivering the SG portfolio?

COHERENCE

21. What is your opinion on the **SG alignment** with centers' priorities? Could you share examples of alignment?
22. In your opinion, to what extent is the SG's work based on **CGIAR's comparative advantage**? Could you give an example/could you elaborate on that further?
23. How and to what extent have **GTIs and RII** engaged one another to assess, prioritize and align around regional and national priorities?
24. How has the **SG architecture facilitated coherence, coordination and collaborative research** and innovation offers from CGIAR, considering comparative advantage?
25. Has the SG facilitated **reduction in duplication of research efforts** within CGIAR? If so, how?

QUALITY OF SCIENCE (QoS)

QoS DESIGN

26. X To what extent does the **SG Research Portfolio address global/regional problems**? Could you provide examples?

NOTE: This question can be skipped if enough information is collected through questions under RELEVANCE.

27. Is the **adopted methodology appropriate and credible** for the planned research? Could you elaborate on that further?
28. X Could you provide any examples of how the SG research has been co-designed with external partners and stakeholders?

NOTE: This question can be skipped if enough information is collected through questions under RELEVANCE.

QoS INPUTS

29. Is the **disciplinary skill base** appropriate and sufficient to satisfactorily implement the SG Research Portfolio?
    a. Are additional skills needed?
    b. Would integration with other initiatives provide needed skills?
30. Is the **composition of the team** sufficiently diverse (gender, nationality, age) to legitimately implement planned research activities?
31. Are **resources** (laboratories, fields) adequate to implement the research activities?
32. Is **capacity building** offered within the SG Research Portfolio appropriate for planned research activities?
33. Is **donors' commitment** to funding for the SG Research Portfolio secure and adequate?

QoS PROCESSES

34. Are **roles and responsibilities** sufficiently clear and with due recognition?
35. Are **partnerships** inclusive and recognized?
36. Are **leadership and management processes adequate** to support research scientists in an uncertain environment?
37. Has the **recent restructuring of the CGIAR Research Portfolio** negatively affected the generation of quality outputs?
38. Are **incentives** in place within the SG to reward performance?
39. Have potential internal and external negative consequences and **risks** been sufficiently recognized and articulated?

QoS OUTPUTS

40. Are **peer-reviewed publications** generated of sufficiently high quality and open access? (use of bibliometrics and altmetrics)
41. Are other **written outputs** such as working papers, technical reports and policy briefs of high quality and relevant to next stage users?
42. Are **physical outputs** such as improved varieties, technologies, methodologies and digital innovations of high quality, of International Public Good (IPG) value, aligned with sustainable development goals (SDGs) as well as influential and relevant to next stage users?
43. Do the outputs position the SG Research Portfolio for **uptake** and impact? (also relates to IPGs). Is there a scaling **readiness assessment system** in place?
44. Is there sufficient effective **engagement with policy makers?**
45. Are there any **factors affecting the quality of the scientific outputs** or preventing access to or use of the knowledge generated under the SG Research Portfolio?

GOOD PRACTICES, LESSONS LEARNED, RECOMMENDATIONS

46. Can you cite **good practices and lessons learned on the SG modality of work?**
47. Please provide your **recommendations/suggestions** for improving the relevance, effectiveness, efficiency and QoS of the SG, which can ´inform the P25 development.

INTERVIEW QUESTIONS-INITIATIVE LEVEL

Initiative leaders, co-leaders, country focal points, WP leaders, M&E focal points, other staff at initiative level, CGIAR implementing centers

GENERAL QUESTION

1. X Please, briefly describe **your role and involvement** in the Initiative. xx

NOTE: Question 1 is not a requirement but is preferable. The brief description should take no more than five minutes. This is included to provide an opportunity for the interviewee to explain their work in their own words, it can be used as a sort of icebreaker and helps to set the scene for the following questions. If you believe you do not have enough time for all the questions, and if you have already gathered enough information on interviewee's role-through desk review and prior email exchanges-you can proceed to the next question.

RELEVANCE

2. In your opinion, what are the **country-regional-global research and development needs and priorities** that might be adequately addressed through this initiative and how is the initiative consistent with these needs and priorities?
3. In your opinion, what is the initiative's **added value** for the country and/or for the topic addressed, and/or for the involved stakeholders?
4. Have any **contextual changes affected the initiative rationale** compared to the period in which it was conceptualized and launched? Can you give specific examples of contextual changes in target countries and explain how these affected the initiative rationale or its implementation? If the contextual changes were negative, what actions were taken to address the impacts?
5. Did the initiative design process **include participatory bottom-up mechanisms** to respond to local demand? If so, could you provide examples? Or: Can you explain **how local partners participated in the research design process?** What were the processes or stages by which country or regional needs were incorporated to respond to contextual demand?
6. To what extent have the **assumptions** contained in the ToC of the initiative occurred? Are there **new hypotheses** that have emerged after the ToC formulation? How are these affecting the implementation of the initiative?

EFFECTIVENESS

7. Overall, what **progress** has been made towards the initiative's expected outputs and what is the likelihood that these outputs will lead to the planned end-of-the initiative outcomes? Are there any related **constraints?**
8. Or: Considering the period 2022-24, what **preliminary changes** can be observed as result of the initiative and/or could you mention **any success and explain to which factors** you would attribute the positive effects?
9. To what extent has the initiative supported **research innovation** at country, regional or global level? Is there any evidence of **innovative solutions or new knowledge** generated by the **initiative been used/implemented** by partners and stakeholders? Could you provide examples?
10. Or: To what extent do you think the **knowledge** generated by the initiative has a potential to be **actionable** by local partners and organizations?
11. To what extent is the initiative **supporting capacities** through knowledge brokering, the sharing of know-how and peer-to-peer learning among partners and stakeholders? Please provide examples.

12. To what extent is the initiative contributing to the development, improvement, and implementation of **policies** that improve the resilience of agri-food systems?
13. What **constraints–both internal and external**–has the initiative faced in implementing its WPs and activities? How have these constraints been addressed?
14. Could you explain whether and how the initiative takes **gender** into account both in terms of design and implementation?
15. What is, to date, the **initiative outreach to the vulnerable poor** and marginalized groups? Any related challenges?
16. Do you believe the initiative **partnerships** have definite **complementing value** in terms of resources, capacities, advocacy and outreach or not? Could you please describe it? How would you consider the **responsiveness** of external partners so far?
17. Are there any specific **challenges related to partnerships** within this initiative?
18. To what extent is the initiative interacting and establishing **synergies** with other GI initiatives, CGIAR platforms and/or other SGs?
19. To what extent is the initiative reinforcing **collaboration among CGIAR centers**? Please provide examples.
20. To what extent have **climate change mitigation and adaptation** been mainstreamed while designing and implementing the initiative? Please provide concrete examples.

EFFICIENCY

21. Have **financial and human resources** been made available in an **efficient and timely manner** for the smooth implementation of the initiative?
22. Have any **budgetary constraints** affected the delivery of results?
23. Do you believe there is an adequate **balance between available resources and expected end-of-initiative outcomes?**
24. What is the role of the SG and/or the centers, in **raising funds** to support the initiative?
25. Does the initiative have a **monitoring system established** (M&E responsible, budget for monitoring, frequency and modality of data collection across countries, M&E digital tools, partners taking part in the system)**?** To what extent are **results** that are linked to the implementation of the initiative effectively **assessed, monitored, and reported?** Could you explain how **monitoring informs strategic planning? How are outcomes measured at initiative level, particularly regarding capacity building?**
26. Has the initiative developed any **mechanisms to capitalize results** from different countries and partners? If so, could you describe it and explain how it contributes to organizational learning?
27. What have been the specific **operational challenges affecting efficiency** and how can these be improved in the future?
28. To what extent are **coordination and communication mechanisms** within the initiative, and between the initiative and the SG, suited to deliver results?
29. OR: How would you consider the efficiency of the SG and the initiative institutional set-up?
30. How does efficiency affect partnerships (look at budget cuts for example).
31. In the last two years, with the occurred changes, do you feel more or less frustrated, and why? (remember that MoUs and budget are signed by centers and not by CGIAR).
32. Do you have this initiative under your job description?

COHERENCE

33. In your opinion, to what extent is the initiative based on **CGIAR's comparative advantage** (https://iaes.cgiar.org/isdc/publications/identifying-and-using-cgiars-comparative-advantage)? Could you elaborate on that further?
34. What is the comparative advantage **of having CGIAR** to deal with this topic/initiative?
35. What is the comparative **advantage of having this initiative under the SG?**
36. What is the comparative advantage and value added of having SGs? How do they help to address challenges in efficiency, different resources, and different topics?
37. Based on the experience of this initiative, how has the **SG architecture facilitated coherence, coordination and collaborative research and innovation** offers from CGIAR?

QUALITY OF SCIENCE

QoS DESIGN

38. X To what extent does the **SG Research Portfolio address global/regional problems**? Could you provide examples?

NOTE: This question can be skipped if enough information is collected from questions under RELEVANCE.

39. Is the **adopted methodology appropriate and credible** for the planned research? Could you elaborate on that further?
40. X Could you provide any examples of how the SG research has been **co-designed** with external partners and stakeholders?

NOTE: This question can be skipped if enough information is collected from questions under RELEVANCE.

QoS INPUTS

41. Is the **disciplinary skill base** appropriate and sufficient to satisfactorily implement the SG Research Portfolio?
    a. Are additional skills needed?
    b. Would integration with other initiatives provide needed skills?
42. Is the **composition of the team** sufficiently diverse (gender, nationality, age) to legitimately implement planned research activities?
43. Are **resources** (laboratories, fields) adequate to implement the research activities?
44. Is **capacity building** offered within the SG Research Portfolio appropriate for planned research activities?
45. Is **donor commitment** to funding for the SG Research Portfolio secure and adequate?

QoS PROCESSES

46. Are **roles and responsibilities** sufficiently clear and with due recognition?
47. Are **partnerships** inclusive and recognized?
48. Are **leadership and management processes adequate** to support research scientists in an uncertain environment?
49. Has the **recent restructuring of CGIAR research portfolio** negatively affected the generation of quality outputs?
50. Are **incentives** in place within the SG to reward performance?
51. Have potential internal and external negative consequences and **risks** been sufficiently recognized and articulated?

QoS OUTPUTS

52. Are **peer-reviewed publications** generated of sufficiently high quality and open access? (use of bibliometrics and altmetrics)
53. Are other **written outputs** such as working papers, technical reports, policy briefs etc. of high quality and relevant to next stage users?
54. Are **physical outputs** such as improved varieties, technologies, methodologies, digital innovations etc. of high quality, of IPG value, aligned with SDGs as well as influential and relevant to next stage users?
55. Do the outputs position the SG Research Portfolio for **uptake** and impact? (also relates to IPGs). Is there a scaling **readiness assessment system** in place?
56. Is there sufficient effective **engagement with policy makers?**
57. Are there any **factors affecting the quality of the scientific outputs** or preventing access to or use of the knowledge generated under the SG Research Portfolio?

GOOD PRACTICES, LESSONS LEARNED, RECOMMENDATIONS

58. Can you cite **good practices and lessons learned on the SG modality of work?**
59. Please, provide **recommendations/suggestions** for improving the relevance, effectiveness, efficiency, QoS of the SG, to inform the P25 development.

INTERVIEW QUESTIONS FOR CGIAR external partners–NARES, academia, governments, CSOs, private sector, UN agencies.

NOTE: The list of questions for external stakeholders should be fine-tuned according to the type of stakeholder interviewed. This is a general set of questions that could be further detailed according to the specific role and experience of each stakeholder.

1. X Please, briefly describe your involvement/Institution/organizational involvement in activities related to the SG.

NOTE: Question 1 is not a requirement but is preferable. The brief description should take no more than five minutes. This is included to provide an opportunity for the interviewee to explain their work in their own words, it can be used as a sort of icebreaker and helps to set the scene for the following questions. If you believe you do not have enough time for all the questions and if you have already gathered enough information on interviewee's role through desk review and prior email exchanges, you can proceed to the next question.

RELEVANCE

2. To what extent are the SG initiatives (or this particular initiative) **relevant to your Institution/ organization's situation?** That is, are the SG initiatives aligned with needs and priorities of your Institutions/organization? If yes/no, explain why.
3. Do you believe that you (your Institution/organization) have (has) been **able to contribute to the design and planning of the SG initiatives (or this particular initiative)?** If yes, how? If not, what is your opinion on this?
4. What do you consider to be the **added value** of **the SG (or this particular initiative) i**n promoting resilient agri-food systems compared to other international organizations?

EFFECTIVENESS

5. Considering the period 2022-24, **what preliminary changes** can be observed as a result of the initiative? Could you mention **any success and explain which factors** contributed to the positive effects?
6. To what extent do you think the **knowledge** generated by the initiative has a potential to be **actionable** by local partners and organizations? Please provide examples, if any.
7. Or: Are you engaged (your organization/institution) in **up-scaling and replicating research and knowledge generated under the initiative?** If yes, please summarize.
8. Do you think that the SG's work has in any way strengthened your organization's/institution's capacities and outreach? If yes, how and in which areas?
9. Or: Did you receive any specific **training or capacity building from CGIAR to be part of this initiative?** If yes, please explain.
10. Based on your experience of collaboration with the SG (or with this initiative), what are the **main difficulties and challenges** affecting efforts in successfully implementing the SG's activities?
11. To what extent has the SG/CGIAR mobilized partnerships in your region/country? Please give examples. What could be other opportunities for partnerships?

EFFICIENCY

12. Based on your experience with this initiative, to what extent do you think there is an adequate **balance between available resources (human, financial) and expected end-of-initiative outcomes?**
13. In implementing this initiative, what is your appreciation of **the quality of the coordination mechanisms with your organization/institution?** (Were role and tasks clear enough? Was the initial timeline respected? Did you receive enough guidance on the implementation of the activities? Were tools for collaboration efficient?)
14. Have you (or your institution/organization) been involved in **monitoring and capitalizing on results** achieved under the initiative? If yes, could you please describe how?

COHERENCE

15. Do you think there is sufficient **complementarity, synergy and coordination** with other ongoing initiatives in the same thematic areas?
16. Have you noticed any **duplications of efforts** compared to other ongoing research initiatives in the country (or duplication around the same topic)?

QUALITY OF SCIENCE

17. Could you provide any examples of how research activities within the initiative have been **co-designed** with external partners and stakeholders?

NOTE: This question can be skipped if enough information is collected from questions under RELEVANCE.

18. In your opinion, is there any **factor affecting the quality of the scientific outputs or scientific processes adopted under the initiative** and/or preventing from accessing or using the knowledge generated?
19. Basing on your experience within this initiative, are **resources (human resources, funds, laboratories, fields) adequate** to implement the planned research activities?
20. Is it likely that the outputs planned under the initiative will be scaled-up? (also relate to IPGs). Have you noticed the presence of any **scaling readiness assessment system in place?**

GOOD PRACTICES, LESSONS LEARNED, RECOMMENDATION

21. Can you cite **good practices and lessons learned emerging from your participation or knowledge of this initiative?**
22. **What do you view as major opportunities for the SG in your region/country?**
23. Please provide your recommendations/suggestions for improving the effectiveness of the SG and/or of this initiative. Or: What can improve the results and contributions of SG/CGIAR in your region/country or at initiative level?

INTERVIEW QUESTIONS FOR DONORS

1. How did the (name of the donor) come to be involved with the SG (or with this specific initiative) and **how does it relate to your own organizational interests and priorities?**
2. How else have you previously been involved in the work of CGIAR?
3. Who are your most **strategic partners** in promoting research and development around resilient agri-food systems? In your opinion, has the SG effectively liaised with these partners? Please, explain.
4. What could be **other opportunities for partnerships?**
5. What do you consider the main challenges related to long term support to the SG/initiative?
6. Please provide your **recommendations/suggestions** for improving the effectiveness of the SG and/or of this initiative. Or: What could be done better for improving the results and contributions of SG/CGIAR in your region/country or at initiative level?

Annex 5: Profile of GI Stakeholders Interviewed

Annex 5 Table 1. Distribution of Stakeholders Interviewed-GI SG

Category	No. of Interviewees	Percentage
CGIAR	32	51.6%
ARI, NARIS, NARES	23	37.1%
Private Sector	5	8.1%
Donor/Funder	1	1.6%
Academia/University	1	1.6%
Total	62	100%

Source: IAES SG Evaluation Survey Results, 2024

Annex 5 Table 2. Details of Stakeholders Interviewed-GI SG

Interviewee	Gender	Location	Type
Adriana Gonzalez	F	Mexico	CGIAR
Denise Costich	F	Mexico	Academia, University
Sonja Vermullen	F	France	CGIAR
Young Wha Lee & Renee Latiffe	F	United States	Funder, Donor
Bhoja Raj BASNET	M	Mexico	CGIAR
Bish Das	M	Kenya	CGIAR

Interviewee	Gender	Location	Type
Biswanath DAS	M	Mexico	CGIAR
Michael Quinn	M	Australia	CGIAR
Neena JACOB	M	India	CGIAR
Peter Coaldrake	M	Mexico	CGIAR
Sarah Jane Hearne	F	Mexico	CGIAR
Sharifah Shahrul Syed Alwee	M	Philippines	CGIAR
Andre Moretto Embersics	M	Mexico	CGIAR
Eng Hwa Ng	M	Philippines	
CGIAR			
Gustavo Teixeira	M	Mexico	CGIAR
Berber Kramer	F	Kenya	CGIAR
Dean Muungani	M	Nigeria	CGIAR
Hanna Weberhofer	F	Peru	CGIAR
Jason Donovan	M	Mexico	CGIAR
Matty Demont	M	Philippines	CGIAR
Vivian Polar	F	Peru	CGIAR
Eileen Nchanji	F	Kenya	CGIAR
Guush Berhan	M	United States	CGIAR
James Legg	M	Tanzania	CGIAR
Jean Claude Rubyogo	M	Kenya	CGIAR
Lucky Omoigui	F	Nigeria	CGIAR
Marcel Gatto	M	Vietnam	CGIAR
Theophilus Kwabla Tengey	M	Ghana	ARI, NARIS, NARES
Crawford Scarlett	F	France	CGIAR
Paula Bramel	F	Germany	CGIAR
Emmanuel B Chamba	M	Ghana	ARI, NARIS, NARES
Isaac Amegbor	M	Ghana	ARI, NARIS, NARES
Gloria Adu Boakyewaa	F	Ghana	ARI, NARIS, NARES
Peter Asungre	M	Ghana	ARI, NARIS, NARES
Ken Opare Obuobi	M	Ghana	ARI, NARIS, NARES
Edward Martey	M	Ghana	ARI, NARIS, NARES
Emmanuel Owusu	M	Ghana	ARI, NARIS, NARES
Alex Yeboah	M	Ghana	ARI, NARIS, NARES
Francisca Frimpomaa	F	Ghana	ARI, NARIS, NARES

Interviewee	Gender	Location	Type
Mustapha Abdul Ganiyu	M	Ghana	ARI, NARIS, NARES
Salim Lamini	M	Ghana	ARI, NARIS, NARES
Rita Bawaare	F	Ghana	ARI, NARIS, NARES
Nuhu Jinbaani	M	Ghana	ARI, NARIS, NARES
Joseph Adjebeng Danquah	M	Ghana	ARI, NARIS, NARES
Francis Kusi	M	Ghana	ARI, NARIS, NARES
Kirpal Agyemang Ofosu	M	Ghana	ARI, NARIS, NARES
Maxwell Asante	M	Ghana	ARI, NARIS, NARES
Emmanuel Otoo	M	Ghana	ARI, NARIS, NARES
Prof. Mariam D Quain	F	Ghana	ARI, NARIS, NARES
Dr Takemore Chagomoka	M	Ghana	Private Sector
NAJM Amer	M	Ghana	CGIAR
Benjamin Kemetse	M	Ghana	Private Sector
Léon Broers	M	Germany	Private Sector
Mr. Oxford Agboli	M	Ghana	Private Sector
Hugo Campos	M	Peru	CGIAR
Duncan Onduu	M	Kenya	Private Sector
Julie Ojango	F	Kenya	CGIAR
Dr Happy Daudi	F	Tanzania	ARI, NARIS, NARES
Dr. Papias H. Binagwa	M	Tanzania	ARI, NARIS, NARES
Dr Kido Mtunda	F	Tanzania	CGIAR
Ruth N.A Prempeh	F	Ghana	ARI, NARIS, NARES
Denis Tippe	M	Tanzania	CGIAR
John Hickey	M	USA	Private Sector
Tabare Abadie	M	USA	Private Sector
John Derera	M	Nigeria	CGIAR
Jim Lorenzen	M	USA	Funder, Donor
Kent Short	M	USA	Private Sector
Aslam Yousuf	M	Pakistan	Private Sector

Source: IAES SG Evaluation Interviews, 2024

Annex 6: Online Survey Results

The evaluation included an online survey as one of its data collection methods. A total of internal 53 stakeholders with affiliation to GI SG participated; find their demographic details in Table 1 below.

Annex 6 Table 1. Profile of GI SG Respondents from the Online Survey

Profile of Stakeholders	No. of Respondents	Percentage
Gender		
Male	30	57%
Female	23	43%
Role		
Donor/Governance Body	1	1.9%
Management/Leadership team (CGIAR)	17	32.1%
Scientist/Researcher/MELIA/PhD student (CGIAR)	27	51%
Support and Administrative Staff (CGIAR)	8	15.1%
Period of involvement with CGIAR		
Less than 2 years	5	9.4%
2 to 5 years	10	18.9%
5 to 10 years	11	20.8%
More than 10 years	27	50.9%

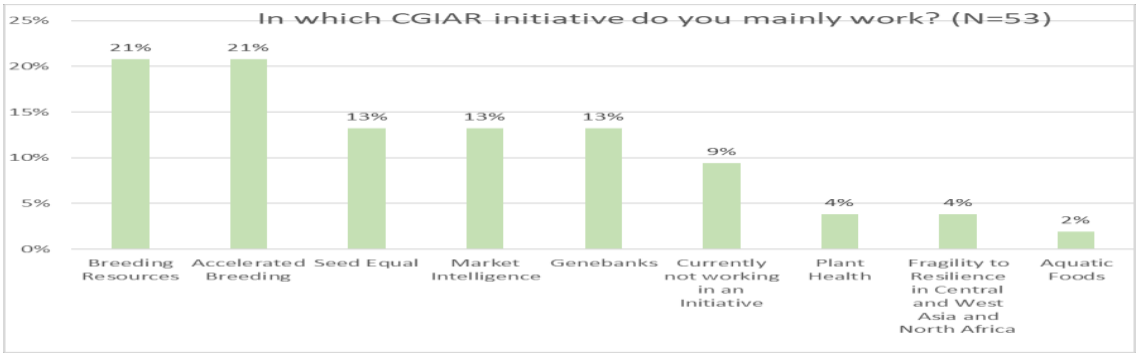
Source: IAES SG Evaluation Survey, 2024

Annex 6 Table 2. Geographic Distribution of Stakeholders who Responded to the Survey-GI SG

Country	No. of respondents	Country	No. of respondents
Australia	1	Mexico	5
Austria	1	Morocco	1
Bangladesh	3	Nigeria	4
Belgium	1	Peru	1
Cameroon	1	Philippines	5
Canada	1	Tanzania	1
Ethiopia	1	Uganda	1
France	5	United Kingdom	1
Ghana	2	United States of America	2
India	4	Lebanon	1
Italy	1	Malaysia	2
Kenya	8	**Grand Total**	**53**

Survey Results for Genetic Innovation Science Group

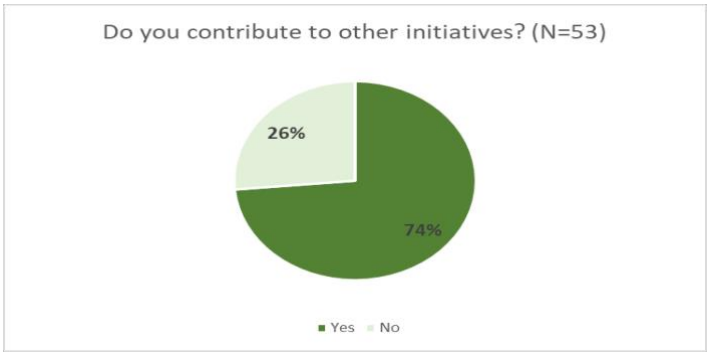
Figure 3. Main Initiative of Respondents



Source: IAES SG Evaluation Survey results, 2024

Figure 4 illustrates the primary initiatives of the stakeholders who responded to the survey. While all 53 stakeholders are involved with the GI SG, some also collaborate with other initiatives in different SGs. Figure 4 shows almost 4% of stakeholders focus on Fragility to Resilience and Plant Health; 1% on Aquatic Foods, and over 70% engage in multiple initiatives, indicating a collaborative engagement structure.

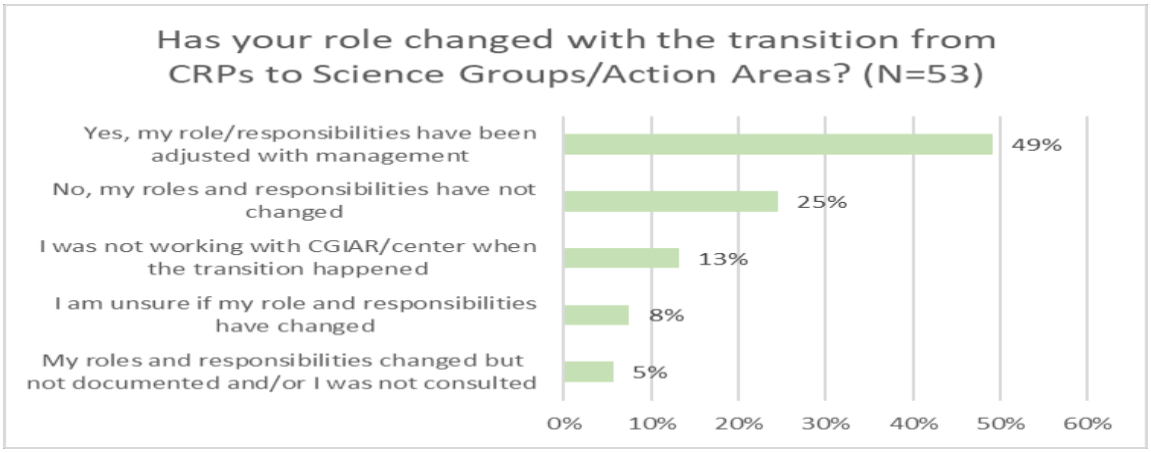
Figure 4. Contribution to other Initiatives-GI SG



Source: IAES SG Evaluation Survey results, 2024

Stakeholders' roles changed significantly during the transition from CGIAR Research Programs (CRPs) to the current SG structure. Nearly half (49.1%) reported adjustments in responsibilities, tasks, or focus areas (see Figure 6).

Figure 5. Transition from CRPs to Action Areas: Impact on Roles-GI SG

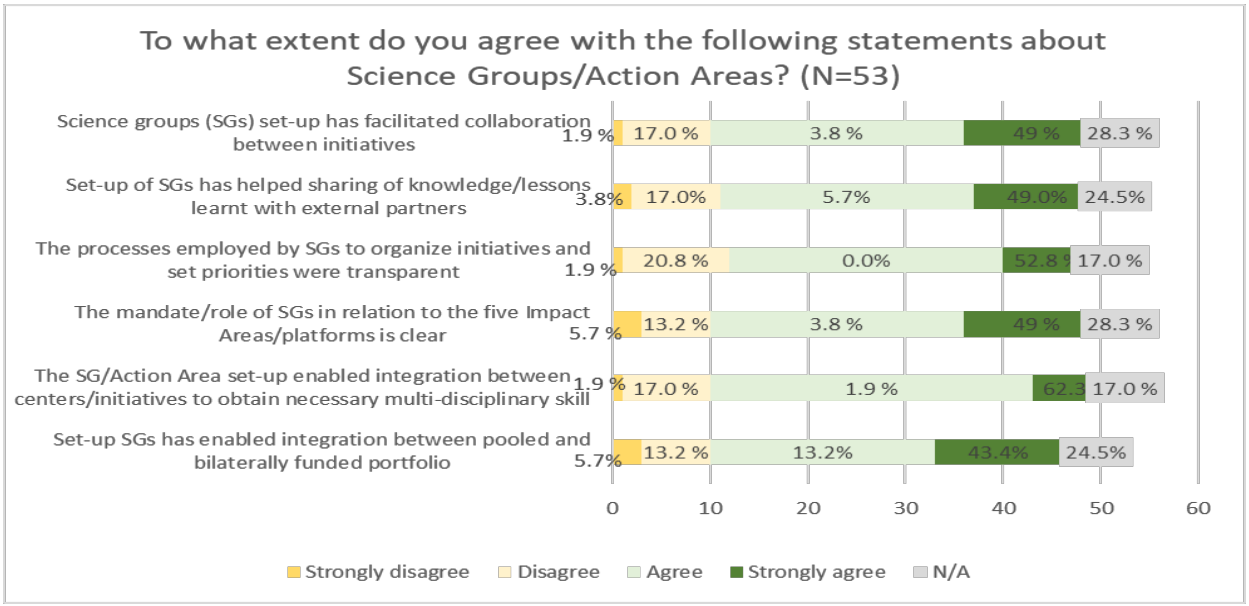


Source: IAES SG Evaluation Survey results, 2024

RELEVANCE

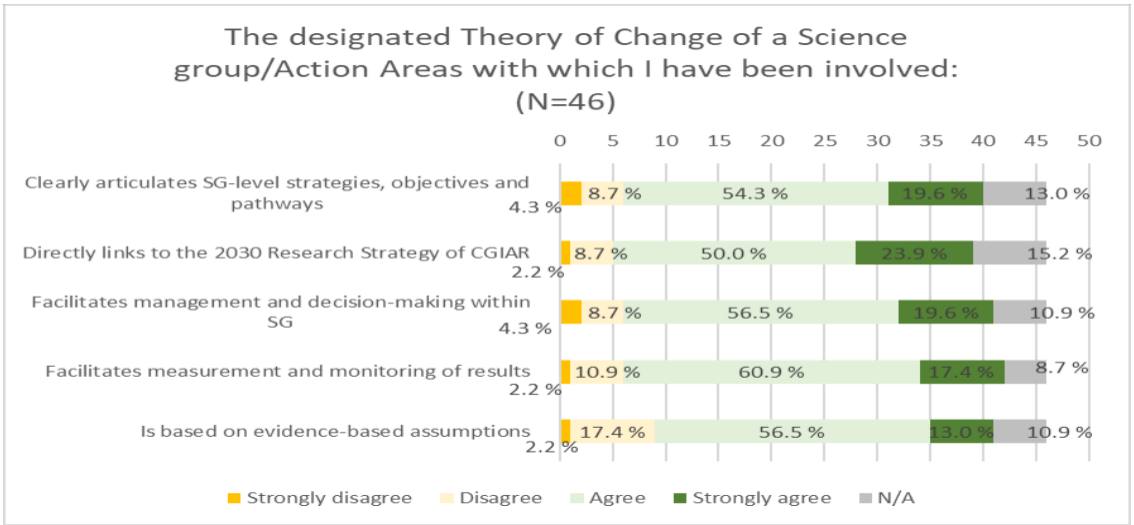
Stakeholders generally see improved collaboration within the GI SG Initiative. However, concerns remain about collaboration across other SGs.

Figure 6. Collaboration and Integration-GI SG



Source: IAES SG Evaluation Survey results, 2024

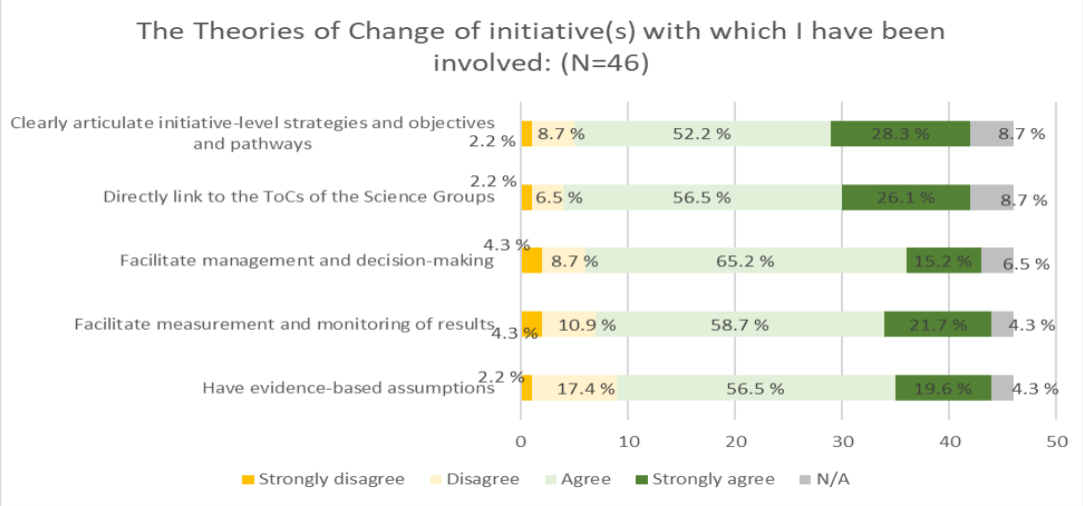
Figure 7. Science Group/Action Area Theory of Change-GI SG



Source: IAES SG Evaluation Survey results, 2024

The survey indicates strong stakeholder support for the theory of change (ToC), noting clarity in strategies and alignment with CGIAR goals (see Figure 8). Challenges include practical application and evidence validation, highlighting opportunities for refinement and enhancement.

Figure 8. Initiatives Theories of Change-GI SG

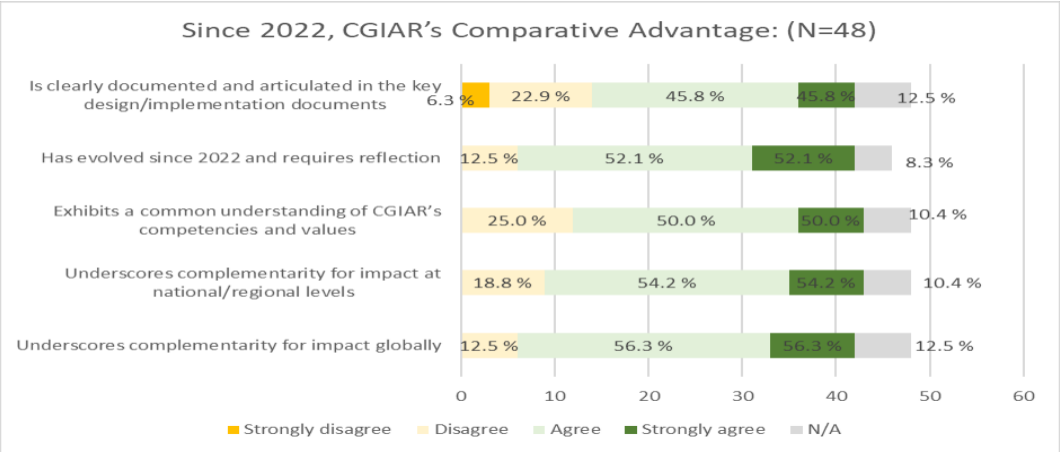


Source: IAES SG Evaluation Survey results, 2024

Survey insights on ToC show strong support for clarity (80.5%), alignment with SG strategies (82.6%), and effectiveness in management (80.4%) and measurement (80.4%).

Stakeholders acknowledge CGIAR's documented strengths, yet see room for clearer articulation. Stakeholders recognized the evolving nature of CGIAR's comparative advantage, emphasizing the need for ongoing reflection. While perceptions of CGIAR's impact are generally positive, improving internal communication and global coordination are identified as crucial for maximizing effectiveness.

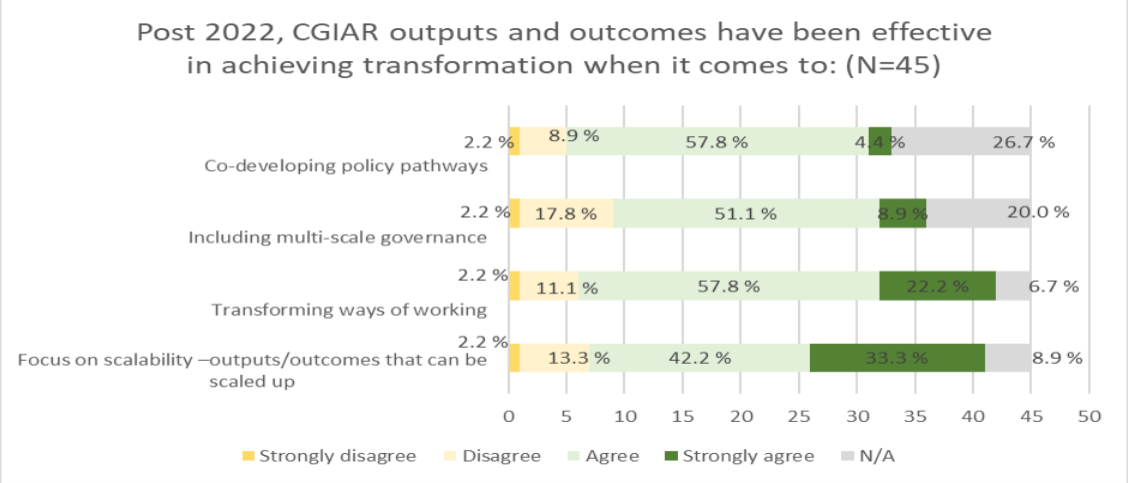
Figure 9. CGIAR's Comparative Advantage-GI SG



Source: IAES SG Evaluation Survey results, 2024

EFFECTIVENESS

Figure 10. Effectiveness-GI SG



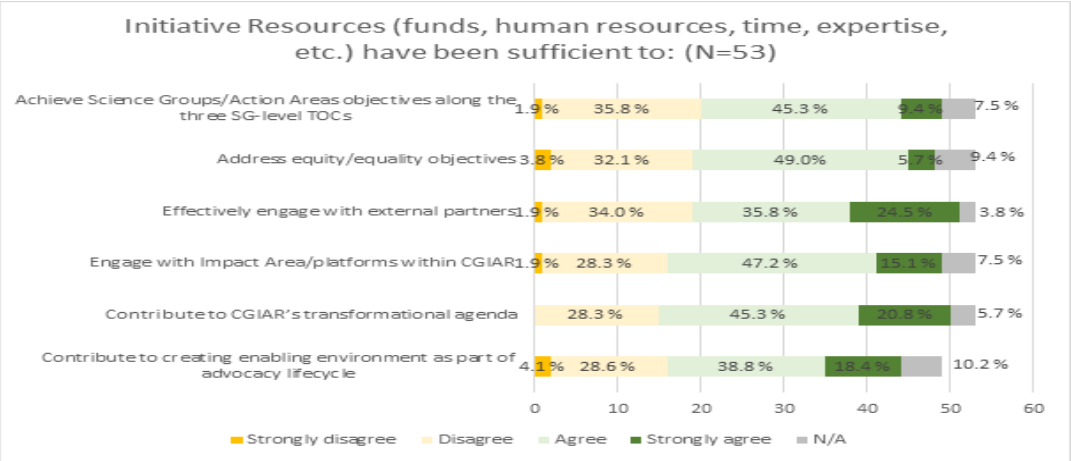
Source: IAES SG Evaluation Survey results, 2024

Most respondents see CGIAR as effective in developing policy pathways (57.8%) and multi-scale governance (51.1%), but there's uncertainty about individual impacts and governance practices. Strong support (57.8%) exists for transformative approaches, particularly in genetic innovation. Scalability efforts receive significant endorsement (75.5%), despite concerns over resource allocation and focus.

EFFICIENCY

Stakeholders' views on resource allocation for SGs vary widely across objectives (see Figure 12). While some see adequacy and effective use, others cite insufficiencies and the need for better strategies, particularly in achieving SG-level and equity/equality objectives, engaging external partners, and supporting CGIAR's transformational agenda and advocacy lifecycle.

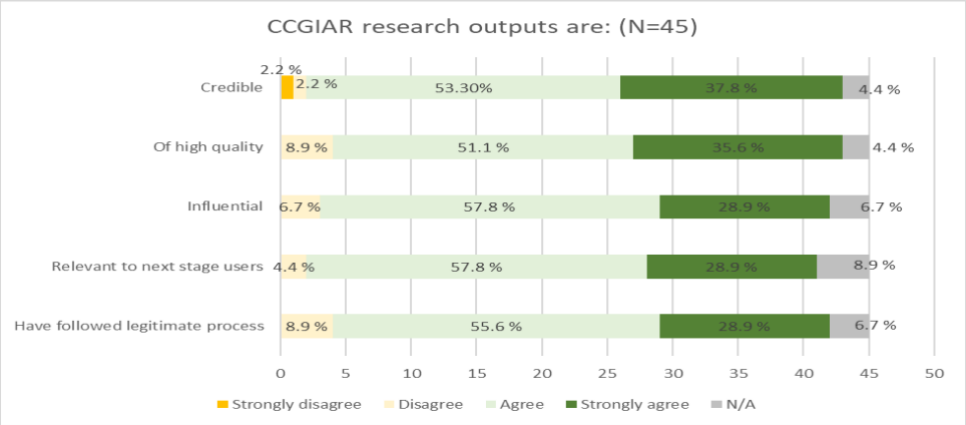
Figure 11. Initiative Resources-GI SG



Source: IAES SG Evaluation Survey results, 2024

QUALITY OF SCIENCE

Figure 12. Quality of CGIAR Outputs-GI SG



Source: IAES SG Evaluation Survey results, 2024

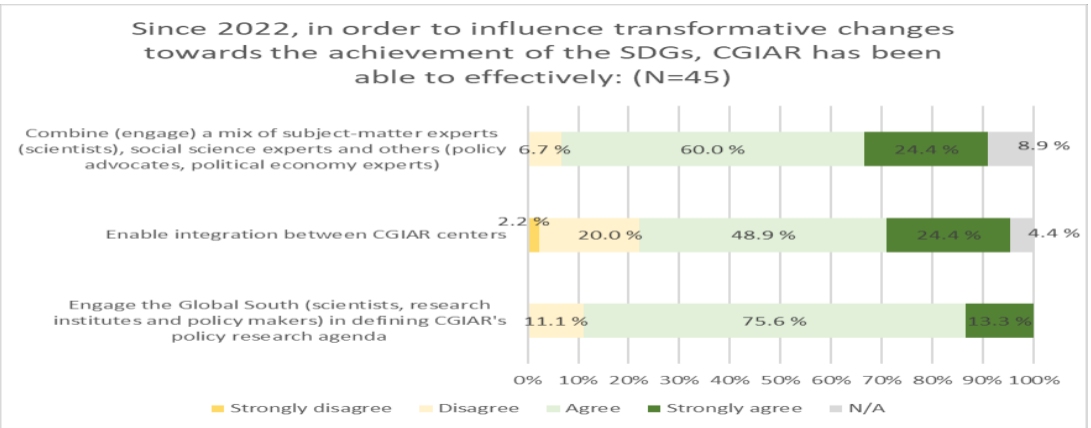
The survey reveals strong stakeholder confidence in CGIAR's research outputs, namely that the outputs are highly credible and influential, characterized by high quality (see Figure 13). Stakeholders find CGIAR's research highly relevant for practical use, though there are minor concerns about legitimacy of the research process.

However, stakeholders cite funding constraints, shifts in research focus towards ToCs, communication delays, administrative burdens, and excessive demands on scientists as factors affecting CGIAR's scientific outputs, impacting research quality and efficiency.

PARTNERSHIP

The survey highlights CGIAR's effective partnership strategies towards SDG achievement, emphasizing diverse expert engagement and global south involvement in policy agendas. While successful in these areas, challenges persist in fully integrating CGIAR centers for optimal collaboration (see Figure 14).

Figure 13. Partnership-GI SG



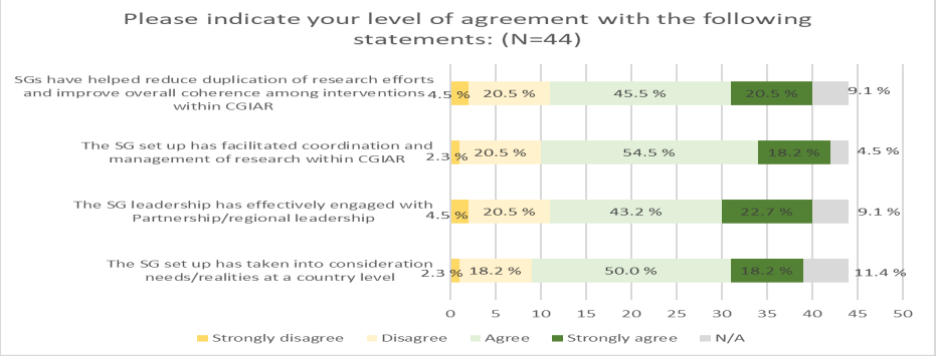
Source: IAES SG Evaluation Survey results, 2024

COHERENCE

Stakeholders largely recognize the role of SGs in reducing research duplication and improving coherence, enhancing coordination and resource use. Despite mostly positive perceptions, some disagreed.

GENDER TAGGING

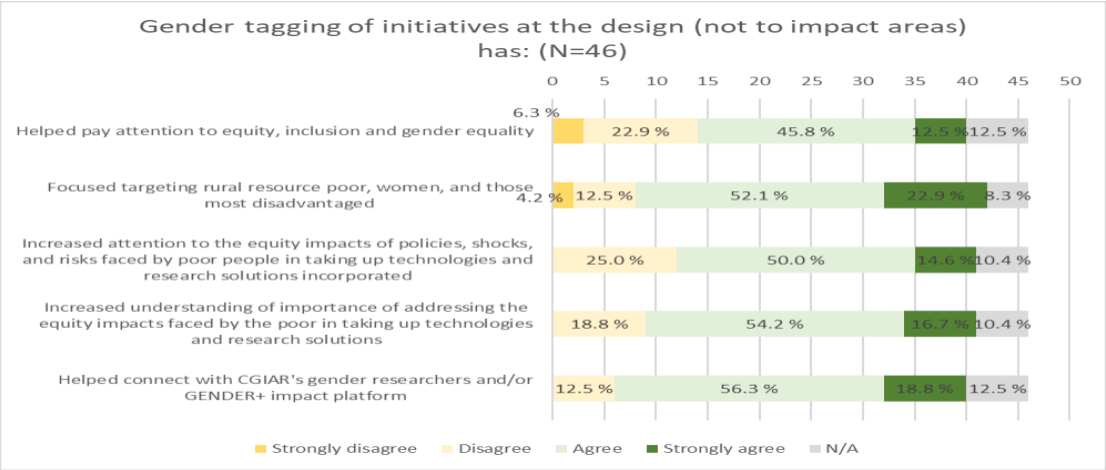
Figure 14. Coherence-GI SG



Source: IAES SG Evaluation Survey results, 2024

Findings suggest that gender tagging in the GI SG effectively promoted equity, inclusion, and gender equality considerations. However, concerns remain about its consistent implementation and effectiveness across CGIAR initiatives (see Figure 16).

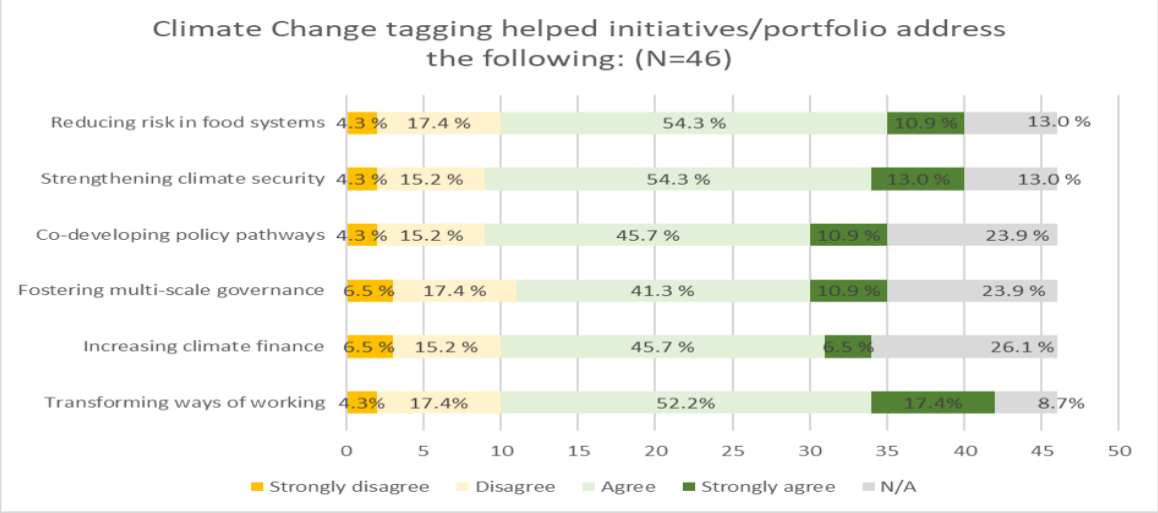
Figure 15. Gender Tagging-GI SG



Source: IAES SG Evaluation Survey results, 2024

CLIMATE TAGGING

Figure 16. Climate Tagging-GI SG



Source: IAES SG Evaluation Survey results, 2024

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Annex 8: Review of Uptake of Recommendations from the 2021 QoS Synthesis (2022), and EiB Platform Evaluation (2023) – Management Response from 20 July 2022

Annex 8 Table 1. Review of Uptake of Recommendations from the 2021 QoS Synthesis and EiB Platform Evaluation – Management Response

Rec AA/ CGIAR	Recommendation	Management response	Action plan	Timeframe	Status- March 2024	GI SG evaluation team comment on level of uptake
GI	Ensure that high priority is given to nutrition, health, resilience, and environmental sustainability objectives in research groups focused on genetics.	The GI SG agrees that these will remain high priority going forward.	These research objectives will be among the set established to prioritize investments and guide not only the design of Product Profiles, but also Product Advancement Processes and the ultimate release of superior varieties able to replace older ones. Specific innovations will be used to incorporate nutrition, health, resilience, and environmental sustainability variables in the prioritization of breeding pipelines and product profiles.	Ongoing throughout 2022-24 business plan period.	In progress	There is no evidence that high priority was given to nutrition, health, resilience and environmental sustainability objectives, at least in practice. Although the GI SG responded incorporating such objectives to prioritize breeding pipelines and product profiles, more work was needed to assure common understanding of how genetic innovation can contribute not only to productivity, but also to nutrition, environmental health, sustainability, and inclusion/equity in crop and food systems.
GI	Increase inclusiveness in defining product profiles, executing programs, and delivering outputs, to better contextualize variety development and tailor research to diverse agricultural communities and to the needs of children, youth, women, and other at-risk or marginalized groups.	The GI SG will consider several angles of inclusiveness along with breeding goals, in the way plant breeding is carried out.	The main focus of GI will be on gender, and gender related traits will be considered in all Product Profiles and Product Advancement Process. For all additional inclusiveness criteria, a 'do not harm' policy will be considered. The positioning/marketing of novel varieties will also use gender considerations as a main driver.	Ongoing throughout 2022-24 business plan period.	In progress	There is evidence that the GI SG responded increasing inclusiveness at least in two ways: 1. Successfully developing and implementing a gender strategy; 2. Incorporating gender and inclusion objectives to prioritize breeding pipelines, develop product profiles and describe market segments. Gender and gender related traits were considered in product design, development and delivery.
GI	Prioritize seed sector development, including by expanding partnerships with the private sector and civil society and strengthening key policies and regulations.	Because of its critical role as last mile to achieve higher adoption rates of novel varieties, the seed component of GI SG will be strengthened.	The seed component of GI will conduct the research needed, but also partner with appropriate stakeholders to accelerate inclusive adoption of novel varieties and to actively replaced older ones.	Ongoing throughout 2022-24 business plan period	In progress	There is some evidence suggesting that the GI SG responded to this recommendation. There are good examples of private and public sector involvement at country level. More private sector involvement at regional and global level, and more intentional public sector involvement

Rec AA/ CGIAR	Recommendation	Management response	Action plan	Timeframe	Status- March 2024	GI SG evaluation team comment on level of uptake
						(key policies and regulations) could have improved the results of the GI SG work.
GI	Catalyze partnerships with other research and innovation partners in defined systems to enable crop system diversification and improve access to affordable, healthy diets.	The GI SG agrees with the importance of increasing crop system diversification, which enhances not only the availability of affordable, diverse diets, but also climate resilience.	Plans to deploy varieties will take a multi crop stance focused not only on agronomic productivity, but also on delivering dietary richness. Seed delivery plans will consider crop systems diversification and climate resilience and will encourage multi-crop rotations.	Ongoing throughout 2022-24 business plan period.	In progress	Evidence suggests that GI initiatives supported by the GI SG work continue to focus on the improvement of the agronomic productivity of a small number of crops, and not so much on crop system diversification and food systems. Stronger and more intentional partnerships with local, regional and global organizations working on crop system diversification and the development of sustainable and inclusive food systems should have been further explored and pursued by the GI SG.
GI	Accelerate the modernization and technical capacity development of plant-breeding programs across centers and in national program partners.	Because of its main role as part of the last mile to deliver higher adoption rates of novel varieties, with the financial support of donors, the GI SG will further accelerate the modernization of NARS and other partners' breeding efforts.	GI will work with NARS and other national programs so their breeding expertise is updated, but also to increase their contribution and ownership through: a) an enhanced participation of decision making around prioritization of breeding pipelines and product profiles; b) a more nuanced participation during final stages of the breeding pipeline; and c) a wider sampling of target populations of environments through a wide on-farm testing effort.	Ongoing throughout 2022-24 business plan period.	In progress	There is clear evidence that the GI SG responded to this recommendation through targeted interventions at different levels: product design, development and delivery, across breeding programs of CGIAR centers and NARES. There are several illustrative examples of modernization: change in mindsets, effective use of new approaches, methods and tools, infrastructure, human resources, etc. The work and achievements of the BI initiative is very illustrative in terms of modernization of CGIAR and NARES facilities. More participation and decision-making power for key stakeholders at different stages (not only at final stages), would have increased ownership and contribution, and accelerated innovation processes.
GI	Integrate research with wider development and investment commitments related to climate change adaptation and mitigation.	Since varieties represent a major innovation to withstand climate change and increase climate resilience, the GI SG will integrate its work to provide smallholder farmers with effective	Climate change projections and resilience potential will be included as key components for prioritization of breeding investments. Climate resilience through enhanced stress and diseases tolerance will be increased across the whole crops portfolio. GI will partner with RAFS so the climate resilience impact of novel varieties is maximized at the agrifood systems level.	Ongoing throughout 2022-24 business plan period.	In progress	There is some evidence that climate change projections and resilience potential were included as key components for prioritization of breeding investments, particularly through product profiling and market segmentation. There is no evidence that formal mechanisms were developed and implemented to improve collaboration between GI SG and RAFS, however, there is evidence of several informal

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		adaptation and mitigation approaches.				interactions between initiative leaders of the two groups addressing this matter.
GI	Engage strategically with policies (e.g., ITPGRFA, CGRFA) around the value of germplasm diversity, farmers' and breeders' rights to plant and animal genetic resources, and international diversity, farmers' and breeders' rights to plant and animal genetic resources, and international transfer agreements, to ensure access to and availability of diverse and valuable germplasm, improved varieties and strains, and crop wild relatives.	The GI SG agrees with this and will not only comply with international agreements in place, but also work with policy makers to further facilitate the free exchange of germplasm.	Digital systems to make easier the access to germplasm available, and to facilitate documentation clearing.	Ongoing throughout 2022-24 business plan period.	In progress	There is clear evidence of improvements regarding the availability of, and access to germplasm. The existence, acknowledged potential, and widely use of GLOMIP is the clearest example of improvement on this matter.
Cross-cutting	Ensure that public, private, and civil society stakeholders are involved in foresight and priority setting processes and have a sense of ownership about the research agenda.	EMT and System Board consistently supported the inclusion of stakeholders in the design and delivery of CGIAR's strategy and will continue to keep this engagement a priority.	Via Engagement Framework: CapSha needs and opportunities with NARIS partners better considered in the preparation of the second cycle of Research Initiatives through CapSha-issued guidelines.	Ongoing throughout 2022-24 business plan period.	In progress	There is no evidence that the GI SG fully involved key stakeholders in foresight and priority setting processes and that a sense of ownership about the research agenda was generated among them. Priority setting processes were defined by uncertainty and urgency about budget availability and allocation. There was little time to clearly inform and fully involve key stakeholders in priority setting processes.
Cross-cutting	Strengthen the systematic incorporation of equity issues into research design and analysis. Diversify partners and skills—including, for example, social scientists and experts from the private sector, sustainable finance, and humanitarian sectors—to better address the root causes of sustainable development challenges. Expand socioeconomic work, including	EMT and System Board agree with this recommendation, and we plan to build on many good examples from within CGIAR to enhance strategic partnerships along the impact pathway and to identify and develop core competences to meet 2030 goals.	Initiative Design Teams were constituted to be diverse in gender, in research discipline and partner type to respond to complex challenges. Socio-economic work will be prominent throughout the portfolio. SGs will be formally reviewing Initiatives on an annual basis to assess progress, including on addressing equity issues. At the levels of the Global Director for Partnerships and Advocacy and the Impact Area Platforms, more strategic approaches to collaboration are already being explored with leading organizations in these topical areas (e.g., WFP for humanitarian	Ongoing throughout 2022-24 business plan period.	In progress	The GI SG clearly responded to this recommendation, notably by incorporating social scientists and experts from the private sector and expanding its socioeconomic work and perspective about what can be learned from the private sector. As stated before, more could have been done in terms of collaboration with other initiatives within the CGIAR system (including SGs, platforms, impact areas), as well as with public and private sectors, and leading research and development organizations.

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	poverty and livelihood assessments, adoption studies, policy and institutional analyses, and in-depth gender and youth studies, with strengthened in-house capacity and/or additional partners.		sectors). Also see response to recommendation 11 on inclusion of equity in research design.			
Cross-cutting	Invest in training researchers in systems science. Build research from a shared understanding of food systems that integrates objectives related to production, livelihoods, environment and biodiversity, and health and nutrition. This research should take a holistic approach to agrifood systems and risk management and should use participatory innovation approaches to engage with farmers and rural communities.	EMT and System Board agree this is highly needed technical area for capacity strengthening. Many researchers have significant in systems science, and many other researchers are appropriately working within a specialized niche. Training resources will need to be allocated selectively so that the research portfolio responds.	CGIAR is building from strong capacities in some sub-system areas noted (e.g., production, livelihoods, environment) and in systems research at farm scale. However, it is recognized that system science is required to address complex development challenges at national and other higher levels. We plan to strengthen system science capacity with partnerships with a few ARIs and to strengthen in-house capacity of CGIAR and national partners to ensure that system science is applied across different spatial scales from global to sub-national within the portfolio.	Ongoing throughout 2022-24 business plan period.	In progress	The GI SG responded to this recommendation gradually introducing ideas and concepts of systems and complexity into the GI work. In practice, by incorporating and building capacities, developing new approaches, methods and tools that help better understand genetic gains within the broader context of (future) cropping and food systems to address complex development challenges.
Cross-cutting	Strengthen MELIA metrics, and develop user-friendly, streamlined reporting systems based on simple, nested ToCs—developed with and owned by partners and stakeholders—that enable required baselines, actions, capacities, and responsibilities to be coherently planned in pursuit of desired outcomes.	EMT and System Board support delivery of best of class performance and results management by CGIAR to meet accountability, learning, communication and resource mobilization needs.	The System Council-approved CGIAR Performance and Results Management Framework (PRMF) 2022-30-describes the nested ToC approach, core results framework and management system functionalities required to deliver on this recommendation.	Ongoing throughout 2022-24 business plan period.	Completed	The nested ToC approach was developed to some extent by the GI SG, however, there is no evidence that it was fully developed, implemented and used as a model of change and contribution of the GI SG work, and a complexity-aware PME&L device.
Cross-cutting	Tailor corresponding metrics to CGIAR's comparative advantage and realistic expectations of CGIAR's contribution to sustainable development	EMT and System Board support establishing a realistic accountability framework of the results that CGIAR intends to	The SC-approved PRMF contains targets and indicators, linked to SDGs, across the five Impact Areas to which CGIAR and partners will contribute. In support of these global targets, initiatives and projects in the CGIAR portfolio will develop an accountability	Ongoing throughout 2022-24 business plan period.	Completed	The ToC representation of the GI SG work, both in its original and updated version, show the contribution of the GI SG work to the achievement of SDGs through the five impact areas. Furthermore, there is evidence that the GI

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	outcomes across the five Impact Areas.	deliver or demonstrably contribute towards.	framework of the results that CGIAR intends to deliver or demonstrably contribute towards.			SG responded to this recommendation in line with the action plan.
Cross-cutting	Incentivize the use of MELIA metrics for progressive cycles of evidence-based learning and adaptive management, working in close collaboration with partners and stakeholders, to optimize delivery and impacts. Increase the use of mixed-method designs in evaluations, with metrics for outcome pathways that go beyond CGIAR and its immediate boundary partners.	EMT and System Board support evidence-based learning and adaptive management to optimize delivery and impact.	The SC-approved PRMF describes an end-to-end innovation to impact management approach (including nested ToC, common results framework, innovation packages, scaling readiness, projected benefits, stage-gates) that will be implemented starting 2022.	Ongoing throughout 2022-24 business plan period.	Completed	The SC-approved PRMF was implemented and used by the GI SG, however, it was not sufficiently communicated and understood in terms of its utility at initiative and work package level.
Cross-cutting	Improve the coverage of cross-cutting themes (e.g., gender, youth) in MELIA by strengthening evaluators' relevant disciplinary skills as applied to evaluation design and implementation.	EMT and System Board support strengthened MELIA capacity coverage of cross-cutting issues such as gender and youth in CGIAR.	Methodological guidelines on designing and delivering evaluations relevant and appropriate to gender and youth issues will be included as part of the new CGIAR Evaluation Policy. Additional Gender MELIA expertise was engaged in 2021 and will contribute to the development of the methodological guidelines.	Ongoing throughout 2022-24 business plan period.	In progress	The GI SG notably developed and implemented a gender strategy, including methodological guidelines. There is still more to do in order to improve and consolidate the MELIA capacity of the GI SG.
Cross-cutting	Expand the availability of technical assistance on MELIA to research managers, scientists, and partners.	EMT and System Board support expanding MELIA assistance to research managers, scientists and partners.	New MELIA-related structures are being designed for CGIAR, including a Portfolio Performance Unit and a Project Coordination Unit. Technical support to stakeholders will be strengthened through these and other relevant units. The SC-approved PRMF contains a range of cutting-edge methods to better plan for, learn from, and demonstrate contribution to impact. Progress, bottlenecks and solutions will be described on a regular basis and shared with key stakeholders.	Ongoing throughout 2022-24 business plan period.	In progress	Already commented in general terms. There is still more work to do generally in terms of MELIA capacity building of the GI SG.
Cross-cutting	Develop strategies for developing partnerships and institutional capacity, to facilitate a more systematic approach in both	EMT and the System Board agree on the need for a more systematic approach to partnerships	1. Draft 1 of the Engagement Framework outlining the overarching structures, processes, procedures and principles for capacity sharing/strengthening for uptake by mid-January 2022, finalized by June 2022	Ongoing throughout 2022-24	In progress	No comments

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	areas. Establish explicit time-bound targets and exit strategies for the progressive transfer of responsibilities and resources to enable local partners to sustainably take on a research or innovation area for themselves.	development and stewardship, and institutional capacity building with local partners. This, however, needs to be done in a manner that responds to stated needs and timelines (demand driven) and leverages existing strengths, and not through unilateral assessments of capacity gaps.	2. Prepare and deploy strategies for progressive transfer of responsibilities and resources, with corresponding metrics and milestones, to local partners in select geographies, prioritized by regional directors. 3. Co-design One CGIAR Academy with this purpose as one of its core drivers.	business plan period.		
Cross-cutting	Draw on CGIAR's value as a broker of networked actions by making greater use of research and development partnerships to fill knowledge and skill gaps in research processes and innovation webs, enabling CGIAR to focus on its own strengths and areas of comparative advantage. These partnerships (e.g., south-south partnerships), should include the private sector throughout the food system, non-CGIAR ARIs, small and medium-sized enterprises, and civil society organizations (CSOs), to help scale-up innovations, value addition, and market access. Facilitate partnerships linking non-CGIAR ARIs to local and national partners for collaborative research and capacity development in new Initiatives. Explore opportunities for CGIAR programs to contribute productively to national	EMT and the Systems Board support this recommendation. A Partnerships Stewardship, Innovation and Intelligence Unit will be set up to support regional and SGs to put in place the systems and structures to ensure a networked approach to R&D efforts, which reduces transaction costs and duplications, and leverages synergies across sectors and geographies to increase collective impact.	1. Draft 1 of the Partnership Engagement Framework outlining the overarching structures, processes, procedures and principles for capacity sharing/ strengthening for uptake by mid-January 2022, finalized by June 2022. 2. Design, test and deploy the systems and support structures for networked approaches to R&D with Regional and SGs, finalized by December 2022. 3. Design, test and deploy activities that align and leverage the insights and assets from SGs, regions and centers, namely in CapSha, institutional partnerships, and partnerships intelligence	Ongoing throughout 2022-24 business plan period.	In progress	The Partnership Engagement Framework assessed in Evaluation Report.

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	development agendas, foster synergies, and reduce duplication of effort. For example, the GENEBANK and Excellence in Breeding (EiB) platforms were established as service providers to CGIAR but have the potential to strengthen genetic conservation and use and advanced breeding capabilities in national systems.					
Cross-cutting	Put higher priority on ensuring that research agendas respond to local, national, and regional strategies and Initiatives to facilitate the achievement of outcomes at scale. Initiate or strengthen long-term, transdisciplinary research at dedicated field facilities strategically located in relevant landscapes of developing countries. Co-locate activities from many programs in these geographic areas to better coordinate outcome-driven research activities, build partnerships, and share infrastructure.	This is one of the main drivers in the new strategy and portfolio. The CGIAR 2030 Research and Innovation Strategy clearly defines the importance of a prioritization process where the demand (local, national and regional strategies/ Initiatives) will have higher priority in setting the research focus. In many global Initiatives and all the regional integrated Initiatives, activities will be linked in the key countries/locations building on strong partnerships. Infrastructure will be shared and optimized for the system.	Regional Integrated Initiative (RII) teams will continue organizing stakeholder meetings and meetings with the global Initiatives to coordinate plans. Initiative plans will be further designed and operationalized with partners using shared infrastructure.	First steps are made in the Initiative design. In the first phase of the agenda 2022-24, initiatives will be rolled out using shared infrastructure .	In progress	There is no evidence of explicit strategies and plans that ensured the GI SG work is aligned and responds to national and regional needs and priorities. There are contradictions in perceptions about alignment and strategic value of the GI SG work among key stakeholders at national level.
Cross-cutting	Develop consistent policies and practical, ethical guidance to inform CGIAR engagement with local partners at different levels (communities, government, private sector, NGOs, ARIs).	EMT and the Systems Board strongly support this recommendation, acknowledging that policies, ethics guidance, improved	1. Draft 1 of the Engagement Framework outlining the overarching structures, processes, procedures and principles for capacity sharing/strengthening for uptake by mid-January 2022, finalized by June 2022. 2. Design, test and deploy the policies, ethics guidance and internal capacity development opportunities in	Ongoing throughout 2022-24 business plan period.	In progress	Needs addressing

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	Communicating in the right way with local partners is essential; CGIAR should expand its in-house communications and outreach capacities and ensure that country-based staff are well trained. Develop guidelines for future work based on the experiences of the systems CRPs and Global Integrating Programs in developing, funding, and managing Platform-based research initiatives with broadening participation and community engagement.	communications and in-house training for staff will be crucial to improve engagement with local partners at different levels. CGIAR should continue to foment a culture of collaboration that is responsive to local needs and demands, that leverages local capacity and talent, and that also affords opportunity for local actors to shape and influence CGIAR's research locally and beyond.	support of improved engagement with local partners, finalize by December 2022. 3. Collaborate with Communications and Outreach in producing and mainstreaming the messages and narratives that reflect CGIAR's commitment to working with local partners in a respectful, accountable, and transparent manner to achieve collective impact, finalized by December 2022.			
Cross-cutting	Strengthen social science capacities by increasing in-house resources and/or making better use of skilled external partners. Integrate social scientists into action research projects and develop appropriate incentives to encourage interdisciplinary and systems research.	EMT and System Board agree that the major challenges in meeting our commonly shared development challenges have strong socio-economic dimensions requiring social science attention.	CGIAR aims to house disciplinary expertise in three well-coordinated SGs to achieve transdisciplinary cooperation.	Ongoing throughout 2022-24 business plan period.	In progress	Already addressed
Cross-cutting	Invest in creating a shared vision—including stakeholders and researchers—on what could be achieved in a group of research activities at the region, country, landscape, or community level and a ToC on how to achieve change. A successful process will require significant attention to facilitating communications among the different levels of researchers and stakeholders.	RDs have been very involved in the presentation and consultation with regions and countries of the RII to or in partnership with regional partners such regional research institution or regional unions. A platform was created between RDs and SGDs to develop the enabling environment	Development of a shared strategy for coordination that reflects the shared vision of SGDs and RDs.	By end of 2022	Delayed	Among all the groups of key external stakeholders (including NARES), a shared vision and common understanding about the specific contribution of the GI SG work to transformative change at crop and food systems level was not yet achieved (even less about its general contribution to the achievement of SDGs through the five impact areas). However, there is evidence it was achieved among key internal stakeholders (including CGIAR centers and breeding programs).

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		necessary to craft this shared vision.				
Cross-cutting	Expand work on assessing risk and resilience and managing risk throughout the food system by strengthening CGIAR capacities or engaging external partners. Put a higher priority on improving resilience to climate and pest stresses when developing, adapting, and assessing technologies and innovations for crops and livestock.	The new strategy includes a stronger risk assessment and resilience improvement approach, and the Initiatives prioritize their focus accordingly especially when looking at technologies and innovations in crop and animal systems.	Framing of Initiative designs around risk and resilience building, with clear intended results and indicators.	In the design phase (2021-22).	Completed	No comments
Cross-cutting	Collaborate with ARIs and the private sector on action research that unlocks access to finance, inputs, and innovation-based enterprise opportunities for women, youth, and other marginalized groups, building on index insurance, blended (public-private and public-private-producer) finance models, and other emerging approaches.	EMT and System Board agree on the importance of finance for fostering the types of transformations the CGIAR seeks to contribute to, and engage with, the private sector and ARIs in doing so. This will be critical in managing future climate risk, as well supporting the scaling of adaptation solutions. CGIAR has recently developed expertise and forged new partnerships with the financial community (e.g., through CCAFS and Harvest Plus) and have ongoing work on weather insurance and credit arrangements for producers with private sector partners. Clearly, ambitions need to transform the ambitions and partnerships with the	Action research focusing on access among CGIAR target beneficiaries, especially low-income women, to finance (credit and insurance), financial services and information.	Ongoing throughout 2022-24 business plan period.	In progress	No comments

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		private sector and international finance institutions, as well as to enhance the knowledge and skills within CGIAR.				
Cross-cutting	Pursue direct links between CGIAR R4D actions—coordinated in country—and official development assistance (ODA) loans and grants to countries, as well as direct co-financing through such mechanisms where feasible and where demanded by national programs.	RDs responded to requests by countries for capacity building from CGIAR in the agricultural development plans and coordinated multidisciplinary teams to support countries. RDs are collaborating with regional bodies to develop shared research agendas. GD P&A, IFRM, Coms (with the support of TTTs to define the CGIAR value proposition to partner governments and NARES by promoting a model that will improve delivery of products and impacts farmers and other clients.	Country engagement strategies that include mapping and tracking of alignment between CGIAR work, national policies and ODA.	Ongoing throughout 2022-24 business plan period.	In progress	It was difficult to establish total amounts invested to improve breeding programs at national, regional and global level. Not even at CGIAR level considering W1, W3 and bilateral investments, and practically impossible at NARS level. A crop and food systems level intervention like the GI SG needs to understand on what capacity other key players are intervening at crop and food systems level.
Cross-cutting	A wholesale review of CGIAR capacities and opportunities around big data and practical field applications for pro-poor sustainable development should involve: • Expanding the use of remote sensing and GI SG. • Exploring ethical applications of artificial intelligence, big data, and citizen science that would specifically benefit the poor.	EMT and System Board fully support CGIAR to expand further the incorporation of big data and digital technologies in research. Recognizing the transformative potential of earth observation, machine learning, robotics, and sensor technologies to advance CGIAR's digital capabilities, CGIAR 2030 Research and Innovation	The Digital Initiative will take responsibility for providing cross-cutting services, including a review of key opportunities for CGIAR work on digital applications in low-income settings, and coordination of relevant research and innovation across CGIAR. All CGIAR researchers will be supported to access enabling datasets (e.g., remote sensing data from satellites and UAVs, high-frequency market intelligence data) and empowering data analytics tools (e.g., high-performance computing resources, large-scale modelling tools) through Shared Services, public-private R&D partnerships, and technical support mechanisms. Digital Services and the Digital Transformation Initiative will coordinate across the	Ongoing throughout 2022-24 business plan period.	In progress	No comments

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	• Assessing lessons from the rapidly expanding use of open data and digital tools for breeding, weather and agronomic information, extension, and marketing.	Strategy lists digital revolution as one tool. Across the investment portfolio, more than half of the initiatives are planning to use big data and digital technologies as a key research and development tool. While researchers are encouraged to continue utilizing big data and innovative digital technologies creatively, institutional shared-learning, ethics training, and safeguard mechanisms will be established to ensure the technical applications are designed and developed responsibly, inclusively, and ethically. CGIAR aspires to become a trusted intermediary in using digital technologies for transforming food, land, and water systems while safeguarding the rights of the poor.	Initiative Portfolio to identify opportunities for initiatives to innovate, synergize, and accelerate their impact pathways using big data analytics and digital technologies. Digital services will support researchers to utilize necessary digital infrastructure with minimum overhead, on-demand. A collaborative data analysis platform with synthetic data analytics functionality will be developed for researchers to analyze data safely without accessing potentially sensitive data. Overseeing mechanisms will be established to ensure all researchers comply with CGIAR Open and FAIR Data Assets Policy and adhere to CGIAR Research Ethics Code.			
EiB Platform evaluation	**Rec. 4**. Ensure the new One CGIAR structure encourages and enables strong links between initiatives to ensure that programs and goals reflect all the needs of the pathway from gene discovery to sustainable production systems and food consumption.	We strongly agree that cultivation of a shared mindset across CGIAR breeding teams is a priority and needs to be accompanied by joint management across breeding programs, geographies and levels in the operational structure,	1. Active use of ToC: GI's ToC framework will be iteratively reviewed and refined to further strengthen links between initiatives and identify clear handover points between successive stages in the pathway from gene discovery to consumption. GI will report against the nested Results Framework on an annual basis. 2. Shared mindset: GI plans to put in place more spaces for exchange, learning and building of a common vision. An annual forum will be held to allow	December 2022 initially, and then continuously.		The GI SG encouraged and enabled links between its initiatives, however, more could have been done in terms of strengthening interconnections and facilitating feedback loops between them as noted in the evaluation. 1. Linking ToCs: The GI SG ensured that initiative-level ToCs were developed and well-aligned with the GI SG-level ToC. However, they were not yet used as envisioned (critical decision-making and learning devices).

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		with subsidiarity of decision-making to staff on the ground. For each of the initiatives, all changes being implemented will be planned by CGIAR staff and implementing partners. Implementers will implement their own ambitions for change and support functions are clear of the changes they're there to support. Management will offer oversight where necessary (e.g., where changes being implemented seem not to match the needs and expected outcomes). We agree that CGIAR breeding priorities must be based on a clear assessment of the diverse future needs of poor producers and consumers–their nutrition and health, livelihoods and incomes, gender equality, and exposure to environmental and climatic risks. Given the long timeframe between product profiling and release/adoption, breeding must address future conditions. Future-readiness will be a key feature built into market intelligence work. A very	CGIAR breeders and implementing partners to share their experiences and change management processes while also providing a learning space for continuous improvement. Facilitation and communication specialists will be hired to ensure strategic goals are co-developed and well understood by stakeholders (becoming closer together in terms of mindset). Partners, not just CGIAR staff, will be included. Both CGIAR and (often NARES) implementing partner staff will be involved in visioning and planning, eligible for capacity development and mentorship programs, and co-responsible for internal learning and reporting. 3. Joint management: Strengthen program management and project management capacity (through job allocation, training and buying-in of expertise where needed) to ensure that high standards of organizational and operational effectiveness are in place, including processes to ensure clarity of objectives, goals, responsibilities and accountabilities, so that CGIAR staff, partners and stakeholders have a similar mindset. Unless there are strong technical reasons for not doing so, breeding management and operations will be located in the highest impact sub-region, preferably alongside partner NARES. GI will hire a program manager to facilitate across-initiative coordination and synergy and will be supported by the systems of the new Project Coordination Unit. 4. Future-readiness: Collect evidence on future scenarios (major external factors that shape future needs for varieties) to identify future market segments and co-develop Target Product Profiles for 'game changers' that can address underserved Impact Areas such as climate change tolerance/resilience, better nutritional quality and gender equality/social inclusion. Breeding programs will have all breeding decisions, including candidate selection decisions, guided by the Target Product Profile which will be co-developed by breeders and Market Intelligence.			2. Ensuring Continuity in Results Frameworks: Consistent and continuous results frameworks were built at initiative level facilitating better planning, reporting, and evaluation. 3. Listening to stakeholders: More open communication with CGIAR and NARES breeders was pursued as a key feature for effective change. However, some partners asked for better communication and more transparency in decision-making processes. 4. Future-Oriented Breeding Programs: Important progresses were made to ensure breeding programs are designed to meet future challenges, including climate change resilience and improved nutritional quality. The GI SG evaluation noted, for example, that MI should focus more intentionally on anticipating future needs. 5. Monitoring and inclusivity: In alignment with the first SDG, the GI SG established several mechanisms to ensure that end-users, especially the most vulnerable, are not left behind (market segments, TPPs, gender strategy. 6. Ground-level engagement: The GI SG did not necessarily place staff close to breeders and other stakeholders to lead, successfully manage implementation and enable change in mindsets. Instead the GI SG played supportive and advisory roles.

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		deliberate focus on vulnerable people will be a central part of the approach to distinguishing from the private sector and delivering on CGIAR's 2030 strategy.	Breeders will have timely market intelligence data specifying the traits that will become important in the future and will be supported to initiate pre-emptive trait discovery and breeding activities. 5. Focus on vulnerable people: Collect empirical data and develop future projections to identify specific market segments with highly vulnerable populations and high poverty levels. Target Product Profiles will be developed for these market segments, which can address some of these challenges, and pipeline investment cases will be built to direct genetic innovation investment towards these market segments. Seed Equal will focus on delivery to vulnerable groups, undertaking socio economic research to test assumptions on reach to vulnerable and underserved communities, and conducting actions to increase their participation and the benefits they derive. WP6 of Seed Equal (working closely with Market Intelligence) will develop metrics to track inclusive (women and youth) access to seed of improved varieties. CGIAR will explore how seed providers could report against these new metrics, through bench-marking initiatives such as the Access to Seeds Index, to drive positive change.			
EiB Platform evaluation	**Rec. 5.** Accelerated Breeding (ABI) should play a crucial role in further modernizing CGIAR and NARES breeding programs by being the link between upstream disciplines and breeding programs and knowing both in detail.	Fully agreed. These recommendations align fully with the plan for the ABI. We have covered the issues related to common mindsets under Rec. 4, and here focus on the more technical aspects. Regarding responsibilities, some of the crop-agnostic aspects of capacity development (e.g. crop-agnostic components of phenotyping technologies) will be the	1. Priority-setting: Each CGIAR breeding program receiving Accelerated Breeding funding will develop and execute against a plan for modernization of breeding and for consolidating progress made to date. These will be the Accelerated Breeding work plans. They will prioritize the priority actions identified in the breeding program assessments. 2. Indicators and reporting: For each output in the Results Framework, criteria will be developed for objectively assessing completion (and quality) of delivery. This will similarly be developed for milestones toward outputs as written into the Accelerated Breeding workplan. Crop teams will report against each output on an annual basis. 3. Trait specific markers: Highest priority traits guided by market intelligence will be targeted by the Discover	Development of work plans–July 2022. Implementation of work plans-ongoing, with distinct time bound milestones as described in the Accelerated Breeding workplan.		The AB initiative along with the BR and MI initiatives play a crucial role in further modernizing CGIAR and NARES breeding programs. However, breeding programs should focus not only on crops, but also in food-systems in order to achieve impact at scale. 1. Modernizing Breeding Programs: The GI SG through its initiatives (BR and AB) identified, prioritized and strengthened breeding programs in need of modernization. Aso, developed roadmaps for consolidation activities, and ensured scarce resources were appropriately allocated to sustain progress. 2. Developing Modernization Strategies: Breeding program assessments were utilized by BR and AB to inform modernization and

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		responsibility of the Breeding Resources Initiative. This will be done in close collaboration with Accelerated Breeding.	Work Package using comprehensive and standardized criteria for identifying priorities and will include insights from product profiles and Market Intelligence. Market development as a shared service has been established by EiB and will be continued by Breeding Resources. Highest priority trait-specific markers guided by market intelligence- will be developed by Breeding Resources. 4. Broadening inter-disciplinary capacity: Breeding Resources will provide crop agnostic tools and services to support improved phenotyping. For example, a platform for processing data collected by drones to develop estimates for high priority target traits. All disciplines required for germplasm development (including trait discovery and deployment and variety development) are in scope for Accelerated Breeding. One of the outputs in the Accelerated Breeding workplan is to improve phenotyping, including, increasing accuracy, increasing relevance of data with respect to the product profile, the target population of environments and performance under farmers' conditions.	December 2022. Ongoing, with distinct time bound milestones as described in the Accelerated Breeding workplan. Ongoing, with distinct time bound deliverables as described in the Breeding Resources work plan.		investment plans. The plans were embedded into a broader framework (GI SG), ensuring alignment with CGIAR's performance metrics. 3. Simulation studies: Simulation studies in crop breeding programs were used to evaluate and optimize breeding strategies (e.g. GloMIP) before implementing them in real-world scenarios. 4. Trait-specific markers: Targeted investments were made to further develop and validate tools that aid the identification of markers relevant to specific breeding programs. Also, to facilitate the integration of molecular breeding techniques to accelerate the development of market-ready varieties. 5. Expanding phenotyping technologies: The GI SG broadened the scope of disciplines involved in breeding programs, and enhanced phenotyping capabilities to improve decision-making and selection gains, leveraging cutting-edge technologies and methodologies.
EiB Platform evaluation	Rec. 6 One CGIAR should support breeders with information and tools to allow them to determine priorities and traits.	Fully accepted. These recommendations align fully with the GI ToC and workplans of the initiatives, including Market Intelligence, which is designed to become the primary priority setting hub of the GI Action Area. Pipeline Investment cases for	1. Inclusive product profiling: Market Intelligence WP2 on Product Profile Design will use market intelligence from WP1 to develop Target Product Profiles for clearly defined Regional Market Segments identified in WP1 and ensure that NARES partners are involved in product profile design from the start. WP4 will integrate all this information into Pipeline Investment Cases, which will be published on an Investor Dashboard, which will enable donors, partners and decision makers in making impactful investment decisions in breeding pipelines.	December 2022 December 2022		Considerable efforts were put in place by the GI SG on this matter. As stated in the evaluation report, the GI SG set the basis for future transformative changes at crop-systems level through the improvement of breeding systems, processes and programs. Further advances on this matter are yet to be enabled promoting the use and validation of new mechanisms, resources and tools involving intermediate and final users, as well as the private sector.

Rec AA/ CGIAR	Recommendation	Management response	Action plan	Timeframe	Status- March 2024	GI SG evaluation team comment on level of uptake
		major and minor crops, based on forward-looking market intelligence will guide GI management decisions on prioritization and funding allocation to center or external programs (e.g., NARS).	2. Complementarity with private sector: The CGIAR Initiative on Market Intelligence's WP1 will identify opportunities across the five impact areas in market segments where CGIAR-NARES-SME breeding networks can deliver products. Special attention will be devoted to complementing the private sector in market segments that are underserved by the latter or Impact Areas that received little attention (e.g., gender equality, social inclusion, climate change, environmental health and biodiversity). Market and behavioral intelligence from WP1 and WP3 will be communicated to the private sector (e.g., seed and food companies) to help them finetune their strategies towards the five Impact Areas. 3. Priority-setting: Market Intelligence's WP4 on Pipeline Investment Cases will support GI management with evidence on returns to investment under several scenarios, which will enable prioritization and optimization of breeding pipelines for maximum impact across the five Impact Areas.	Second half of 2023.		1. Formalizing agreements: The GI SG formalized agreements with different partners explicitly outlining roles, responsibilities, and expectations. The process could have been more grounded and participatory to secure buy-in from stakeholders. Strategic decisions were not always made consulting stakeholders and evidence based. 2. Developing and validating Product Profiles: The GI SG successfully developed and regularly updated and validated TPPs involving CGIAR and NARES breeding programs ensuring alignment with breeding program goals and market needs. 3. Ensuring market segmentation: ensured by identifying, describing and prioritizing market segments involving and getting feedback from indirect and direct users. The private sector should have been more involved in the process. More strategic planning sessions with partners should have been facilitated to turn market data into actionable plans. 4. Complementing the private sector: The evaluation found that there is still a lot to learn from the private sector. Also, the GI SG should foster partnerships with the private sector that leverage strengths from both sectors for mutual benefit. 5. Enabling specific breeding programs: Uncertainty and emergency in resource allocation defined the work of the GI SG. Although there was a focus on a few high-potential breeding programs to maximize impact major decisions about budget allocation and adjustments were not always made based on the regular review of the performance and progress of these programs to ensure success.
EiB Platfor	Rec.7. Highly technical facilities with resources and skilled staff	Fully accepted and in agreement that these	1. Genotyping services: We will improve genotyping submission workflow and enterprise analytical	Jan 2022 to Dec 2024.		The GI SG maximized efforts and strategically assigned scarce resources to guarantee the

Rec AA/ CGIAR	Recommendation	Management response	Action plan	Timeframe	Status- March 2024	GI SG evaluation team comment on level of uptake
m evaluat ion	are required for many modern breeding operations and services. ABI should learn from previous experience in relation to these services.	actions are needed. To fully address this recommendation, a unified and effective administrative framework is needed, for example to negotiate new shared service with external vendors, develop regional support teams, maintain service demand (tied to service affordability) which is still under development at One CGIAR level.	solutions and support breeding programs in adoption of improved workflows and enterprise solutions. Development of regional genotyping shared services support teams. 2. Costing and cost recovery: Demand analysis and costing exercise for internal capabilities. Develop new full cost recovery business plan for genotyping services. 3. Reviews of large long-term contracts: Periodic review of shared services contract. Develop new service contracts or finetune existing contracts if needed.	Continuous.		modernization of breeding operations, considering the development of new capacities at different levels and the hiring of skilled staff (several from the private sector). 1. Increasing reliability of genotyping services: The GI SG aimed to ensure the robustness and efficiency of the entire genotyping workflow, from tissue sampling to data delivery, strengthening the breeding capacities of CGIAR and NARES programs, considering new operational models to tackle logistical challenges, and reducing the need to send plant material overseas. 2. Establishing regional external service centers: The GI SG collaborated with service providers and CGIAR or NARES stakeholders to strengthen regional initiatives and organizations, to mitigate logistical issues and improve service delivery at national and regional level. Regional efforts can be further enhanced focusing more intentionally on food-systems. 3. Holistic financial approach: A food-systems approach could have helped identify actors, interventions, gaps and entry points, and develop a comprehensive financial strategy, properly manage internal capabilities to avoid inefficiencies and disruptions when actual and potential external services are considered and introduced. 4. Engaging multiple providers: Although both internal and external providers were in fact directly or indirectly contributing to the improvement of breeding systems, processes and programs, it was difficult to understand how and to what extent each one and all together were contributing to the achievement of changes at breeding programs and food-systems level (e.g. bilateral projects). This would have helped mitigate risks associated by relying on a single provider, ensuring service continuity as demand increases, but most

Rec AA/ CGIAR	Recommendation	Management response	Action plan	Timeframe	Status- March 2024	GI SG evaluation team comment on level of uptake
						importantly show that the GI SG is a food-systems level intervention.
EiB Platform evaluation	**Rec. 8.** The **Seed Equal and Accelerated Breeding initiatives** should continue to build long-term relationships with NARES and other partners.	Fully accepted. Breeding capacity of NARES and SMEs will be increased by working closely with partner NARES and SMEs to implement optimized breeding schemes focused on targeted product profiles. Molecular breeding will be a key component of capacity development services. CGIAR will work to ensure that seed multipliers (both formal and farmer-based) provide quality seed of new improved varieties at greater scale, through a series of activities in the Seed Equal Initiative that have been planned in considerable detail – see actions below.	a. Breeding capacity: Systematic and customized support to increase breeding capacity at NARES, SMEs and Universities will be implemented through ABI in alignment with partner ambitions and their breeding modernization plans. Specific NARES breeding programs will be supported to take on greater responsibility to breed for specific market segments and product profiles where they have a comparative advantage over regional CGIAR efforts. A mechanism for open access support will be developed by 2023 to enable NARES that are not formal members of CGIAR-NARES breeding networks to access technology, germplasm and training from the network. b. Molecular breeding: All NARES breeding modernization plans that are being developed in collaboration with EiB, ABI and bilateral projects will include adoption of genotyping tools for routine breeding operations: Hybridity confirmation (F1 QA/QC), line purity and reference finger printing and marker assisted selection for key traits aligned to the product profile. Training of NARES partners on sampling and data interpretation will continue with support from the Breeding Resources initiative of CGIAR. Members of CGIAR-NARES breeding networks will benefit from discounted genotyping costs as negotiated with the vendor whilst non-members of CGIAR NARES breeding networks will still be able to access QTL and marker data on a public online database maintained by the Breeding Resources initiative. c. Seed multipliers: The three crop-archetype based Work Packages of Seed Equal (WP1-3) will work alongside Accelerated Breeding and partner breeders to ensure product profile-driven varietal selection and replacement strategies are in place for key markets/end users. Assessment and innovation around collaborative mechanisms with private and public partners for accelerating varietal turnover will	Breeding work plan. First deliverable in June 2022. Ongoing with time bound deliverables in WPs 1-6 of Seed Equal.		The GI SG was effective and efficient in building the capacities of targeted CGIAR and NARES breeding programs. 1. Increasing Breeding Capacities: Built upon strong partnerships with NARES through CGIAR centers. However, it is important to highlight that NARES and SMEs were not always consulted and part of decision-making processes. 2. Raising Awareness of Molecular Breeding: Comprehensive training sessions were conducted to highlight the benefits of molecular breeding. To some extent, feedback from participants was gathered to ensure the training was more effective and addressed their needs. The use of new shared services to make molecular breeding more accessible was promoted among breeding programs and networks. 3. Ensuring Quality Seed Multiplication: The GI SG through CGIAR and NARES breeding programs worked with seed multipliers to guarantee the availability of quality seeds of new, improved varieties (e.g. small private seed companies at country level), tailoring seed multiplication efforts to meet the specific needs of beneficiaries, ensuring that the new varieties are well-received and adopted by farmers, aiming to increase varietal turnover, which will contribute to genetic gains in farmers' fields.

Rec AA/ CGIAR	Recommendation	Management response	Action plan	Timeframe	Status- March 2024	GI SG evaluation team comment on level of uptake
			be key along with scaling of on-farm testing for selection and demonstration purposes (leveraging other bilateral investments such as the 1000 Farm initiative). WP4 will work with NARS networks to develop and test tools in support of scaling, including for product advancement and product placement, variety licensing, and M&E of adoption. WP5 (working closely with WP3 of Market Intelligence) will develop evidence-based, context-specific policy recommendations to encourage inclusive seed sector growth particularly in relation to: EGS production, varietal release, quality assurance, smart input provision schemes, credit-linked extension, and other instruments to accelerate varietal turnover and deepen demand for quality seeds. WP6 will develop evidence-based gender transformative business and capacity development models and strategies to enhance synergies between formal and informal seed systems. Lastly WP6 will develop new metrics to track inclusive (women and youth) access to seed of improved varieties.			
EiB Platform evaluation	**Rec. 9.** Commit to developing informatics systems for a diverse range of breeding programs, even though the effort is complex, expensive, and long-term. The **Accelerated**	We accept these recommendations in the most part. While we do not accept that every Initiative needs an independent steering panel, experience with the EBS Program has shown the value of a strong advisory function that includes end-users in particular.	a. Integrated and responsive breeding informatics: Integrated Breeding and Research Services will house breeding informatics activities. Software development and deployment activities will be guided and supported by an advisory group that includes leads of end user breeding programs. Established processes for prioritization, change control, and risk management will govern decision making. b. EBS monitoring and decision making: Continue to monitor KPIs for user adoption; stakeholders including users, donors, and platform maintainers will take part in jointly deciding appropriate cutover points from legacy systems to EBS. Where EBS is not available or where a transition is not desired, BMS or Breedbase will be supported. c. Targeted capacity development: Focus capacity development on digitization and use of data management tools for CGIAR and NARES partners, leveraging existing connections with local field teams	Steering team and processes will be established between Q2 2022–Q2 2023. Q1 2022 – Q4 2024 Q1 2022 – Q4 2024		The GI SG developed and validated GloMIP, a public platform that effectively shares market intelligence and timely informs strategic decisions in crop breeding and investment. The GI SG now capable of supporting breeding programs and investments decisions by providing relevant market data, demand and inclusion insights, and impact opportunities. 1. Breeding Informatics Objectives: The GI SG formulated robust objectives, presented relatively clear strategies and developed tools regarding breeding informatics. The GI SG validated strategies and tools involving direct and indirect users (CGIAR and NARES breeding programs, donors, etc.) to ensure resilience against arbitrary changes. 2. Monitoring EBS Development: The GI SG only started to track the development and uptake of EBS. The GI SG generated and maintained open

Rec AA/ CGIAR	Recommendation	Management response	Action plan	Timeframe	Status- March 2024	GI SG evaluation team comment on level of uptake
			such as the IBP support network. A core digitization user support function will be formed under the Data Management and Breeding Analytics unit to coordinate a globally distributed help desk, harmonize documentation and training materials and support local teams in their training efforts. Change delivery training will be offered to both CGIAR and NARES partners. d. Reducing administrative burden: Support cloud implementations of data management software, maintained and deployed by a single core team.	Q1 2022 – W4 2023		lines of communication with all stakeholders to ensure future and timely decisions about legacy systems. 3. Supporting Other Platforms: The GI SG aims at continuing supporting alternative platforms until EBS is universally accepted, ensuring smooth transitions and interoperability between different systems. 4. Filling Skills Gaps: As stated above, the GI SG to a great extent designed and implemented targeted training programs to bridge skills gaps within CGIAR and among partners (modernization), matching breeding experts with the specific needs of field support teams in targeted countries and regions. 5. Minimizing Administrative Burden: The GI SG tried to streamline database usage to reduce administrative overhead with mixed results. The GI SG focused on developing user-friendly administrative tools and processes to maximize efficiency with moderate success. There is still a lot to do on this matter.

Annex 9: GI SG Initiatives Portfolio

Annex 9 Table 1. GI SG Initiatives Portfolio

INITIATIVE:	LEAD	START DATE	END DATE	OBJECTIVE (Initiative level)	Proposed 2022 budget	Approved 2022 budget	PRIMARY CGIAR IMPACT AREA	Targeted countries	Work towards the SDGs
ACCELERATED BREEDING	Michael Quinn	1 Jan. 2022	31 Dec. 2024	The accelerated breeding initiative aims to develop better-performing crop varieties, providing real-time adaptation to climate change, evolving markets, and production systems. It forms part of CGIAR's new Research Portfolio, delivering science and innovation to transform food, land, and water systems in a climate crisis.	USD 33,689,134	USD 26,784,739	Nutrition, Health & Food Security	Low- and middle-income countries, particularly in sub-Saharan Africa and South Asia	No poverty; Zero hunger; Gender equality; Decent work and economic growth; Reduced inequalities; Responsible consumption and production; Climate action; Life on land; and Partnerships for the goals.
BREEDING RESOURCES	Sharifah Shahrul Syed Alwee	1 Jan. 2022	31 Dec. 2024	This initiative aims to ensure that breeding programs can more quickly develop and, deliver the right seeds to smallholder farmers struggling with climate change, and nutritional and economic challenges, using tools and technologies such as genomic selection, quantitative genetics, high-throughput phenotyping, and bioinformatics to support data driven, modernized breeding.	USD 18,649,000	USD 6,956,193	Poverty Reduction, Livelihoods & Jobs	Low- and middle-income countries, particularly in sub-Saharan Africa and South Asia	No poverty; Zero hunger; Good health and well-being; Gender equality; Decent work and economic growth; Industry, innovation, and infrastructure; Reduced inequalities; Responsible consumption and production; Climate action; Life on land; Peace, justice, and strong institutions; and Partnerships for the goals.
MARKET INTELLIGENCE	Matty Demont	1 Jan. 2022	31 Dec. 2024	This initiative brings together strategic information on future crops, market segments and trait priorities aligned to the needs and preferences of farmers, agri-business and consumers.	USD 10,000,000	USD 7,499,256	Gender Equality, Youth & Social Inclusion	West and Central Africa, East Africa, South Asia	No poverty; Zero Hunger; Good Health and wellbeing; Gender Equality; Responsible consumption and production; and Climate action.

INITIATIVE:	LEAD	START DATE	END DATE	OBJECTIVE (Initiative level)	Proposed 2022 budget	Approved 2022 budget	PRIMARY CGIAR IMPACT AREA	Targeted countries	Work towards the SDGs
SEED EQUAL	Ian Barker	1 Jan. 2022	31 Dec. 2024	This Initiative aims to support the delivery of seed of improved, climate-resilient, market-preferred and nutritious varieties of priority crops, embodying a high rate of genetic gain to farmers, ensuring equitable access for women and other disadvantaged groups.	USD 22,733,196	USD 10,143,170	Poverty Reduction, Livelihoods & jobs	Central and West Asia and North Africa; East and Southern Africa; Latin America and the Caribbean; South Asia; Southeast Asia and the Pacific; West and Central Africa	No poverty; Zero hunger; Gender equality; Clean water and sanitation; and Climate action.
THE GENEBANKS	Charlotte Lusty	1 Jan. 2022	31 Dec. 2024	The Genebanks Initiative contributes to more resilient food systems by conserving genetic resources long term and making them available to users worldwide.	USD 25,722,844	USD 22,411,618	Environmental Health & Biodiversity	Global	No poverty; Zero hunger; Climate action; and Life on land

Annex 10: QoS Outputs – List of Influential Publications by GI SG Initiatives

Annex 10 Table 1. Number of Publications by Initiative

Initiative	Total number of publications (2020-24)
Accelerated Breeding	708
Breeding Resources	107
Seed Equal	79
Market Intelligence	187

Source: CGIAR Dashboard (retrieved on 17 May 2024)

Annex 10 Table 2. Accelerated Breeding

No.	Title	Authors	Year	Knowledge product	Captures	Altmetric	Note
1	Breeding schemes: what are they, how to formalize them, and how to improve them? Frontiers in Plant Science, 12: 791859, 1-15.	Covarrubias-Pazaran, G., Gebeyehu, Z., Gemenet, D., Werner, C., Labroo, M., Sirak, S., ... & Debaene, J.	2022	Journal Article	17,700	17	Star Paper
2	Genomic selection: lessons learned and perspectives. Frontiers in Plant Science, 13, 890434.	Martini, J. W. R., Hearne, S. J., Gardunia, B., Wimmer, V., & Toledo, F. H.	2022	Journal Article	1,300	2	
3	Genomic selection strategies for clonally propagated crops. Theoretical and Applied Genetics, 136(74). https://doi.org/10.1007/s00122-023-04300-6	Werner, C. R., Gaynor, R. C., Sargent, D. J., Lillo, A., Gorjanc, G., & Hickey, J. M.	2023	Journal Article	3396	20	
4	A linear profit function for economic weights of linear phenotypic selection indices in plant breeding.	Cerón-Rojas, J. J., Gowda, M., Toledo, F., Beyene, Y., Bentley, A. R., Crespo-Herrera, L., Gardner, K., & Crossa, J.	2023		794	4	
5	Realized genetic gain in rice: Achievements from breeding programs. Rice, 16(61). https://doi.org/10.1186/s12284-023-00677-6	Seck, F., Covarrubias-Pazaran, G., Gueye, T., & Bartholomé, J.	2023	Journal Article	1774	3	

Annex 10 Table 3 Market Intelligence

No.	Title	Authors	Year	Knowledge product	Downloads	Captures	Altmetric
1	Market intelligence for informing crop-breeding decisions by CGIAR and NARES	Donovan, J., Coaldrake, P., Rutsaert, P., Bänziger, M., Gitonga, A., Naziri, D., Demont, M., Newby, J., & Ndegwa, M.	2022	Market Intelligence Brief	275 downloads		
2	Behavioral market intelligence and its implications for seed systems development	Trachtman, C., Kramer, B., & Demont, M.	2023	Market Intelligence Brief	244 downloads		
3	Future market segments for hybrid maize in East Africa	Rutsaert, P., Donovan, J., Mawia, H., de Sousa, K., & van Etten, J.	2022	Market Intelligence Brief	241 downloads		
4	Market intelligence for guiding crop improvement: A systematic review of stakeholder preference studies in the rice sector in the Global South and beyond	Custodio, M. C., Demont, M., & De Steur, H.	2023	Journal Article		1605	14.8
5	From Golden Rice to Golden Diets: How to turn its recent approval into practice	De Steur, H., Stein, A. J., & Demont, M.	2022	Journal Article		126	78

Annex 10 Table 4. SEED Equal

No.	Title	Authors	Year	Knowledge Product	Downloads	Captures	Altmetric
1	Gender bias in customer perceptions: The case of agro-input dealers in Uganda	De, Anusha; Miehe, Caroline; Van Campenhout, Bjorn	2024	Journal Article		3	
2	Translating Ethiopian potato seed networks: Identifying strategic intervention points for managing bacterial wilt and other diseases	Etherton, B.; Plex Sula, A.; Mouafo-Tchinda, R.; Kakuhenzire, R.; Kassaye, H.; Asfaw, F.; ... & Garrett, K. A.	2024	Journal Article		131	6
3	Analysis of common bean (*Phaseolus vulgaris* L.) trade in Cameroon: A trader's perspective of preferred varieties and market traits	Nchanji, E. B.; Ngoh, S. B.; Toywa, J.; Cosmas, L.	2023	Journal Article		13	0
4	Direct and spillover effects of biofortified sweetpotato interventions on sustained adoption in Malawi	Gatto, M.; Mgomezulu, W. R.; Okello, J. J.; Pradel, W.; Kwikiriza, N.; Hareau, G. G.	2023	Journal Article		1	0
5	Seed certification and maize, rice and cowpea productivity in Nigeria: An insight based on nationally representative farm household data and seed company location data	Hiroyuki, T.; Abdoulaye, T.; Andam, K. S.; Edeh, H. O.; Fasoranti, A.; Haile, B.; ... & Wossen, T.	2022	IFPRI Discussion Paper			3
6	Assessment of the effectiveness and efficacy of Seed Villages in India	Bhuvana, N. R.; Dominic, D. M.; Mittal, N.; Sulaiman V, R.; Puskur, R.; Tenneti, S.	2023	Working Paper			

Source: Direct Selection by GI SG Initiative Leaders and Co-Leaders

Annex 11: Evaluation Team and Declaration of Conflict of Interest

Name and Profile	Picture
Rodrigo Paz Ybarnegaray Rodrigo Paz Ybarnegaray is a design, planning, monitoring, evaluation and learning researcher and practitioner with 20 years' experience. His work focuses on evaluating and enabling innovation and facilitating critical transitions towards transformative change. He has evaluated research and development initiatives funded by CGIAR centers (CIP, CIAT, IFPRI, WorldFish, CIMMYT) and DFID, USAID, EU, OXFAM, CARE, HEIFER International, Practical Action, COWATER-SOGEMA, SNV, IDRC, The McKnight Foundation, IFAD, SIDA, NIRAS, ECORYS, IIED and FAO. He has extensive experience using an array of methods in design, planning, MEL: program theory, ToC, developmental evaluation, realist evaluation, contribution analysis, modus operandi, utilization-focused evaluation, outcome mapping, outcome harvesting, outcome evidencing, most significant change, participatory impact pathways analysis, and social network mapping and analysis. Also designing and implementing quantitative impact evaluations.	
Subject Matter Expect	
Glenn James Bryan Dr Glenn Bryan studied Genetics at the University of London (BSc), the University of Birmingham (MSc) and Washington University in St Louis (PhD) and has over 40 years of experience in the genetics and breeding of crops and animals. He started his career in fruit fly and dairy cattle genetics, before switching to crop plants in 1992. For the last 27 years he worked at the Scottish Crop Research Institute (latterly The James Hutton institute) in Dundee, where he studied the genetics of economically important potato traits, and led the maintenance of a large genebank. He has over 100 refereed publications. He has served on several national and international review panels and has reviewed grants for many organizations around the world.	
Subject Matter Expect	
David H. Meyer David received his PhD in plant breeding and genetics. Before his retirement, he had a 40-year career with Corteva AgriSciences his roles included Global Plant Breeding, Global Trait/Genetics/Technologies lead, R&D strategy, and a focal point for Regenerative Agriculture working across the R&D, Business and External/Public affairs functions. He was also one of the focal points between Corteva and EIB. He had eight years of experience as advisory board team member for BMG next Generation Cassava Project and continues to advise on the USAID Crop Improvement Innovation Lab. He also continues to be an dhoc advisor for RTB crops lead by Hugo Campos. In Nebraska, he is on the board of the Nebraska Soil health Coalition and the Grain Place, a 35-year-old organic farm.	

Subject Matter Expect

Bettina I.G. Haussmann
- 2011-present (50%): West Africa Liaison Scientist for the McKnight Foundation's Global Collaboration for Resilient Food Systems Program (CRFS): proposal/project evaluation in Mali, Burkina Faso, Niger. - 2013-present (50%): Development Cooperation Manager/Senior Advisor at KWS SAAT SE & Co. KGaA Company, Einbeck, Germany: monitoring and evaluation of KWS' capacity development projects in Ethiopia and Peru, developing an Africa strategy, advising breeders in Kenya and Zambia. From 2004–present: Adjunct Professor at University of Hohenheim, Stuttgart, Germany: Teaching and student supervision related to plant genetic resources and crop improvement in the tropics.

Evaluation Analyst

Edwin Supreme Asare
Edwin Supreme Asare serves as an Evaluation Analyst Consultant at CGIAR Independent Advisory and Evaluation Services (IAES). His main role involves supporting IAES to conduct timely evaluation studies. Edwin also provides operational support for thematic, corporate, and regional/country-based evaluations, ensuring compliance with IAES quality standards. With expertise in monitoring and evaluation, Edwin has a proven track record across various sectors including agriculture, migration, education, youth development, WASH, financial inclusion, digital technology, and women empowerment. Edwin holds an MSc in Development Management and brings valuable experience and skills in impact measurement and management.

Annex 11 Table 1. Evaluation Team and Declaration of COI Background.

S/N	Conflict of Interest statements	Glenn James Bryan	Bettina I.G. Haussmann	David H. Meyer	Jo Rodrigo Paz Ybarnegaray	Edwin Supreme Asare
1	Main employer and any other organization that provides you with remuneration (which may be named participants in the project/ program/ proposal you are being asked to review/evaluate.	Retired Senior Scientist The James Hutton Institute, Dundee, UK	Senior Scientist- German Institute for Tropical and Subtropical Agriculture Development Cooperation Manager- KWS SAAT SE & Co. KGaA Company	Independent Consultant	Independent Consultant	Research Analyst (IAES/CGIAR)
2	Are you aware whether a relative, close friend, close colleague or someone with whom you have financial ties is receiving funding from or	**NO**	**NO**	**NO**	**NO**	**NO**

S/N	Conflict of Interest statements	Glenn James Bryan	Bettina I.G. Haussmann	David H. Meyer	Jo Rodrigo Paz Ybarnegaray	Edwin Supreme Asare
	giving advice to a project/program/proposal you are being asked to review/evaluate?					
3	Does any project/program/proposal you are being asked to review/evaluate cite any of your own current research?	Was part of two projects that involved CGIAR partners. Both projects terminated before his retirement.	**NO**	**NO**	**NO**	**NO**
4	Does any project/ program/proposal you are being asked to review/ evaluate name researchers with whom you have active collaborations, recently published joint papers or are in regular email correspondence?	**NO**	**NO**	**NO**	**NO**	**NO**
5	Does any project/ program/proposal you are being asked to review/ evaluate name any of your past PhD students are active participants?	**NO**	**NO**	**NO**	**NO**	**NO**
6	I declare that the information provided on this statement is true and complete.	Dated: 4 January 2024	Dated: 3 January 2024	Dated: 12 February 2024	Dated: 13 October 2023	Dated: 2 November 2023

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