Agenda Item 5
Issued: 27 November 2024

ISDC Review of 2025-2030 Research & Innovation Portfolio Proposals

Purpose

The Independent Science for Development Council (ISDC) reviewed the proposals forming the CGIAR 2025-2030 Science and Innovation Portfolio (Portfolio), submitted to the ISDC Secretariat by CGIAR Leadership on 27 September 2024. The external review of the proposals is an essential part of good governance and quality assurance, delivering benefits to CGIAR researchers, leadership, and System Council. The main benefit is an assurance that the best possible science is conducted to deliver the intended development outcomes. The reviews aim to guide funders' investments in CGIAR research, ensuring they are well targeted and likely to succeed. They are designed to help CGIAR leadership and scientists to improve the structure and content of their research that delivers real outcomes and impact. This document is structured as follows.

- Section 1 explains the purpose and how to use the document.
- Section 2 describes the review process and the QoR4D criteria used to assess proposals.
- Section 3 identifies high-level themes that emerged during ISDC consensus building, cutting across the proposals.
- Section 4 provides a summary of the review per proposal, structured around the QoR4D Framework's four elements.
- Section 5 contains detailed reviews by proposal, including quantitative and qualitative assessments and a breadth of comments to be used during inception and implementation phases.
- An Annex is provided with summary analyses of the quantitative proposal assessments.

Action Requested

The System Council is requested to read and reflect on the document. The information presented is intended to support System Council in making decisions and recommendations for the CGIAR Portfolio and strategic planning.

Document category: Working document of the System Council.
There is no restriction on the circulation of this document

Prepared by: ISDC with support from ISDC secretariat.

Independent Science for Development Council

CGIAR

ISDC Review of 2025–2030 Research & Innovation Portfolio Proposals

15 November 2024

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Executive Summary

The Independent Science for Development Council (ISDC) reviewed the proposals forming the CGIAR 2025-2030 Science and Innovation Portfolio (Portfolio), submitted to the ISDC Secretariat by CGIAR Leadership on 27 September 2024. The external review of the proposals is an essential part of good governance and quality assurance, delivering benefits to CGIAR researchers, leadership, and System Council. The main benefit is an assurance that the best possible science is conducted to deliver the intended development outcomes. The reviews aim to guide funders' investments in CGIAR research, ensuring they are well targeted and likely to succeed. They are designed to help CGIAR leadership and scientists to improve the structure and content of their research that delivers real outcomes and impact.

ISDC compliments the writing teams on their efforts to describe a Portfolio that accommodates large parts of the 2022-2024 Action Areas. This new Portfolio structure appears sensible and manageable and increases clarity of where CGIAR allocates its resources. ISDC also recognizes that adopting a more programmatic approach to structuring the Portfolio—condensing it into 13 proposals—resulted in high-level proposals with limited details on the proposed science for ISDC to assess. At this high level, the proposals provided insight into the structure and foundation for CGIAR and partners to conduct high-quality science. More details on the "what" and the "how" of the proposed research will presumably be documented during the Inception Phase of the Portfolio.

The cornerstone of the review criteria is the *Quality of Research for Development in the CGIAR Context* (Qo4RD [ISDC, 2020]), which facilitates CGIAR System-wide agreement on the nature and assessment of the quality of research. An independent and anonymous review team assessed each proposal comprised of three external subject matter experts (SMEs), led by an ISDC member, and supported by the ISDC Secretariat, within the Independent Advisory and Evaluation Service (IAES). The ISDC Secretariat identified SMEs through a competitive roster enrollment and team composition was finalized after ISDC vetting. Within each team, one SME served as a coordinator who aggregated and built a consensus among the team, working closely with the designated ISDC member. The final step in the process was a three-day, in-person ISDC meeting where Council members finalized the reviews of the individual proposals and the companion Portfolio Narrative.

This document is structured as follows.

- **Section 1** explains **the purpose and how to use the document**.
- **Section 2** describes the **review process** and the QoR4D criteria used to assess proposals.
- **Section 3** identifies **high-level themes** that emerged during ISDC consensus building, cutting across the proposals.
- **Section 4** provides a **summary of the review per proposal**, structured around the QoR4D Framework's four elements.
- **Section 5** contains **detailed reviews by proposal**, including quantitative and qualitative assessments and a breadth of comments to be used during inception and implementation phases.

In addition, **an Annex** is provided with summary analyses of the quantitative proposal assessments.

The document structure provides the level of details in a progressive manner, depending on the target audience, from up-front, higher-level findings towards in-depth feedback useful for design, implementation, and adjustments for future development.

Overall, ISDC regards the 2025-30 Portfolio realignment as an important step towards a shift in the organizational culture from a traditionally linear, technologically-focused research organization, towards a contemporary, systems approach, and impact-oriented research culture.

1. Purpose and How to Use this Document

The purpose of the Independent Science for Development Council (ISDC) external review is to assure current and future funders that the proposed research environment is sound and will enable high-quality research that will contribute to addressing global food, agriculture, and environmental challenges. The assessments provided in the following sections are designed to deliver on this objective by providing high-level commentary primarily intended for System Council members (SC [i.e., funders and the representatives of country constituents]) as well as more detailed commentary for the Integrated Partnership Board and CGIAR leadership and scientists.

ISDC commends the writing teams for their swift action in meeting the SC's demands by providing an adapted Portfolio that addresses the current and future challenges of our food, land, and water systems. This new Portfolio structure—which at the time of delivery was comprised of nine Science Programs (Programs), three Accelerators, and an Asset—appears sensible and manageable, and increases clarity of where CGIAR should allocate its resources.

ISDC reviewed two distinct Portfolio pieces: (i) a package of 13 proposals and (ii) a subsequent overarching Portfolio Narrative (Narrative).

This resulted in two documents for SC:

1) This document: *ISDC Review of 2025-30 Research & Innovation Portfolio Proposals*[1] and
2) *ISDC Feedback on CGIAR Portfolio Narrative 2025-2030* (submitted separately)

ISDC recognizes that by taking a more programmatic approach to structuring the Portfolio, i.e., condensing the 32 Initiatives into 13 Programs/Accelerators/Asset resulted in high-level proposals with limited details on the proposed science. Instead, the proposal package provided a comprehensive overview of the structure and foundations necessary for high-quality science to be conducted. Nonetheless, the lack of science-specific details led to some tensions among reviewers that are reflected in the document.

This also created a limitation for the review process. The proposals' lack of scientific details, coupled with the nature of consensus building, inevitably contributed to a "convergences towards the middle," reflected in the numerical scores for the proposals. Hence, these Likert numerical scores should only be used as supplementary information and primary attention should be given to the detailed qualitative assessments provided.

Another limitation impacting this review was the sequencing of submissions. The Narrative was only received by ISDC **after** the review teams had already completed their assessments of the individual Programs and Accelerators. The overarching Narrative would have given the review teams a broader context for the 13 proposals, facilitating cross-referencing among them.

ISDC also recognizes that a lack of proposal budgets makes assessing the feasibility of intended outputs and outcomes difficult. A suggestion for future consideration is better enumeration of planned outputs under current and surge budget scenarios.

ISDC regards this Portfolio realignment as an important step towards a shift in the organizational culture from a traditionally linear, technologically-focused research organization towards a contemporary, systems approach, and impact-oriented research culture. ISDC's feedback should be seen as a constructive critique for further Portfolio development during the Inception Phase.

[1] At time of submission of proposals to ISDC, 13 proposals were received. The Genebanks proposal was received and reviewed separately from the proposal for Breeding for Tomorrow Science Program.

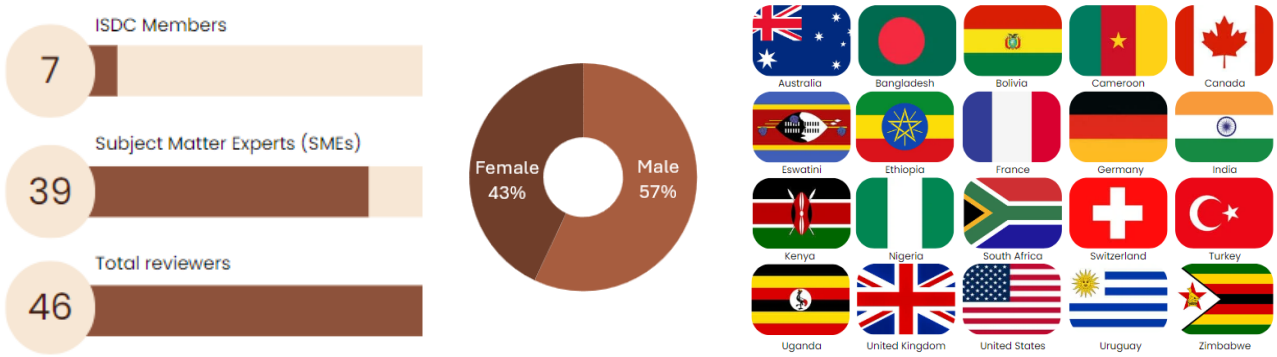
2. The Review Process

An independent and anonymous review team assessed each proposal. The teams were comprised of three external subject matter experts (SMEs), led by an ISDC member, and supported by the ISDC Secretariat, within the Independent Advisory and Evaluation Service (IAES). The ISDC Secretariat identified SMEs through a competitive roster enrollment that contains more than 200 social and biophysical scientists representing more than 50 countries. The ISDC Secretariat matched three SMEs to each proposal based on their expertise, followed by ISDC vetting. Within each team, an SME was assigned to serve as a coordinator, who aggregated and built a consensus among the team, working closely with an ISDC member who had expertise in the proposal's primary scientific area.

Reviewer Composition and Diversity

The names of all SMEs who served as reviewers for all 13 proposals are listed on the IAES website.[2] The information below provides analytics on the diversity of the reviewers. Each team had at least one social scientist. Overall, the teams' composition was 43% female and 57% male, located across 20 countries, with 70% having a university affiliation. Diversity among the review teams was essential because of the cross-cutting goal of the proposals and five CGIAR Impact Areas. The range of reviewers' scientific expertise and demographics explains, in part, the variance among the QoR4D scores of each review that can be found in the individual proposal reporting in Section 5.

Figure 1: Subject Matter Expert Demographics



QoR4D and Key Elements

The cornerstone of the ISDC review was the *Quality of Research for Development in the CGIAR Context* (Qo4RD [ISDC, 2020]). QoR4D facilitates CGIAR System-wide agreement on nature and assessment of the quality of science. The Framework consists of four key elements—relevance, scientific credibility, legitimacy, and effectiveness.

- **Relevance** refers to the importance, significance, and usefulness of the research objectives, processes, and findings, associated with CGIAR's comparative advantage to address the problems. It considers research alignment to national and regional priorities, and the current *2030 CGIAR Research and Innovation Strategy* (Strategy).
- **Scientific credibility** requires that research findings be robust and sources of knowledge dependable and sound. It includes a demonstration that data used is accurate, that the methods used to procure the data are fit for purpose, and that findings are clearly presented and logically interpreted.
- **Legitimacy** means that the research process is fair and ethical and perceived as such. It suggests transparency, sound management of potential conflicts of interest, recognition of the responsibilities that go with public funding as well as genuine involvement of partners in codesign.
- **Effectiveness** means that research generates knowledge, products, and services with high potential to address a problem and to contribute to innovations and solutions. It implies that research is designed, implemented, and positioned for use within a dynamic Theory of Change, with a clear path to impact.

[2] The link will be active after the 21st CGIAR System Council Meeting pre-reads are made available.

QoR4D Criteria

Table 1 depicts the 11 QoR4D criteria for Programs and Table 2 represents the 10 criteria for Accelerators and Asset that ISDC and external SMEs used to review the proposals. Bolded words represent the primary QoR4D element covered by the review criterion. The criteria also are mapped against proposal sections assessed. SMEs received the criteria in two templates that served as the basis for their individual and team consensus reviews.

Table 1: Criteria for Proposal Assessment of Programs and Mapped QoR4D Elements and Related Proposal Sections

Criteria[3]	QoR4D Elements	Proposal Section
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Research & Innovation Strategy, multi-funder priorities, and is well informed by previous research findings and lessons from the 21-24 Portfolio Initiatives.	**Relevance**, Effectiveness	**2** High level vision, challenges & megatrends **3** Prioritization
2. Evidence that the Science Program is demand driven through codesign with key stakeholders and partners (NARES, governments, farmers, private sector, funders) and research collaborators within and outside CGIAR.[4]	**Relevance**, Legitimacy, Effectiveness	**2** High level vision, challenges & megatrends **3** Prioritization **7** Country integration
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	**Legitimacy,** Effectiveness	**4** Comparative advantage
4. Research questions address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	**Relevance**, Credibility	**2** High level vision, challenges & megatrends **6** Areas of Work
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	**Effectiveness**, Relevance	**5** Theory of Change
5.a When relevant Area of Work 1 Area of Work 2 Area of Work 3 ….	**Effectiveness**, Relevance	**6** Areas of Work

[3] Review of appendices are not required to assess proposal and are supporting materials.

[4] The types, range, and roles of partners needs to be fully explained. For example, partners involved in research implementation may be different to those partners needed for delivery of outcomes and scaling of impacts and they will have different roles in codesign and codelivery. How these partners have been included in the Initiative design process needs to be described with evidence of their support.

Criteria[3]	QoR4D Elements	Proposal Section
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	**Relevance**, Effectiveness	Partly in **6** Areas of Work
7. Research design and proposed implementation demonstrates genuine gender and social inclusion in both the research process and in its intended outcomes with explicit linkages to the Gender and Social Inclusion Accelerator.	**Legitimacy**, Effectiveness	**11** Gender equality, youth and social inclusion
8. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident with a demonstrated focus on quality and impact relevance.	**Credibility**, Effectiveness	**6** Areas of Work
9. Evidence that the Science Program will likely lead to impact at scale through approaches that drive inclusive innovation in research and partnerships, with explicit linkages to other Science Programs, Impact for Scaling, and Accelerators.	**Effectiveness,** Credibility, Relevance,	**7** Country integration **8** Boundaries and linkages **10** Capacity sharing
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	**Credibility**, Legitimacy, Relevance	**13** Risk management
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	**Credibility**, Effectiveness, Legitimacy	**9** MELIA **10** Capacity sharing

127 Table 2: Criteria for Proposal Assessment of Accelerators and Asset and Mapped QoR4D Elements and Related Proposal Sections

Criteria[5]	QoR4D Elements	Proposal Section
1. Clearly defined challenge that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by ongoing and previous research and Impact Area Platforms and lessons from the 22-24 Portfolio Initiatives.	**Relevance**, Effectiveness	**2** High level vision, challenges & megatrends **3** Prioritization
2. Evidence that the Accelerator/Asset is demand driven through codesign with key stakeholders and partners (NARES, universities, governments, farmers, private sector, funders) and collaborators within and outside CGIAR.[6]	**Relevance**, Legitimacy, Effectiveness	**2** High level vision, challenges & megatrends **3** Prioritization **7** Country integration
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes necessary for impact and how this has created opportunities for new partnerships.	**Legitimacy,** Effectiveness	**4** Comparative advantage
4. Research questions, where applicable, address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	**Relevance**, Credibility	**2** High level vision, challenges & megatrends **6** Areas of Work
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	**Effectiveness**, Relevance	**5** Theory of Change
5.a When relevant Area of Work 1 Area of Work 2 Area of Work 3 …	**Effectiveness**, Relevance	**6** Areas of Work

[5] Review of appendices are not required to assess proposal and are supporting materials.

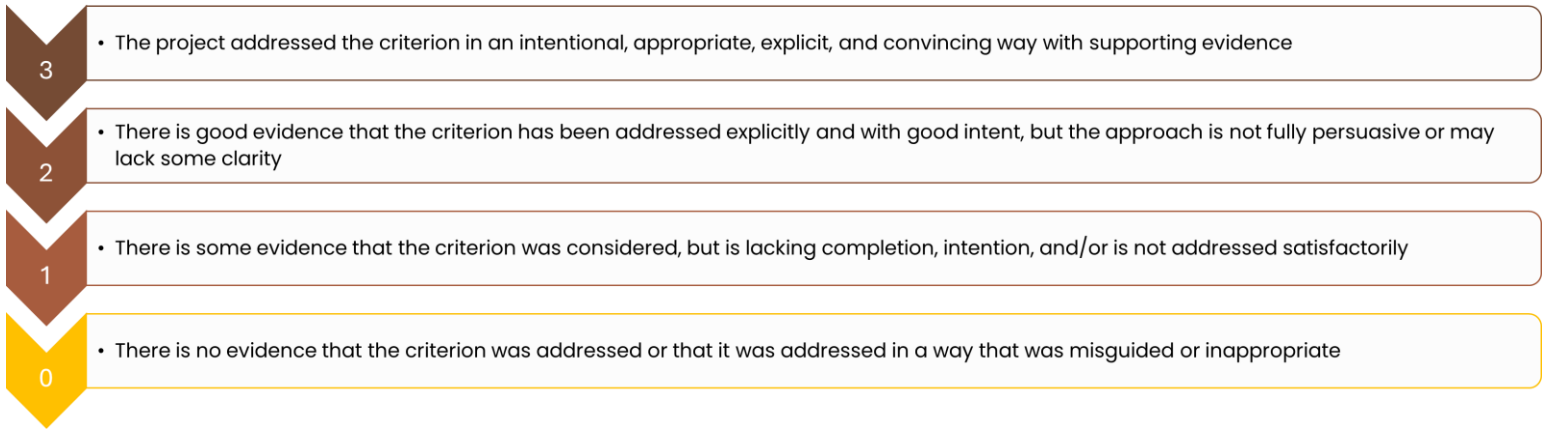
[6] The types, range, and roles of partners needs to be fully explained. For example, partners involved in research implementation may be different to those partners needed for delivery of outcomes and scaling of impacts and they will have different roles in codesign and codelivery. How these partners have been included in the Initiative design process needs to be described with evidence of their support.

Criteria[5]	QoR4D Elements	Proposal Section
6. The scope of work, approach and broad methods are fit for purpose, feasible, and innovative.	**Relevance**, Effectiveness	Partly in **6** Areas of Work
7. Anticipated outputs (knowledge, technical, or institutional advances, capacity development, technologies or products) are clearly described.	**Credibility**, Effectiveness	**6** Areas of Work **10** Capacity sharing
8. Evidence that the Accelerator/Asset has close linkages and joint work with Science Programs that will contribute to impact at scale.	**Effectiveness,** Credibility, Relevance,	**7** Country integration **8** Boundaries and linkages **10** Capacity sharing
9. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	**Credibility**, Legitimacy, Relevance	**13** Risk management
10. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	**Credibility**, Effectiveness, Legitimacy	**9** MELIA **10** Capacity sharing

Scoring of Criteria

Each criterion was scored on a Likert scale, as depicted in figure 2 below. The individual reviewers were asked to give each criterion an integer score; during consensus phase, the coordinator and ISDC member agreed on a final score either in form of an integer or as an average calculation across scores based.

Figure 2: Likert Scoring for QoR4D Criteria



3. High-level Themes

This section presents overarching findings, based on the QoR4D criteria, and recommendations from reviewers and ISDC members that apply across all proposals. The section is organized by themes that emerged during Council discussions. ISDC acknowledges that each proposal has unique strengths and weaknesses, which are described qualitatively and scored in proposal reports presented in Sections 4 and 5.

Overall, use of the QoR4D criteria was evident in the proposals and ISDC commends the writing teams. ISDC found relevance to be the strongest QoR4D element, with clear statements linking the proposed research to the Strategy. The proposals were mostly scientifically credible. As explained earlier, the proposals did not have details on the research approach and methods but provided a solid understanding of the structure and foundation for CGIAR and partners to conduct high-quality science. Legitimacy could be improved through genuine codesign with partners, which is detailed in ISDC's feedback on the Narrative. Legitimacy also includes risk mitigation, which was underdeveloped in all proposals. ISDC notes that this will be addressed during the Inception Phase. The pathway to impact also requires reflection during the Inception Phase. The assumptions for the proposal-level Theories of Change vary and primarily relate to the outcome level. Assumptions at all levels of the Theory of Change—from input to impact—will be important to explore, record, and monitor.

The following high-level themes identify areas for improvement that emerged during ISDC consensus building, which cut across all proposals. The themes should be used as suggestions for improvement during the Inception Phase.

Leading with Science

- The proposal template was designed for content to be high level and therefore ISDC had limited science-for-development information to assess. Hence, what ISDC was able to assess were the foundations that allow for an enabling environment within which the actual research will be conducted. Moreover, the proposal template may not have been ideally suited for the Accelerators as it was specifically designed for research proposals.
- The appendices to the proposals varied significantly in size and details provided, ranging from no appendices to elaborate additional information. For operational reasons, reviewers were not compelled to take appendices into account.
- The illustrative figures from the companion Narrative would have assisted reviewers in gaining prior knowledge of the Portfolio structure; they provide the rational of the overarching CGIAR-level structure that guides the pathway from science to impact. Unfortunately, the Narrative was received after the reviews were concluded and could only be used during the internal ISDC consensus building. The ISDC Narrative assessment offers additional details on how the sequence of 2025-30 Portfolio design affected the ISDC reviews.

Following an Informed and Inclusive Research Design Process

- The proposals provide limited information on achievements from 2022-24 and how these influenced and formed the foundations for the proposed work. Demonstrating the evolution from existing work to the new Portfolio, based on achieved results to date, would strengthen proposals.
- Although listening sessions are useful engagement tools, they do not equate to codesign. ISDC questions how participation during design stage will be balanced across partners during the Inception Phase and beyond, based on the lessons learned in the 2022-24 Portfolio on inclusive research.

Leveraging on Comparative Advantage

- A common template table was used across proposals for comparative advantage analyses. It is clear that a significant amount of time and thinking went into the development of the comparative advantage tables. Some proposals effectively interpreted the template to realistically summarize the Programs' and the Accelerators' comparative advantages. Others focused solely on CGIAR strengths and the self-assessment tended to overstate these strengths. ISDC acknowledges more in-depth analyses are planned for the Inception Phase.
- For further development, ISDC recommends using an externally facilitated process when conducting a comparative advantage analysis. This would prevent unintentional bias and maintain an independent lens. External input would be especially useful for new areas of research that should include clear risk assessments and mitigation strategies.

Ensuring Adequate Coverage Across all Impact Areas and Strengthening System Integration

- **Environmental health and biodiversity** are critical priorities within the 2030 Research and Innovation Strategy. This is also one of the five Impact Areas essential for achieving sustainable and resilient agricultural and food systems. However, the approach to this Impact Area within the current Portfolio reveals some gaps and potential areas for improvement. For instance, climate adaptation and mitigation in food, land, and water systems directly impact ecosystems and biodiversity, and vice versa. Hence, stronger connections to this Impact Area would enhance the Portfolio's value. For example, the Sustainable Animal and Aquatic Foods (SAAF) proposal suggest that resource management, land degradation and tradeoffs/synergies between livestock/aquatic and cropping systems will primarily be addressed by Sustainable Farming and Multifunctional Landscapes. However, it is important to note that the Climate and Environment Area of Work also includes significant effort on resource management. These important issues are not as visible as they could be in the Sustainable Farming and Multifunctional Landscapes Program proposals; this should be strengthened. Special attention needs to be paid to ensure there is close engagement between these three Programs to enhance synergies and to avoid duplication to optimize the use of limited resources.
- The Strategy's mission puts equal emphasis on food, land, and water systems. The Portfolio review identified a research gap in **water systems**, which receive insufficient attention. With climate change increasingly affecting water resources, prioritizing research on sustainable water use, conservation, and management practices would enhance the Portfolio's capacity to address climate challenges and foster more resilient agricultural and food systems, as espoused in the Strategy.
- There is a risk that issues of **mixed systems** (e.g., crop-livestock, silvo-pastoral) tradeoffs and synergies, resource management, and biodiversity will "fall between the cracks" unless there is strong cross-program engagement across SAAF, Sustainable Farming, and Multifunctional Landscapes.

Emphasizing Youth and Social Inclusion

- While ISDC applauds an Area of Work on youth within the Gender and Social Inclusion Accelerator, youth is almost absent across the other 12 proposals. The Accelerator primarily focuses on gender and there are missed opportunities for social inclusion of indigenous groups and knowledge. For example, effective Climate Action would require epistemological changes, i.e., a major shift in the way indigenous knowledge is understood, acquired, incorporated and validated. Programs must use Scaling for Impact to assist in reaching local populations. CGIAR should apply learning from listening sessions in terms of social inclusion.
- A more deliberate culture change within CGIAR is needed to shift from a traditionally linear and technology-driven approach to a systems approach by learning from the populations its research is targeted at.

Traditional CGIAR Focus Crops Versus Crops Needed Today

- **Orphan crops** ("opportunity crops" is the terminology used by the Initiative "Vision for Adapted Crops and Soils") will require more emphasis in Breeding for Tomorrow and Scaling for Impact Programs. For example, enhancing resilience to drought and improving yields on marginal soils may be feasible by researching and developing crops that are not mainstream but locally important. This is in line with ISDC's earlier feedback on the Portfolio25 draft (January 2024) regarding a stronger focus on national and regional priorities and prioritization of orphan and neglected crops, particularly against the backdrop of climate change and gender-transformative approaches (e.g., issues such as how the genetics of these crops impact on diversification, farmer-preferred, consumer preferences and nutritional attributes). Orphan crops can also contribute towards overcoming malnutrition.
- The Portfolio appears to lack sufficient focus on **pulses**, a critical crop group for food security, nutrition, and sustainable agriculture. Pulses contribute to soil health, improve nutrition, and play a key role in sustainable rotations for climate-resilient farming systems. More targeted research on pulses, highlighting their importance in promoting sustainable agricultural practices and enhancing food systems, would be beneficial to the Portfolio.

Strengthening Accountability Elements

Risk Management

- Developing detailed risk frameworks is an area flagged for further development during the Inception Phase. ISDC was unable to assess this specific QoR4D criterion because of the lack of information provided.
- Risk management is essential for good portfolio management. Risk mitigation measures must be clearly outlined to support robust evaluation of proposal feasibility and preparedness. A risk assessment and mitigation framework is a necessary component of strong proposals before their robustness and scientific credibility can be fully assessed. The lack of such a framework affected the scoring of the individual Programs and Accelerators.

MELIA

- During the Inception Phase, strengthening the MELIA sections is essential. Some proposals lack sufficient detail on how recommendations from external evaluations will be incorporated, while others omit evaluation recommendations entirely.
- There is also a noticeable absence of baseline data, key performance indicators (KPIs), and Specific, Measurable, Achievable, Relevant, Time-bound objectives (SMART), all of which are required for tracking progress and ensuring accountability.

4. QoR4D Element Commentary per Proposal

This section provides a summary of the review per proposal, structured around the four key elements of QoR4D—**relevance, scientific credibility, legitimacy, and effectiveness.** While a more detailed assessment per proposal is presented in Section 5, the aim of this section is to provide a quick overview of key findings from each of the reviews.

Climate Action
The Program is highly **relevant** and visionary, addressing a critical global challenge with a clear research-for-development focus targeting at least four of the five CGIAR Impact Areas. The emphasis on climate adaptation and mitigation is crucial for a 21st Century CGIAR Portfolio. However, the proposal emphasis adaptation at the expense of mitigation. The Program combines previous research activities while addressing new challenges; it aligns well with the Strategy and funder priorities. To strengthen scientific **credibility**, research questions should be more targeted and specific. Given the Program's broad geographic scope, it would advisable if region- and country-specific research questions were developed with partners with a strong focus on enhancing social inclusion. This would also strengthen its **legitimacy** if supported by a comprehensive set of stakeholders. Further, local knowledge and innovations arising from climate change impacts should be specifically included to enable codesign and ensure impact. The Theory of Change is clear and **effectively** portrays complex outputs, outcomes, and impacts but needs a more critical assessment of assumptions and risks. Greater clarity on roles, division of labor, and funding allocation among partners would help assess collaboration incentives and success prospects. Incorporating relevant R4D work by CGIAR and others would complement a climate change vulnerability analysis. The MELIA approach still lacks mechanisms for transparency, governance, and accountability, which are necessary for adaptive management. **Effectiveness** could be improved by explicitly addressing risks associated with specific activities' outputs, outcomes, and impacts.

Multifunctional Landscapes
The proposal presents a well-written, ambitious Program that addresses the aims of the Strategy and emerging megatrends, confirming its **relevance**. If successful, the Program will deliver bundles of solutions arising from action-based research and models that should lead to the intended outcomes and impacts. There is a need for prioritization of landscapes, ecologies, and countries to be studied to help clarify the research questions to be addressed. The Program would benefit from a summary statement to clarify how the work is integrated across the Areas of Work including linkages to business models. The objectives and ambition of each of the Areas of Work are listed, including research outputs to support positive landscape outcomes. Although described in rather general terms, these aspects of the proposal are valuable. To increase scientific **credibility**, MELIA plans need to be strengthened to include SMART targets, KPIs and feedback points to allow adaptation of the Program. The risk framework is underdeveloped. Priority countries and linkages are described but there is limited information on why these were selected or evidence of codesign with stakeholders, e.g., those partners that will collaborate in living landscape research. To enhance **legitimacy,** the comparative advantage analysis would be strengthened by providing more details on specific partners in areas where the social capital lacks capacity. The Theory of change assumptions are well documented with relevant Areas of Work planned to deliver the Program. However, further details of actual research topics and the necessary data collection methods are required to enhance **effectiveness**. In addition, there should be recognition that to adopt sustainable, nature-positive solutions, farmers need to be profitable and able to manage the risks they are exposed to.

Policy Innovation
The Program provides essential analysis, foresight, and evaluation as input into evidence-based policy formulation. Each Area of Work within the Program responds directly to funder and partner priorities. The focus on evolving policy context, needs and performance is thus highly **relevant** and central to the Strategy. The Program integrates *ex-ante*, model-based forecasting and impact evaluation, with design-based and mixed methods *ex-post* evaluation. The Program methods and activities described

(at a high level) are appropriate, state-of-the -art and scientifically **credible**. **Legitimacy** of the claims contained in the proposal would be strengthened by a more rigorous analysis of comparative advantage and the potential risks. Despite some weakness in these aspects, the Program builds on prior strengths. Among the key features of the Program is the bundling of research products for policymakers with a heavy emphasis on customization for context. Strong country-based relationships and fit for purpose products help to ensure the Program will have a very high degree of **effectiveness**.

Better Diets and Nutrition

The Program is ambitious and highly **relevant** to the Strategy and to stakeholders. The food systems approach that underpins the Areas of Work is compelling, providing a solid foundation for achieving impact at scale. However, it lacks sufficient detail of the codesign process with the external stakeholders, especially on how such a process led to the selection of Areas of Work and choice of countries. To strengthen scientific **credibility**, it would be beneficial to ensure that the research questions are more specific and well-justified within the broader scientific context and CGIAR's specific contributions. Climate, sustainability, and social inclusion could also be more thoroughly integrated across the Areas of Work. While the proposal is generally strong in terms of **legitimacy,** it lacks depth in its comparative advantage analysis; additional reflection on areas where CGIAR's comparative advantage may be limited, and how this insight could shape partnerships, would be valuable. The **effectiveness** of the Program is promising but requires a stronger focus on treating consumers as active agents rather than passive participants. Concerns remain about the lack of clarity on underlying assumptions, which may pose constraints to achieving desired outcomes. Achieving high-level outcomes related to population-level dietary change will require most Areas of Work to operate synergistically within a country. However, with only a few Areas of Work planned for many countries, success will heavily depend on catalysing research support from other areas.

Breeding for Tomorrow

The proposal is a highly **relevant** and ambitious Program that directly addresses critical global issues such as climate resilience, nutrition, human health, and poverty alleviation. The integration of cutting-edge technologies, such as artificial intelligence (AI), allele mining, genomic tools, and advanced digital infrastructure like GloMIP, is a significant strength. These tools help accelerate breeding and create more resilient, market-preferred crop varieties to meet global needs. The Program's focus on targeted geographic areas and user needs aims to prioritize and direct resources where they will have the most impact. The proposal could further strengthen its relevance by more clearly incorporating the essential role of local farmers and indigenous knowledge and prioritizing the development of orphan crops particularly in low- and middle-income countries (LMICs). The proposal's scientific **credibility** is strengthened by CGIAR's established comparative advantage, which is based on its human, physical and social capital, such as good global research infrastructure, advanced breeding technologies, and its extensive genetic resources. However, specifying how these assets are applied to specific cases and providing clearer strategies for partnerships to strengthen seed policies would further enhance the proposal. A well-defined Theory of Change supports the **legitimacy** of the proposal, linking goals with clear societal impacts. Nevertheless, the connections between program outputs, outcomes, and impacts need additional specificity. Tables with outcome statements and indicators provide helpful clarity, though a more explicitly farmer-centered approach would further strengthen legitimacy and foster adoption. The **effectiveness** of the Program could be amplified by addressing potential negative outcomes, expanding scaling methods (up, out, and deep), and fostering diversity to reduce the risk of monoculture vulnerabilities.

Sustainable Farming

The integration of three previous Initiatives, along with projections based on their combined vision, enhances and underscores the Program's **relevance**. The identified research and innovation topics are crucial, given the serious environmental and food insecurity challenges facing humanity. This relevance extends beyond CGIAR's goals to a global recognition that decisive actions are needed to address growing productive and environmental challenges. The proposal could be strengthened by considering water management in agriculture beyond irrigation (hydroponic, rainfed, with amendments, etc.) and emphasizing actions to promote healthier soils. The Program effectively articulates its rationale across the five Impact Areas, increasing the scientific **credibility** of the potential outcomes. By leveraging the knowledge, institutional advances and technologies of CGIAR and its partners, the proposed Program builds on valuable experiences from past Initiatives. To enhance **legitimacy**, the proposal should include farmers as genuine partners through a cocreation process, and better explain how gender and inclusion issues will be addressed in the Areas of Work. The proposal demonstrates a solid and detailed (albeit at times repetitive) comparative advantage in most activities. It also highlights effective linkages with other Programs to improve overall **effectiveness**, although it makes little reference to Accelerators.

Sustainable Animal and Aquatic Foods

The Program presents a holistic and well-elaborated vision, proposing transformative approaches in animal and aquatic food systems that are highly **relevant** to the Strategy. Through addressing key challenges in climate change, food security, and gender inclusion, the Program demonstrates the potential for significant impacts at scale, leveraging CGIAR's global infrastructure, expertise, and partnerships that demonstrate scientific **credibility. Legitimacy** could be strengthened by providing more specific examples of codesign and risk mitigation strategies. The Program provides a persuasive initial analysis of comparative advantage, identifying strengths and gaps, which should lead to greater **effectiveness** through new and/or strengthened partnerships. **Effectiveness** and scientific **credibility** could be enhanced through (a) better integration of regional priorities across Africa, Asia, and Latin America, and addressing some of the geographic and programmatic gaps; (b) ensuring work on resource management, biodiversity and tradeoffs and synergies in mixed farming and silvo-pastoral systems are more rigorously scoped and coordinated across all three partner programs (SAAF, Sustainable Farming, and Multifunctional Landscapes); and (c) identifying the synergies across the Productivity+ Work Area with One Health and nutrition components to improve the Program's coherence and impact. This is critical for **effectiveness** as improvements in productivity are most often achieved through integrating innovations in breeding/genetics, nutrition and health rather than pursuing stand-alone technologies.

Food Frontiers and Security Program

The Program addresses food and nutrition security by focusing on food, land, and water systems in three distinct at-risk areas. These include fragile and conflict affected areas, urban and peri-urban areas, and island food systems. Given the significant food system challenges in these regions and stakeholder priorities, this work is largely **relevant** to the Strategy, although the Strategy is silent on work in conflict zones. However, the specific challenges facing each of these distinct at-risk areas are vastly different, limiting the potential gains from housing all three under one program. The Program contemplates a significant investment in research in fragile and conflict-affected areas, where CGIAR has not operated previously. Reviewers worried about the scientific **credibility,** given the sketchy risk analysis and unconvincing comparative advantage analysis. Such analyses are particularly important in determining a new area of investment. The **legitimacy** of the proposed Program could also be strengthened by including clear connections to the current literature, substantiating claims about the gaps to be addressed. The prior engagement and existing capacity of the CGIAR in these three areas are quite heterogeneous, with the greatest limitations in fragile and conflict-affected areas. The eventual **effectiveness** of the Program could be hampered by the need to establish capacity and the inherent costs and risks involved.

Scaling for Impact

The Program's rationale and vision is clear. It addresses challenges that make it highly **relevant** to the Strategy and to the needs of beneficiaries, partners and funders. The Program's design is well conceptualized and innovative, with cutting edge research approaches in the science of scaling. Its scientific **credibility** is strengthened by a rigorous comparative advantage analysis. The partnership approaches to scaling, from local engagement to national integration, together with the Program's role as an integrator for impact across CGIAR, confers a high level of **legitimacy**. The Program is highly ambitious (62 million people benefiting and unlocking $5Bn in new investment), which is both a strength and a potential weakness. Without sufficient resources to establish and maintain partnerships there will be reduced **effectiveness,** risking the Program's **credibility.** To manage these risks particular attention should be given to (a) Feasibility (i.e., assessing the practicality of the ambitious Theory of Change and Areas of Work); (b) Realistic assessment of obstacles (i.e. evaluating obstacles to achieving impact, particularly institutional blockages and social and behavioral impediments to adoption at local scales); and (c) a rigorous risk assessment (i.e. conducting a thorough risk assessment with focus on mitigating risks to achieving the Program's outcomes).

Gender Equality and Social Inclusion

The Accelerator is highly **relevant** and well aligned with the Strategy. In terms of scientific **credibility**, the Accelerator's work on gender builds on a solid foundation from the previous Portfolio. This could be further strengthened by positioning the work within the global context of scientific advancements, not just within CGIAR. The attention to gender dynamics, including the engagement of men and boys, is limited. The sub-Area of Work on youth is important but does not appear to leverage state-of-the-art evidence. Focus on social inclusion and research methods is weak at best. To enhance **legitimacy**, the proposal—while strong in gender-related areas—shows less comparative advantage in youth and social inclusion. The Accelerator should seek equitable partnerships in areas where CGIAR's comparative advantage is weaker. Additionally, the proposal should address the issue of buy-in, both within CGIAR and externally, as achieving many of the stated objectives will require such support. **Effectiveness** is promising in terms of gender focus, but it needs to pay more attention to youth and social inclusion. Consider rebalancing the Portfolio to include more work focused on these areas and re-evaluation budget allocation accordingly.

Digital Transformation

The Accelerator addresses an urgent need across CGIAR for better data management based on contemporary technologies, confirming its **relevance**. The aim is to develop AI approaches, improve software architecture, and establish standards that are Findable, Accessible, Interoperable and Reusable (FAIR). While the motivation and outputs are commendable, stronger linkages between outputs (e.g., AI) and outcomes (e.g., improved agri-food resilience) are needed. Clear connections with other CGIAR Science Programs, key staff, and timelines in the four Areas of Work are essential. Specificity in resource allocation and scalability plans is also necessary. The Accelerator's scientific **credibility** is supported by its focus on developing and using advanced AI and robust software architecture. The Theory of Change needs to be more explicit, detailing how acceleration, support, and facilitation will occur. Potential risks and mitigation measures require more thorough consideration. The MELIA framework should be more action-oriented, and additional information on data security, ownership, and AI training is needed. To ensure **legitimacy**, the Accelerator must engage demographics with little previous exposure to such technologies, such as marginalized groups and the rural poor. It is crucial to give all stakeholders a voice, recognizing that some may need prioritization. More details on how cross-pollination with other Programs will occur are also necessary. Effective project management is vital, and more specificity in the Areas of Work would be beneficial. The Accelerator's **effectiveness** depends on achieving its intended outcomes. Improving linkages between outputs and outcomes, ensuring appropriate applications of technologies, and clear connections with other Programs are crucial. The Theory of Change needs to be explicit, and the MELIA framework should be action oriented. Addressing data security, ownership, and AI downsides is needed to enhance effectiveness.

Capacity Sharing

The Accelerator is a forward-looking proposal that aims to form strategic partnerships to tackle global food, land, and water challenges. By emphasizing mutual learning and capacity sharing, particularly with LMIC partners, it seeks to build essential technical and non-technical skills that support CGIAR's key objectives, such as innovation, gender equality, and sustainable development. These goals align closely with the Strategy, reflecting the proposal's strong **relevance** and strategic alignment. To strengthen scientific **credibility**, the proposal should clarify resource allocation and team expertise, especially on the overall coordination and linkages with the Programs and Accelerators. The Accelerator's three Areas of Work—including the Innovation Lab, Marketplace, and South-South and Triangular Cooperation (SSTC)—are well-conceived and demand driven to address fragmentation in CGIAR's capacity-sharing efforts. Its reliance on both internal and external reviews reinforces its **legitimacy** and underscores its alignment with CGIAR's emphasis on collaboration, scaling, and technology dissemination. Narrowing the broad scope through gap analysis and priority setting would enhance **effectiveness**, ensuring resources are directed to high-impact areas. Partner engagement lacks clarity, raising questions such as: was the Accelerator truly codesigned and how will the Accelerator add value to the delivery of capacity sharing beyond supporting the activities? The design appears somewhat externally driven, emphasizing passive resource distribution, which may not fully engage intended users. Addressing these aspects would strengthen confidence in the Accelerator's feasibility and success. Additionally, articulating concrete actions for the "decolonization of science" and defining progress indicators would improve its **legitimacy and effectiveness**, making the proposal more compelling and aligned with CGIAR's 2030 vision and funder expectations.

Genebanks

The role of Genebanks in addressing key impact areas in the Strategy is well described, particularly in nutrition, environmental health, and climate adaptation. The Asset has a wide scope covering 12 genebank collections and a diverse range of crop species making it highly **relevant** to CGIAR. Further work to identify and mobilize key stakeholders and clarify their roles and responsibilities, as well as how advances in sequencing and bioinformatics are used to support breeding is needed. The expertise in CGIAR for managing genebanks is strong and the outputs are appropriate but improvements to risk and MELIA frameworks are needed to enhance the scientific **credibility** of the proposal. The comparative advantage analysis highlights the global relevance and the importance of cooperation on technical issues such as common standards and protocols. Yet, more clarity on CGIAR's unique role in genetic resources, and further details on cooperation and outreach are needed. An analysis of operational costs should be conducted and opportunities for partnerships with national research centers and advanced research institutions explored. These aspects would further strengthen the **legitimacy** of the proposal. Good plans to adopt new technologies such as AI tracking and DNA fingerprinting of collections, as well as access and benefit sharing plans show the strength of the program, paving the way to its **effectiveness**. The theory of Change would benefit from better defined impact pathways and SMART goals.

5. Individual Proposal Reporting

All proposal review reports are presented in the following section. ISDC developed a consensus template for review teams to complete in coordination with an ISDC member. The template included a mix of qualitative commentary (e.g., review summary and actional recommendation(s) and three strengths and weaknesses) and quantitative consensus QoR4D scores. To provide additional information, the ISDC Secretariat developed figures to highlight QoR4D individual reviewer score variance and the resulting consensus score for each criterion. The review reports received light, technical editing for understanding and clarity.

The individual reporting is organized by type of proposal:

Science Programs	Accelerators	Asset
• Climate Action • Multifunctional Landscapes • Policy Innovations • Better Diets and Nutrition • Breeding for Tomorrow • Sustainable Farming • Sustainable Animal and Aquatic Foods • Food Frontiers and Security • Scaling for Impact	• Gender Equality and Inclusion • Digital Transformation • Capacity Sharing	• Genebanks

The summary of the scoring can be found in Annex 1.

5.1. Climate Action

Review Summary and Actionable Recommendation
The proposal promises a visionary Program focused on an existential global challenge. It has a clear and compelling R4D focus that addresses at least four of five Impact Areas. The emphasis on climate adaptation and mitigation is an essential element of a 21st Century CGIAR portfolio. Overall, the Program aligns well with the Strategy and priorities of many funders. It has a comprehensive set of stakeholders, which is a prerequisite for legitimacy, effectiveness, and impact. However, its research questions are rather generic and, given its appropriately wide geographic scope, would benefit from additional region- and country-specific research questions developed together with partners, especially partners that can strengthen the approach to social inclusion. Local knowledge and innovations arising from climate change impacts are only mentioned in passing. The proposal would also benefit from more attention to relevant R4D work already done by CGIAR and others in these geographies, which would appropriately complement a climate change vulnerability analysis that is cognizant of the local development status and goes beyond a focus on climate change impacts. The Theory of Change is clear and compact in portrayal of complex outputs, outcomes, and impacts, and yet would benefit from more critical assessment of assumptions and risks. Given the complexity of the Program, greater clarity on roles, division of labor, and funding allocation among partners would be helpful in assessing incentives to collaborate and prospects for success. Risk management needs to expand to address risks associated with outputs, outcomes, and intended impacts of specific activities. The MELIA approach lacks mechanisms for transparency, governance, and accountability needed to achieve adaptive management in a complex program.

Overall Strengths of Proposal
The proposal directly addresses existential challenges to vulnerable populations, has a solid scientific basis, and is comprehensive in framing its Areas of Work, outputs, and outcomes. Consequently, prospects for significant funding and continuity beyond the current timeframe are promising.
The proposed Climate Hub (AoW 1) is a key strength of this Program since the Hub could function as a gateway to enable adaptive management, learning, wide access to climate analytical capabilities, research syntheses, and sharing of knowledge and innovations. The Hub also has potential to support capacity building, not only in climate science but also inclusive innovation.
The proposed Program is ambitious and has the potential to accelerate action at scale—hence, it is compelling. If weaknesses below are addressed and mechanisms are put in place for organizational learning and adaptive management, there is a possibility of generating transformational change.
Overall Weaknesses of Proposal
Across the Proposal. Socially inclusive frameworks and approaches are mentioned at a general level in all Areas of Work, but the focus is largely on beneficiaries. To empower a greater diversity of people, it is important to include them in the cogeneration of knowledge and to respect and seriously consider their own sources of knowledge. This weakness is most apparent when it comes to Indigenous groups/knowledge (mentioned only in passing in this proposal). Taking this seriously would require epistemological changes, i.e., a major shift in the way knowledge is understood, acquired, incorporated and validated. Only then can a learning mindset develop, where CGIAR also learns from the people it seeks to benefit. This may be happening within some Areas of Work, but it would be good to see gender and social inclusion authentically mainstreamed at the Program level.
Section 5, Theory of Change, and Section 9, Prospects for Impact. The research questions are generic and global. To be relevant, actionable, and effective, these questions must be downscaled to reflect nuances of particular regions and countries, including a thorough and fine-grained understanding of the multiple causes for vulnerability. This should be a priority for the next phase of Program development and, indeed, could be an effective means of engaging partners. At the same time, important, relevant work by CGIAR and others in these countries should be drawn upon to inform Program design by acknowledging what previous research outcomes have achieved (drawing on insights from both successes and failures) and where the new initiative will pick up within specific geographies.

Section 11. MELIA Approach. Clarity is needed on how learning and adaptive management will be accomplished within the Program's organizational design, specifically regarding processes and mechanisms for transparency, governance, and accountability among partners. Regarding impact assessment: planning and budgeting for *ex ante* baselines is essential for valid *ex-post* impact assessment, yet baselines are not mentioned.

Areas of Divergence among Review Team and ISDC Resolution
NA

The reviewers scored each of the 11 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by previous research findings and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	2
Specific noteworthy activities include enabling uptake of climate information through bundled innovations; scaling locally-led adaptation and low-emission solutions; and an explicit focus on generating evidence to support public policy and financial sector innovation. As a basis for prioritization of activities, this Program could benefit from more specific *ex-ante* appraisal of the climate problems it intends to address, specifically which elements of total food system GHG emissions does it aim to influence and (relative to the total) by how much? This could then lead seamlessly into a root cause analysis of vulnerability, thereby increasing the chances of well-tailored technical and social innovations. Going forward, it will be important to seek an appropriate balance between centralized Program functions of coordination, synthesis, and support with the need for creation of devolved capacity and decision making within the regions supported by this Program.			
2. Evidence that the Science Program is demand driven through codesign with key stakeholders and partners (NARES, governments, farmers, private sector, funders) and research collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	2
The proposal indicates that it has consulted with more than 2,000 stakeholders from different countries and regions and through a variety of mechanisms. This extensive consultation of stakeholders (existing Initiatives, listening sessions, bilateral programs) is evident in the design of the Program, especially in the prioritization of supporting/scaling existing initiatives. But "listening sessions" do not equal "codesign" and it is not clear how codesign will be done after the program commences. Given the complex and uncertain domain of this program, developmental and participatory evaluation methods could be combined with MELIA and training programs to inform adaptive management and ongoing codesign.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	2
The Program clearly can leverage CGIAR's strong partnerships with governments and its track record in innovation. The partnerships included in this proposal reflect due consideration of where some of CGIAR's comparative advantage lies, for example, climate science capabilities, application of frameworks and methods for emissions and social assessments, global reach, and leveraging funding. The analysis of demand, innovation, and scaling partners for each of the high-level outputs is clear. However, for this to be successful, these partnerships need to be resourced and given agency in design. In other areas there is little evidence supporting CGIAR's comparative advantage. This could be addressed by, for instance, acknowledging and including existing			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
data generated by local actors. This should then be included in the comparative advantage analysis. Finally, there are many assertions—e.g., "a key player in shaping climate change policies;" "a strong position to collaborate with financial institutions;" and "a key partner in shaping international policies and processes;" which are plausible but neither evidence nor examples nor anecdotes are presented in support.			
4. Research questions address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	2
Megatrends are used effectively to frame research questions, prioritizing vulnerable regions and small-scale producers. Overarching research questions and research questions for specific Areas of Work—often phrased as "how can …"—are practical and problem-oriented, solving and filling implementation gaps. However, hypotheses and knowledge gaps are left implicit. It would have been helpful to ground these sets of questions and the implicit hypotheses and gaps in prior CGIAR experience and the broader literature, particularly the comprehensive literature arising from the IPCC. Indeed, the proposal treats its research questions as if they are being highlighted for the first time; the proposal would be more authentic if it built more clearly on what CGIAR, IPCC, and others already have done and what specific knowledge gaps remain, both regarding research and effective implementation.			
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	2
The Theory of Change appears clear and compact in portrayal of complex outputs, outcomes, and impacts, and yet would benefit from more critical assessment of assumptions and risks. Specifically, the "key assumptions" in section 5.5 are bland. Assumptions need to be realistic, relevant to Program outputs, outcomes, and impacts, and should be included in Fig 5.1. Both assumptions and Program risks (including those in section 13) need to be considered critically in the text. One implicit assumption—which is debatable—is that closing knowledge gaps will lead to appropriate changes at scale—what about administrative capacities, politics, and the political economy? Literature and experience strongly show that previous efforts have not "bent the curve" on emissions because of vested interests rather than lack of knowledge or capacity (financial and technological). Crucially, operational scaling approaches are not apparent in the overarching Theory of Change nor are these considered critically regarding risks and assumptions. The reviewers suggest that the Program team critically reconsider assumptions and develop a more realistic list of assumptions linked practically to implementation and scaling of the Program.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	3
Area of Work 2			2
Area of Work 3			2
Area of Work 4			2
Area of Work 5			2
Three of five Areas of Work form a solid (and innovative) core; the latter two (low emission transitions and policy and finance) are novel and ambitious in aspirations but need more critical thinking regarding the most promising pathways to impact. **1. Prioritization and coordination** are a key strength of the Program, with potential to contribute to: generating evidence to ensure scope for impact and relevance of actions; coordination across programs; building climate analytics capacity within CGIAR and partners; and to support policy and promoting gender inclusive approaches. Two-way communication with on-ground initiatives and MEL to track program results are essential to adaptive capacity and merit specific attention in Area of Work design and budgeting; this Area of Work also needs adequate funding to build regional capacity and avoid bottlenecks of centralized processes.			

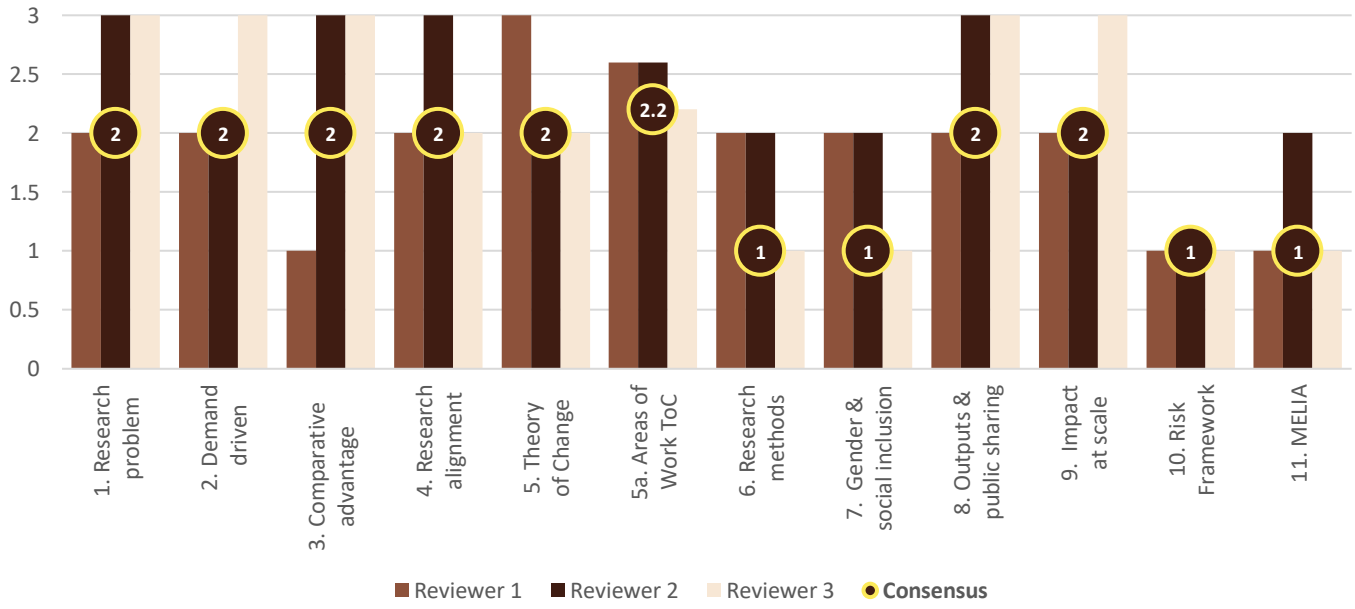
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
2. Climate risk management. Comprehensive, ambitious, and well-articulated activities, outputs, and outcomes are linked to important public- and private-sector users. While grounded in existing literature, a more explicit recognition of what previous Initiatives have done and where this Program picks up is needed. Bundling financial support (credit, insurance, safety nets) with climate advisories and early warning systems could be beneficial but raises questions about capacity to link providers and small-scale producers effectively. Here the issue of just transitions needs to be explicitly addressed to reduce the likelihood of increasing inequities even further. Expected collaboration between public agencies and private sector financial institutions may be overly optimistic within proposed timeframes and such a broad scope. **3. Local adaptation**. This is a core Area of Work, with potential for significant impact in conjunction with AoW2; it should receive a significant share of program budget. It is a well-articulated Area of Work where CGIAR clearly has strong comparative advantages. It is also innovative, especially regarding the very important proposed work on frameworks for ex ante analyses of potential maladaptation risks. Cross-scale coordination, governance, and accountability could be challenges and will deserve attention. Assumptions regarding adoption appear to be unrealistic given timeframes and extent of planned impact (8 million producers). Area of Work 3 has very high-level generic questions which seem to assume that there has not been much done already. It would be important to highlight which participating countries already have ongoing CGIAR work, and how such experience will be used to inform and advance work at new sites. **4. Low emissions transitions**. Outputs are described clearly, but scaling pathways are not clear and causal links to outcomes are not articulated clearly and may be unrealistic within the timeframe. For example, there is substantial evidence on limited feasibility of large-scale C sequestration on farms and in working landscapes (van Noordwijk et al., 2023); could these targets be overly optimistic? On the other hand, timing seems ripe for effort on methane mitigation. Surprisingly, there is no mention of trees, forests, and reducing deforestation driven by agricultural land use, why? And why is there no mention of energy efficiency and alternative energy in the food-fuel-water nexus (including cooling for perishables and for human survival)? Alternative energy is potentially profitable for these rural areas and also could provide benefits for women and girls regarding domestic water and cooking fuel supply in rural areas. Although this might require new partnerships, it is an important omission regarding food system transitions to lower emissions. **5. Finance and policy.** Aims and activities are innovative, clear, and link logically to intended outcomes. Although these are early days in Loss and Damage finance, support for development of this area could hold important opportunities. Two specific concerns: do CGIAR and partners have sufficient expertise in policy analysis, political economy, financial analysis, and social cost-benefit analysis to address real barriers to this approach? Second, and related to the first, is an unspoken assumption that there are many "bankable" projects languishing in agriculture and land use…is that true? Or could the proposal be placing too much confidence in private solutions and markets to address global public goods problems in this sector, which also includes sector-specific issues of impermanence, additionality, leakage, sink saturation, just transitions, and high transactions costs? How will issues of equity and justice be addressed? Finally, and most importantly, AoW5 requires much more explicit articulation of key uncertainties and risks, which obviously are central to finance and hence for feasibility of various instruments and mechanisms.			
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	Partly in 6	**Relevance** Effectiveness	1
Methods have not been described in enough depth to assess their feasibility or fitness. In particular, methods for adoption and scaling need to be described further. To the extent research methods are discussed, they aim to fill knowledge gaps but lack complementary capacity to understand contending interests and power imbalances. Additionally, there is mention of conducting work in conflict regions, but appropriate methods for conflict settings are not discussed anywhere.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
7. Research design and proposed implementation demonstrates genuine gender and social inclusion in both the research process and in its intended outcomes with explicit linkages to the Gender and Social Inclusion Accelerator.	11	**Legitimacy** Effectiveness	1
The proposal includes elements of social inclusion in Areas of Work 1 and 3, however this needs to be further embedded within and across Areas of Work to drive transformative change. For example, gender inclusive approaches are not only relevant for the end users or beneficiaries of innovations. It would be good to see more inclusive approaches being adopted in science and knowledge creation. This may require some awareness-building amongst scientists working in each of the initiatives. The inclusion of Indigenous group's voices and perspectives is lacking, having been mentioned only in passing. Indigenous groups worldwide are highly vulnerable to the impacts of climate change yet continue to be marginalized in most scientific approaches. What resources would be allocated to support efforts of non-CGIAR partners, including grassroots NGOs directly engaged with local and indigenous communities? Overall, one would have expected more attention to specific collaborative connections with the proposed Gender and Social Inclusion Accelerator both in the Theory of Change (Fig. 5.1 and narrative) and specific narratives on approaches to research and scaling.			
8. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident with a demonstrated focus on quality and impact relevance.	6	**Credibility** Effectiveness	2
Research outputs from each of the Areas of Work are described well and link clearly to the research questions. They explore qualitative aspects and are relevant to stated impacts. However, adoption pathways are not clear. It is therefore challenging to assess their effectiveness. One concern is that so much emphasis is placed on filling knowledge gaps without sufficient attention to conflicts of interest and power imbalances among key actors, which have been shown to have blocked progress on emissions reduction quite generally.			
9. Evidence that the Science Program will likely lead to impact at scale through approaches that drive inclusive innovation in research and partnerships, with explicit linkages to other Science Programs, Impact for Scaling, and Accelerators.	7, 8, 10	**Effectiveness** Credibility Relevance	2
Linkages to other Programs have been identified in the Theory of Change, but there is little evidence or discussion of how these linkages will produce impact. Given the complexity of the Program, greater clarity on roles, division of labor, and funding allocation among partners within the program would be helpful in assessing incentives to collaborate and prospects for success. The Program takes responsibility for scaling system-wide climate innovations, however approaches for scaling are not adequately elaborated in the proposal. Adding more detail on mechanisms for scaling could make the outcomes more credible and enable tracking of effectiveness and opportunities for adaptive management. The proponents may wish to consider strategies for "scaling deep"; it also could be helpful to distinguish measures (quantitative indicators) from outcomes (beneficial changes in behaviors, policies, and capabilities) with the aim of avoiding incentivizing actions focused exclusively on meeting specific narrow targets. (Moore et al., 2015).			
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	13	**Credibility** Legitimacy Relevance	1
The proposal states that this section will be completed during the inception phase, which unfortunately makes it impossible to adequately assess the risk framework. Some high-level external risks have been identified, but these are largely beyond the influence of the Program, while risks that are highly relevant for program development and			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
management are not addressed. Risk management needs to consider risks associated with outputs, outcomes, and intended impacts of specific activities. It also is important to consider region- and country-specific risks.			
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	9, 10	**Credibility** Effectiveness Legitimacy	1
The proposal also states that this section will be developed during the inception phase. A specific concern is that while monitoring, evaluation, and learning could be structured to support adaptive management and agile responses, and these learning feedbacks are likely to be decisive in success of these efforts, this has not been addressed in the proposal. Specifically, the MELIA approach described here lacks mechanisms for transparency, governance, and accountability needed to achieve adaptive management and agility in a complex program engaging numerous partners across a range of spatial scales. (Clark et al., 2016). Given the space allotted, the two paragraphs on impact assessment are too fragmented. A concern is that resources (funding, researchers' time) must be allocated at the Program's inception to create baselines/counterfactuals—without such baselines, which require real resources, a scientifically valid impact assessment typically is impossible.			

Additional Comments Not Presented Above
Links to the CGIAR Impact Area Environmental Health and Biodiversity are weak. As climate adaptation and mitigation in food, land, and water systems directly impact ecosystems and biodiversity, and vice versa, it would be good to see stronger connections to this Impact Area in the Theory of Change and elsewhere.

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 4 for full criteria definitions.



**Four consensus scores varied by more than 0.5 from the mathematical average. Please refer to criteria 1, 6, 7, and 8 above for the rationale behind these consensus scores, each with a variance of 0.67 from the mathematical average.*

5.2. Multifunctional Landscapes

Review Summary and Actionable Recommendation
The Multifunctional Landscapes (MFL) proposal is professionally written, aspirational, the need is clear, and the research questions will lead to impact if they are answered. However, the current proposal does not demonstrate how Areas of Work are integrated. For example, an executive summary should lead the Areas of Work on section 6. Areas of Work for general Policy (4), Gender (5), and Education (7) distract from the MFL specific objectives. It would make the work program clearer if these critical activities were embedded into fewer Areas of Work that focus on telling us how multifunctional landscapes would be developed. Revision of the Performance Assessment and Evidence Generation (Area of Work 6) would help explain how this work connects to Areas of Work 1, 2, and 3 to provide information on how different integrated systems or MFL will impact the future of agriculture. It is refreshing for a CGIAR project to work with bundles of solutions, in-ground demonstrations, and business models with a focus on creating evidence of change (Areas of Work 1, 2, 3, and 6). The need for the research program to work with private sector business models is clear. It is less clear how issues that are currently disorganized and lack common regulations such as carbon, ecosystem services and restoration markets, will be addressed. We recommend focusing on activities that will lead to clear recommendations for how MFL can be scaled and guide policies that promote these activities (with positive gender and education outcomes). The scale of the Program and how CGIAR centers will provide comparative advantage in section 4 should be clearly defined so that the MELIA is better able to track progress and recommend changes. The risk section is incomplete and difficult to evaluate, the document indicates that risk assessments will be developed later during the inception phase. This should be addressed.

Overall Strengths of Proposal
Focus on providing evidence that integrated systems will create new business models to replace development and the 'push for change' with a financial/economic "pull toward change" is refreshing.
Section 8 on the Boundaries and Linkages with Other Components of the Portfolio. The content therein clearly stipulates the linkages, the ambition/objectives for pursuing the linkages and the interventions to be implemented to achieve them. Recommend that a clear strategy for integration with other partners is presented in the Inception Phase.
6.4 Institutions and Policies is a strong section and it is critical to the success of the Program given the large assumption that landscapes can be managed for specific purposes. However, we still recommend that section 6.4 (policy), 6.3 (markets and businesses), and 6.2 planning and governance jointly develop an innovation system to inform more relevant and actionable solutions and innovations (compared to what it is offered in 6.1).

Overall Weaknesses of Proposal
Requires clarification on how Area of Work 6 "Performance Assessment and Evidence" may integrate outputs from Areas if Work 1, 2, and 3 that will be used for MELIA and quantifying their impact on Gender, Policy and Education outcomes. We recommend that Areas of Work 4, 5 and 7 be merged.
Section 6.7 on Global engagement and Learning. One key gap is that knowledge outputs are still defined/described generally, thus not based on the CGIAR definition and categorization of knowledge products. It is not clear how many knowledge products will be generated.
Some elements make 6.1 (Solutions and Innovations) a promising section. It has clear strengths in studying incentives and factors that enable actors to replicate and scale the proposed solutions. However, it seems to be a top-down approach to investigate agroecological, nature-positive, and regenerative agriculture ideas. Effective climate adaptation and mitigation strategies are mentioned, though these are undefined. Enhanced farm productivity is mentioned, though 6.1 does not acknowledge that for farmers to be more sustainable or nature-positive, they need to be profitable and able to manageable risks. These concepts should be included in this section and the program overall.

Areas of Divergence among Review Team and ISDC Resolution
Minor divergences in opinions discussed and resolved.

The reviewers scored each of the 11 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

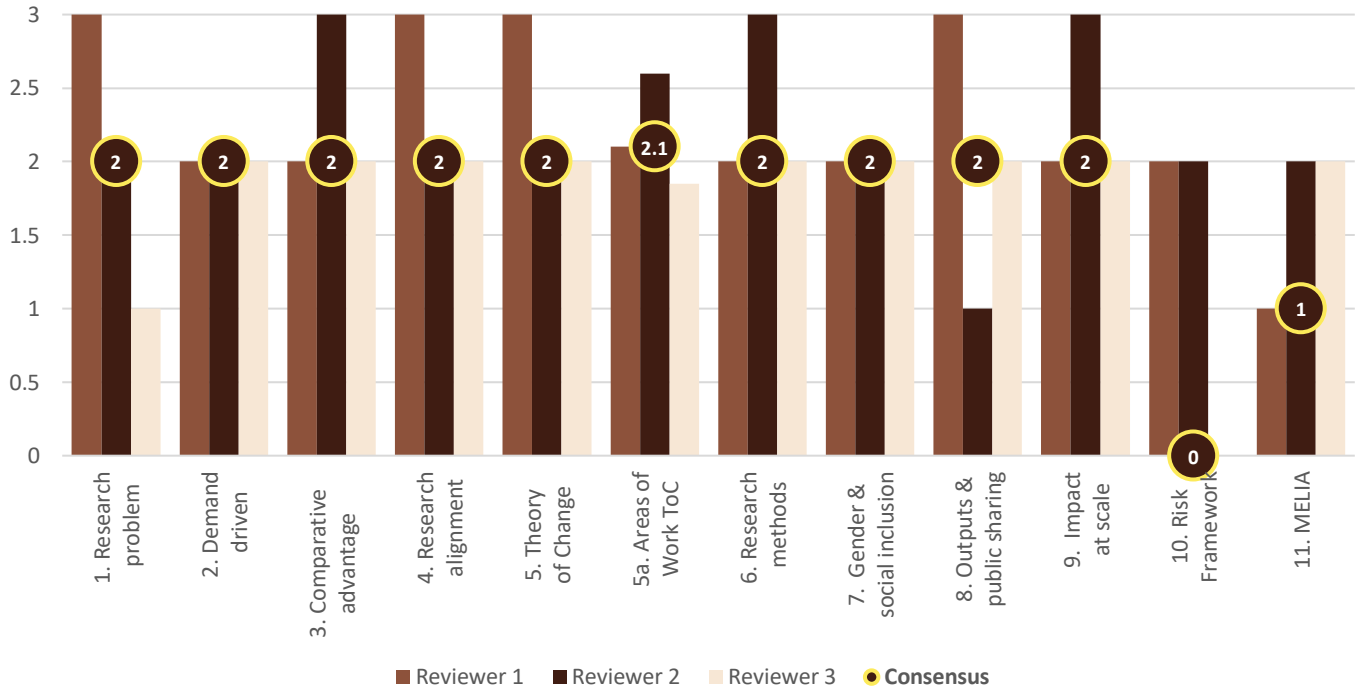
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by previous research findings and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	2
The problem is well-known and complex, the vision is highly ambitious, and the expected outcomes are highly optimistic. Greater clarity of how landscapes, different ecological systems and countries are prioritized is needed. Needs better reference to Theory of Change or Tables 6.1/6.2/6.3. Evidence on the value of the innovative solutions and innovations (6.1) needs strengthening. While the proposal is aligned with the Strategy and multi-funders priorities, examples of priority landscapes that will be the focus for research at the country and sub-regional levels would help clarify how the research problem will be addressed.			
2. Evidence that the Science Program is demand driven through codesign with key stakeholders and partners (NARES, governments, farmers, private sector, funders) and research collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	2
Evidence of need is clear in sections 1 and 2, but there is limited evidence of codesign or detail on what actual consultation has taken place beyond reference to CGIAR priorities. Specify how stakeholders other than the writing team contributed to codesign. Cross reference: Table 5 Partners and "landscape stakeholders" in Theory of Change; Table 7.2 in section 3; include list of stakeholders consulted. It will be useful to link key partners to specific roles and activities in section 6, for example, the partners providing the land for living landscapes that are the operational units for action research.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	2
The selection of priority countries and linkages across outputs is described but it is not clear why these were prioritized. And 'NEW' partnerships are not provided. The comparative advantage statement of CGIAR in delivering key outputs is clear and would benefit from listing specific partnerships needed to complement areas where CGIAR lacks capacity or capabilities were included. For example, section 6 proposes to work with crops and livestock across many countries, though no mention of CIMMYT or ILRI is made in the comparative or Theory of Change or how those skills will be resourced.			
4. Research questions address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	2
The research questions are not supported by research hypothesis. Clear linkages to megatrends are well articulated. Areas of Work: (i) Need to ensure system agronomy approaches suggested match tools and solutions to local conditions and provide comparisons with well tested approaches (conservation agriculture and sustainable intensification) across all demonstration/experimental sites (6.1); (ii) Research incentives for			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
technology adoption and change should be more central; (iii) climate adaptation technologies to be scaled within and between landscapes should be central to the whole program. 6.2 questions are important, define known gaps in understanding, and are critical to the overall success of the program. Research questions in 6.3 should take advantage of the opportunity to promote startups and small and medium enterprises. 6.4 will be critical for identifying incentives to assess policies within a more multidimensional framework. 6.5 questions focus on addressing a well-known problem. 6.6 could more clearly focus on needs for farmers to be profitable and have the ability to effectively manage risk. 6.7 research questions are unclear.			
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	2
Assumptions well documented with clear causal linkages in Theory of Change. There is need to articulate outcomes and associated indicators for resilient landscapes and to provide specific targets on poverty reduction. Consider reducing the number of Areas of Work to make the Program of work focus on MFL, which will make the Theory of Change sections clearer and less repetitive.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	1
Area of Work 2			3
Area of Work 3			3
Area of Work 4			2
Area of Work 5			1
Area of Work 6			3
Area of Work 7			2
Given the assumption that multifunctional landscapes can be effectively managed, Areas of work 2, 3 and 4 will be crucial to the Program's success. Well written content would benefit from a summary statement integrating across all Areas of Work to lead section 6. Feasibility of funding the management of real-world proof of concepts in Areas of Work 1-2, which will be critical to MFL, should be linked to Area of Work 3 creating self-sustaining business models. Existing business models in carbon, nature-based solution and ecosystem service markets should be engaged as well as linking this work to "financial institutions" (6.3). For Area of Work 3, there are no outputs/interventions targeted at addressing costs and benefit sharing from the business models implemented at landscape level, which may be addressed in Area of Work 4. Area of Work 4 could also focus on developing policies that impact gender (Area of Work 5) and education (Area of Work 7) to bring these three themes together into one Area of Work. Area of Work 6.6 provides tangible outputs that stakeholders may use to understand the impacts of MFL and linkages to data collected from Areas of Work 1, 2 and 3 should be made explicit. The lack of CGIAR collaboration questions the validity of section 4 on comparative advantage.			
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	Partly in 6	**Relevance** Effectiveness	2
As suggested above, identifying key partners for activities will help to ensure non-CGIAR capacity is available to support the delivery of on-ground activities. Consider systems and integrative/whole farm/landscape dynamic modelling and foresighting techniques to address the lack of evidence on the production approaches to be tested.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
7. Research design and proposed implementation demonstrates genuine gender and social inclusion in both the research process and in its intended outcomes with explicit linkages to the Gender and Social Inclusion Accelerator.	11	**Legitimacy** Effectiveness	2
The outcomes do not clearly highlight how gender will impact MFL. Incorporating a specific example of how gender will be addressed in each Area of Work rather than a separate Area of Work 5 is suggested. Though the Program does provide high level outcomes aiming to advance gender equality and inclusion.			
8. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident with a demonstrated focus on quality and impact relevance.	6	**Credibility** Effectiveness	2
There will be valuable learnings from research on institutional, policy, collective actions and business approaches to support positive landscape outcomes. However, here are no specific technologies or products proposed in 6.1. The knowledge outputs are defined/described generally, thus not based on the CGIAR definition and categorization of knowledge products. Nevertheless, each Area of Work includes a Table that explicitly describes "outputs and intermediate outcomes," which are rather general. The knowledge gaps are clarified in each Area of Work as a list of research questions, which are clear for Areas of Work 1-3 and 6.			
9. Evidence that the Science Program will likely lead to impact at scale through approaches that drive inclusive innovation in research and partnerships, with explicit linkages to other Science Programs, Impact for Scaling, and Accelerators.	7, 8, 10	**Effectiveness** Credibility Relevance	2
The linkages to other Programs such as Impact for Scaling, and Accelerators are encouraging. Avoid imposing agricultural production systems conceived for purposes secondary to food production and income on vulnerable farmers. The Identification and inclusion of key partners in this section provides evidence the program understands who is working in what countries, although there are many gaps. Summarize "Area of Work" and "Program and Accelerator collaboration" in table 7.2 as it is repetitive. Connectivity with other initiatives is clearly described in 8.			
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	13	**Credibility** Legitimacy Relevance	0
Changes should be implemented regarding value chains and associated business models. It is important that the environment and social safe-guards and/or environment and social impact assessments are in place to mitigate their potential negative impacts. This was difficult to evaluate as the document indicates that risks will be developed later during the Inception Phase.			
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	9, 10	**Credibility** Effectiveness Legitimacy	1
The MELIA and Impact assessments in Section 9.0, have clear objectives/ambitions, although it is not clear how this framework will be operationalized to capture progressive changes. This requires feedback loops to ensure that the Program can adapt. Linking Area of Work 1, 2, and 3 to 6 to summarize evidence that would be used for MELIA, i.e., the "Dynamic Spatial Decision-Support System" will provide a means to convert data into a quantifiable Impact Analysis. Including specific SMART targets and KPIs for areas to be transformed into MFL landscapes would be beneficial.			

Additional Comments Not Presented Above
A synthesis that clarifies linkages across Areas of Work would improve the proposal. Areas of Work 1-3 and 6 have clear objectives to develop evidence that MFL will improve livelihoods. Increasing the diversity of integrated systems that are evaluated in Areas of Work 1-2 (which may be merged) and providing clearer linkages to the business models of Area of Work 3 and data interpretation of Area of Work 6 may be achieved with a holistic review of the proposal. Focusing Area of Work 4 (policy work) on how change in specific Gender and Education issues will be affected and embedding Areas of Work 5 and 7 would lead to a more focused research program and clearer proposal. Budget and research priorities: Section 14 states that new activities will require 20% more pooled funding. Clarification of what research will be prioritized is needed if the requested budget is not forthcoming. Area of Work 1 describes long-term research covering several growing seasons/years to validate solutions. How will this inform other Areas of Work and is there scope to introduce new innovations from eg sustainable agriculture (new precision technologies for less inputs) or breeding for tomorrow (new seeds/vars for climate and disease resilience, low input crops)? Close connection with sustainable farming and other Programs and partners is needed to ensure the Portfolio is well integrated.

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 4 for full criteria definitions.



**Two consensus scores varied by more than 0.5 from the mathematical average. Please refer to criteria 10 and 11 above for the rationale behind these consensus scores, with variances of 1.33 and 0.67, respectively, from the mathematical average.*

5.3. Policy Innovations

Review Summary and Actionable Recommendation
This is generally a well-designed proposal. The high-level targets and research outputs are appropriate to CGIAR and of high priority to both funders and partners. It is highly consistent with CGIAR mission and clearly reflects extensive consultation with local and regional partners. The emphasis on integration/bundling, on local/regional contextualization, and on cross-scalar and cross-sectoral learning is especially appreciated, as is the explicit attention to research quality control. The 15 priority countries have been selected thoughtfully with appropriate attentiveness to the need to adapt the list over time. All the necessary ideas for innovative policy are here. One concern is how the Areas of Work will work together and whether there might be gains from some consolidation (e.g., of Areas of Work 4-5, perhaps moving the GEFE modeling to Area of Work 1 to ensure coordination among modeling efforts). A second fundamental concern is that an underlying premise of PIP's design seems to be that policy and institutional failures hold back sustainable productivity gains rather than a lack of contextually appropriate technologies. But does the CGIAR have a comparative advantage in institutional creation, design, change, etc., as opposed to its manifest strengths in technical agricultural research? One senses that there is latent recognition of the essential need for integration with other Programs that focus more on developing improved technologies and agronomic/natural resources management practices. More could be done to emphasize those connections better and to more thoughtfully and self-critically assess where CGIAR really has comparative advantage in institutional matters and where it needs to seek out and work with (including help fund) partners that do possess such comparative advantage.

Overall Strengths of Proposal
The Program is laudably demand-driven in each of the Areas of Work, clearly codesigned and based on stakeholder requests, and the future work plan rests heavily on collaboration and partnerships. This is taken further in the process followed to geographically prioritize funding. Given the policy focus of this Program, deep engagement with policymaking/advising clients is essential. Indeed, without substantive collaboration there is no purpose to this Program. Area of Work 5, building on IFPRI's network of country strategy programs and heavily leveraging bilateral funding, is especially central to the Program design. The Nigeria example of country integration is excellent. We caution that codesign is a time-intensive process. Hence, PIP needs to budget adequate resources to allow substantive, ongoing engagement in co-adaptation of Program priorities and strategies.
Integration. PIP explicitly aims to integrate *ex ante*, model-based forecasting, and impact evaluation (Area of Work) with *ex post*, design-based and mixed methods *ex-post* evaluation (Areas of Work 2-3), with a focus on synthesis and contextualized bundling of research results to inform local/national/regional deliberations and investments. Evidence is never enough to shape policy, however; an understanding of how to navigate the political economy of policy change and implementation is essential and made central through Area of Work 3. Areas of Work 3 and 6 exhibit great potential for cross-scalar approaches to supporting the other Areas of Work. If Area of Work 3 can feed findings on policy coherence and the political economy of decision-making into Area of Work 6 (e.g., through MELIAF-P), which can then coordinate with the country programs in Area of Work 5 and into the other AoWs, the likelihood of PIP's success will be higher. CGIAR has for too long looked for magic bullet solutions to complex problems faced by heterogeneous populations. The bundling approach makes sense, conceptually and empirically. This focus on integration and contextualized cocreation is exciting and welcome. These activities often run parallel to one another, inadequately integrated. PIP leadership will need to ensure ongoing integration across Areas of Work. But the structure positions PIP well to achieve impacts at scale.

The research gaps and priorities are generally well articulated. In each Area of Work the questions link directly to specific research activities. The emphasis on rapid response capacity within Area of Work 1 is appreciated because it is impossible to know ex ante what research gaps will emerge due to major, unforeseen events. The central research gap throughout PIP is the need for codesigned, co-evaluated bundles of institutional, policy, and technological innovations best fit for purpose to different national and agroecological contexts and credible political economy strategies to implement such bundles effectively.

Overall Weaknesses of Proposal

The risk framework is explicitly underdeveloped. This seems an important oversight. Given the heavy dependence on country and regional offices, especially in Area of Work 5, an obvious, big risk is that sociopolitical unrest makes it unsafe for staff to work in prioritized locations, and/or that national partners change and the relationship capital built up is completely lost. Several Centers—notably ICARDA, IFPRI, and AfricaRice—have prior experience with such risk. Careful thought needs to be given to how best to structure the portfolio of country offices and develop backup plans in the event of such sociopolitical risk. Further, the four mentioned risks do not include a basic core risk: the risk of inappropriate, unpopular, or biased policy advice. How will reputational risks be managed? What can PIP do to mitigate risks when providing policy guidance to elected or appointed stakeholders (e.g., if the VP of Nigeria loses the next election, what happens to the work the CGIAR has been involved with? What if CGIAR is scapegoated for unpopular policy advice)? How will PIP avoid duplication or policy incoherence across Areas of Work?

Coordination and collaboration across Areas of Work will be essential. There is a risk of duplication of effort, missed opportunities, or working at cross-purposes. The PIP Area of Work seems path dependent rather than intentionally organized. There is a great deal of overlap in skills (and to a lesser extent in topics and scale) across Area of Work making the risk of duplication or incoherence high. For example, Areas of Work 1 and 4 each have their own models (e.g., RIAPA&IMPACT and WEFE models). Relatedly, it is unclear what lessons have been drawn from the 2022-24 Initiatives. The Markets and Nexus Areas of Work directly follow on from Initiatives. But the narratives are extremely thin in description of methods and underlying theories of change.

There is a significant risk that CGIAR will invest in research in which it does not hold comparative advantage and will fail to establish high-return partnerships with best-in-class providers because the comparative advantage analysis is disappointingly superficial. The narrative declares rather than shows analytically that CGIAR possesses comparative. In particular, the analysis is strikingly silent on alternative suppliers of research on policies and institutions and in identifying areas of CGIAR relative weakness (see Appendix Table 2, in particular). This suggests insufficient awareness of non-CGIAR research frontier, which is surely far vaster (and in some areas, of higher quality) than CGIAR research. The inability to identify areas of relative weakness, where CGIAR should not invest, signals insufficient critical reflection and analysis, as CGIAR surely does not possess comparative advantage in all relevant areas of policy/institutional research. Little thought seems to have been given to identifying comparative strengths and how to pull in outside partners.

Areas of Divergence among Review Team and ISDC Resolution

There was limited divergence within the review team, mainly around the strength of the MELIA and GESI efforts and around Area of Work 1. We have achieved consensus in the statements below but acknowledge some heterogeneity in initial scoring.

The reviewers scored each of the 11 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by previous research findings and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	3
The framing around bundles of policies and institutions (and implicitly technologies) cocreated with local/regional partners to appropriately address local/regional FLW systems challenges resonates. This fits the 2030 Research and Innovation Strategy and multiple donors' priorities well and it builds on prior CGIAR research in an innovative way. The integrative products, like the annual outlooks from AoW1, are especially welcome. Lessons from the 2022-24 Initiatives are, however, less clear.			
2. Evidence that the Science Program is demand driven through codesign with key stakeholders and partners (NARES, governments, farmers, private sector, funders) and research collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	3
Consultation and codesign are essential to this Program; without it PIP will fail. This Program nicely builds on IFPRI's long, successful history of country-level program offices with deep and broad relationships with national and regional policymakers and non-state actors. Their influence on the design is obvious. Other CGIAR Programs would be wise to piggyback on this institutional and relational platform. Strong program of collaboration within CGIAR and outside of it is articulated appropriately. Smart to anticipate shifting the top 15 priority countries as circumstances (opportunities to influence policy, pressing need, security situation, etc.) evolve. We also register a small concern that codesign is not discussed as an approach for modeling in Areas of Work 1 and 4, although understanding end-users' needs and underlying assumptions is crucial to model acceptance. Program leadership also needs to give careful thought to stakeholder selection ("Being in the room privilege," Olúfémi Táíwò's piece). Strategic stakeholder engagement both creates buy-in and can improve the end product although it takes more time. Which civil society actors, businesses, and potential policymakers not in power, etc., should be engaged in codesign? What codesign practices will be used)?			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	1
Comparative analysis is disappointingly superficial, without providing any evidence to support the claims made. The narrative declares rather than shows analytically that CGIAR possesses comparative analysis. In particular, the analysis is strikingly silent on alternative suppliers of research on policies and institutions and in identifying areas of CGIAR relative weakness (see Appendix Table 2, in particular). This suggests insufficient awareness of non-CGIAR research frontier, which is surely far vaster (and in some areas, of higher quality) than CGIAR research. The inability to identify areas of relative weakness, where CGIAR should not invest, signals insufficient critical reflection and analysis, as CGIAR surely does not possess comparative advantage in all relevant areas of policy/institutional research. At this high level, it is important to identify others acting in this space. It may also be useful to provide some guidelines for how decisions to take or reject potential projects would be made at finer levels. Little thought seems to have been given to identifying comparative strengths and how to pull in outside partners. Perhaps CGIAR comparative advantage in PIP lies in its physical presence, relationships and convening power for national and regional dialogues? MELIAF-P (in Area of Work 6) could be especially exciting if it includes work beyond just that generated by CGIAR researchers.			
4. Research questions address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	3

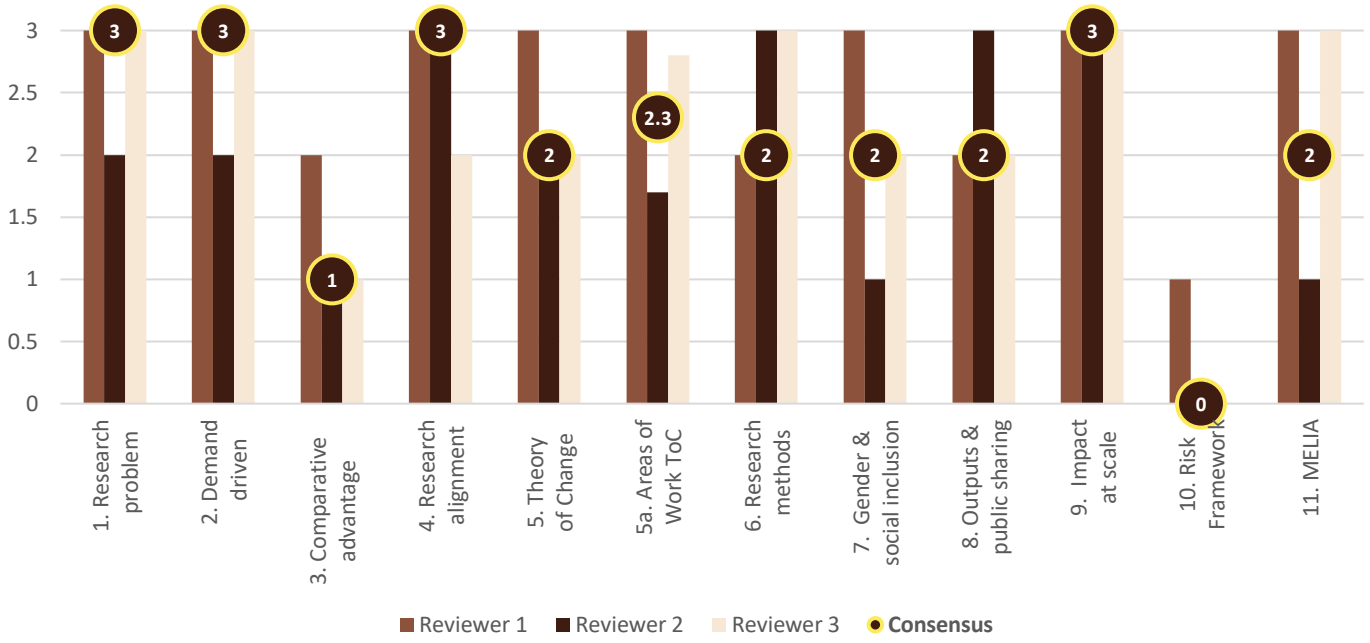
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
The research gaps and priorities are well articulated. In each Area of Work the questions link directly to specific research activities. Areas of Work 4 and 5 are clearly derived from the first three but focus on specific geographies. Nice recognition that global megatrends influence and are influenced by local manifestations, suggesting an awareness that local policy opportunities and priorities may deviate from global prescriptions. The emphasis on rapid response capacity within AoW 1 is appreciated. If COVID, the Ukraine crisis, etc., have taught us anything it is the need to have ever-ready *ex ante* models ready to support policy assessments. CGIAR is perhaps uniquely positioned to offer such policy-critical research related to FLW systems. The powerful concept of best-fit innovation **bundles is insufficiently threaded throughout the program design.**			
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	2
Overall, the Theory of Change looks fine as a big picture overview. The emphasis on research quality, codevelopment of research topics with local partners, integration of research findings to identify context-appropriate bundles, on how to leverage markets and market actors to advance inclusive, sustainable development, and on forward-looking analyses and programming are well thought through. The Areas of Work independently have a reasonable and clear Theory of Change. But it is unclear how coordination across the Areas of Work will occur in the Theory of Change. The Theory of Change does depend on the untested assumption that CGIAR indeed has comparative advantage in institutional and policy matters across the board, which seems a bit suspect as a claim, bearing in mind that the CGIAR is better known for its expertise in agricultural research.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	3
Area of Work 2			1
Area of Work 3			3
Area of Work 4			2
Area of Work 5			3
Area of Work 6			2
1. This is essential to CGIAR as a whole, not just to PIP. Emphasis on rapid response capacity is appropriate and welcome. Is it useful to collaborate explicitly with Area of Work 5 on downscaling foresight analyses from global to local (6.1.3.1)? If the local foresight documents are produced annually, is there a sustainability plan to build local capacity to engage in the downscaling? Will the annual information products be codesigned? Doing so could ensure that they answer the questions that stakeholders have and will increase their use. Research on evaluation and prioritization of forecasted futures (6.1.3.2) could be very valuable for stakeholders. Again, will these outputs be codesigned? **2.** The focus is on own resources in partnership, collaboration, etc. with others. What is missing is an appreciation of the knowledge generated by the CG itself of what works and what doesn't under different circumstances, and of parallel work by ARIs. There is scant reflection on methods and thus on quality control. **3.** Most of the examples in 6.3.3.1 focus on food, land, and water policies. But industrial, macro and other policies shape the FLW. It may be important to expand the analytical boundaries if the intermediate objective of a sustainable and equitable system is desired and if policy coherence is a research objective. The investment decision making (6.3.3.2) could be useful for Area of Work 2. The communities of practice (OP-3) might be useful on a country-level for Area of Work 5. The work on common pool research (OP-2) seems like it could be complementary to the WEFE work in. **4**. The Nexus approach of codesigning cross-scale and cross-sectoral policies is promising. But methods are insufficiently explained, which raises concerns about comparative advantage and research quality control. Further, it is not clear which intermediate outcomes will be a function of Area of Work 4 alone or in combination with other Areas of Work. Perhaps combine Areas of Work 4-5?			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
5. This is a major strength of PIP and its success will be crucial to the overall impacts of PIP. Understanding the contextually specific strategies and policy packages for transforming FLW is crucial research. There is little discussion of the potential learning from and interaction between institutions engaged in high-level planning across countries. Is it possible to build in more cross-country learning opportunities with stakeholders? This could help achieve OP1 and produce tools and recommendations on how other interested stakeholders could replicate this approach. **6**. Area of Work 6 is described as "light touch." That is of some concern as PIP is a complex, multicomponent program. Inadequate resourcing of Area of Work 6 could compromise learning across activities and geographies. Based on the proposal, PIEL and Nexus objectives appear quite similar. Can these be harmonized? As with Area of Work 4, some of AoW6's high level outputs appear to be part of other Areas of Work high level outputs. This suggests a need to clarify roles and responsibilities across Areas of Work.			
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	Partly in 6	**Relevance** Effectiveness	2
Especially for Areas of Work 2 and 4 it would help to know what specifically from the Rethinking Food Markets Initiative and the NEXUS Gains Initiative is useful and applicable. These two Areas of Work were rather thin on the research approach and methods. The other four were clearer and more compelling in advancing sensible research approaches with appropriate methods and supporting infrastructure.			
7. Research design and proposed implementation demonstrates genuine gender and social inclusion in both the research process and in its intended outcomes with explicit linkages to the Gender and Social Inclusion Accelerator.	11	**Legitimacy** Effectiveness	2
Linkages with Gender and Social Inclusion Accelerator are clear and gender is included throughout the Theory of Change figures. However, discussion of how gender and social inclusion are incorporated into research activities is more mixed (e.g., Areas of Work 1-2 do not mention gender in research activities). The proposal itself notes "gender equity and social inclusion…can frequently be crowded out; and subordinated…" (p. 70). This suggests a need not just for GESI to be part of the Theory of Change but also for there to be internal agreement on and coherences around GESI within PIP. In other words, the GESI research questions are primarily focused on the external PIP stakeholders ("GESI in multiple policy environments can be a contested arena") but it is also a contested arena within organizations. Within PIP, is there an agreed upon understanding of the role of GESI and whether/when (if ever) it can be subordinated in pursuance of other goals? This is not to say that all PIP work should be gender transformative but rather what are the minimum GESI standards? Does PIP plan to commit to creating gender aware or gender mainstreaming innovation agendas even when GESI is not a priority of cocreators or of demand-led policy?			
8. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident with a demonstrated focus on quality and impact relevance.	6	**Credibility** Effectiveness	2
The research outputs should fill important evidence gaps. That said, Areas of Work 2 and 4 are weaker than the others, both in demonstrating an ability to ensure research quality (and the methods and infrastructure to be tapped to ensure quality) as well as the sorts of questions to be explored. The emphasis on identifying bundles of innovations appeals. But how, more precisely, does one identify the synergies and tradeoffs that underpin the assessments? It will be important to build in resources and time to document cross-Areas of Work learning (about both successes and failures) around cocreation of bundles and about the political economy of those processes and their outcomes and impacts. In Area of Work 1 the outputs are well defined, but there is nothing in the discussion of methods to suggest that the outputs are measurable (or that they will be measured). In Area of			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
Work 2 the outputs are also clearly defined as far as the required institutional innovations are concerned, but not as far as WHAT are the demand-led innovations, especially in terms of the proposed bundling of innovations.			
9. Evidence that the Science Program will likely lead to impact at scale through approaches that drive inclusive innovation in research and partnerships, with explicit linkages to other Science Programs, Impact for Scaling, and Accelerators.	7, 8, 10	**Effectiveness** Credibility Relevance	3
Clear, explicit linkages to multiple other Programs and Accelerators. Especially strong linkages to national and regional partners that should ensure both inclusive design and greater buy-in to research findings to help promote policy and institutional innovation and diffusion. An important public good will be compiling tools and synthesizing lessons from the country-level programs for other stakeholders eager to replicate these processes. It may be useful for other CGIAR Programs and Accelerators if an Area of Work in PIP had a designated "help desk" or other less formal mechanisms for policy support.			
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	13	**Credibility** Legitimacy Relevance	0
This is explicitly underdeveloped. Given the heavy dependence on country and regional offices, especially in Area of Work 5, an obvious, big risk is that sociopolitical unrest makes it unsafe for staff to work in prioritized locations, and/or that national partners change and the relationship capital built up is completely lost. Several Centers—notably ICARDA, IFPRI and AfricaRice—have prior experience with such risk. Careful thought needs to be given to how best to structure the portfolio of country offices and about backup plans in the event of such sociopolitical risk. Even if such risks may evolve over the course of time, some justification should be given for your starting point. Further, the four mentioned risks do not include a basic core risk: the risk of inappropriate, unpopular, or biased policy advice. How will reputational risks be managed? What can PIP do to mitigate risks when providing policy guidance to elected or appointed stakeholders (e.g., if the VP of Nigeria loses the next election, what happens to the work the CGIAR has been involved with? What if CGIAR is scapegoated for unpopular policy advice)? How will PIP avoid duplication or policy incoherence across Areas of Work?			
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	9, 10	**Credibility** Effectiveness Legitimacy	2
The MELIAF-P initiative within Area of Work 6 is especially welcome. Throughout, there is appropriate emphasis on the need for both quantitative and qualitative IA methods. The link between Areas of Work 1 and 6 can create nice synergies on *ex ante* and *ex-post* IA, which are too often unintegrated. This Program could provide impactful innovation by combining model-based *ex ante* IA with design-based *ex-post* IA, using each to enhance the quality of the other and tell a synthetic story that can be very useful for policymakers. Given emphasis in Area of Work 1 on rapid response capacity, it will be important to include rapid impact assessment methods to track achievements in support of rapid policy response.			

Additional Comments Not Presented Above
This is overall an exciting proposal, with considerable potential to enhance CGIAR's capacity to generate useful policy and institutional change that results in favorable real-world impact. We flag several issues that merit more careful thought, attention, and perhaps resource reallocation across Areas of Work. But overall, this seems on track.

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 4 for full criteria definitions.



**One consensus score varied by more than 0.5 from the mathematical average. Please refer to criteria 6 above for the rationale behind this consensus score, with a variance of 0.67 from the mathematical average.*

5.4. Better Diets and Nutrition

Review Summary and Actionable Recommendation

The review team was concerned that the proposal template and the instructions provided to proposal writers are not aligned with the ISDC review template. As a result, the proposal template does not appear to allow sufficient description of the progress to date, how this phase builds on the previous phase, or adequate space for explaining the scientific aspects based on which scientific proposals are evaluated.

All reviewers agreed that this ambitious proposal addresses a very important area of high priority to stakeholders. The food systems approach that underpins the Areas of Work is compelling and provides a good foundation for achieving impact at scale. The team is strong and well-placed to deliver impactful research, with the example of Bangladesh demonstrating how a systems approach with long-term investments can be impactful. The attention paid to discussing cost-effectiveness is a strength. However, several shortcomings were also identified. Key shortcomings identified by multiple reviewers include:

- The extent to which prioritization of the research agenda was informed by demand expressed by stakeholders (beyond CGIAR) is not clear, and similarly the rationale for the choice of specific countries for focused work is unclear.
- The focus is on sustainable and healthy diets, climate change and other sustainability aspects receive too little attention in the proposal.
- The research questions outline broad, overarching goals and lack specificity. This may stem from the instructions provided to the writing teams. Including more details on the specific research being proposed and how it will be conducted would make it easier to evaluate the scientific aspects in greater depth. Lack of this detail made it hard to evaluate these aspects.
- Considering its focus, Area of Work 1 does not sufficiently put consumers at the heart of the Theory of Change. It also does not have sufficient detail on how it will approach the very challenging task of changing food environments and catalyzing food systems transformation.
- Areas of Work 2-3: There would appear to be significant overlaps between the agendas of these two Areas of Work, and it would be helpful to know how they interface and how synergies are maximized.
- Area of Work 5: The importance of leveraging complementary systems to maximize the potential of food systems to impact diets and nutrition is appreciated. Nevertheless, it is worth keeping in mind the centrality of a food systems focus for this funding, the comparative advantage of the CGIAR and to ensure limited resources are not spread too thinly.
- Area of Work 4 does not provide much indication of demand for and potential cost-effectiveness of the proposed new technologies. It also does not indicate whether and how the proposed technologies were co-created with country and other external stakeholders.
- There is not a sufficient up-front description of what has been undertaken and achieved by the multiple 2022-24 Initiatives and how that leads on to the proposed Program.
- While gender is well emphasized in the proposal, other aspects of social exclusion such as disability, indigeneity, etc., receive little attention.
- The comparative advantage analysis does not elucidate areas in the research agenda where CGIAR does not have apparent comparative advantage.

Actionable recommendations are:
-Strengthen the demand-led prioritization section, making clear the extent of external consultation and the rationale for country prioritization.
-Bolster climate change and other sustainability aspects throughout, including at Areas of Work workplans level.
-Bolster other social inclusion aspects throughout, including at Areas of Work workplan level.
-Revisit Area of Work 1, placing consumers more centrally into the Theory of Change and explaining more clearly how food environments can be realistically changed and transformation catalyzed.
-Harmonize and leverage overlapping Areas of Work (for example, on MSMEs and governance systems), and Areas of Work 2-3.

-Revisit Area of Work 4, with indication of demand, potential cost-effectiveness and co-creation aspects of the new biofortified varieties proposed.
-Consider including some material early on that captures the work of the 2022-24 initiatives and how that leads on to the proposed work.
-Consider reflecting further on areas where CGIAR comparative advantage is not evident, and on how this will inform partnerships.
-Include more details on the specific research being proposed and how it will be conducted

Individual reviewers have also made several additional suggestions that the drafting team may benefit from considering in a revision.

Overall Strengths of Proposal
The comprehensive food system approach to improving diet quality is a merit. The Areas of Work straddle the food system and are designed in a logistically consistent and synergistic manner, improving the prospect of achieving dietary improvement at scale.
Section 7.1 articulates a credible vision of how impact can be achieved at scale in the specific context of Bangladesh. By setting the future program in the context of long-term work in Bangladesh and the various team, capacity and relationship building investments that have been made, it makes it possible to see how convergence across AoWs can be achieved to deliver the ambitious targets.
It is good that the proposal integrates activities and research questions about cost effectiveness into some Areas of Work. This is often a part of research and testing that is neglected in CG research, and so strengthening this and demonstrating good value for money will increase the likelihood of these innovations being taken to scale. It would be good to have cost-effectiveness integrated even more significantly into the Portfolio, e.g. in *ex-ante* assessments for the suite of biofortified varietal developments proposed.
Overall Weaknesses of Proposal
The description of demand-led prioritization needs to improve. Firstly, it is not clear what process of consultation with broader partners and stakeholders (beyond CGIAR) was undertaken to prioritize Areas of Work components. Currently the emphasis in the description is on the process of topic selection "within" CGIAR. There is some brief indication of consultations and conversations in the Acknowledgements and a couple of other sections, but this really needs to be discussed up-front. Secondly, the rationale for prioritization of countries isn't clear. What was the rationale for the selection of the top 11 countries out of the 18? For example, why Vietnam where there has been longstanding investment and the indicators are mostly good, rather than other countries where the need may be greater? Perhaps a table listing the rationale for each shortlisted country might have been helpful. Furthermore, the majority of Areas of Work operate jointly in a small subset of countries, presumably the "five countries" targeted for high level outcomes in the overall Theory of Change—which are these and what is the rationale for their prioritization?
The focus on climate change and other sustainability aspects is lighter than expected, also reflected in the Theories of Change presented in the proposal. For example, content on climate and other sustainability dimensions is peripheral in sections 2.1 and 2.2. There is a required section on climate aspects in section 12, but that apart from this section, climate/sustainability is mostly sprinkled occasionally in the rest of the narrative. Section 5 notes that the research is not expected to meaningfully affect climate change indicators by 2030. For a proposal that leads with "Sustainable and Healthy Diets," a more substantial engagement with sustainability issues might have been expected.
Area of Work 1: Catalyzing food system transformation, politics and governance thereof, and the informal food environment is arguably the most difficult component of the Program. There is insufficient detail on how this will be achieved, how previous learnings will be applied, or case studies adapted. Considering the focus of this AoW, consumer level outcomes and an integration of consumers into the Theory of Change would be expected.

Areas of Divergence among Review Team and ISDC Resolution
The team, including the ISDC member, had a detailed discussion on the scores for section 5a, the Areas of Work Theories of Change. Two members felt that scores of 2 across Areas of Work would be appropriate (shown as the scores for 5a below) while two others felt that the scores should be lower. Nevertheless, all members of the team agreed that what matters most is that the comments provided for each Area of Work in section 5a are taken seriously (along with other comments in the review) and incorporated in a revision of the proposal.

The reviewers scored each of the 11 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

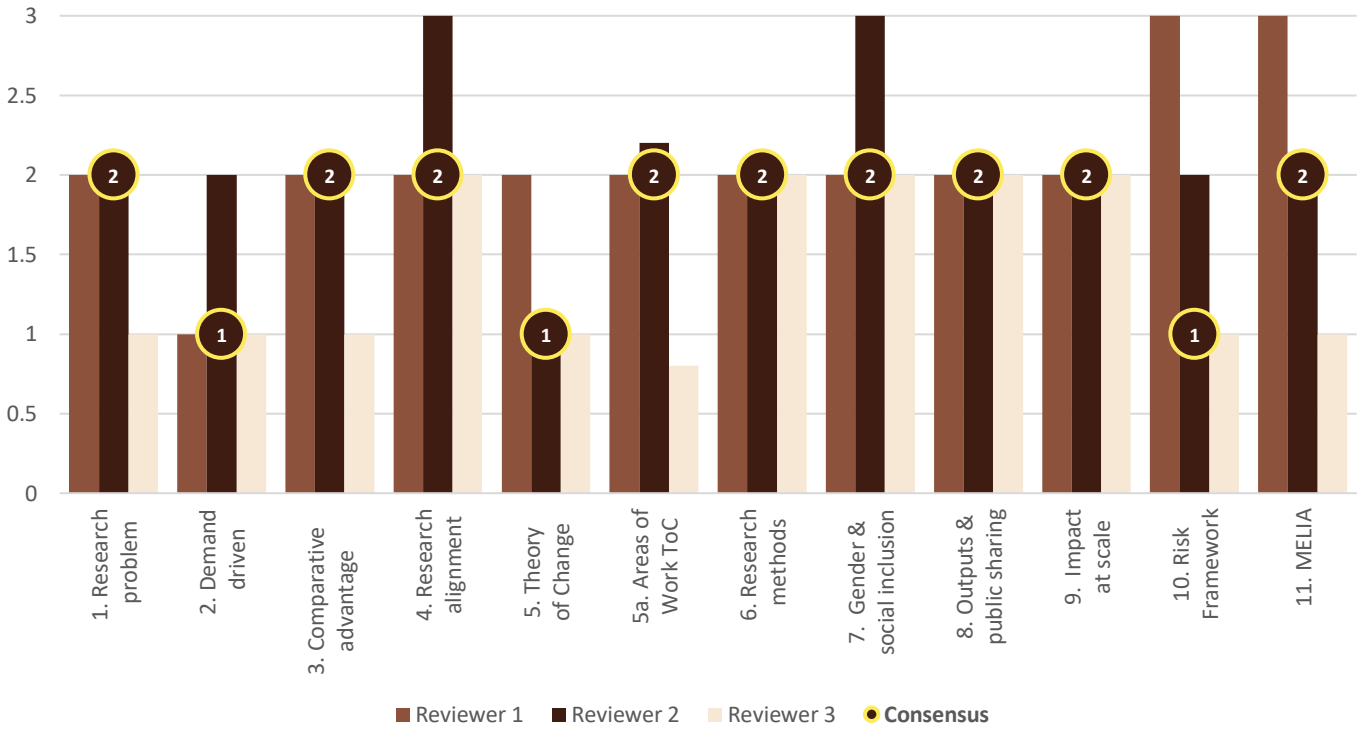
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by previous research findings and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	2
It is hard to grasp from the proposal what exactly was accomplished in the 2022-24 initiatives and exactly how that leads on to and links up to the new program described here. Climate change aspects, prominent in funder priorities and the Strategy, get too little attention here, as do the political economy context of the countries, including trends in insecurity and corruption.			
2. Evidence that the Science Program is demand driven through codesign with key stakeholders and partners (NARES, governments, farmers, private sector, funders) and research collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	1
There is little on proposal codesign with broader stakeholders, beyond describing the process "within the CGIAR" where topics and geographies were determined following an online process. Fuller details on consultations and collaboration with external partners and stakeholders on drafting proposal ideas would have been helpful. Even in the country selection, there is insufficient information on process and rationale. For example, there is insufficient information on how the "top 11" were identified, and why some countries are in (e.g., Vietnam with mostly good indicators) while others with a potentially strong case are out.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	2
The comparative advantage analysis lists CGIAR comparative advantage as "high" or "medium" in all HLO areas. While CGIAR comparative advantage is evident in many areas, there are important parts of the agenda in which this is much less the case (e.g., UPFs; New Product Development). A more discerning comparative advantage analysis would help ensure there is greater emphasis on forming good partnerships and making more efficient use of limited resources.			
4. Research questions address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	2
Although the overall criterion received a 2, climate change is not a focus of this proposal and is not well explicated.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	1
It is not clear from the overall Theory of Change as to how the ambitious outcomes will be achieved within the indicated timeframe. The underlying assumptions are not explicit and are likely to pose a significant constraint to achievement of outcomes. In particular, numerous pre-requisites and complementary investments must be in place at country level (e.g., rigorous food control mechanisms and facilities) to realize the gains from the research. Also, the geographies for which the overall Theory of Changes are applicable are not clear. Achieving the High-Level Outcomes relating to population-level dietary change will take most Areas of Work operating synergistically within a country, but many countries have only a couple of AoWs planned (and therefore much rests on successfully catalyzing research from elsewhere). Furthermore, consumers appear as passive agents in the Theory of Change even though key outcomes relate to them, and climate change aspects are downplayed.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	2
Area of Work 2			2
Area of Work 3			2
Area of Work 4			2
Area of Work 5			2
Area of Work 6			2
Although the score is indicated as a 2 across all Areas of Work here, it must be noted that the group comprising review team + ISDC member was divided on this (please see box on divergence), with some in the group feeling the score should be lower. Regardless, all members of the group agreed that the proposed program has much to gain from making a serious effort to improve the Areas of Work plans and Theory of Changes based on the comments below. Across all Areas of Work: All Areas of Work need to better articulate key assumptions, climate aspects, scaling potential, key indicators, links to higher level outcomes and social inclusion. There is also inconsistency in indicating outcomes across AoWs. Some have number of countries or % of population affected in 2030 outcomes, while others don't. It is not clear that there is a rationale for the varying styles. **Area of Work 1.** The Theory of Change should clearly indicate consumer level outcomes considering the focus of this Area of Work and clarify the innovation in consumer-facing solutions. This AoW also underestimates the extent of the dysfunctionality of the food system and will require more in-depth understanding of the moving parts and their actors and consumer needs/wants. **Areas of Work 2-3**. There would appear to be significant overlaps between the agendas of these two AoWs, and it would be helpful to know how they interface and how synergies are maximized. **Area of Work 4**. Additional evidence (given investment made to date) is required of consumer and business demand and efficacy for the large number of new biofortified crops proposed—in other words, is there ex-ante evidence that these are likely to be cost-effective in target geographies? It is also important that the new technologies proposed under this Area of Work are cocreated with country stakeholders and discussion is provided of such cocreation. **Area of Work 5**: The importance of leveraging complementary systems to maximize the potential of food systems to impact diets and nutrition is appreciated. Nevertheless, it is worth keeping in mind the centrality of a food systems focus for this funding, the comparative advantage of the CGIAR and to ensure limited resources are not spread too thinly.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	Partly in 6	**Relevance** Effectiveness	2
Although this gets a 2, the score is based on the profile of this work to date rather than based on this proposal. The proposal has insufficient detail to score this, as the methods are just very broad lists.			
7. Research design and proposed implementation demonstrates genuine gender and social inclusion in both the research process and in its intended outcomes with explicit linkages to the Gender and Social Inclusion Accelerator.	11	**Legitimacy** Effectiveness	2
Social Inclusion aspects could be strengthened throughout the proposal, including at Areas of Work and research questions levels, with incorporation into research questions. While gender equity receives attention in the proposal, aspects such as disability, youth and indigeneity are hardly visible, although in many countries in the program these other equity aspects pose significant challenges to better diets and nutrition.			
8. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident with a demonstrated focus on quality and impact relevance.	6	**Credibility** Effectiveness	2
The research outputs are clearly articulated and most of them are appropriate and show knowledge gaps that exist. Areas of improvement include limited articulation of quality, gender, social inclusion and climate sensitivity. Occasionally the output descriptions are pretty basic, e.g., just "Multisectoral Programs and Policy Options" for Area of Work 5.6 on Multisectoral Programs and Policies.			
9. Evidence that the Science Program will likely lead to impact at scale through approaches that drive inclusive innovation in research and partnerships, with explicit linkages to other Science Programs, Impact for Scaling, and Accelerators.	7, 8, 10	**Effectiveness** Credibility Relevance	2
The Bangladesh example provides a good illustration as to how impacts can be achieved at scale through sustained multisectoral investment. It is less clear how the program aims to achieve large scale impact in countries where only a couple of Areas of Work are operational. Also, achieving impact at scale requires country stability and sustained commitment from national budgets—which target countries can offer this?			
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	13	**Credibility** Legitimacy Relevance	1
The risk framework currently does not address mitigation aspects at all, although it is recognized that this may arise from proposal instructions.			
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	9, 10	**Credibility** Effectiveness Legitimacy	2
The tools, methods and processes for MEL proposed here are relevant and well described. Areas for improvement include providing a more detailed picture of the actual process that will take place to ensure effective adaptive management and learning occurs. Impact assessment description is strong, with good articulation of the priority high-level indicators. Good approach to have a separate suite of impact assessments at the Areas of Work and individual study level, and broader impact assessment in integrative countries.			

Additional Comments Not Presented Above
The team felt that it would be good if there were some kind of accountability mechanism in place that would follow up on the comments made in this review (and reviews of other programs) and examine how they are taken up in the inception phase and beyond.

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 4 for full criteria definitions.



** One consensus score varied by more than 0.5 from the mathematical average. Please refer to criteria 10 above for the rationale behind this consensus score, with a variance of 1.00 from the mathematical average.*

5.5. Breeding for Tomorrow

Review Summary and Actionable Recommendation
Support and empower the Breeding Networks. Continue advocating Advanced Breeding Technologies integrating cutting-edge ones such as AI, allele mining, genomic tools, and advanced digital infrastructure such as GloMIP. Always emphasize exactly the ouputs and outcomes, which are envisaged, bearing in mind the vision for 2030 and all that entails including climate change, food and nutritional security. The use of modern data collection methods, modeling and analysis techniques can lead to substantial advances in agricultural development improving productivity and sustainability. Continue with the market-driven approach as market intelligence will lead to the development of varieties that meet consumer demands resulting in higher adoption rates. Always bear in mind the importance of aligning with national breeding targets as this can contribute to global food security and economic sustainability for smallholder farmers, particularly in the designated regions (LMIC). Bear in mind that the CGIAR has unique opportunities, as outlined in the analysis of its comparative advantage, while working with local stakeholders and partners, to improve the lives of countless individuals.

Overall Strengths of Proposal
Breeding Resources description and Theory of Change are very well expressed, embracing partner support and empowerment, equitable access, shared services, modern tools and sustainability. Logical, clearly explained with outputs and outcomes, and a clear vision for 2030. The strong wish to support and empower the Breeding Networks is visible and impressive, even "between the lines."
Advanced Breeding Technologies integrating cutting-edge breeding technologies, such as AI, allele mining, genomic tools, and advanced digital infrastructure like GloMIP, is a significant strength. These tools not only accelerate the breeding process but also ensure that more resilient and market-preferred crop varieties are developed to meet global challenges. The Program's emphasis on incorporating modern data collection, modeling, and analysis techniques is a forward-thinking initiative.
Market intelligence and Market-Driven Approaches are impressive. The proposal presents a highly convincing approach to the target, design, develop, deliver, evaluate and foster the adoption of products that are in-demand, gender-intentional, impactful and feasible. This strategy ensures that the new varieties not only address agricultural productivity and resilience but are also economically viable for farmers and traders. Alignment with national breeding targets and focus on key crops, including "opportunity crops," can result in significant improvements for smallholder farmers and contribute to global food security.
Overall Weaknesses of Proposal
Breeding Resources and Data Quality Risks: Sharing breeding resources and IT platforms is well-intentioned but raises concerns around data quality and security. With more users outside CGIAR contributing data there is a risk of data degradation, incorrect entries, or even misuse. Furthermore, successful implementation will require significant investment in change management and training. Security risks need to be addressed.
The overall Theory of Change illustration (Fig 1) lacks alignment with the 22 high-level outputs (Table 1) and needs better synchronization to be credible. Integration with other Programs is missing from Fig. 1.
The proposal's focus on standardized crop outputs poses risks of monoculture with all the attendant risks. It should consider how to incorporate more diversified crop varieties tailored to specific environmental and market considerations. Leveraging both generative AI and analytical AI could allow CGIAR to support polyculture leading to greater resilience. Smallholder farmers could then command higher price premiums by offering more specialized as well as diverse crops.

Areas of Divergence among Review Team and ISDC Resolution
NA

The reviewers scored each of the 11 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores and consensus. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by previous research findings and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	3
The 5 Impact Areas are clearly articulated. The proposal clearly addresses major megatrends including, among others, climate resilience, nutrition and human health, and the need for poverty reduction and income generation. More details could have been given regarding different funding strategies, as well as the "gender-intentional systems approach" and the "viable pathways out of conflict and migration." There is an emphasis on LMIC which is appropriate, including geopolitical instability-related challenges. The alignment with the Strategy could be made more prominent.			
2. Evidence that the Science Program is demand driven through codesign with key stakeholders and partners (NARES, governments, farmers, private sector, funders) and research collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	3
This Program targets "impactful geographics and user needs," seeking to identify areas with the lowest 35% impact and reallocate these resources to the top 25% impact. However, more acknowledgement could be given to the crucial role of the NARES and farmers and their local knowledge which should be integrated with modern tools to enhance adoption. While targeting "the highest scale for potential impact," care must be taken to include the most vulnerable and poor. More detail could be given to the methods of the implementation of "co-creation and co-testing."			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	3
The comparative advantage of CGIAR is well articulated and includes its global research infrastructure, publicly available breeding materials and vast genetic diversity in germplasm banks, and access to advanced breeding technologies. This is a general comparative advantage, however, and may not apply to each individual case. Specific opportunities should be continuously monitored to ensure this comparative advantage is leveraged. More clarity could be given to how the transformational partnerships will be implemented to advance the seed sector's policies and practices.			
4. Research questions address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	2
The research questions and hypotheses are clearly stated but could be improved by being more quantitative and giving clarity to how they can be tested. For instance, research question in the Program-level Theory of Change as shown in fig. 1 seems to be too general and not clearly actionable. For example, "How do breeding network actors innovate and strengthen their research…?" is answered with "Breeding network actors increase uptake of quality products in priority market segments." In addition, potential negative outcomes and time frames could be discussed.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	2
The Theory of Change in fig. 1 is effective in discussing the overarching goals of this proposal and the intended effects on society. However, the details are not clear. For instance, the links between outputs, outcomes, and impacts are not clear, with the large arrows from "Areas of Work" to "High-Level Outputs" and "2030 Outcomes" to "Impact Areas" being too unspecific. In addition, integration with other Programs is missing. Fortunately, Table 2 helps to clarify many of these problems as it includes Outcome Statements, Partners, Assumptions, and Indicators. In addition, the individual Area's of Work Theory of Changes add clarity to the overall Theory of Change, as discussed on pages 60-64.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	3
Area of Work 2			2
Area of Work 3			2
Area of Work 4			2
Area of Work 5			2
1. MARKET INTELLIGENCE is a robust and important area with tremendous impact potential. The integration of foresight modeling for climate, crops, and pests/diseases enhances its capacity to effectively target, design and deliver products. Areas that could be included are substitute meat, crops that support the biome and urban climate-controlled farming. Does a focus on maximum RoI risk reducing the benefits for the poor? **2. ACCELERATED BREEDING** is a major strength of this Program. Is there a reason (other than policy restrictions imposed by a group of funders) for not including GMOs? Maybe not now but what about in the future when they might become a necessity? Farmer organizations are not listed as partners in the PARTNER/TRANSFORM high-level output. **3. INCLUSIVE DELIVERY**. This is a strong point in this proposal. Missing, however, is the dimension of linking smallholder farmers to markets. Lack of market access by the most vulnerable farmers can result in constraint for variety adoption. **4. The BREEDING RESOURCES** Theory of Change is very well articulated but might hold risks (see section 10). **5. ENABLE**. It is not clear why ENABLE is a necessary part of this proposal. The added value and essential contributions of ENABLE should be made more explicit.			
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	Partly in 6	**Relevance** Effectiveness	2
The research approach and methods seem fit for purpose, innovative, ambitious and feasible, building on the comparative advantages of the respective partners. The digital infrastructure tools are well defined and developed with special mention to the IT technologies that will be used. Good to see the envisaged feedback loops and the increasing recognition and inclusion of NARES in the Program's responsibilities. However, a more explicitly farmer-centered approach would be desirable, recognizing the value of local knowledge alongside modern tools to effectively target improved crops and varieties. Perhaps a little more experimental details could have been included.			

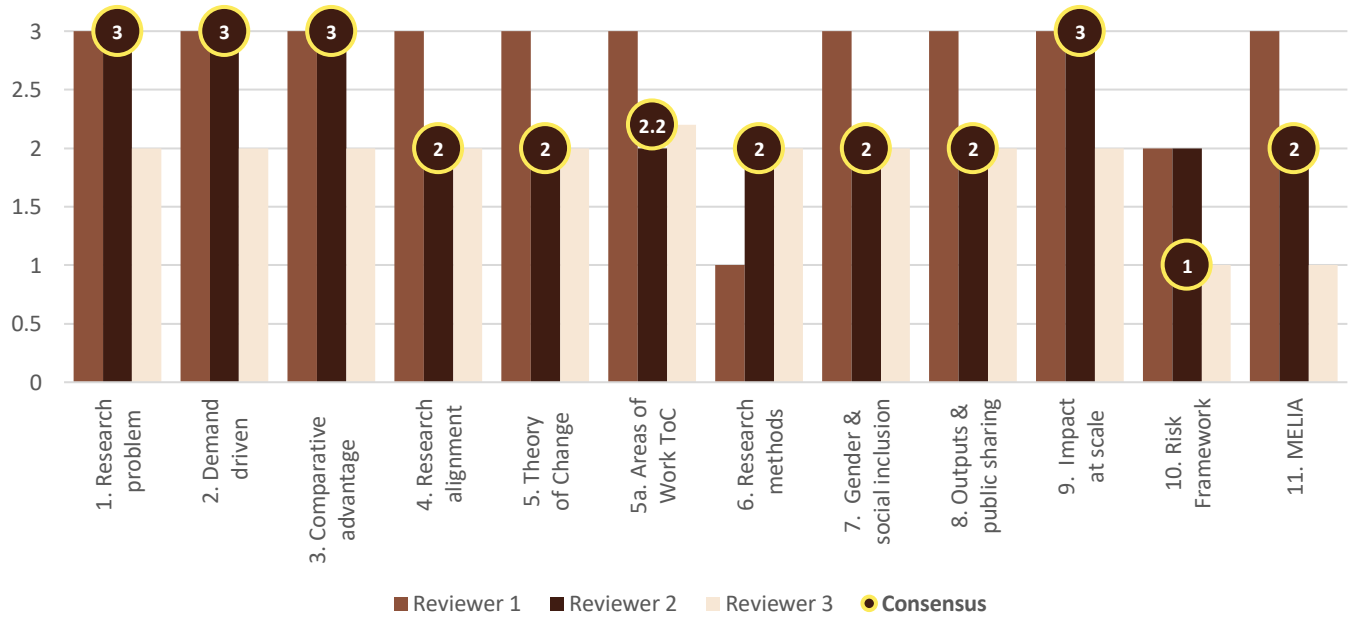
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
7. Research design and proposed implementation demonstrates genuine gender and social inclusion in both the research process and in its intended outcomes with explicit linkages to the Gender and Social Inclusion Accelerator.	11	**Legitimacy** Effectiveness	2
These are notable goals for this Program and could, and should, succeed. They are well covered in the proposal, but they face considerable hurdles and there should be a plan to address these. By lifting those who have been historically excluded there could well be a pushback from those who may feel as if they are losing their relative positions of power, wealth, respect and overall dominance. There is evidence suggesting that the rise of extreme political movements is partially driven by a perceived loss of power and status among groups who historically held social, economic and political dominance. Despite the unjustness of this stance, it would be well for this proposal to include consideration of how to deal with such situations. Additionally, CGIAR should have an active "influencer strategy" to support their work and to shape acceptance.			
8. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident with a demonstrated focus on quality and impact relevance.	6	**Credibility** Effectiveness	2
Outputs are clearly described with an excellent description of those that are anticipated in relation to climate resilience, nutrition, market-preferred crop varieties, advanced digital tools, improved indicators, as well as strategies for integrating gender and social wellbeing. Perhaps too much concentration on building standardized crops for rapid growth and expansion, which could result in certain alleles becoming too dominant in a monoculture leading to susceptibility to diseases, climate changes etc. Rather use a more resilient approach using a variety of similar traits but from various sources leading to greater crop diversity. Stronger farmer participation in all stages of crop improvement could strengthen this.			
9. Evidence that the Science Program will likely lead to impact at scale through approaches that drive inclusive innovation in research and partnerships, with explicit linkages to other Science Programs, Impact for Scaling, and Accelerators.	7, 8, 10	**Effectiveness** Credibility Relevance	3
The impact of scale factor is listed and explained through various examples. The Program works with 107 countries in a market-driven approach that is likely to lead to higher adoption. It will expand its coverage in the revised Portfolio to include vegetable crops, neglected species, tree and agroforestry, and animal breeds. Linkages include Better Diets and Nutrition Program, Multifunctional Landscapes and Sustainable Animal and Aquatic Food Programs. The question is, how to assure these linkages? CGIAR could benefit from the introduction of three models of scaling: scaling up, scaling out and scaling deep. It could explore how to foster all three to enhance their impacts.			
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	13	**Credibility** Legitimacy Relevance	1
Overall, this is a very strong Program and should be implemented. However, significant risks have not been addressed. First is change management which will require heavy investment in time and energy (1$ needed for every dollar spent on the IT system and as much as $3 for newer, complex AI models suggested). Second is time and energy of key CGIAR personnel needed to expand the system, possibly delaying other needed advances. Third are data quality issues as new data may be entered by non-CGIAR personnel who are harder to manage. One could even suggest a scenario where data could be used to engineer a bioweapon! Data access control and security should be a priority in system sharing.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	9, 10	**Credibility** Effectiveness Legitimacy	2

The MELIA approach will be managed by dedicated full-time officers and monitored regularly. Data collection is aligned with the key elements of the Theory of Change, which could be improved with better monitoring for other unintended outcomes, political instability, urban framing, displacement and the integration of generative AI tools for monitoring. One problem is that it is not clear at what stage various people will become involved in the process, and those who are supposed to benefit will be associated. An early assessment should be whether the new varieties are appreciated by the target farmers or not. More information could be given regarding the feedback loops among the various Areas of Work. For example, How MARKET INTELLIGENCE, ACCELERATED BREEDING, INCLUSIVE DELIVERY and BREEDING RESOURCES are related to learning opportunities.

Additional Comments Not Presented Above
It is important to address what is new in this Program, as well as how it builds on previous Initiatives. What successes are being built upon and how will this program help in this process? Continuation of what has gone before is important, and if mistakes were made to ensure they are not repeated. On p. 6, the last paragraph details some of the improvements the program aims to achieve. However, to do so, the section starting on p. 60 (Boundaries and linkages with other components of the Portfolio) will need to be strongly adhered to. This will ensure the linkages lead to specific actions. It would be important to do this if we don't want to be facing the same or similar problems in 10 years' time.

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 4 for full criteria definitions.



** One consensus score varied by more than 0.5 from the mathematical average. Please refer to criteria 10 above for the rationale behind this consensus score, with a variance of 0.67 from the mathematical average.*

5.6. Sustainable Farming

Review Summary and Actionable Recommendation
The proposal outlines a new Program that integrates activities from three previous Initiatives. It effectively articulates the Program's justification and potential impact across all five Impact Areas. By leveraging the knowledge, institutional advancements, and technologies of CGIAR and its partners, the proposed Program draws on valuable experiences from past Initiatives. The emphasis on packaged bundles, interdisciplinarity, data and digital tools, cross-cutting issues, and robust delivery mechanisms is commendable. The proposal showcases a strong comparative advantage in most activities, stemming from existing partnerships, human resources, and facilities. Additionally, it highlights effective linkages with other Programs to enhance overall effectiveness. However, the proposed outputs would appear more credible if they referenced achievements from previous Initiatives. The proposal should be strengthened by describing and including farmers as genuine partners. Some Areas of Work lack an adequate description regarding the cocreation process. More explicit details are needed on how gender and inclusion issues will be addressed in most Areas of Work. Additionally, there is insufficient consideration of water management in non-irrigated agriculture in the relevant Areas of Work and the proposed actions to promote healthier soil require further clarification. Risk analysis was largely missing at all levels of the proposal.

Overall Strengths of Proposal
The proposal presents evidence that the Program is demand-driven through codesign with key stakeholders and partners, including governments, NARES, organizations, the private sector, and research partners within and outside CGIAR. The Program addresses farmer and community needs through cocreation principles and systems integration. It makes a compelling case for investment in a holistic approach to developing solutions. The deployment of joint actions is essential to codevelop and validate a stream of integrated agronomic, plant health, and farming system solutions, catalyzing adaptation and scaling through a coherent approach to data management, prioritization tools, capacity sharing, and partnerships built around contextualized demands.
Throughout the proposal, there is an exciting emphasis on data, AI, and digital tools for harnessing farmer knowledge, expertise, and market information. This focus on data and digital tools is particularly evident within the Areas of Work (Section 6), especially when addressing climate change. CGIAR is well-placed and resourced for this kind of data generation, handling, and sharing. The project's design allows for much of the data gathering and synthesis to be done by farmers, as they codesign smart apps and upload photos, stories, data, agreements, resolutions, maps, and more.
The proposal shows a sincere comparative advantage analysis (Section 4 and within Areas of Work), including the private sector, academia, and NARES partnership, each with its own role in contributing to the desired outcomes, building an interconnected network deployed in several regions. Comparative advantage is based on the ability to organize and coordinate joint development and to scale solutions, addressing the needs of smallholders for technologies and innovations at farm level, with a key role catalyzing the integration among key stakeholders.
Overall Weaknesses of Proposal
Potential risks are not clearly assessed in alignment with the Theory of Change. The proposal mentions climate change risks and stakeholder conflicts due to the merger of the initiatives in Section 10 but lacks a comprehensive risk assessment for the rest of Areas of Work. While the Program identifies challenges in climate-resilient farming and proposes mitigation strategies through Area of Work 1, it fails to highlight significant risks elsewhere. Although a thorough risk analysis is planned for the inception phase, it is disappointing that key risks influencing research prioritization were not identified at this stage.
An area needing further consideration is how the proposal describes highly diverse farmers and farming practices as relatively homogenous and in need of supply-side solutions from experts. While there is some mention of codesign and the role of farmer-facing services and support organizations as the primary mechanism for effecting change, many entries do not sufficiently emphasize farmers (and their service suppliers) as real partners. Additionally, there is an assumption that farmer-facing services will readily adopt new bundles and technologies, but this needs further unpacking and detailing.

While the research design is supported by relevant literature showing evidence of social and gender inequalities in agri-food systems, the inclusion and gender-responsive approach appears diffuse in the proposal and greater details on incorporating this issue is needed in many Areas of Work. The main strategy to address these issues is linking with the Social and Gender Inclusion Accelerator, which includes team specialists to support this work at the Area of Work level. Drawing on lessons learned and successes from previous initiatives in addressing these issues could help strengthen the emphasis needed for these topics.

Areas of Divergence among Review Team and ISDC Resolution
NA

The reviewers scored each of the 11 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

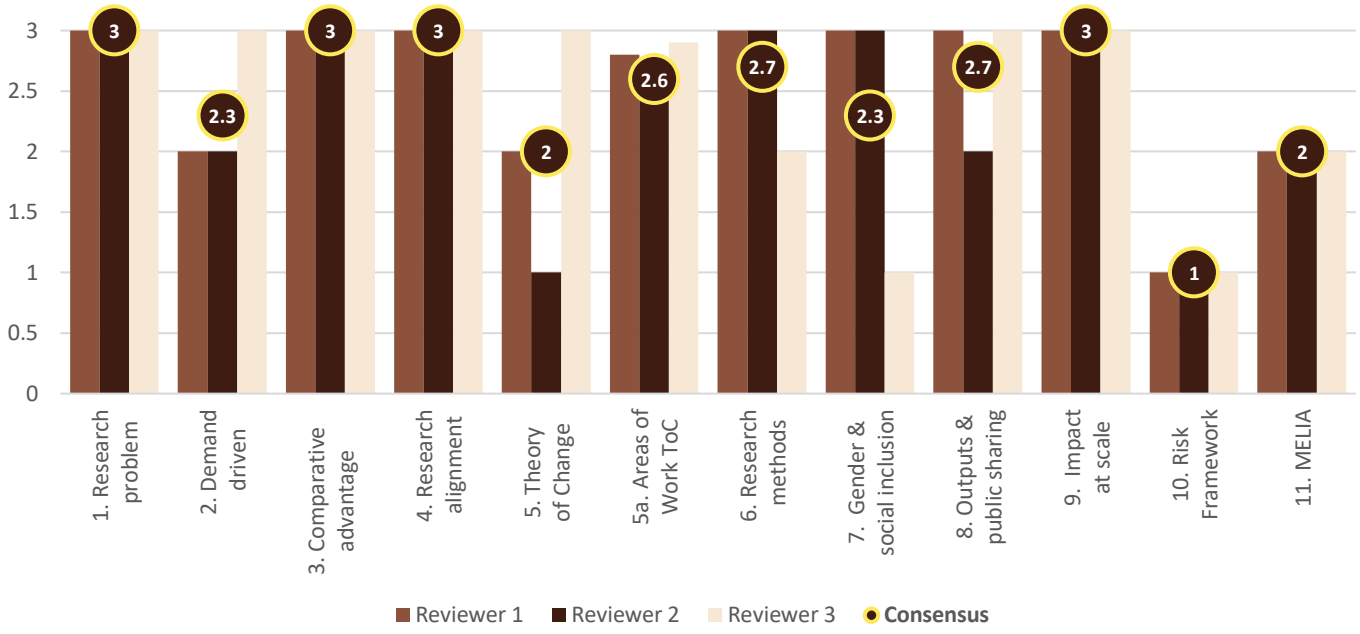
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by previous research findings and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	3
The proposal addresses the high priority challenge of sustainably and equitably increasing the productivity and production of millions of hectares of farmed land, without creating negative environmental externalities. It seeks to develop and disseminate science-based socio-technical innovation packages to help farmers redesign their farming systems. It is well-considered and designed, will address all Impact Areas and is aligned with the Strategy. The Program combines three Initiatives and will build on many of their activities, networks, and personnel. However, new geographies and emerging pests should be given due consideration when prioritizing activities during the inception phase.			
2. Evidence that the Science Program is demand driven through codesign with key stakeholders and partners (NARES, governments, farmers, private sector, funders) and research collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	2.3
The proposal explicitly indicates the codesign mechanisms and provides evidence of being demand driven, codesigned with key stakeholders and partners, and seeks to leverage public, civil society, and private sector capacities and investments. This is most clearly articulated for Ethiopia, where there had been a greater concentration of CGIAR activities prior to proposal development, but less so for other geographies. There is concern that farmers are not always described as partners in the codesign process, but as recipients of its output. Mention of how the program might respond to emerging issues, such as a new pest, is suggested.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	3
At a high level, the proposal describes an honest and comprehensive comparative advantage analysis. It clearly explains why the CGIAR is the only organization globally with the resources, ability, and willingness to tackle farming in this holistic, multi- and cross-disciplinary, well-informed way. CGIAR has a strong track record of catalyzing integration among key stakeholders. At the Area of Work level, not all Areas of Work have adequately described their comparative advantage analysis.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
4. Research questions address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	3
At all levels of the proposal, research questions and objectives are aligned to address evolving demographic, environmental, economic, and social challenges, encompassing emerging megatrends. Climate change issues are clearly considered and supported throughout, both as an affected sector and as one responsible for its own environmental footprint. However, research questions could be more descriptive regarding the social and economic factors that impact farmers' ability to use and deploy existing and developed knowledge.			
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	2
The Theory of Change is well conceived, with intended outputs, outcomes, and impacts clearly summarized. The Theory of Change demonstrates its relevance to, and aligns with, the Program. It involves engagement and dialogue with key stakeholders at global, regional, and national levels, facilitated through articulation between Areas of Work, spheres, and impact areas. Quantified outcomes are well articulated alongside clusters of activities. However, there is limited discussion on how existing farming systems were conceived and specific proposed outcomes were determined. Including a comparison of work aims with those achieved in the previous cycle of Initiatives would be beneficial.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	2.7
Area of Work 2			3
Area of Work 3			2.7
Area of Work 4			3
Area of Work 5			2
Area of Work 6			2.3
Area of Work 7			2.7
Area of Work 8			2.7
Area of Work 1 – All aspects of the Theory of Change and the role of partners are well described, with evidence that the Program will build on existing activities and partnerships from previous Initiatives. It outlines an ambitious program of work but does not reflect the challenges of delivering climate-resilient farming that meets diverse objectives for both adaptation (e.g., surviving drought) and mitigation (e.g., permanently sequestering carbon). Including specific examples of previously developed climate-related agronomic interventions would be helpful. How do these interventions differ from existing agronomic recommendations? **Area of Work 2** – There is evidence that this Area of Work will build on previous activities and partnerships and is responsive to emerging challenges such as soil acidification. It identifies precision nutrient management using innovative technologies already in use in the global north. Additional information on how AgWise was used and its impact in previous Initiatives would strengthen this section. **Area of Work 3** – This Area of Work is high on ambition but low on details and problematization. Aiming to deliver healthier soils with more organic matter across a large area in the semi-arid and humid tropics, where SOM content is low/variable and SOM oxidation is high, will be incredibly difficult. More spatial consideration is needed in this Area of Work. Furthermore, the authors seem not to recognize this uphill challenge. This Area of Work needs greater details on actions that will be taken to improve soil health. Since this Area of Work will have less existing information and expertise to draw on, additional details on key research partners, methods, and models			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
developed elsewhere would be helpful. Though the importance of soil health should not be marginalized, a comparative advantage analysis is needed to clarify why this work should be pursued by CGIAR. **Area of Work 4** – This Area of Work addresses an exciting area of plant health, capturing some of the innovative advances possible in this field. Research activities will build upon existing networks and previous Initiatives, with a strong and convincing comparative advantage. This area of work would be strengthened with a plan on how it might respond to emerging pests (e.g., a new disease outbreak). **Area of Work 5** – It is unclear why most proposed work for non-irrigated environments is not part of Area of Work 1 and/or **Area of Work 7,** given the Program's emphasis on integration. Most interventions for water management will likely include extensive crop-related agronomic recommendations. The comparative advantage could be strengthened with more specific information on other actors. The details of appropriate water stewardship and management are quite thin and idealistic. **Area of Work 6** – The heading for Section 6.6.1 does not adequately describe the proposed activities. It is unclear whether this Area of Work will develop new SAMs, adapt existing ones, or simply write SOPs for them. There should be a clear link between the SAMs developed by the program, their impact at the farm level, and the factors inhibiting their adoption. If the development of post-harvest equipment presents a significant opportunity, it is unclear why it should be excluded at this stage of the program's development. The proposed approach to farm mechanization appropriately incorporates ideas of affordability and the development of business models. **Area of Work 7** – This Area of Work seeks to develop and test methods used in bundling interventions, building on experiences from a previous initiative. There is good attention to upscaling and cocreation, but more could be done in this regard as mentioned elsewhere in this review. The linkages between this activity and other AoWs could be strengthened, and the proposal should clarify how this Area of Work differs from Area of Work 1. **Area of Work 8** – There is logical justification for including this Area of Work and how it will provide vital support to the other Areas of Work. The emphasis on digital management of the program, monitoring inputs and outputs as agronomic gains, is entirely correct. Potential linkages with other CGIAR programs were identified and proposed. This Area of Work should have its own evaluation indicators to avoid dilution within other Areas of Work.			
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	Partly in 6	**Relevance** Effectiveness	2.7
The research methods are considered relevant, appropriate, and innovative. The research builds on previous Initiatives and will be implemented by an interdisciplinary team that is distributed globally and well-equipped to codesign solutions. The integration of various research methods with data science and citizen contributions is commendable and will facilitate scaling-up. CGIAR is particularly well placed and resourced for this kind of data generation and handling. The sensitive issue of the willingness to share data among partners is not fully addressed nor is the special effort needed to adapt integrated management strategies to different geographies, climates, or cultures at the farm level.			
7. Research design and proposed implementation demonstrates genuine gender and social inclusion in both the research process and in its intended outcomes with explicit linkages to the Gender and Social Inclusion Accelerator.	11	**Legitimacy** Effectiveness	2.3
The proposal describes how gender and social inclusion will be integrated into the research process. The link to the Gender and Social Inclusion Accelerator and the inclusion of gender specialists on the research teams will guide this effort. More specific details on how the program will mitigate the well-documented gender gap, as well as improve prospects for youth and socially excluded groups, are suggested. Including lessons learned and impacts from gender and social inclusion efforts in previous initiatives would be helpful. The appeal for more dedicated resources within the Program towards this activity to ensure success is noted.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
8. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident with a demonstrated focus on quality and impact relevance.	6	**Credibility** Effectiveness	2.7
Although anticipated research outputs are described and quantified, it is difficult to determine exactly what the proposed outputs might look like at the farm level from this high-level overview. Furthermore, the listed outputs of the proposal would appear more credible if there were indications of how these numbers were determined and how they compare to the types of achievements in previous initiatives. Surely the proposal's thinking and evidence should be sufficiently advanced, building on decades of research, to know what solutions are realistic and will be tested, and what solutions might bring unforeseen consequences.			
9. Evidence that the Science Program will likely lead to impact at scale through approaches that drive inclusive innovation in research and partnerships, with explicit linkages to other Science Programs, Impact for Scaling, and Accelerators.	7, 8, 10	**Effectiveness** Credibility Relevance	3
The Program clearly describes how innovative collaborative approaches, mechanisms for establishing partnerships, cooperation with other programs and accelerators, and building on activities of previous initiatives can lead to significant impact. The activities of CGIAR in Ethiopia are used as a compelling example. It is less clear how these collaborative, integrated research efforts will be undertaken in countries where CGIAR has a limited presence. The link with other Programs and accelerators to achieve effective scaling and impact is explicit. The Program's comprehensive strategy for capacity sharing will ensure there is adequate capacity to undertake the necessary research while building strong partnerships.			
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	13	**Credibility** Legitimacy Relevance	1
The risk management section is incomplete, focusing mainly on the operational risks associated with integrating the three previous initiatives. Surely, other risks should be considered as part of the risk analysis proposed during the Inception Phase. Although we were informed that this section will be expanded later, it would have been appropriate to see a more comprehensive list of the types of risks, even in general terms, that will be considered later. Risk should inform the entire research process, from priority setting to farmer impact.			
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	9, 10	**Credibility** Effectiveness Legitimacy	2
The leadership of MELIA will be nested in Area of Work 8, enabling a real-time system to assess progress. The emphasis on testing whether interventions generate impact and how to adjust them for further roll-out is commendable. The role of farmers in MELIA needs to be highlighted, as does the impact of activities on non-technical outputs such as institutional strengthening and community infrastructure. The robust Capacity Sharing plan should ensure uniformity in approaches and data collection across partners. Impact assessment should be designed to mitigate the risk of stakeholders' unwillingness to share data.			

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 4 for full criteria definitions.



**No consensus score varied by more than 0.5 from the mathematical average.*

5.7. Sustainable Animal and Aquatic Foods

Review Summary and Actionable Recommendation
The Sustainable Animal and Aquatic Foods (SAAF) Program presents a holistic and well-elaborated vision, proposing transformative approaches in animal and aquatic food systems that align with the Strategy. The Program aims to address key challenges such as climate change, food security, and gender inclusion, and demonstrates the potential for significant impacts at scale, leveraging CGIAR's global infrastructure, expertise, and partnerships. The proposal could be enhanced by providing more specific examples of codesign processes and risk mitigation strategies. The Program would benefit from better integration of regional priorities across Africa, Asia, and Latin America, and addressing some of the geographic and programmatic gaps. Additionally, there are opportunities to more fully integrate the Productivity+ work area with One Health and nutrition components to improve the program's coherence and scalability. This is critical as improvements in animal and aquatic productivity are most often achieved through integrating innovations in breeding/genetics, nutrition and health rather than stand-alone technologies. **Actionable Recommendations:** 1. Include more concrete examples of stakeholder codesign and feedback integration to strengthen the demand-driven approach. 2. Expand geographic and programmatic scope, particularly in underrepresented regions like Central and Southern Africa, which will require additional prioritization in the 20 focus countries in the proposal. 3. Improve integration between Productivity+ and the One Health/nutrition areas to foster more inclusive and systemic innovation.
Overall Strengths of Proposal
Comprehensive Vision and Approach: The SAAF Program is built on a strong, well-articulated vision that integrates technical, environmental, social, and economic dimensions. It directly aligns with the Strategy and has the potential for substantial impact across its multiple objectives. The proposal demonstrates a systematic use of CGIAR's resources and partnerships, with the capacity to scale innovations effectively.
Gender and Social Inclusion Focus: The Program's focus on gender and social inclusion, particularly through the Gender and Social Inclusion Accelerator, is one of its key strengths. The efforts to address gender-specific barriers and ensure marginalized communities have access to innovations and opportunities are commendable. This integration ensures that the Program is not only impactful but equitable.
Strong Technical Capacity and Infrastructure: The proposal leverages CGIAR's comparative advantages, such as advanced laboratory facilities, partnerships with national and international institutions, and interdisciplinary expertise. This infrastructure, combined with the program's focus on innovative technologies like genomic solutions, digital platforms, and data systems, positions it to deliver impactful outcomes.
Overall Weaknesses of Proposal
Lack of Concrete Codesign Examples: While stakeholder consultations and demand-driven approaches are discussed, the proposal lacks concrete examples demonstrating how stakeholder feedback directly shaped program design. Providing tangible case studies or examples of feedback integration would significantly strengthen the proposal's credibility.
Geographic Representation and Focus: The proposal focuses on certain problems in certain geographies. This follows past CGIAR work but doesn't necessarily present a clear vision as to why problems that may be similar across regions are addressed in only one place. Likewise, there are some regions, particularly in Central and Southern Africa, that are not represented. Expanding the program's scope to ensure more equitable regional representation would enhance CGIAR's impact in these regions and align better with the priorities of national and regional bodies.
Risk Mitigation and Unintended Consequences: The risk framework addresses key technical and social risks but could be improved with a deeper analysis of potential unintended ecological and socioeconomic consequences,

particularly when introducing new technologies in fragile environments. More detailed plans for mitigating these risks would strengthen the proposal's resilience.

Areas of Divergence among Review Team and ISDC Resolution
NA

The reviewers scored each of the 11 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by previous research findings and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	3
The SAAF proposal identifies key challenges such as low productivity, climate vulnerability, and gender inequality in animal and aquatic food systems, particularly in low- and middle-income countries (LMICs). The proposal is well-aligned with the Strategy and builds on lessons from previous initiatives. However, the regional focus could be more inclusive, particularly in underrepresented areas such as Central and Southern Africa. Addressing region-specific issues and integrating local knowledge into research strategies would further enhance the relevance and impact of the Program.			
2. Evidence that the Science Program is demand driven through codesign with key stakeholders and partners (NARES, governments, farmers, private sector, funders) and research collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	2
The proposal demonstrates demand-driven science through stakeholder consultations and codesign processes, particularly with farmer groups, governments, and private sector actors. However, there is limited concrete evidence of how stakeholder feedback shaped program design. More specific examples of how the codesign processes led to adaptations or modifications in program objectives or methods would strengthen the Program's legitimacy and relevance. Additionally, alignment with regional policy frameworks, such as the Blue Economy Agenda in Africa, would ensure that the Program meets local and regional demands effectively.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	3
CGIAR's institutional strengths, such as its advanced laboratory infrastructure, interdisciplinary expertise, and long-established presence in LMICs, are well-highlighted in the proposal. These assets allow CGIAR to scale innovations and drive impact efficiently. The proposal could provide more detail on the specific new capabilities CGIAR will offer to its partners. Highlighting how CGIAR's unique strengths will lead to tangible capacity development and technological advancement, particularly for NARES and other local institutions, would further strengthen the case for CGIAR's comparative advantage. This requires a strengthening of the comparative advantage analysis to focus on CGIAR's ability to deliver outcomes and impacts, not just capability and infrastructure inputs. A challenge is that working with networks of NGOs can produce a noisy set of results given disparities among them in capacity, community connection, etc.			

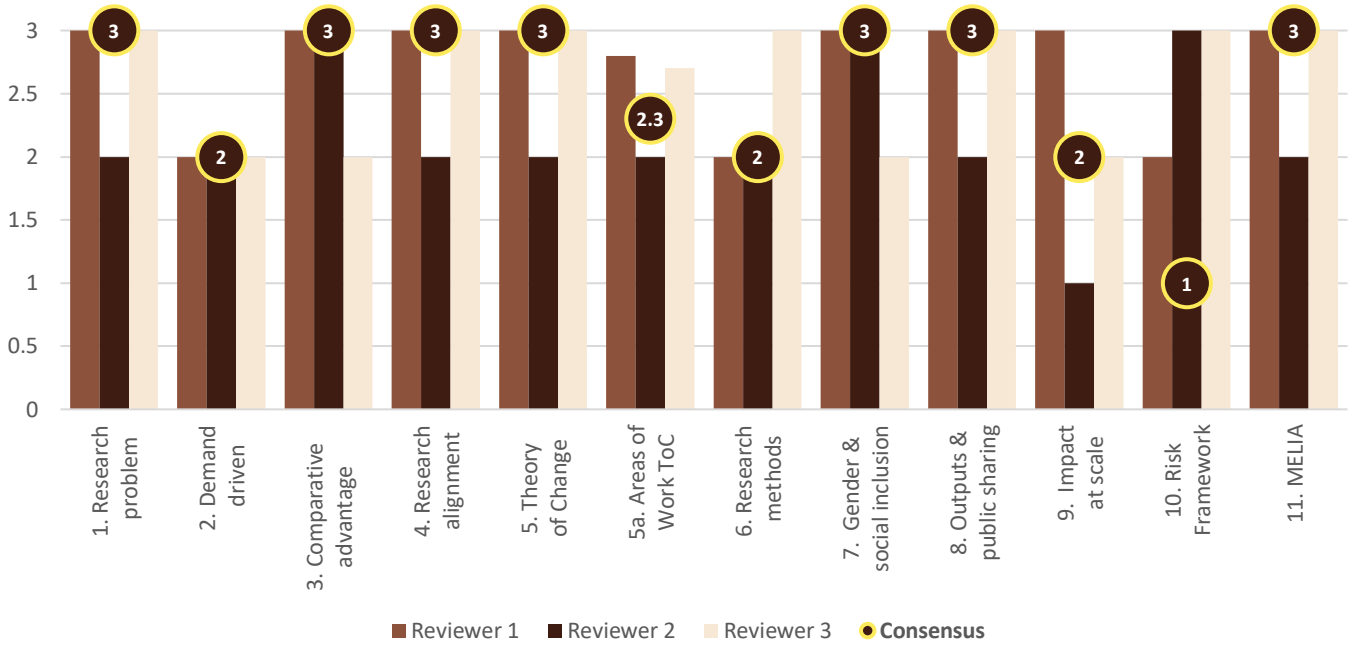
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
4. Research questions address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	3
The research questions focus on key gaps such as climate resilience, antimicrobial resistance (AMR), and One Health approaches, aligning with global megatrends and CGIAR's strategic objectives. However, the broad scope of the research presents challenges in addressing all gaps effectively. A more focused approach, targeting region-specific gaps and underrepresented issues like gender equity, would enhance the Program's relevance. Furthermore, while the proposal addresses environmental degradation, it could provide more detail on specific ecological challenges and how the research will mitigate these impacts. it is important to indicate how Access and Benefit-Sharing (ABS) will be taken care of in the implementation of SAAF across countries and regions			
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	3
The Theory of Change is comprehensive and outlines clear pathways from outputs to impacts, supported by well-documented assumptions and measurable indicators. It effectively emphasizes inclusive innovation and partnerships for scaling. However, the integration of cross-cutting themes like gender equity and climate resilience could be more explicitly detailed. Additionally, there is a need for a clearer explanation of how the program will engage partners in underrepresented regions to ensure broader geographic coverage and relevance. Strengthening these aspects would make the Theory of Change more robust and adaptable across diverse contexts.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	2
Area of Work 2			2
Area of Work 3			3
Area of Work 4			3
Area of Work 5			2
Area of Work 6			2
The six Areas of Work cover crucial themes such as productivity, climate resilience, One Health, and gender inclusion, all of which align with CGIAR's priorities. While the Areas of Work are comprehensive, more integration across them is recommended, particularly between Productivity+ and other areas like One Health and nutrition. Additionally, specific details on the implementation of market systems and scaling are lacking. Expanding geographic coverage, particularly in underrepresented regions like Northern and West Africa, and providing more detailed strategies for scaling innovations would enhance the overall impact of the Areas of Work. Area of Work 4 on policy would benefit by considering a wider set of policies that affect animal and aquatic systems, e.g., land tenure and its impact on pastoral livestock productivity. While data platforms are important here, Area of Work 6 seems relatively nascent in development and somewhat more exploratory and is vague in its approach. That is ok but it could be strengthened by better conveying the understanding of current needs and opportunities in this area.			
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	Partly in 6	**Relevance** Effectiveness	2

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
The research methods are innovative and leverage CGIAR's advanced infrastructure, including genomic technologies, field experiments, and data analytics. The proposal demonstrates a rigorous approach, but greater integration of data systems across work areas would improve coherence and impact. We suggest that certain methods, particularly around breeding programs and genomic resources, could be more tailored to specific regional contexts. Strengthening these local adaptations would improve the feasibility of the program and ensure that research outcomes are more relevant to the needs of LMICs.			
7. Research design and proposed implementation demonstrates genuine gender and social inclusion in both the research process and in its intended outcomes with explicit linkages to the Gender and Social Inclusion Accelerator.	11	**Legitimacy** Effectiveness	3
The proposal places strong emphasis on gender and social inclusion, particularly through the Gender and Social Inclusion Accelerator. However, while the proposal highlights inclusive approaches, there is room for improvement in ensuring these aspects are fully operationalized across all Areas of Work. More explicit strategies for addressing the needs of marginalized groups—beyond women and youth—are needed, including disabled populations, refugees, and people living in extreme poverty. Ensuring that social inclusion is a central component of each Area of Work would enhance the overall legitimacy and effectiveness of the program. The key determinants of the extent to which this is available is the questions, varietals, systems that are worked on and the extent to which these serve the interests of women and other marginalized groups—as opposed to efforts to look at their interests after or vis a vis the tools produced. This could be made more direct throughout the proposal and particularly as it related to productivity+ and data systems.			
8. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident with a demonstrated focus on quality and impact relevance.	6	**Credibility** Effectiveness	3
The anticipated research outputs are well-defined and include technical innovations, policy analyses, and institutional advancements. However, there is a need for more clarity on how these outputs will be disseminated and scaled across regions. While the proposal includes strong outputs related to Productivity+, more emphasis on diverse species and varietal selection—particularly in aquaculture—would enhance its impact. Ensuring that outputs are relevant to regional contexts and that lessons are shared across countries and regions will be key to achieving widespread and scalable results.			
9. Evidence that the Science Program will likely lead to impact at scale through approaches that drive inclusive innovation in research and partnerships, with explicit linkages to other Science Programs, Impact for Scaling, and Accelerators.	7, 8, 10	**Effectiveness** Credibility Relevance	2
The pathways to scaling innovations are well defined, particularly through partnerships with other Programs and Accelerators. However, there is a concern about the geographic focus, with certain regions receiving disproportionate attention. Expanding the geographic scope to include underrepresented regions, such as Central and Southern Africa, would enhance the program's scalability and credibility. This needs to be done in a way that doesn't spread resources too thinly and will likely require some prioritization of effort in the proposed 20 countries. Additionally, the proposal could provide more detail on how lessons learned will be shared and adapted across regions to ensure that scaling strategies are context-specific and effective.			
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	13	**Credibility** Legitimacy Relevance	1

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
The proposal includes a comprehensive risk framework, identifying potential technical, environmental, and social risks. However, the analysis of unintended consequences, particularly ecological and socioeconomic impacts, is underdeveloped. A deeper exploration of risks associated with introducing new technologies in fragile ecosystems would strengthen the risk framework. Additionally, more specific mitigation strategies for potential adverse outcomes, such as impacts on marginalized communities or natural resource depletion, would improve the robustness of the program's risk management.			
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	9, 10	**Credibility** Effectiveness Legitimacy	3
The Monitoring, Evaluation, Learning, and Impact Assessment (MELIA) approach is well-developed and aligns with CGIAR's broader framework. It includes clear mechanisms for adaptive management and continuous learning, ensuring that the program can respond to emerging challenges and opportunities. However, more detailed strategies for integrating lessons learned across regions and from partners tasked with on-ground delivery are suggested to help in effective scaling of these insights. Additionally, the MELIA framework could benefit from further elaboration on how it will inform policy engagement and program adjustments, ensuring that it remains responsive to local realities and challenges.			

Additional Comments Not Presented Above
Two important areas for consideration in SAAF are how livestock and aquatic species are integrated into farming systems that include cropping and the issue of resource management in pastoral systems. Both areas are critical for the sustainability (a key word in the Program name) of livestock and aquatic production. The proposal underplays the sustainability and systems aspects despite the areas of focus in the 20 countries in Table 7.2 predominantly being crop-livestock systems. It appears that these integrated systems aspects are being covered by other Programs, e.g., Sustainable Farming and Multifunctional Landscapes based on the brief statements in Section 8 of the proposal on integration. The SAAF proposal would greatly benefit from more explicitly describing the important role of crop-livestock-aquatic systems for the productivity of livestock and aquatic species as well as the challenges in sustainable livestock production in pastoral systems. It then needs to clearly signpost near the start of the proposal that these farming systems aspects are being addressed by other Programs with more detailed elaboration on linkages in Section 8 than is currently described. Without this context, the program will appear to be lacking in the sustainable element of SAAF. The proposal listed existing bilateral projects and their resourcing that can be mapped to SAAF Areas of Work. However, a budget for pooled funding was not provided so it was not possible to provide any budget comments on the quantum of funding requested or the relative balance between Areas of Work.

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 4 for full criteria definitions.



** One consensus score varied by more than 0.5 from the mathematical average. Please refer to criteria 10 above for the rationale behind this consensus score, with a variance of 1.67 from the mathematical average.*

5.8. Food Frontiers and Security

Review Summary and Actionable Recommendation
Overall, the reviewers find the Food Frontiers and Security proposal to be well aligned with CGIAR's strategic goals, including in addressing climate adaptation, gender equality, nutrition, and poverty reduction. However, work in conflict zones is not directly mentioned in the Strategy. The demand-led prioritization, the use of CGIAR research capacity, long-time engagement and strong and well-established local partnerships are key strengths. It also shows a commitment to inclusive innovation through stakeholder codesign. The Program sets out to address three important and emerging challenges confronting the global community, organized into four Areas of Work, across three broad themes: fragile-and conflict-affected (Area of Work 2), urban and peri-urban (Area of Work 3) and island (Area of Work 4) food systems. The purposive closing in on countries where work is considered less risky and more viable in Area of Work 2, the focus on a few cities in Area of Work 3 and island states in Area of Work 4, galvanizing strategic partnerships to enhance the odds of achieving research impact is another important strength. However, the CGIAR core research and knowledge delivery has mainly related to comparatively stable, rural environments: as clearly acknowledged in the proposal, this Program expands the focus to and will engage with settings CGIAR organizations are much less familiar with. This challenging backdrop should have prompted a more humble and balanced approach. Given that about two-thirds of the budget is allocated to Area of Work 2, one specific concern is the failure to engage with the typical thinness of adequate, existing secondary data-sets and the difficult challenges associated with generating new and credible primary data for impact evaluation and other purposes in fragile and conflict affected areas. While the proposal identifies broad knowledge gaps and the overall research questions are relevant, they are high level and broad. The sub-research questions under each Area of Work—along with those in the Appendix—add some but not enough granularity (see individual reviews for examples). A critical shortfall is the failure to adequately reference empirical literature to substantiate the proposal's knowledge gap claims. This absence of relevant citations makes it difficult to verify whether the knowledge gaps alluded to are widely recognized in the existing research literature. A similar concern relates to underlying hypotheses which are typically not articulated. Although the focus on emerging megatrends is evident and sound, and there are many cross-references to other CGIAR work, the lack of well-supported hypotheses and credible research literature references makes it very difficult to assess originality and with that the likely value added and overall merit of the Program and its respective sub-components. Other actionable recommendations relate to the Theory of Change, gender and inclusion, and risk management sections where specific comments and suggestions can be found below.

Overall Strengths of Proposal
Section 3 stands out as a key strength due to its clear, data-driven approach to and motivation for research priority setting. The section demonstrates that the proposal and the three challenges it sets out to address is not only grounded in evidence but also driven by specific needs and priorities within the target geographies. This helps ensure that the research responds directly to the most pressing challenges and is aligned with the demand-driven approach advocated by CGIAR. The focus on high-priority geographies and vulnerable populations further strengthens its relevance, demonstrating a well-informed, targeted approach to innovation.
The purposive selection of countries where work is thought to be less risky and more viable in Area of Work 2, the focus on a few cities that CGIAR are highly familiar with in Area of Work 3 and the similarly motivated choice on island states in Area of Work 4, draw on and take advantage of a variety of existing and strategic partnerships that seeks to and significantly increases the odds of achieving research impact.

The idea of a Future Food Systems Lab (Area of Work 1) is very important in the implementation of such a program as any new evidence will either add to existing body of knowledge or establish a new footprint for future research. The approach of Area of Work 1 as it currently stands should be further sharpened.

Overall Weaknesses of Proposal
As set out in the above review summary, the most important weaknesses in the proposal are the systematic lack of depth and detail in research questions and hypotheses articulation and the failure to anchor research knowledge gap claims in and with reference to the relevant, existing research literatures.
Gender aspects at institutional/partner level need to be highlighted, i.e., demonstrating efforts to ensure that the Program's team meets CGIAR's gender target of a minimum of 40% women in professional roles. There is also a need to demonstrate efforts made to ensure that women, minorities, and other under-represented groups hold leadership roles in the team.
The proposal lacks a comprehensive framework for dealing with the considerable risks associated with undertaking this proposed research: this includes, e.g., risks to survey organization staff, research participants and key informants, and of violence and other disruptions to the Area of Work 2 work, potential unintended consequences of proposed innovations, including related to environmental sustainability. The section touches on risks but uses language and risk classifications that are ambiguous and do not indicate mitigation strategies or address how risks such as natural resource depletion, increased GHG emissions, or the above Area of Work 2 related risks, will be adequately managed. Providing a more comprehensive and thought through risk framework, with explicit mitigation actions and contingency plans for possible disruptions and unintended consequences would significantly enhance the robustness of the proposal.

Areas of Divergence among Review Team and ISDC Resolution
NA

The reviewers scored each of the 11 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

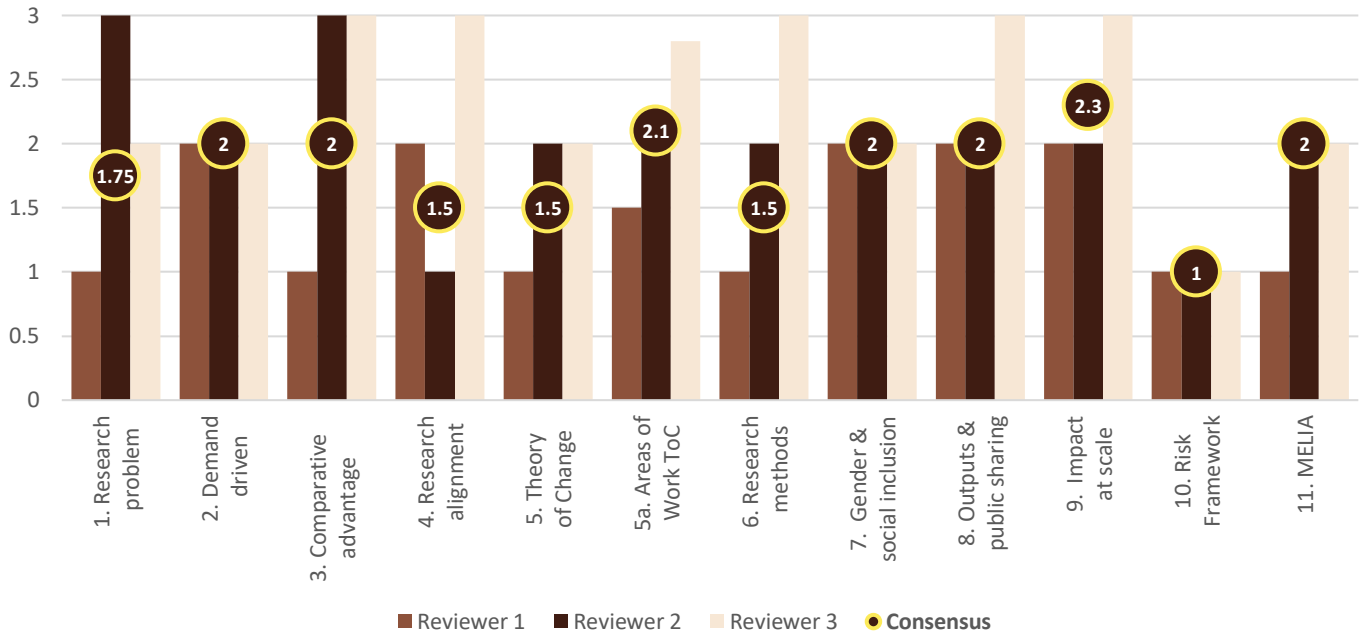
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by previous research findings and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	1.75
The Food Frontiers and Security proposal is largely aligned with CGIAR's strategic goals, particularly in addressing climate adaptation, gender equality, nutrition, and poverty reduction. However, work in conflict zones does not appear to be grounded in the Strategy, which might indicate a need for a light refresh. Major strengths lie in the demand-driven prioritisation (target geographies and funders) and in using CGIAR's research capacity and long-standing in-country partnerships to achieve research impacts. The proposed program of work addresses three major challenges—each of undoubtedly global importance: (i) fragile and conflict-affected, (ii) urban and peri-urban and (iii) island food systems. The quality of the proposal is uneven across the three themes and a general weakness of the proposal template and style of writing is that the content and arguments are vague and lack the necessary anchoring of knowledge gap claims in the existing and relevant research literatures. There is thus a failure to deliver the substantive content and depth expected and required for an informed and careful review and assessment of the merit of the research agenda. Given that this will be a $30 USD million budget Program and although the sub-research questions for each Area of Work provide some more granularity, the lack of detail, depth, and credible research literature referencing and anchoring represent major weaknesses and concerns.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
2. Evidence that the Science Program is demand driven through codesign with key stakeholders and partners (NARES, governments, farmers, private sector, funders) and research collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	2
The proposal demonstrates a strong aspiration for engaging with a wide range of stakeholders, including NARES, governments, private sector actors, and funders. It outlines and emphasizes the importance of a partnership strategy, where different partners are meant to play specific roles in codesign, research implementation, and outcome delivery. However, while this involvement of various partners is acknowledged and emphasized, what their roles are, how these different stakeholders participated in and what inputs they fed into the design process are much less clear. Examples of codesign and evidence of partner support would strengthen this part of the proposal. Given the CGIAR experience with participatory approaches, the limited reference to and inclusion of farmer organisations and other grassroot perspectives is surprising.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	2
The proposal rightly highlights CGIAR's long-standing expertise, research capacity, and established partnerships. It also highlights CGIAR's strengths in innovation and resilience-building, among others. At the same time, it is acknowledged that the three Program themes are outside or on the periphery of CGIAR's traditional focus areas. Concerns over whether CGIAR organizations and their partners are the best placed to carry out this research are therefore legitimate and important: in the proposal, the specific discussion and analysis of comparative advantage draw on six aggregated high-level outputs that include evidence of food system resilience, innovations, scaling pathways, capacity building, stakeholder engagement and policy action. The writing team acknowledges that these are high level and insufficient for a balanced, in-depth analysis: an important question is whether a more independent comparative advantage analysis conducted separately for each of the three main challenge themes would arrive at the same conclusion. While some comparative advantage analysis must be reserved for the Inception Phase, a more explicit identification of potential competitor organizations and whether CGIAR is the best among the group to take such tasks is warranted. The identification of potential partners is important, but just as important is to identify others working in the space that are not likely to be partners. This is how comparative advantage is established. Without such a discussion, the current proposal is asserting comparative advantage without providing evidence of the claim.			
4. Research questions address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	1.5
While the overall research questions in the main document are relevant, they are high level and broad. The sub-research questions under each Area of Work—along with those in the Appendix—add some but not enough granularity: examples are the incubation of breakthrough innovations as part of Area of Work 1, the focus on how programs and policies can best be designed to build community resilience in comparative advantage food systems in Area of Work 2, and the underspecified focus on circular bioeconomy and good governance of urban food systems in Area of Work 3. Further and while the proposal identifies broad knowledge gaps, it does not adequately reference empirical literature to substantiate these knowledge gap claims. This absence of citations makes it difficult to verify whether the knowledge gaps alluded to are widely recognized in the existing research literature. Although the focus on emerging megatrends is evident, and there are many cross-references to other CGIAR work, the lack of well-supported hypotheses and credible research literature references are major limitations. These critical gaps make it difficult to assess originality and therefore the likely value added and overall merit of the programme and its respective sub-components.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	1.5
None of the Areas' of Work Theory of Changes meet the requirements mentioned: intended outputs, outcomes and impacts are broad and schematic. While these may help track general progress, there appears to have been no attempt to engage with or identify critical assumptions. At the same time, and while the Theory of Change outline causal linkages and indicates how partners will drive impact through inclusive innovation, key assumptions remain implicit. Although the role of partners is described, the full range of causal mechanisms linking outputs to long-term impacts, will need to be set out in much greater detail and specificity, if these Theories of Changes are meant to be pro-active program management tools.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	2
Area of Work 2			2
Area of Work 3			2
Area of Work 4			2.33
Area of Work 1 (The Future Food Systems Lab) is very important to the Program and has substantial potential to add value. However, added details are needed to determine whether this potential is realized. For each of Areas of Work 2-4, the proposal lacks key details on methods, clear hypotheses to be tested, etc., that limit the ability to determine the value of the proposed activities. Area of Work 2 involves a new focus for the CGIAR that may involve substantial risks not fully incorporated in contingency plans. It is not entirely clear that CGIAR possesses the necessary comparative advantage from the analysis contained in the proposal. Areas of Work 3-4 build upon established expertise, with Area of Work 4 having particular potential for impact.			
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	Partly in 6	**Relevance** Effectiveness	1.5
The research approach and methods outlined in the proposal are generally fit for purpose and feasible, particularly in using field sites, modelling tools, and digital infrastructure. The inclusion of diverse methods, such as foresight analysis, scenario modelling, and field-based research, does, but only at an overall level, demonstrate rigor and appropriateness for the targeted food systems. However, while the proposal incorporates innovative approaches, such as digital tools and codesigned innovations, there is again a lack of detailed explanation and depth. The Areas of Work add demanding new layers to the search for effective policy and programmatic interventions. The countries, settings, and themes that will be covered should have prompted a more balanced assessment of what this will require in terms of data-access and new data-generation: conflict-related data introduce ethical and logistical challenges with serious risks of disruptions. The focus on partnerships is key, a major CGIAR strength, underscores the importance of trust. While the Lab-related work in Area of Work 1 could spur innovation and contribute towards the tackling of these challenges, evidence of more serious and in-depth intellectual engagement with the challenges undertaking research in the targeted contexts is likely to pose would have been reassuring. Another example of where greater clarity is needed is on how laboratory and field assets will be integrated into a cohesive data collection and analysis framework.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
7. Research design and proposed implementation demonstrates genuine gender and social inclusion in both the research process and in its intended outcomes with explicit linkages to the Gender and Social Inclusion Accelerator.	11	**Legitimacy** Effectiveness	2
Gender and social inclusion considerations can be improved. Gender aspects at institutional/partner level need to be highlighted, i.e., by demonstrating efforts to ensure that the Initiative team will meet CGIAR's gender and diverse background targets of a minimum of 40% women in professional roles. There is also a need to demonstrate efforts to ensure that women, minorities and other under-represented groups hold leadership roles in the Program once it gets underway.			
8. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident with a demonstrated focus on quality and impact relevance.	6	**Credibility** Effectiveness	2
While the proposal identifies broad knowledge gaps and the overall research questions are relevant, they are high level and broad. The sub-research questions under each Area of Work—along with those in the Appendix—add some but not enough granularity (see individual reviews for examples). A critical shortfall is the failure to adequately reference empirical literature to substantiate the proposal's knowledge gap claims. This absence of relevant citations makes it difficult to verify whether the knowledge gaps alluded to are widely recognized in the existing research literature. A similar concern relates to underlying hypotheses which are typically not articulated.			
9. Evidence that the Science Program will likely lead to impact at scale through approaches that drive inclusive innovation in research and partnerships, with explicit linkages to other Science Programs, Impact for Scaling, and Accelerators.	7, 8, 10	**Effectiveness** Credibility Relevance	2.33
The detailed work on prioritization and discussions of potential partnerships is well crafted and credible. The strategy, linkages, and plans for scalable impact are articulated at a rather high level. Added depth and detail could lend additional credibility to the proposal.			
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	13	**Credibility** Legitimacy Relevance	1
The proposal lacks a sufficiently comprehensive framework for dealing with the considerable risks associated with undertaking this proposed research, which includes risks to survey organisation staff, research participants and key informants, and, e.g., violence and other disruptions to the Area of Work 2 work, potential unintended consequences of proposed innovations, including those related to environmental sustainability to name a few obvious and serious oversights.			
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	9, 10	**Credibility** Effectiveness Legitimacy	2
The proposal includes a MELIA approach that supports adaptive management by tracking progress through key indicators and allowing for adjustments based on learning. There is some evidence that lessons learned will be used to adapt the Theory of Change, promoting flexibility. However, while the general approach to impact assessment is mentioned, there is a lack of detailed strategies for how data and findings will be systematically integrated into and make management adaptive. More explicit mechanisms for reflection and adaptation of the Theory of Change would help.			

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 4 for full criteria definitions.



** No consensus score varied by more than 0.5 from the mathematical average.*

5.9. Scaling for Impact

Review Summary and Actionable Recommendation
The reviewers commend the Scaling for Impact team for their ambitious, thorough, well conceptualized, and innovative proposal. Indeed, we see this work as a comparative advantage of CGIAR. The science of scaling and field-level concerns represent a powerful combination for reaching impact on this Program. We are also impressed with the prospect of influencing the other Programs. Because of our overall strong impressions, we believe it's important to seek areas of greater improvement, to ensure that there is greater impact at scale. Four actionable items are: 1) Carefully review the Theory of Change and Areas of Work to make sure that they are doable and the needed keystone nodes (of "If X happens, then Y will occur") to reach the higher-level outcomes are explicit; 2) Ensure that the Areas' of Work Theories of Change are not weighed down with too much complexity and rely on too many inter-dependent actions. Where possible, simplify and proceed step by step; 3) Elaborate a strengthened Risk Framework; and 4) Be practical and carefully review the program's role and how much the program can achieve in unlocking finance over the specified time frame.

Overall Strengths of Proposal
The primary strength of this proposal is that it is ambitious and seeks to address the need for scaling to be integrated across the CGIAR and the work being done by all actors engaged in development in the agri-food sector. Its integrated, holistic, comprehensive and cutting-edge approach, particularly as shown in Areas of Work 1-3, is very strong. Equally strong is its recognition that some actors need to play multiple roles: research, innovation, design, and testing of tools and approaches for this work and as an intermediary mobilizing financing and partnerships (section 6) AND that CGIAR is really the only organization with the capability, resources, knowledge and motivation to do so—this the comparative advantage!
The field-level focus and national level of integration is another strength. The selection of 17 Catalyst Countries is grounded in extensive research and consultation; it builds on a solid foundation of CGIAR relationships and partnerships as well as an understanding of the existing enabling environment, such as the criteria that at least four CGIAR programs are expected to be working in the country. We note that as the work is at the field level, the team should consider non-traditional crops and value chains, not just staples crops.
The proposal provides a clear vision and conceptual framework for the Program. There is clear and sound articulation of the program Theory of Change, supported with ample evidence, research questions, assumptions and impact pathways.

Overall Weaknesses of Proposal
The Program's ambition is commendable. It also represents the proposal's greatest challenge. It particularly seems to be overly ambitious as to what can be done and the institutional and political economy obstacles to achieving those goals. For example, the more inclusive proposed demand signaling process is laudable, but there is little analysis of why the beneficiaries of the current process would support such changes or the challenges of aligning conflicting incentives generally. This doesn't mean that this is not worth doing, but an examination based on these obstacles would likely lead to a more grounded analysis and strategy. Further, the low rate of innovation adoption by small holders reflects social, economic, and cultural barriers that should be explicitly addressed.
One area for strengthening is the Area of Work 4: Unlocking Financing and Partnerships. The goals of unlocking and leveraging $5B USD of IFI financing, while worthwhile, are not supported with sufficient analysis of its justification or feasibility given the global environment, trends and competing demands. The level of intensity and scope is not described sufficiently, nor is the Scaling Strategy Support Team. This calls for considerable and specific technical skills, human capacities, and operational mechanisms. To directly support the design of 50 plus large-scale investment projects, for example, could require over 200 people and new instruments. Partnering and going step by step are recommended.
The Risk Management and MELIA sections need to be strengthened. Due to the ambition level of the Scaling for Impact, the number of partnerships—and scaling up and out called for—a more robust Risk Management and especially mitigation analysis is warranted. By the same token, creating a MELIA framework that disentangles and

creates clear attribution for something this complex and comprehensive is going to be both a challenge and critically important. Therefore, it is another reason to be more pragmatic and feasible in both the Areas of Work and the MELIA.

Areas of Divergence among Review Team and ISDC Resolution
NA

The reviewers scored each of the 11 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by previous research findings and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	3
There is consensus by the review team on the quality of the research question and its relevance across the Strategy. The Program will likely affect all Impact Areas, even if in practice outcomes and impact will vary depending on stakeholder and partner preferences. From the listening sessions and megatrends, in general, it is apparent that stakeholders have demanded this work. It is well linked to research on the Science of Scaling as well as the implementation gaps to date. It is well aligned with the Strategy, especially the call to harness innovation finance to spur investments in innovations and forging ambitious alliances for change. The proposal can be strengthened by referencing back to the lessons learned from the 2022-2024 Initiatives.			
2. Evidence that the Science Program is demand driven through codesign with key stakeholders and partners (NARES, governments, farmers, private sector, funders) and research collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	3
The proposal did an impressive job providing an evidence-based case for the Program. Demand-driven, consultation, and participation are major themes throughout this proposal. The focus on strong possible collaborations with Catalyst Countries and additional "opportunity countries" provides good space for working at the national level on scaling. While Section 7 provides considerable foundation of stakeholder consultation, it is not clear how this process impacted the design or if this represents "codesign" of the Program. We also see codesign as going beyond consultations to actively engaging key stakeholders and partners throughout the design process. The Inception Phase may also benefit from some pragmatic considerations, i.e., resources required that will need to be managed, tracked and evaluated to derive lessons learned.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	3
Based upon CGIAR's expertise in the theoretical and research base for scaling innovations and their partnerships with other academic institutions there is a strong case for a comparative advantage in leading science of scaling innovation. There is no other organization working in the agri-food space that is close to the CGIAR in relevant capabilities, relationships, legitimacy, tools and experience to undertake this, let alone the motivation. We do raise two issues: the relative inexperience in designing large-scale public- and private-investments; and CGIAR's coordination capabilities to effectively implement such a vast and complex Program.			

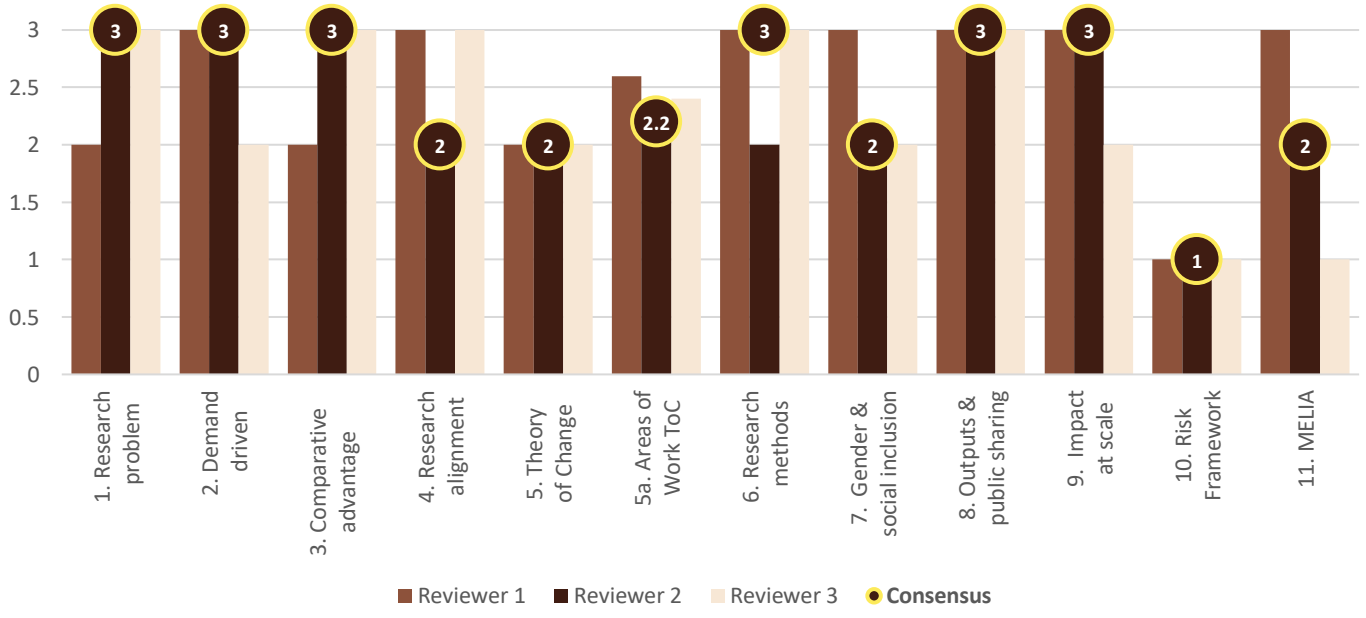
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
4. Research questions address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	2
Because significant research questions exist around the emerging science of innovation scaling, particularly within the context of agri-food systems, we are pleased that this is well posited in the proposal. We have some concerns too. There are simply too many research questions; they are closely interrelated and interdependent given the complexity and systems approach taken. This raises concerns about whether causality and attribution can be disentangled, say, between choices of scaling pathways, innovation bundles, and packages, stakeholder responsiveness and capacity (building), enhancing enabling environments, responsible scaling and tradeoffs, and the ambitious funding goals. A second major concern is that the barriers to innovation adoption by smallholders (social, economic, cultural) are not sufficiently identified and addressed in the research question. In summary, we recommend reviewing the number and scale of research areas.			
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	2
The Theory of Change is light on how the outcome targets are arrived at and does not explicitly articulate the "conditions for success." It lacks a "keystone nodes" analysis to identify the critical nodes and related assumptions that will determine progression from one stage to the next. The classic Theory of Change language of If X happens, then Y will occur, seems missing. Given these concerns, the complexity of the issues being addressed means that causality will likely be difficult to establish; the linear logical framework doesn't lend itself to addressing this or presenting solutions. It is not always clear how the IFI and private sector investment partners will be engaged. For several of the Theories of Change, the flow charts are very dense and not easy to follow (i.e., figure 5).			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	3
Area of Work 2			2
Area of Work 3			2
Area of Work 4			2
Area of Work 5			2
Area of Work 1: Engagement and empowerment framework and logic model are clear, with gaps and pathways elaborated. **Area of Work 2**: Clear articulation of the pathways to scale. **Area of Work 3**: The link between improving enabling environment and 2030 outcomes/targets is unclear; We don't see evidence on how the target numbers came about and their feasibility. **Area of Work 4**: Perhaps the most ambitious, so a careful review of the practicality is needed. The massive gap between the $265B USD needed in annual agri-food systems investment and the target of $5B USD is quite lopsided. At the same time, the $5B USD target is extremely ambitious given the team is basically starting at zero, with no team or instruments; and it is not clear how the IFI and private sector investment partners will be engaged. **Area of Work 5**: We point to the need to simplify the overall ambition and thus the Learning for Impact. Given the modest time frame (five years) and that significant work won't begin immediately, it may be too short to draw powerful lessons.			
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	Partly in 6	**Relevance** Effectiveness	3

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
This Program represents the R4D agenda more clearly than the other Program proposals. The research approach and methods are fit for purpose, innovative, and rigorous. This analysis planned with the Learning for Impact Area of Work will exam the diversified outcomes and depth of scaling outcomes, tradeoffs, and consequences. An important aspect of this approach is the use of adaptive management to make mid-course corrections and to improve the uptake of innovations. One concern is whether given the scale and scope of the Program, the research methods will be sufficient. The geographic scope may be overly ambitious with 17 catalyst and 15 promising countries, as well as bilateral projects in a range of countries. We recommend being pragmatic in rolling out the proposal.			
7. Research design and proposed implementation demonstrates genuine gender and social inclusion in both the research process and in its intended outcomes with explicit linkages to the Gender and Social Inclusion Accelerator.	11	**Legitimacy** Effectiveness	2
The reviewers appreciate that the proposal recognizes GESI as a major barrier to successful scaling. We applaud using the GenderUp tool with UC Davis. Although the Program addresses GESI we believe that more can be done than the outreach goal of 30% inclusion. We also think that more can be done to integrate GESI into the design and implementation processes, including selection of technology bundles and packages. We observe that IFIs have their own robust GESI requirements and capacities. Still, much can be learned by teaming up with IFIs, especially with Scaling and GESI considerations.			
8. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident with a demonstrated focus on quality and impact relevance.	6	**Credibility** Effectiveness	3
Each of the five Area of Work specify detailed research questions that represent a cutting edge understanding of their respective fields such as articulating demand and stakeholder priorities, scaling pathways, the enabling environment. They in turn target production of various knowledge, technical and institutional tools, methods, and approaches that are highly relevant to integration of scaling both with the entire CGIAR system and by partners. We add that opposed to other Program proposals this one is the most action oriented. That is, the outputs of the Scaling for Impact lead to developmental outputs, tools, impacts on investment portfolios, strengthened committees and networks, which we applaud.			
9. Evidence that the Science Program will likely lead to impact at scale through approaches that drive inclusive innovation in research and partnerships, with explicit linkages to other Science Programs, Impact for Scaling, and Accelerators.	7, 8, 10	**Effectiveness** Credibility Relevance	3
It is evident that the internal partnerships with the other Programs and Accelerators and external stakeholders (academic institutions, NARES, others) have been taken seriously. The plans for the Inception Phase need to put emphasis on practical approaches to engagement with Programs and Accelerators to create synergies and avoid duplication. The participation with RII and NSP initiatives represents good partnering planning and especially focusing on selected Catalyst Countries. More non-traditional crops may be considered for the innovation scaling in the Catalyst Countries. We note that the IFI and Impact Investors partners needed to reach impact at scale will need considerable attention and alignment to their priorities and modes of operation.			
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	13	**Credibility** Legitimacy Relevance	1

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
Here reviewers had the greatest concerns. The risk management framework is undeveloped. The Program is complex and based on several assumptions that come with significant uncertainties and risks. While the proposal correctly identifies five risks including coordination and complexity issues, the discussion is too brief and generic. In fact, stating, "Mitigation plans will be designed and implemented during the Program's Inception Phase to address these risks," is inadequate. It is vital that the risks and their potential impact are clearly articulated, and mitigation measures specified, to clarify their potential effect on program implementation and results.			
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	9, 10	**Credibility** Effectiveness Legitimacy	2
In some respects, the MELIA approach and the Area of Work 5, Learning for Impact, represent the proposal's greatest promise. There is much to learn from this Program—the types of bundles and packages that have the highest rates of adoption, their impact, inclusive innovation pathways, adaptive management, and sound capacity development, learning, and knowledge sharing. However, the MELIA strategy seems underdeveloped and focuses mostly on quantitative approaches. Sound qualitative methods will be critical. The complexity and interdependence of the Program is likely to make monitoring difficult, and the proposal seems optimistic about its ability to have partners adopt new metrics to track scaling outcomes.			

Additional Comments Not Presented Above
We debated quite a bit if the ambition of the Program was a limitation or the greatest strength. We agreed that a Scaling for Impact Program was necessary to try to understand and address how and why worthy innovations are not taken up. This also led us to conclude two things: 1) it's important to get the MELIA and Risk Management analysis correct; and 2) to be practical and seek out ambitious yet doable targets. Proceeding in a step-by-step manner and practicing adaptative management will be key. Finally, we were excited by the rigorous and cutting-edge tools and methods proposed throughout the proposal.

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 4 for full criteria definitions.



** One consensus score varied by more than 0.5 from the mathematical average. Please refer to criteria 4 above for the rationale behind this consensus score, with a variance of 0.67 from the mathematical average.*

5.10. Gender Equality and Social Inclusion

Review Summary and Actionable Recommendation
The proposal is strong and convincing on gender issues, for which it sets out a comprehensive and ambitious approach that builds on CGIAR's previous work and strengths. It is unfortunately weaker on youth and social inclusion. A clear assessment of expertise that would be needed is lacking. On several points, the proposal builds so much on CGIAR previous experience that it ignores important work produced external to CGIAR. That said, the proposal does not include any analysis of what has been achieved to date and how and why it plans to build on the track record and what it plans to decelerate or discontinue as a future priority. For example, what is new and novel in more metrics on gender while CGIAR has invested substantively in this area? There are many other such examples. We suggest here six actionable recommendations that should be prioritized. Obviously, other points raised in the review should also be addressed. • Address the issue of buy-in, both internal and external to CGIAR: in fact, most objectives stated in the proposal requires such buy-in to be achievable. • Have a more credible stance at dealing with GESI, clarify how CGIAR wants to work on social inclusion, including which groups will be the focus of social inclusion work. A review of the expertise CGIAR currently has or will need to bring in to do this or partner with intuitions that do have the expertise would be important and would improve the credibility of the proposal. • Strategize how to balance the Portfolio that currently is tilted heavily towards women (although men are occasionally mentioned, but not with much depth nor state-of-the-art thinking). Large parts of the proposal are repetitive and often overlap in sub-Areas of Work. • Research questions and methods for working with socially excluded groups, including indigenous groups, could differ significantly from those used for women and women's empowerment. While the proposal briefly mentions working with youth, a more thorough and honest analysis is required to develop these Areas of Work, including strong partnerships outside of CGIAR. • Write a better risk management section (see below, weakness 3) • Review the Theories of Change (overall, Areas of Work and sub-Areas) for consistency and alignment with stated objectives.

Overall Strengths of Proposal
The proposal is strong on Gender. The comparative advantage of CGIAR is clear and well-articulated in the proposal. The ambitious approach proposed builds on CGIAR's existing gender work, expertise, partnerships and networks. On actions, sub-Area of Work 1.1 and 1.3 are particularly convincing. The linkages with Programs are well strategized and ensure that the main knowledge gaps will be addressed while avoiding duplication.
The focus of sub-Area of Work 1.1 on measuring gender norms is very welcome. This is an important area where progress is needed. It could be strengthened by looking beyond the evidence produced within CGIAR, as other institutions have started working on this issue. Looking into insights offered by ODI's ALIGN project would be a useful for example.
Generally, the proposal is very good in terms of methods, and sub-Area of Work 2.1 is particularly good. The use of methods leveraging random or quasi-random variations rather than PSM for impact evaluation is commendable. A caveat is that methods are rather vague in some sub-Areas of Work, in particular for sub-Area of Work 1.4.

Overall Weaknesses of Proposal
The main weakness of the proposal is that despite its Gender Equality and Social Inclusion (GESI) title, it is really good on gender, weak on youth and less well articulated and supported on social inclusion. The introduction should include a clear focus on youth, and the Theory of Change of sub-Area of Work 1.5 might need to be revised to include youth-related outcomes among the Accelerator-level outcomes. A clear integration of social inclusion is also needed. Further this Area of Work is narrowly focused on the difficulty young people face in making a living in food, land, and water systems, but other aspects of their lives would also be relevant (such as for adolescent girls in particular early marriage, early pregnancy, etc.). On social inclusion, it does not demonstrate depth of expertise or approach, maybe partly due to lack of expertise on this topic within CGIAR compared to the evident strength in terms of gender specialists (this is difficult to judge as the sections on expertise don't discuss social inclusion expertise in any detail). The discomfort with youth, social inclusion, and other forms of inequity beyond women's empowerment is quite evident in this proposal. This is reflected in Section 13 on funding, where it appears that the work on gender is estimated at $12M USD, with only an additional $1M allocated to youth and only IF funding is increased. No specifics on social inclusion are provided. It is unclear how this Accelerator is partnering with institutions that can bring substantial expertise in these areas. While CGIAR has some comparative advantage on gender, it lacks comparative advantage on issues of youth, social inclusion, and other dimensions of inequities. Robust partnerships are an important mechanism to deliver on these aspects. More generally, there is a lack of clarity on how intersectional approaches could be mobilized to tackle social inclusion. Finally, on gender, the approach chosen concentrates on women rather than gender dynamics. Engaging with men is crucial if one wants to alter gender norms and power dynamics.
The various Areas of Work assume buy-in by all actors, within and outside CGIAR. This doesn't seem to be guaranteed. Sub-Area of Work 2.2 is in part dedicated to this issue of harnessing support for GESI research and GESI transformative actions. It is still a bit vague, and the success of Area of Work 1.1 and 1.2 (where the issue is not even mentioned) depends on it. Sub-Area of Work 1.4 is designed to amplify voice of dominated groups, but finding ways to convince institutions (government, local authorities, but also CGIAR centers) and dominant groups that it is necessary should be part of the actions planned. Sub-Area of Work 1.4 is the weakest of the Area of Work 1, Further, all this relies on the assumption that norms can be changed within a short timeframe. As this is not a given, it should be supported by results from previous CGIAR experience in this domain: HER+ should be a good basis, looking at what succeeded, what failed or what is progressing very slowly would be informative. Stock should be taken of past experience before assuming it will all work as planned.
The risk management is vastly insufficient. What has been learned from the Gender Platform or other prior experience should be used to design a more comprehensive risk management plan. Even on the risks that are listed, it is very light. Risk 5, very real, doesn't even benefit from a mitigating strategy. The risk evoked in some sections of lack of political will or even resistance to prioritizing gender and social inclusion is not considered (which is linked to weakness 2). Given CGIAR's limited expertise, particularly in youth and social inclusion, it is critical to establish a plan to build legitimacy and scientific credibility through strong authentic partnerships. The process of working with these populations (youth which varies in age and life-cycle range, indigenous groups, the epistemology of evidence and knowledge, and its production (including generation of credible research questions, research methods, uptake) are likely to present new challenges but also important opportunities for coproduction of knowledge that can be impactful. Lack of acknowledgement of these issues at the very least is concerning.

Areas of Divergence among Review Team and ISDC Resolution
NA

The reviewers scored each of the 10 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined challenge that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by ongoing and previous research and Impact Area Platforms and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	2
The Accelerator contributes to address all Impact Areas. It is clearly high priority and perfectly aligned to the Strategy. It builds on previous work done by the HER+ initiatives and the Gender Platform among others. The proposal clearly defines the challenges related to gender gaps that hinder sustainable food, land, and water systems and elaborates on a vision that builds on CGIAR's previous gender work to address both the "what" and "how" of promoting gender equality. Nevertheless, while the emphasis on women is justified due to persistent gender gaps, there is insufficient attention to gender dynamics, including engaging men and boys, which could hinder gender equality efforts. The focus on youth is well articulated, but Section 2.1 (Challenges and Megatrends) could be strengthened by including more details on youth vulnerabilities, drawing on more diverse sources to enrich the discussion. For instance, ISDC's "Responding to Evolving Megatrends" (Dec 2023) has not been fully used. Furthermore, the proposed Accelerator should include a clear focus on youth in the introduction section of the proposal. Finally, the discussion on social inclusion lacks clarity and consistency, particularly regarding the data and definitions of socially excluded and marginalized groups. Recommendations include a more cohesive approach to these groups and the need for expertise in social exclusion, which differs from gender expertise.			
2. Evidence that the Accelerator/Asset is demand driven through codesign with key stakeholders and partners (NARES, universities, governments, farmers, private sector, funders) and collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	2
The Accelerator is designed to complement and support the work of Programs, other Accelerators, and centers through a two-track approach that identifies collaboration opportunities while also delivering innovative initiatives beyond CGIAR's existing Portfolio. Its prioritization using a "use-case" approach effectively demonstrates responsiveness to external demand for CGIAR's gender work and highlights existing partnerships. However, the proposal could better address social inclusion, acknowledging that this area is less developed and outlining strategies for enhancing it through internal and external collaborations. Additionally, while Section 7 references Programs and CGIAR centers, it lacks clarity on specific supply gaps the Accelerator aims to address. Finally, although connections with collaborators within CGIAR are evident and demand from funders and NARES is strong, there is less clarity on demand from local actors, including government and farmers. Addressing this limitation could be achieved through enhanced communication efforts in sub-Area of Work 2.2 to foster greater buy-in and support from local stakeholders.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	2
As is with the case of this entire proposal, the focus on women and to some extent gender is good. However, it is poor on all aspects of youth and social inclusion. The score reflects the evaluation of comparative advantage on gender. The proposal effectively articulates CGIAR's comparative and collaborative advantages, particularly regarding its capacity, partnerships, networks, and communities of practice, emphasizing its unique expertise in gender and food, land, and water systems. It provides a solid analysis of CGIAR's strengths relative to other organizations, though it could be enhanced by recognizing and partnering with entities that specialize in areas like gender and social norm change, such as ODI's ALIGN. The section offers only a generic overview of the limitations faced by partner organizations and high-level outputs of the Accelerator. It lacks a detailed explanation of how the Accelerator will leverage its outputs to capitalize on its comparative advantages and address identified gaps.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
4. Research questions, where applicable, address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	2
The research questions within the Areas of Work and sub-Areas of Work effectively target key knowledge gaps related to gender inequality and youth inclusion. However, aside from Areas of Work 1.4 and 1.5, most questions in Area of Work 1 predominantly focus on women, which obscures the connection to addressing various forms of inequality. We recommend to embed a more explicit intersectional approach that considers social inclusion and multiple overlapping forms of disadvantage to better address increasing inequalities amid polycrises. Additionally, there is a lack of clear alignment between the identified gaps in Sections 2.1 and 6.1 and the research questions posed, necessitating stronger links to the megatrends discussed, particularly concerning food, land, and water and climate change. Finally, not all assumptions are detailed, especially regarding stakeholder support, which could be a fragile point for the Accelerator. Area of Work 2 may serve as a necessary complement to Area of Work 1, potentially helping to overcome these challenges.			
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	1
The Accelerator-level Theory of Change diagram is clear, with well-defined interlinkages, but the accompanying narrative lacks consistency and depth. Clearer pathways between high-level outputs and intermediate outcomes should be illustrated in the diagram, specifying which outputs contribute to which outcomes. While it is assumed that all outputs will collectively achieve the intermediate outcomes, barriers such as costs, competing demands, and resistance may hinder this process, a point acknowledged in the assumptions section but not reflected in the diagram. Other assumptions needed for all this to happen (in terms of State/NARES capacity to produce the relevant metrics, for example) are not really detailed here. Additionally, the assumption about "willingness to change attitudes" should be reframed as a desired outcome, reflecting the broader agenda for change required within both CGIAR and its collaborators. We note that the narrative does not elaborate on intermediate outcomes, and there is a discrepancy in the number of outputs listed—eight on p. 14 versus five in the diagram. Although the discussion on partnerships provides some clarity on outcome delivery, it could be more specific regarding which outcomes are jointly supported. The initiatives listed on p. 15 should also be better connected to the Theory of Change diagram. Furthermore, the use of terms like innovations, solutions, tools, and methods is inconsistent, leaving unclear whether they are interchangeable or denote different concepts at various result levels. Codesign and partnership elements need to be more integrated within the Theory of Change.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	2
Area of Work 2			2
The Theory of Change for Area of Work 1 and its sub-Areas of Work is well-structured, with clear linkages from research questions to activities and outputs, and the intermediate outcomes are clearly defined. However, there are inconsistencies; for instance, while sub-Area of Work 1.1 focuses on normative change, its narrative mentions policy work without clear integration. In sub-Area of Work 1.2, the narrative contains fewer research questions than the diagram, which needs alignment. Further, in this case the narrative doesn't specify under which assumptions it will achieve the desired outcomes. Sub-Area of Work 1.4 aligns activities with innovative strategies but misaligns with 2030 outcomes focused on evidence use. Generally, sub-Area of Work 1.2 and 1.4 have fewer tangible objectives ("improving receptivity to women's leadership" for example), which are maybe not amenable to systematic experimentation, and this could explain the less tight description. Stakeholder capacities are omitted in most Theories of Change, despite their importance, and youth is excluded from the Program-level outcome for Area of Work 1.5. Overall, several sub-areas in Area of Work 1 seem to be overlapping, with somewhat of the same things said in slightly different ways. For example, in their articulation on p. 19 of the proposal, 1.2 and 1.3 seem to be			

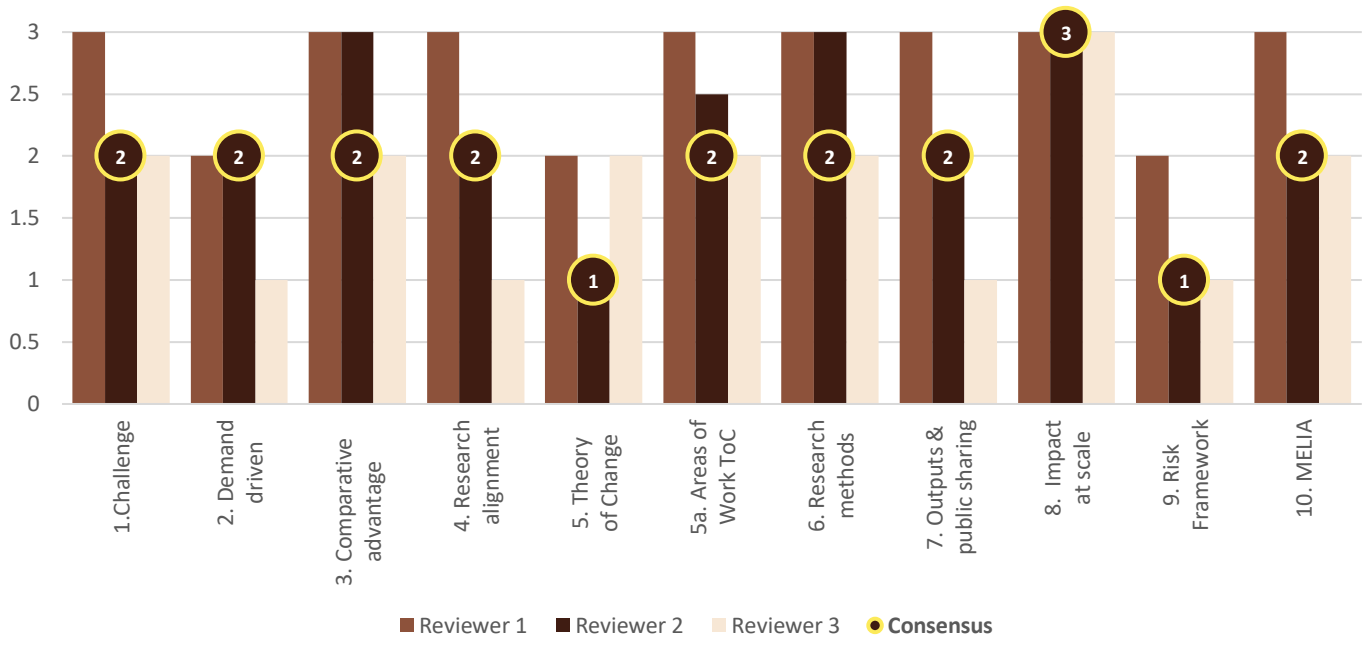
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
the same or at least largely overlapping to the extent that resources and livelihoods are key to empowerment and resilience (not to mention use of words without clarity; resilient livelihoods should ideally be leading to resilience in 1.2) and aren't they both on the pathway to 1.1? There is no mention of social inclusion explicitly in Area of Work 1. Regarding the assumption needed for this Accelerator to succeed that gender norms can be altered quickly; it would be useful to see whether evidence from HER+ could support it. Area of Work 2 lacks sub-Area of Work Theory of Change, which would be beneficial, and the first output is overly broad compared to more specific subsequent outputs. Intermediate outcome 1.3 could be more ambitious, as simply including gender equality principles in organizational agendas may not lead to substantial changes. Sub-Area of Work 2.2's dual objectives of producing strategic communication and identifying frontier research questions appear misaligned within the same Area of Work. Additionally, the overall Theory of Change shows a disconnect, as the contributions from the two Areas of Work and five sub-Areas of Work only address two of the five intermediate outcomes, leaving other outcomes unclear. In the Appendix, discrepancies exist between the outputs in the tables and those in the Area of Work 1, sub-Area of Work Theory of Change diagrams, and there is no table for the Area of Work 1 Theory of Change diagram.			
6. The scope of work, approach and broad methods are fit for purpose, feasible, and innovative.	Partly in 6	**Relevance** Effectiveness	2
The two Areas of Work are complementary and mutually reinforcing. Area of Work 1 recognizes the need for transformative change at different levels, both in agency and in structures and systems. The use of the socio-ecological model is well recognized as a conceptual framework for multi-layered, multisectoral approaches. The Area of Work is informed by CGIAR's existing gender research and recognizes the need for coordination across all dimensions in the sub-Areas of Work. Each of the sub-Areas of Work is well defined and makes a significant contribution to the field. The focus on norm changes and measurement in sub-Area of Work 1.1 is innovative and builds on CGIAR's work to date in this area. It would be good to see CGIAR collaborate with other actors who are working on social and gender norms change and measurement outside food, land, and water systems for shared learning and exchange. The focus on measuring empowerment and increasing the impact on women's empowerment and resilience of food, land, and water system interventions, and on access to resources and opportunities in sub-Areas of work 1.2 and 1.3 is robust. It is recommended to also consider unintended/harmful consequences of interventions and what works to prevent these (such as increased GBV because of livelihoods and opportunities for women). Sub-Area of Work 1.4 on women's leadership and voice could benefit from engagement with work on women's voice and participation that is ongoing in other sectors/settings, given the barriers are common and include, e.g., women's unpaid responsibilities, lack of access to SRHR, experience of backlash and violence especially in political decision-making, etc. A greater focus on male engagement is recommended in this sub-Area of Work, to increase men's support for women's empowerment and participation, and reduce and address the risk of pushback. Sub-Area of Work 1.5 on youth would benefit from attention to other dimensions of young people's lives, especially young women, that impede their participation and access to opportunities—such as adolescent pregnancy and child marriage. Intersectional approaches are well integrated in some sub-Areas of Work such as 1.1 on norms. Methods—such as the use of impact assessments and evaluations of what works to empower and build resilience and increase women's access to resources and livelihoods—are appropriate and will help to inform more inclusive design and delivery of Programs. At times, nevertheless, methods are somewhat vague, for example when it comes to assessing "policies, programs and jobs in selected countries to identify those that create enabling conditions" for youth. Area of Work 2's focus on methods and metrics such as WEIA is innovative and strategic and will contribute to advancing CGIAR's work and the field more broadly. The focus on dissemination and uptake, and building engagement, under Area of Work 2 is critical. Measuring reach and impact of work under sub-Areas 2.2 and 2.3 will be important to demonstrate return on investment. Overall, the scope of both Areas of Work is broad and ambitious. This may prove challenging in terms of available resources (discussed in section 13), and the need to ensure coordination and synergies across sub-Areas of Work.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
For example, norms shape and influence all other dimensions; empowerment, voice, and access to resources and opportunities are strongly interlinked. Action agendas and methods still need further integration into the proposal.			
7. Anticipated outputs (knowledge, technical, or institutional advances, capacity development, technologies or products) are clearly described.	11	**Legitimacy** Effectiveness	2
The Accelerator's scope is ambitious, but without a detailed MELIA framework or budget, it is hard to gauge the exact outputs, which vary in clarity. Some sub-Areas of Work outputs are well-defined, such as sub-Area of Work 1.1's conceptual framework for measuring gender norms, while others, like "GT interventions," are broad and unclear. Similarly, sub-Area of Work 1.2's "evidence" and "scaling strategies" remain vague, while sub-Areas of Work 1.3 and 1.4 offer a mix of high-level outputs and concrete deliverables, such as tested innovations, manuscripts, and trainings. Area of Work 2 has inconsistencies, with sub-Area of Work 2.1 listing broad "methods" while 2.2 provides specific deliverables like conferences and reports. Greater consistency in defining outputs and distinguishing between higher-level results and specific deliverables is needed, along with ensuring synergies between outputs to avoid duplication. While the programmatic outputs are outlined in the Theories of Change, other key outputs like knowledge products and institutional advancements are insufficiently addressed.			
8. Evidence that the Accelerator/Asset has close linkages and joint work with Science Programs that will contribute to impact at scale.	6	**Credibility** Effectiveness	3
The Accelerator's linkages with Programs are clearly outlined in Section 7, demonstrating a strong contribution through a two-track approach: dedicated gender work and collaboration with other Programs. This proven strategy allows CGIAR to advance gender-transformative work while effectively mainstreaming gender across initiatives. Entry points for collaboration are well identified, and accountability for gender integration across Science Programs and other accelerators is clearly established. Section 9 reinforces this approach by outlining capacity-building efforts across CGIAR, fostering future expertise, and expanding external capacity. The Accelerator's focus on the intersection of gender and climate change, as detailed in Section 11, further highlights its strategic impact. Overall, the linkages with Programs and efforts to avoid duplication are well articulated and aligned with the outcomes in the Theories of Change. However, the scoring pertains mainly to gender. As noted throughout, youth and social inclusion are very weak in this proposal.			
9. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	7, 8, 10	**Effectiveness** Credibility Relevance	1
The risk assessment in Section 12 is preliminary, lacking detailed mitigation actions, making it difficult to fully assess. Risk 1 could explicitly address the need for expertise in social inclusion and vulnerable groups. Additional risks include potential lack of political will and resistance to integrating gender and social inclusion (lack of buy-in), as well as the risk of a siloed approach within sub-Areas of Work, which could hinder synergies and lead to duplication. The current risk management framework is rudimentary and could be improved by drawing on similar experiences from other accelerators and CGIAR's history. Additionally, it does not address the internal risk (Risk 5) of insufficient CGIAR support for GESI, where advocacy and internal strategies should be proposed. Overall, the framework remains underdeveloped, particularly given the scope of work.			
10. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	13	**Credibility** Legitimacy Relevance	2

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
The MELIA approach lacks detailed elaboration, particularly an initial results framework, making it difficult to fully understand how Areas of Work and sub-Areas of Work contribute to overall outputs and outcomes. While the process for annual, mid-term, and endline reviews is clearly outlined, and resources are identified, the impact assessment strategy remains general. There is no mention of how previous evaluations of CGIAR's gender work have informed this proposal or the MELIA design. The framework, while covering basic monitoring and evaluation, is inadequate in assessing innovation effectiveness. Thematic studies and process monitoring, with appropriate indicators, should be included, alongside a Management Information System (MIS) for periodic reviews. For impact evaluation, flexible methods beyond RCTs, such as quasi-experimental techniques (DiD, RDD), should be considered based on context (limiting the use of propensity score matching is nevertheless a good idea).			

Additional Comments Not Presented Above
Overall, the review team agrees that the proposal demonstrates considerable strength in addressing gender, especially women. However, it is notably weak in its focus on youth and social inclusion, despite earlier reviews provided by the ISDC along these same lines, which do not seem to have been implemented. The scoring largely reflects the emphasis on gender in the proposal, resulting in relatively generous overall scores when youth and social inclusion are not considered**.**

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 6 for full criteria definitions.



**Three consensus scores varied by more than 0.5 from the mathematical average. Please refer to criteria 3, 5, and 6 above for the rationale behind these consensus scores, each with a variance of 0.67 from the mathematical average.*

5.11. Digital Transformation

Review Summary and Actionable Recommendation
The Digital Transformation Accelerator aims to develop AI approaches, improve software architecture, develop governance, standards and Findable, Accessible, Interoperable and Reusable (FAIR) data, conduct training and improve policy tools. The motivation is admirable and outputs are valuable. The reviewers were pleased to see that demand-driven and human-centered approaches are planned. There are, however, several areas where this Accelerator needs more careful articulation to ensure that potential impact is as high as it can be: 1. Linkages between outputs (e.g., AI) and outcomes (e.g., improved agri-food resilience) must be improved. Outcomes will be more effective if appropriate applications to proposed technologies (e.g., generative AI) are given. Linkages with other Programs, key staff, and timing in the four Areas of Work are necessary. In particular, the resource allocation and scalability plans need more specificity, especially concerning human and financial resources and target geographies. 2. The Accelerator must include demographics which had little previous engagement with such technologies (e.g., marginalized groups, rural poor, etc.). It is unclear how these demographics will be legitimately engaged. It is important that all stakeholders are given a voice but, in some cases, certain stakeholders may be legitimately prioritized over others. More thought to how to address power imbalances and how to engage the technologically disadvantaged would be helpful. 3. The primary proposed avenue for impact of the Accelerator is via other Programs. More details of how that cross-pollination will occur and be improved over time are necessary. Project management will be just as important as the new technologies per se! More specificity relating to project management in the Areas of Work would be useful. 4. Potential risks and mitigation approaches need more consideration. 5. The Theory of Change could be more explicit, particularly those relating to the 'innovation' and 'policy' theories of change. The Theory of Change needs to be more carefully conceived, with clear details of HOW the acceleration/support/facilitation will occur. 6. MELIA could be more deliberate and action oriented. Parts of the MELIA are vague. 7. There is a lack of information on data security, data ownership, and the potential downsides of AI, including how AI is trained. We are concerned that the Accelerator does not prioritize safeguarding stakeholders against inappropriate monetization of their data. More details relating to how these issues will be handled would be desirable.

Overall Strengths of Proposal
The Accelerator espouses demand-driven use-cases that will be designed using a human-centered approach. Use-cases will be iteratively refined with end-users, which is more likely to generate impact and should improve credibility, legitimacy and adoption (cf. generic top-down approaches). As part of this, engagement will be a structured consultation process to understand the critical data and digital needs, as well as interests and capabilities of stakeholders spanning CGIAR, partner organizations and private companies.
Commitment to partnerships. The Accelerator outlines CGIAR's knowledge base and proximity to key agricultural data, the strengths of partners, and the need to leverage their strengths in technology, resources, and local context knowledge to ensure impactful outcomes. In particular, the focus on AI will require much more than the internal resources that currently exist in CGIAR, particularly given the speed with which AI is evolving.

The data ecosystem and Findable Accessible Interoperable and Reusable (FAIR) approaches are laudable and will be essential for success. It is pleasing to see that CGIAR recognizes they cannot do this alone but will take a thoughtful and collaborative approach within a data ecosystem to achieve sustained digital transformation. FAIR approaches and inclusion have a mutual synergy, and FAIR approaches will further fast track research, development, adoption and impact.

Overall Weaknesses of Proposal
Lack of explicit objectives: As written, the Accelerator almost proposes doing "everything for everyone," which is very vague and increases risk of failure. There needs to be explicit, specific, measurable, achievable and time-bound objectives (SMART). Perhaps this lack of objectives stems from the fact that this is an Accelerator, rather than a Program, but even so, SMART objectives should be listed. Disciplinary methods for delivering against these objectives would then be more obvious. While climate change is mentioned, the proposal would benefit from more explicit and measurable objectives that directly address climate adaptation and mitigation. Given that the rapidly changing nature of climate quickly renders data and solutions obsolete, climate change warrants greater detailing in this proposal. It would be useful to add climate metrics (e.g., the number of climate-resilient agricultural practices adopted through digital tools, or reductions in vulnerability for specific communities). Another area that requires SMART objectives is how to address power imbalances and how to engage the technologically-disadvantaged.
Lack of intentional linkages and tangible methods of working with other Programs increase the risk that the Accelerator will fail. Only Sections 10 (Gender and Social Inclusion) and 11 (Climate Change) appropriately detail methods proposed by this Accelerator, although these sections appear to be listed more with an aim of fulfilling the proposal criteria, rather than genuinely linking with the said Programs via the Accelerator's Areas of Work. Similar details are needed for other collaborating Program Areas, including clear deliverables.
Risk identification and mitigation approaches deserve much more attention. Real risks include (1) CGIAR staff will not engage with the Accelerator (2) maladaptive outcomes—not all "innovations" yield beneficial outcomes, (3) energy usage by the data centers, (4) data loss should the data storage/centers by taken out by e.g. extreme weather event or cyber-attack (mitigation actions for each of these risks, and others, must be carefully elucidated) and (5) lack of mechanisms for safeguarding stakeholders against inappropriate monetization of their data.

Areas of Divergence among Review Team and ISDC Resolution
All reviewers have read and agreed with this critique.

The reviewers scored each of the 10 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined challenge that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by ongoing and previous research and Impact Area Platforms and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	2
This Accelerator aims to address challenges posed by interconnected Megatrends such as shifting demographics (MT1), consumption patterns (MT2), climate change (MT4), environmental degradation (MT5), and persisting inequalities (MT8). The challenge is ambitious and practical, supported by Area of Work 1 (improve data sharing across the centers) and Area of Work 2 (codevelop prioritized use cases with stakeholders). Precision Ag is an ideal use case for AI, and the way it is detailed suggests it will be grounded in CGIAR needs and realities.			

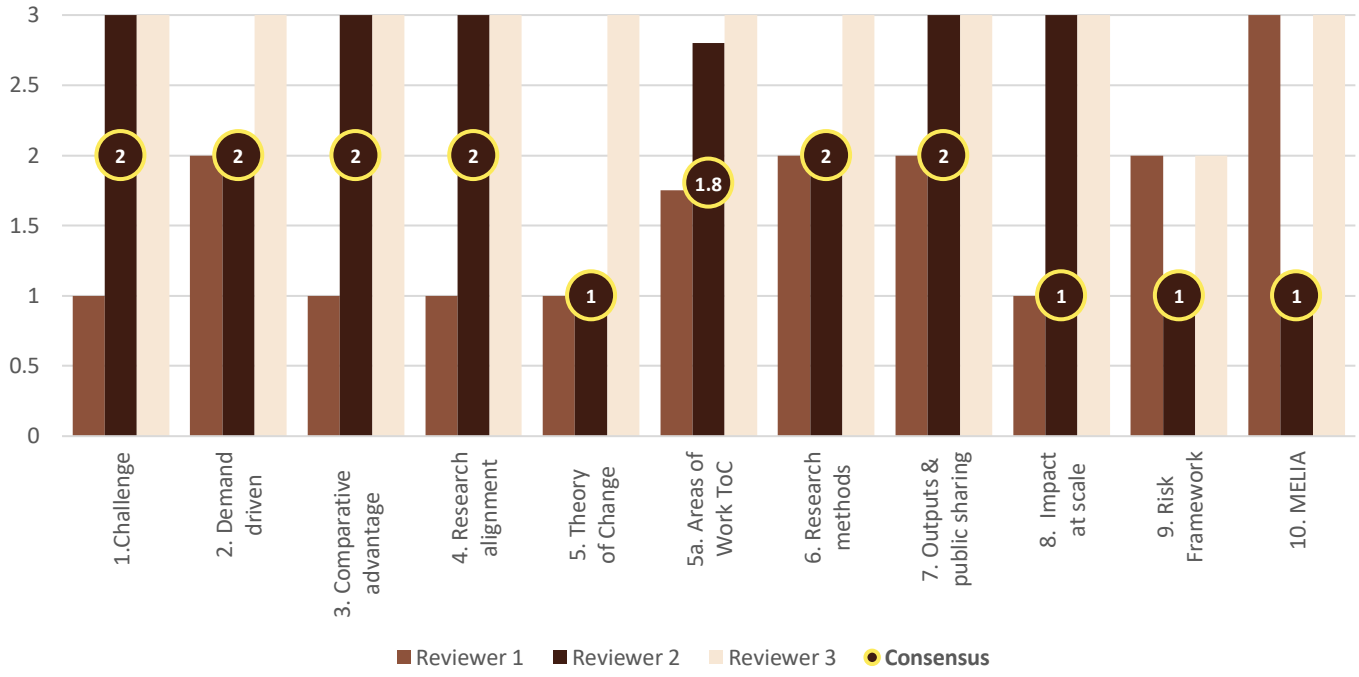
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
While high level challenges are defined, they lack specificity relating to action. The Digital Accelerator aims to operate in the Global South but target geographies are not well defined. Additional detail pertaining to specificity of actions to be taken in relation to the key challenges and target geographies is necessary.			
2. Evidence that the Accelerator/Asset is demand driven through codesign with key stakeholders and partners (NARES, universities, governments, farmers, private sector, funders) and collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	2
Action Lab (WP2) and Digital Futures (WP3) will prioritize use cases and appear to be demand driven. On the other hand, WP2 speaks of "transforming" and "digital innovations," which may comprise completely new technologies, practices or infrastructure. How can this be demand driven if the practitioners are unaware of the innovation in the first place? Perhaps the authors are implying that the problems will be demand driven whereas the solutions will involve innovations? This is often a problem when dealing with naïve markets where consumers are unaware of potential technological solutions to challenges. In such instances it is particularly important to carefully analyses how the proposed innovation will contribute to problem solving and what sort of adverse consequences might arise. How the demand-driven feedback from Programs will be prioritized must be clearly listed. The Accelerator will conduct targeted meetings with "relevant taskforces in each Program and Center" but again how those "relevant taskforces" are selected and their demands prioritized is unclear. Care must be taken to ensure that partners are engaged in a thoughtful, open, and timely manner.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	2
The comparative advantage of other stakeholder groups is clear and systematically set out (p. 12/13). While the Accelerator should be housed in close proximity to the agricultural data and knowledge, it is evident that a successful Accelerator will require skills and expertise beyond the realm of the CGIAR table on p. 12/13. Tradeoffs between CGIAR and partners can almost serve as a checklist of partners required for the CGIAR to deliver on the Accelerator. The summary of outputs is excessively high level (section 4.1). More specific information would be useful: is this about data gathering, data harvesting, training, engagement, and/or tools and infrastructure? Clearly identified themes would help solidify work areas in this Accelerator. Section 4.2 indicates that the Accelerator needs many sources of capital (human, social, biophysical) and financial investment to make this happen. To highlight what CGIAR has to offer, it would help to reference the table on p. 12/13, which provides more comprehensive information.			
4. Research questions, where applicable, address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	2
While some specific are defined (e.g., p. 21 "Prioritize and advance the interoperability agenda, building on CGIAR's wide variety of datasets" as reflected in Area of Work 1 Data Ecosystem), there is a disconnect between the specifics and the emerging megatrends listed in Section 2. In some ways it seems like the Accelerator is aimed at solving everything for everyone. More specifics would be useful; simply listing megatrends is unhelpful. Readers need to know which demographics are shifting and how. What and where are the environmental issues to be addressed? What inequalities must be overcome? The research hypothesis relating to climate change could also be better detailed.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	1
Theory of change outcomes are described via (1) innovation (2) capacity, and (3) policy. The verbs used in these sections imply how the Theory of Change will happen (e.g., "acceleration," "facilitating," "supporting") but does not go far enough, that is, underpinning methods and outputs and not clear. How will the support and facilitation be conducted for Innovation, Capacity and Policy? "The Accelerator will support Programs on use cases that deliver integrated management options (Area of Work 2 Action Lab) and institutional innovations that require new institutional arrangements and business models to manage data as a key resource (Area of Work 4 Enabling Environment)." How will the Accelerator "support?" Not enough details on methods and outputs are given. There is a dissonance between ambitions and outputs. The outputs include large-language models, generative AI, training, technology frontiers, standard-complaint FAIR tools etc. In contrast, ambition speaks to enhanced sustainability, resilience in agri-food systems, demand-driven digital solutions, etc. The linkage between outcomes and outputs needs more thought and more explicit methods. While the Theory of Change for capacity development is reasonable (training), there is a lack of deliberate methods relating to the innovation and policy Theory of Change. Further, the Accelerator-level Theory of Change visual is complex to digest: it would be great to simplify, or just clarify the directions of the arrows. It would be useful to articulate some quantitative KPIs to track the Accelerator's progress.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	2
Area of Work 2			2
Area of Work 3			2
Area of Work 4			1
Overall, the Outputs should be much more specific. **Area of Work 1** (Data Ecosystem): Good to see intent to carry out foundational activities to enable internal and external stakeholders to generate FAIR, and AI-ready data in 2025. Unclear what the data is and how it will be used. Training details are limited. Interactions with other work programs need to be more explicit (p. 26). Figure 2 has many verbs ("facilitating", "building" "guiding", "supporting") but few tangible actions. In a data ecosystem, we would expect to see: (1) data sources and storage (2) how FAIR process will be conducted and monitored (3) How the training will be conducted etc. **Area of Work 2** (Action Lab): How will key stakeholders be selected and included? To generate impact, the Accelerator should engage those who have had little engagement in previous work (marginalized groups, youth, women, rural poor). The proponents need to be sure that all stakeholders contribute to the discussions, rather than one or two larger stakeholders dominating viewpoints. The research questions cannot be tested by the outputs proposed—the outputs are technology and training—not complex modelling of food, land, and water systems. There is a disconnect between the proposed technology, engagement and desired outcomes. **Area of Work** 3 (Digital Futures): Great to see this Area of Work, as success of emerging technologies depends on knowledgeable and available human capital. It may be better to name this Area of Work "Digital Frontier Technologies" as this seems to be the focus. Outputs could be more explicit. **Area of Work 4** (Enabling Environment): Pleasing to focus on developing inclusive technologies to support AoWs 1-3. This AoW could be better integrated within Areas of Work 1-3. Specific examples should be added to each row of Table 1: how will scientists be trained to use this infrastructure? Over what period will these activities occur? The research question "how can CGIAR effectively enable collaboration with diverse stakeholders to unlock the potential of data and frontier technologies for transforming food land water (FLW) systems" is not testable and			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
not well aligned with the purpose of developing an enabling environment. The order of activities needs clarification: starting with networks/hubs before policy/standards are in place could create governance issues. The logic driving this Area of Work is unclear.			
6. The scope of work, approach and broad methods are fit for purpose, feasible, and innovative.	Partly in 6	**Relevance** Effectiveness	2
The prime avenue for impact of the Accelerator will be via other Programs and the approach to creating digital literacy is commendable. More details of how communication and cross-pollination will occur between Accelerate-specific staff and others in CGIAR are necessary. Project management will be just as important as the new technologies per se requiring excellent management and leadership skills of staff. This could be difficult and should be considered as part of the overall risk assessment. Research questions are sensible, but more specifics are necessary to determine feasibility. For example, how will the Accelerator ensure that data standards are adopted by CGIAR staff? Without a deliberate method (e.g., via Program Areas) it is difficult to determine whether the scope of work is fit for purpose. While the CGIAR has likely amassed valuable data, if such data are not organized and made available, it is unlikely the CGIAR will benefit from them.			
7. Anticipated outputs (knowledge, technical, or institutional advances, capacity development, technologies or products) are clearly described.	11	**Legitimacy** Effectiveness	2
Good overview but with some deficits. Much of the text in sections 6 and 10 implies that the Accelerator is starting from zero. The proponents need to better describe how existing work will be leveraged and built from. Where are the existing databases and how will they be improved? It was great to see the text on the bottom of p. 24—more specific examples such as this are needed elsewhere: 1. How can data be "findable" and "open" and "accessible" on the one hand and "secure" on the other? Secure from what? How is data ownership (IP) managed? Is CGIAR selling the data for a cost or making it open to all? 2. How and when will the training be conducted? 3. What does citizen science involve? 4. What is a "policy toolkit" and how is that linked with the outputs above? Open and AI-ready multidimensional data and data products are espoused. What are they, and how do they contribute to nutrition and food security, poverty reduction, etc.? It is not enough to say they will be generated. The proponents need to state what these technologies are and how they will be integrated into the various SPs to generate impact?			
8. Evidence that the Accelerator/Asset has close linkages and joint work with Science Programs that will contribute to impact at scale.	6	**Credibility** Effectiveness	1
It is implied that the Accelerator will build linkages via pilots, which is very good. However, those linkages must be better articulated in Sections 7 and 8. In particular, we would like to see deliberate anchors for engagement. For example, section 7.2 indicates the Accelerator will conduct "early pilots […] with Sustainable Farming, Climate Action, […] to co-develop digital technologies towards impactful and sustainable agricultural innovations programs." These statements are not intentional enough. **How** will this Accelerator collaborate with these programs, **when** will training be done, **how** does this collaboration link with the Areas of Work? Coupling and timing of those linkages within the Areas of Work is needed. Only Sections 10 (Gender and Social Inclusion) and 11 (Climate Change) specifically detail the work proposed by this Accelerator. Similar details are needed for other sections.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
In many organizations, staff are busy. Imposing further data management may be perceived as just another administrative burden. How can the proponents be sure that CGIAR staff will use the database (e.g., GARDIAN) and standardize their data in a way that is commensurate with the database?			
9. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	7, 8, 10	**Effectiveness** Credibility Relevance	1
While the accelerator identifies risks, there are many omissions. Considering the Accelerator must be AI-ready and support the development of AI applications covering the five Impact Areas, a core risk would be technological risk. Much more thought could be given to the risk assessment. This includes: 1. The purported "benefits" and "transformation" to be realized from adoption of new technologies is implied. We see no mention of maladaptation, i.e., adoption of new technology that results in detrimental impacts to the environment, greater inequality, lower income for smallholders or other. How will the downside risk of these "innovations" be managed? Not all innovations improve public good. 2. The risk that CGIAR staff won't use the data management/tools/databases espouses by this Accelerator is moderate to high. Most people have limited time to take on new things, especially things they perceive as lower priority than some of their other tasks. How will CGIAR raise awareness of and bring people along on the journey of data standardization, sharing and documentation? 3. Risk of environmental harm caused by AI and data center energy usage needs to be made more explicit. This is discussed in research question 3.2 but should be expanded. It could also briefly mention the risk that climate change poses to these technologies themselves—if a hurricane takes a data center or other physical infrastructure out, the Accelerator's functions are limited. 4. AI per se constitutes a risk that needs to be managed. For instance, LLMs are prone to hallucinations. How will the accelerator mitigate against such a misuse of data? 5. Risk mitigation actions are necessary. How will the above risks be mitigated? 6. Throughout the proposal, emphasis on the potential downsides of AI, including how AI is trained and who owns the data used for such training, is insufficient. The Accelerator proponents have a key role to play in placing risk mitigation processes to reduce downside risk of AI and must develop clear guidelines from the outset relating to data ownership.			
10. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	13	**Credibility** Legitimacy Relevance	1
MELIA will be conducted by a dedicated team that will implement the MEL framework, working with research and delivery teams to ensure alignment with Accelerator objectives to define output-level and outcome-level key performance indicators. Initial baselines to measure relative improvement will be established, and bi-annual reviews conducted. Lessons learned will be documented and shared. Much of this is aspirational and has not been developed in any detail, hence the rating of '1'. Perhaps the MEL team could help bridge the gap between outputs and outcomes in this Accelerator.			

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 6 for full criteria definitions.



**Six consensus scores varied by more than 0.5 from the mathematical average. Please refer to Criteria 5 (0.67), Criteria 5a (0.72), Criteria 7 (0.67), Criteria 8 (1.33), Criteria 9 (0.67), and Criteria 10 (1.33) above for the rationale behind these consensus scores.*

5.12. Capacity Sharing

Review Summary and Actionable Recommendation
The proposed CGIAR Capacity Sharing Accelerator aims to foster collaborative partnerships to tackle global food, land, and water challenges. By promoting mutual learning and capacity sharing, especially with partners from the Global South, it plans to build technical and beyond-technical skills. This Accelerator is designed to drive innovation, gender equality, and sustainable development to address key Impact Areas and achieve 2030 strategic goals. This project is very ambitious and will require strong systemic support and adequate resource allocation for meaningful impact to be realized. It is unclear from the proposal what level of funding or full-time equivalent personnel will be dedicated to the Accelerator. This, as well as the experience and expertise of the team that will be responsible for delivering on the work, will have a significant impact on its feasibility and success. However, this is beyond the purview of the review panel. The need for the work and increased efforts and efficiencies in capacity building and sharing is undisputed and if successful the proposed Area of Work will deliver valuable impact to stakeholders and beyond. The key recommendation to the writing team is to tighten the scope and focus the work on strategically important activities identified to ensure meaningful traction and avoid fragmented and disparate deliverables. The value proposition and return on investment could be better presented with the expected impact. Other specific areas to consider are noted in the review below. Note that the template may not have been ideally suited for an Accelerator as it is designed for research frameworks.

Overall Strengths of Proposal
The project center around a well identified challenge and opportunity to add value and scale-up capacity sharing by addressing fragmentation of these activities within and beyond CGIAR, presenting a structured approach based around three Areas of Work. Overall, it is a solid framework to enhance capacity sharing and has the potential to support all key Impact Areas.
The proposal is demand driven and based on numerous reviews and reports as the work of a dedicated task force that concurred the Accelerator's need. Pitfalls from prior attempts to improve capacity sharing within CGIAR are known, which the project team will be able to learn from and find solutions to.
Area of work 2. The CapSha marketplace aims to develop a map of resources, programs and providers, is practical in nature and will be important to create impact by creating a one-stop-shop platform for accessing capacity and expertise as well as its facilitation role for co-development of Programs. It could be further strengthened by including methods for quality and relevance assurance mechanisms for ensuring the quality and relevance of its offerings and how Marketplace will incentivize the use of its platform over just serving as a clearinghouse.
Overall Weaknesses of Proposal
Partner engagement. There is a lack of clarity regarding whether meaningful codesign occurred during the process or how the Accelerator will add value to the delivery of capacity sharing beyond supporting the activities. There is also a concern that the process is exogenous in nature, focusing on passive resource sharing, which may not be conducive to engaging users. The proposal could elaborate on how it will actively support formation of partnerships, outlining strategies for partner vetting and identification, engagement and resource mobilization, as well as measuring potential engagement fatigue. How the proposal will foster decolonization needs to be better defined. Risk to the project from lack of engagement from partners within and outside of the CGIAR is high.
Scope and specificity. The current proposal covers a wide range of geographical areas and work plans, it is somewhat generic in its outlook. A more strategic approach that ties the different components together would enhance its overall effectiveness. To strengthen the impact, narrowing the scope by lifting some of the very specific deliverables to a higher level and focusing on specific regions or strategic activities based on a needs

assessment would help create a more targeted approach. It would also be helpful to define clearer, measurable outcomes to allow better tracking of progress and success over time.
Area of Work 3. This Area of Work is framed as a strategic approach rather than a focused overview of the proposed work. It needs to better elaborate by strengthening the why, how and what of the approach, articulating concrete outcomes and preventing reactive pursuit of fragmented interventions or opportunities.

Areas of Divergence among Review Team and ISDC Resolution
Research into capacity sharing. One reviewer considered it an important activity in addressing knowledge gaps and rigor in the effectiveness and implementation of capacity sharing whereas one thought it not a strong comparative advantage for the CGIAR and should therefore be left to others and for CGIAR to focus on the implementation of best practice.

The reviewers scored each of the 11 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined challenge that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by ongoing and previous research and Impact Area Platforms and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	3
The proposal addresses the critical issue of fragmentation in capacity sharing within the CGIAR by presenting a structured, cohesive framework encompassing an Innovation Lab, Marketplace, and South-South and Triangular Cooperation (SSTC). It draws on internal and external reviews and aligns with the Strategy and funders' priorities, including collaboration, innovation, and scaling of technologies. However, concerns arise regarding the proposal's broad scope, potentially limiting its effectiveness without a prior gap analysis or priority setting. While the ambition to foster "decolonization" is commendable, further elaboration is needed to substantiate this goal meaningfully keeping the same level of ambition.			
2. Evidence that the Accelerator/Asset is demand driven through codesign with key stakeholders and partners (NARES, universities, governments, farmers, private sector, funders) and collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	2
The Accelerator is planned to operate through a platform model engaging with partners from the Global South and is designed to generate tools and a marketplace for best practice capacity sharing. External stakeholders are listed as partners. The proposal lacks clear evidence of meaningful stakeholder engagement or involvement in its initial design and does not fully address issues such as power imbalances, knowledge ownership, engagement fatigue, or cultural challenges in collaboration.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	2.5
The Accelerator will build on and enhance incentives, human capital, social and (virtual) biophysical capital across CGIAR towards delivery of high-level outputs. It provides a detailed comparative advantage analysis, highlighting CGIAR's unique strengths in capacity sharing through its extensive network, research expertise, and established partnerships. It also acknowledges the distinct advantages of different partners, such as NARES and universities, and outlines strategies to leverage these strengths. A concern is whether the new Accelerator itself has the legitimacy to leverage CGIARs reputation from the outset and whether the comparative advantage			

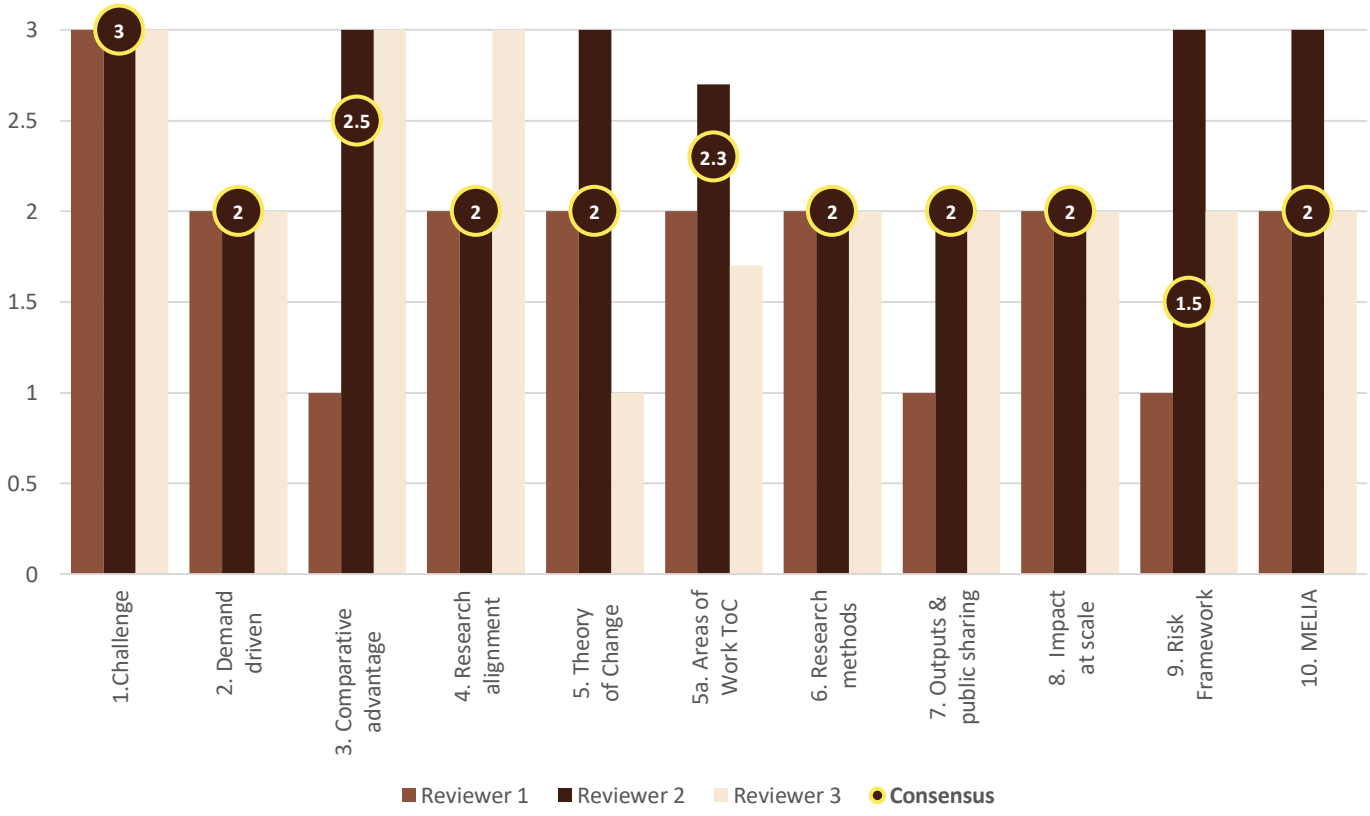
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
analysis should have been done from the perspective of the Accelerator itself as a new entity rather than CGIAR. The proposal could also better explain how these advantages will translate into concrete and collaborative opportunities, particularly around forming new partnerships and expanding beyond existing relationships to deliver innovative solutions. Additionally, while the Accelerator aims to enhance capital and collaboration across and beyond CGIAR, it lacks a clear assessment of its own legitimacy as a broker and its track record in stakeholder engagement.			
4. Research questions, where applicable, address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	2
The work in CapSha includes two research questions adding a research dimension in the context of capacity development which has until now been a service function and would generate useful knowledge in the field. The research questions would be strengthened by explicitly stating the underlying hypotheses that will guide the work and how they will help address the emerging megatrends. Further, in context of capacity sharing, the comparative advantage analysis could have been used to assess whether the CGIAR is best placed to conduct research into capacity sharing or if the academic work on this would be better done by collaborators with CGIAR testing the implementation and evolving best practice.			
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	2
The Theory of Change presents a good overview of the logic, intervention strategy, and intended implementation pathways. It discusses the interconnectedness of the three Areas of Work but needs better detail to develop assumptions and clarify specific indicators that will be used to measure progress. How the Accelerator will ensure inclusive innovation and equitable partnerships also needs to be clear to all partners from the outset. A concern is how the accelerator will effectively work with and build on other capacity sharing activities at CGIAR without duplication or competition.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	2
Area of Work 2			3
Area of Work 3			2
Area of Work 1 Innovation Lab: The innovation lab outlines how it will identify capacity gaps and needs, capacity sharing codesign and innovative tools. MELIA frameworks will be operationalized. The requirement for development or adaptation of existing tools needs better justification with specific reference to assumptions or drivers. It is exogenous in its description and would benefit from a clear strategy on how these will be actively used with stakeholders. **Area of Work 2** Marketplace: Well defined and practical. It could be strengthened by explicit plan for how it will incentivize and engage users rather than being a clearinghouse. **Area of Work 3** SSTC: The approach for engagement and collaboration is justified and will require significant effort. A clarification on how the work will contribute to capacity sharing and innovation in different regions and context with clearer roles and responsibilities would improve the plan of work. This links back to a lack of clarity regarding codesign of the proposal with stakeholders.			
6. The scope of work, approach and broad methods are fit for purpose, feasible, and innovative.	Partly in 6	**Relevance** Effectiveness	2

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
The scope of work is wide and although the approach is appropriate and well suited to address the challenges identified, the Areas of Work are all-ranging and overly ambitious in places risking fragmented efforts in disparate fields of work. It would have been good to see better priority setting allowing for more depth of work. It is not clear what level and experience of staffing is available for the project; hence it is difficult to estimate how realistic it is to realize the impact set out. Better clarity is needed on community of practice, how it will be operationalized and meaningful engagement achieved whilst being mindful of time capacity of CoP members.			
7. Anticipated outputs (knowledge, technical, or institutional advances, capacity development, technologies or products) are clearly described.	11	**Legitimacy** Effectiveness	2
The proposal describes outputs in all the above criteria to act as support or facilitate knowledge sharing and capacity development. A clearer framework regarding the scale and reach of planned interventions, how these will be disseminated and used by different stakeholders will help track progress. It is unclear how the marketplace will be promoted and use incentivized to partners. The Accelerator might benefit from a more active approach to catalyze capacity sharing with a stronger endogenous engagement and involvement that has been shown to be more effective.			
8. Evidence that the Accelerator/Asset has close linkages and joint work with Science Programs that will contribute to impact at scale.	6	**Credibility** Effectiveness	2
The proposal outlines clear linkages between CapSha and all the Programs and Accelerators, demonstrating its intent to collaborate and underscoring its system-wide relevance. It would benefit from more specificity regarding how the work will be shared, partner contributions to capacity sharing work, and concrete examples to clarify these connections. A more strategic approach for working with and support of Programs would be beneficial, this currently refers to specific and tailored deliverables that could prove demanding on resources. Potential competition for resources and influence among programs should be addressed, with strategies to ensure synergies and avoid conflicts. CapSha could strengthen its strategic coordination mechanisms and clarify how it will assess capacity sharing outcomes and prioritize resource allocation for greater impact.			
9. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	7, 8, 10	**Effectiveness** Credibility Relevance	1.5
The proposal demonstrates an awareness of key risks, such as unequal power dynamics, resource competition, and the influence of ultranationalist political trends, and commits to developing a comprehensive risk management plan during the Inception Phase. However, it could be strengthened by including a broader range of risks such as the sustainability of the Accelerator itself, financial, technological, compliance, service delivery, regulatory risks and uncertainties surrounding the SDGs beyond 230, for example. Additionally, providing preliminary mitigation strategies at this stage would enhance robustness. Integrating these risks and strategies into the overall program design and implementation plan is essential to ensure proactive and effective risk management.			
10. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	13	**Credibility** Legitimacy Relevance	2
The proposal presents a commitment to a strong MELIA framework, emphasizing accountability, adaptive management, and learning. It will include KPIs for tracking progress, outcome mapping for internal reflection, and mixed methods for impact assessments across diverse geographies. The approach is ambitious, particularly in			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
multi-scale assessments at the household level and is likely to require substantial resources and coordination. Plans for partner collaboration during inception are promising but lack specifics as well as baseline indicators and targets. The framework could benefit from more detail on qualitative methods and how MELIA will inform risk management. The integration of impact assessments within the CapSha Innovation Lab further strengthens its potential for knowledge development and evidence-based decision-making although the multi-scale assessments, particularly at the household level might be overly ambitious and should be revisited.			

Additional Comments Not Presented Above
Traditionally, accelerators are considered catalysts for action, helping projects or businesses to scale up quickly. It might be good to clearly articulate the definition of the Capacity Sharing Accelerator and clarify the use of the terminology.

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 6 for full criteria definitions.



** No consensus score varied by more than 0.5 from the mathematical average.*

5.13. Genebanks

Review Summary and Actionable Recommendation
The proposal effectively highlights the role of Genebanks in addressing critical challenges aligned with the Strategy. It outlines innovative methods and demonstrates CGIAR's expertise in managing Genebanks. However, some areas need improvement. For example, the exclusion of the East African region from capacity-building initiatives is concerning given its genetic diversity. Additionally, neglected and underutilized species are not prioritized, despite CGIAR's potential to leverage its expertise in this area. The proposal also lacks specific strategies for engaging partners and stakeholders, which is vital for ownership and collaboration. Furthermore, futureproofing against climate impacts is not adequately addressed. The broad scope of Genebanks—covering 12 genebanks across various countries—leads to a lack of specificity regarding objectives, operational needs, gene pool overlap and gap analysis. While the proposal emphasizes cooperation and data management, it underemphasizes the specific challenges related to the collections such as specific protocols tailored for maintenance and rejuvenation of certain species. Finally, while the proposal aligns with local and regional institutions, it lacks KPIs to measure progress. Instead of solely providing training through CGIAR, fostering regional genebank initiatives may enhance efficiency and access to resources. The focus should shift from increasing user numbers to strengthening partnerships for effective germplasm characterization and use. Recommendation: Address regional inclusivity, prioritize neglected species, clarify stakeholder engagement, and improve specificity in objectives. Establish KPIs for progress assessment and emphasize regional genebank initiatives over centralized training.

Overall Strengths of Proposal
Access, Benefit-Sharing, and Germplasm Health Effective access and benefit-sharing (ABS) policies are crucial for sustainable agricultural research and development, as outlined in Area of Work 3. These policies create a legal framework that promotes equitable exchanges of genetic resources while ensuring local communities benefit from their contributions. As agricultural challenges evolve, ABS policies must adapt to new technologies and stakeholder needs, reinforcing CGIAR's role in biodiversity conservation.
Methods and Innovation Section 6 stands out for its clear methods and innovative approaches to achieve desired outputs across five Areas of Work. The proposal emphasizes the use of AI-enabled tracking for accession management, demonstrating a forward-thinking application of technology. This section effectively details how to meet objectives, although additional information from section 5 could enhance clarity if integrated. The table listing partnerships adds credibility yet could benefit from more specificity regarding partner roles. This comprehensive approach ensures that genebanks are well-equipped to navigate contemporary challenges in genetic resource management.
Area of Work 4, prioritizing germplasm health through phytosanitary measures is vital. Innovations in pest detection and treatment safeguard genetic resources, supporting global food security and resilience against climate change threats.
Overall Weaknesses of Proposal
Codesign and Partnerships The proposal lacks clarity on the codesign aspect of activities, particularly in defining roles and responsibilities among key partners. Evidence of effective partnerships is not presented, which diminishes the overall accountability of the Asset. A clear framework for collaboration is essential to ensure that all stakeholders are engaged and that their contributions are recognized. By enhancing transparency in how codesign is approached, the proposal can better align with its demand-driven objectives and establish a stronger foundation for successful project implementation and stakeholder buy-in.

Monitoring, Evaluation, and Learning Section 10, focused on MELIA, fails to include essential learning questions that would guide reflection and inform adaptive interventions. Establishing baseline information for various activities is critical for meaningful impact assessment. Without these foundational elements, it becomes challenging to measure progress and effectiveness accurately. By integrating specific learning objectives and baseline metrics, the proposal could improve its capacity for adaptive management and ensure that lessons learned inform future decision-making processes.
Impact and Focus of Genebanks The proposal presents an ambitious vision in Section 5, but this may not be achieved or may not be addressed well by the activities described in Section 6, leading to redundancy or failure to achieve goals. A more streamlined approach could enhance clarity and utility. The focus should shift from increasing user numbers and seed requests to prioritizing core activities related to collection, conservation, and distribution of genetic resources. Additionally, CGIAR must identify regions where their interventions are truly needed. By emphasizing local capacity building and minimizing competition with national research efforts, CGIAR can foster sustainable agricultural development.

Areas of Divergence among Review Team and ISDC Resolution
NA

The reviewers scored each of the 10 QoR4D criterion individually. The review teams then built a consensus score. In most reviews, the consensus score was the same as the mathematical average of the three individual reviewer scores. Following the criteria is a figure presenting the individual reviewer scores and consensus. Please refer to p. 7 for the Likert scoring definitions.

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined challenge that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to the 2030 Strategy, multi-funder priorities, and is well informed by ongoing and previous research and Impact Area Platforms and lessons from the 22-24 Portfolio Initiatives.	2, 3	**Relevance** Effectiveness	2
The proposal effectively addresses some Impact Areas, including nutrition, environmental health, and climate adaptation, but it is less clear how it will tackle poverty reduction, gender equality, and social inclusion. While it mentions key challenges from the Strategy, specifics on addressing these challenges remain vague. Concrete actions, like identifying relevant germplasm and improving passport data, are needed. Additionally, the claim regarding the diversity of Genebank crop germplasm collections lacks supporting evidence and metrics for measuring effectiveness. To enhance the proposal, clear strategies for identifying and mobilizing key stakeholders and using advancements in sequencing and bioinformatics should be outlined.			
2. Evidence that the Accelerator/Asset is demand driven through codesign with key stakeholders and partners (NARES, universities, governments, farmers, private sector, funders) and collaborators within and outside CGIAR.	2, 3, 7	**Relevance** Legitimacy Effectiveness	1.7
The proposal on Genebanks lacks clarity regarding the roles and priorities of key stakeholders, presenting generic expectations rather than specific responsibilities. While outreach and cooperation strategies are outlined, the scope of the project, covering twelve diverse genebank collections, complicates clarity on mandates by crop or geography. Additionally, despite a high demand for accessions (200,000), there is no user study to identify actual needs, leaving questions about seed availability and market demands unanswered. Recommendation: Clearly define stakeholder roles and responsibilities, specify genebank mandates, and conduct a user study to understand real needs regarding seed traits and market demands.			
3. Analysis of comparative advantage of CGIAR in delivering key outputs and outcomes (rather than focus on inputs) necessary for impact and how this has created opportunities for new partnerships.	4	**Legitimacy** Effectiveness	1

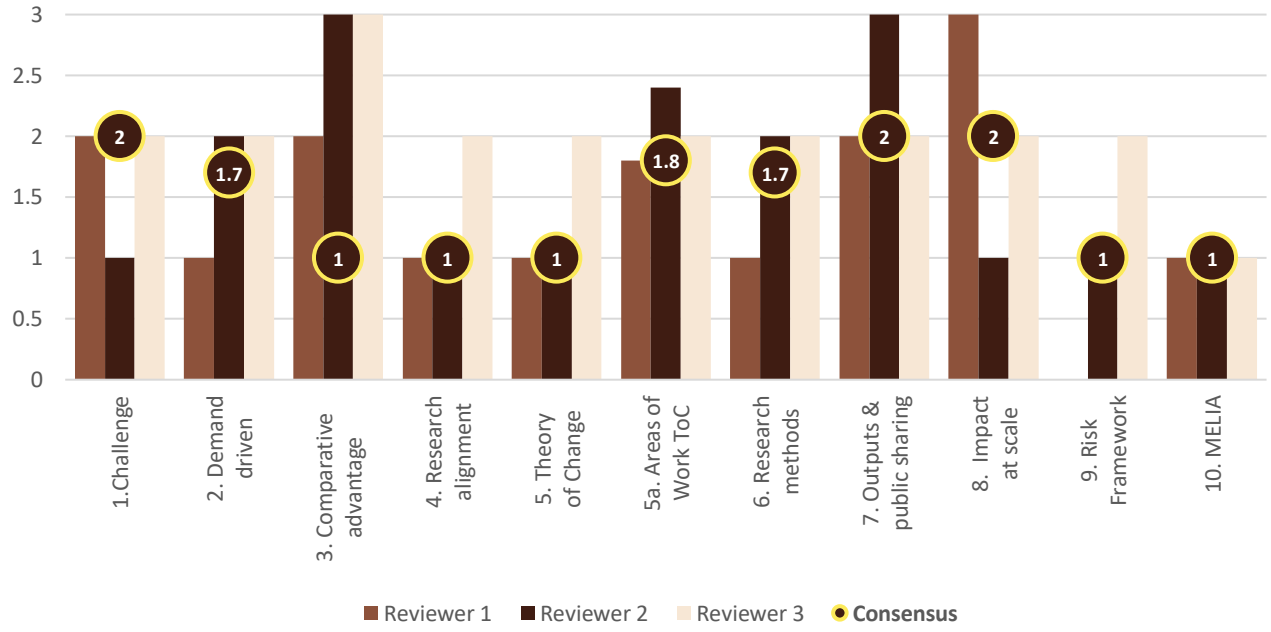
Criteria	Proposal Sections	QoR4D Elements	Consensus Score
The analysis acknowledges the challenges of applying comparative advantage to Genebanks and highlights the global relevance of CGIAR collections, especially due to their integration with research centers and health units. The importance of cooperation among the 12 genebanks for technical and political representation, along with outreach efforts, is noted, though specifics could be elaborated. Additionally, the claim that CGIAR holds a unique position in providing genetic resources is questionable, given the presence of well-managed local and national genebanks. The proposal should clarify the uniqueness among genetic resources and analyze operational costs, identifying targets for cost reduction including GHU resources and scope for efficiency savings or partnerships with NARES and ARI. Recommendation: Provide clarity on CGIAR's unique role in genetic resources, enhance details on cooperation and outreach, and conduct a thorough analysis of operational costs, including benchmarks and reduction targets. Comparative advantage analysis of GHU is weak.			
4. Research questions, where applicable, address well defined knowledge gaps and emerging megatrends, with a particular emphasis on climate change, and are supported by underlying hypotheses.	2, 6	**Relevance** Credibility	1
The proposal addresses key genebank functions (the research is not a focus here, it is an asset proposal) and some gaps but fails to adequately consider climate impacts in futureproofing Genebank strategies, particularly regarding neglected and underutilized species (NUS). The seven listed outputs emphasize the importance of cooperation in establishing common standards and protocols. However, the proposal lacks clarity on CGIAR's global positioning among *ex-situ* collections and how to identify gaps or coordinate with *in-situ*/on-farm efforts. Additionally, the objective of increasing collection use raises concerns about whether demand is genuine or artificially created to justify Genebanks' roles. Recommendation: Enhance focus on climate impacts and NUS, clarify CGIAR's global role, define how gaps will be identified, and critically evaluate the rationale behind increasing collection use. Define specific research questions to guide the proposal.			
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	5	**Effectiveness** Relevance	1
The proposal lacks a well-defined impact path, making it challenging to track outcomes. The section intended to illustrate interactions for achieving outcomes is overly complex and could have benefited from clearer presentation, as much of the necessary information is found in Section 6. The graph on p. 16 is difficult to interpret, and the interaction with the breeding programs requires more detail. Additionally, the proposal lacks accountability regarding vague goals such as improving processes and enabling targeted diversity use. Claims about the benefits of virus-clean materials are overstated, as genebanks provide limited quantities, necessitating further multiplication beyond their scope. Recommendation: Clearly define the impact path and simplify the presentation of interactions, potentially by reorganizing sections. Establish SMART goals for accountability. Provide more clarity on the role of genebanks in breeding and avoid overstating the benefits of virus-free materials without addressing multiplication challenges.			
5.a *When relevant*			
Area of Work 1	6	**Effectiveness** Relevance	1.7
Area of Work 2			1.7
Area of Work 3			2
Area of Work 4			2
Area of Work 5			1.7
Area of Work 1: The proposal should prioritize the inclusion of neglected and underutilized species (NUS) in Genebank collections, as current efforts mainly focus on major traded crops. NUS require greater attention and funding. Additionally, the proposal lacks clarity on how to measure "smarter and more sustainable ways" and does not identify specific processes needing improvement or the associated bottlenecks and costs.			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
Accountability for achieving targets, such as the 90% standard for accessions, is unclear, as is the baseline for improvements. Furthermore, the rationale for specific technologies like the VideometerLab and the integration of various platforms remains ambiguous. It is not elaborated how "Strengthened collection composition and stricture to represent genepools" will be achieved. Recommendation: Emphasize the inclusion of NUS in Genebank collections and clarify measurement criteria for process improvements. Identify specific bottlenecks and establish accountability for targets, along with clear baselines. Provide rationale for chosen technologies and detail how various platforms integrate to enhance effectiveness. Set funding milestones to ensure support for additional activities. **Area of Work** 2: The proposal lacks clarity on the engagement of national-level users of Genebank collections, in particular plant breeders, presenting a one-sided interaction from CGIAR without establishing a feedback loop. This suggests that users and national centers are passive participants. Furthermore, the proposal does not articulate how increasing user numbers will create positive impacts, nor does it specify the role of strategic users in coordinating initiatives to evaluate germplasm. Additionally, it is unclear what targets need to be met for Output 2.2 and how much funding is required. Local genebanks' capacity to adopt technologies like BrAPI and the role of universities as partners also need further exploration. Recommendation: Enhance user engagement by establishing a feedback loop with national-level stakeholders. Clearly define the impact of increased user participation and set specific targets and funding needs for Output 2.2. Assess the feasibility of adopting new technologies for local genebanks and emphasize the role of universities in training future professionals on germplasm use. **Area of Work 3**: In futureproofing the ABS policies, the impact of climate change will be largely overlooked. Most of the conservation efforts are made at the national (local level) with limited resources and capacity to climate change impacts (adaptation), especially in low-income countries. The benefit sharing could play an important role by channeling resources to the conservation (maintenance) and use of crop genetic resources for adaptation purposes especially where there are more adverse and urgent effects of climate change. The emphasis of the policy work should be on the International Treaty on Plant Genetic Resources for Food and Agriculture because this is the mandate of the CGIAR. The CBD is marginal for PGRFA. Finally, to be accountable for these activities the objectives need to be SMART. **Area of Work 4**: The proponents need to be more specific about what “co-create and implement innovations and procedures” means; -what crops or pathogens? -What are the main challenges? Are they considering local capabilities from external partners? Are they considering working with academia for characterization and epidemiology? It is important to work together with national plant protection organizations (NPPOs). **Area of Work 5**: The proposal for Output 5.2 raises concerns about the limited scope of diversity analysis, focusing only on common beans in the Latin American region, while neglecting other regions and crops. Additionally, the statement about maximizing limited resources lacks clarity, suggesting a disparity in support between large and regional genebanks. It proposes that funding should be directed to regional institutions directly, bypassing intermediaries. The concepts of "low-cost genotyping" and outsourcing need further explanation. The reliance on external training initiatives is questioned, advocating for empowerment of local scientists and using public resources like YouTube for broader training access. Recommendation: Expand diversity analysis to include other crops and regions. Clarify how to effectively use limited resources and consider direct funding to regional genebanks. Define "low-cost genotyping" and evaluate the benefits of outsourcing this. Empower local scientists through targeted training and use of public platforms for broader outreach, ensuring regional governance develops independently without reliance on external intervention.			
6. The scope of work, approach and broad methods are fit for purpose, feasible, and innovative.	Partly in 6	**Relevance** Effectiveness	1.7
The proposal presents a comprehensive approach within Genebanks, covering aspects from collection to conservation and stakeholder engagement. The introduction of innovative technologies, such as AI-enabled tracking and potentially DNA fingerprinting for germplasm registry, is promising. However, while innovation is crucial, the need for stability and practicality in processes should not be overlooked, particularly regarding the restrictive accessibility of cryo-conserved materials compared to in-vitro, field materials or seeds. Additionally,			

Criteria	Proposal Sections	QoR4D Elements	Consensus Score
the absence of clear KPIs or SMART targets makes it difficult to evaluate feasibility and innovation levels across the proposed Areas of Work. Recommendation: Balance innovation with stability by ensuring new technologies enhance practical processes. Develop clear KPIs and SMART targets to evaluate progress and effectiveness, particularly regarding accessibility and distribution of cryo-conserved materials.			
7. Anticipated outputs (knowledge, technical, or institutional advances, capacity development, technologies or products) are clearly described.	11	**Legitimacy** Effectiveness	2
The proposal outlines clear, anticipated outputs related to knowledge and technological advancements. However, it inadequately addresses capacity development in sub-Saharan African countries, which are crucial diversity hotspots. While the descriptions of objectives and their achievement strategies are clear, CGIAR's experience in improving internal processes may lag with new technologies like AI and sequencing, indicating a need for further integration and adaptation. Recommendation: Enhance the plan to include sub-Saharan African countries in capacity development efforts. Accelerate the integration of new technologies such as AI and sequencing to leverage CGIAR's strengths in improving internal processes but make sure the germplasm material itself remains the focus.			
8. Evidence that the Accelerator/Asset has close linkages and joint work with Science Programs that will contribute to impact at scale.	6	**Credibility** Effectiveness	2
The proposal effectively outlines the linkages and boundaries with science programs, but the necessity for clearer elaboration on these connections is evident. While the University of Aarhus is mentioned, more significant potential partners should be identified to enhance collaboration. The connections between breeding efforts and essential cooperation with research remain vague. The alliance with “Breeding for Tomorrow” and the Data and Digital Accelerator is promising and could significantly benefit breeding programs. Recommendation: Clearly articulate the connections with additional partners and research institutions, emphasizing critical breeding links. Strengthen cooperation with breeding and digital initiatives to maximize the impact of genebank collections.			
9. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	7, 8, 10	**Effectiveness** Credibility Relevance	1
The proposal lacks a comprehensive framework for mitigation actions, particularly concerning climate-related risks beyond novel pests and diseases. The risks listed on p. 47 should be prioritized by likelihood or impact for better clarity, as the current categorization is overly broad and may overlook other significant risks. Additionally, there is insufficient information provided regarding these risks. Recommendation: Reassess the framework to include specific mitigation actions for climate impacts and refine the risk assessment by prioritizing risks based on likelihood and impact. Ensure comprehensive documentation of all relevant risks for clarity and effective planning.			
10. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	13	**Credibility** Legitimacy Relevance	1
The proposal outlines the use of an online reporting tool (ORT) for monitoring performance but lacks clarity on how to incorporate lessons learned for adaptive strategies. While impact assessments are challenging, leveraging innovative tools like AI and DNA fingerprinting could facilitate baseline development. The application of CGIAR's MELIA approach is unclear, lacking quantifiers or specific plans for assessment. Although feedback mechanisms for user outreach are mentioned, accountability for initiatives in the Areas of Work needs improvement. Recommendation: Clearly define how lessons learned will inform adaptive strategies and specify the application of impact assessment methods. Incorporate quantifiers for monitoring and ensure accountability for AOW initiatives through established performance targets.			

Additional Comments Not Presented Above
Funding: the proposal activities describe new Areas of Work that will require increased funding. It is not clear what work will be prioritized if there is a shortfall in the budget. The core activities to maintain and conserve germplasm described in Area of Work 1 are fundamental and will be supported through Crop Trust endowment. However, other activities including partnerships between genebanks and breeding and capacity sharing to work with partners to preserve endangered diversity (including Neglected Underutilize Species) (Areas of Work 2 and 5) are vitally important to address the climate and biodiversity crises. The statements on p. 48 suggest these activities might be at risk. We recommend that Genebanks conduct a detailed comparative analysis to assess both internal and external partner capacity for species preservation and Germplasm Health Units. Consider collaboration with national/international genebanks that also comply with ITPGRFA where they have capacity to preserve species and direct CGIAR efforts to under-resourced regions for capacity development such as East and sub-Saharan Africa that are diversity hot spots. They should identify regions where their interventions are truly needed, as demonstrated by successful cases in countries like Mexico and Colombia. By emphasizing local capacity building and minimizing competition with national research efforts, CGIAR can foster sustainable agricultural development and direct precious resources to the most needed areas.

The figure below represents original scoring from each reviewer and consensus scoring for each criterion. The consensus score across reviewers may not reflect the mathematical average. For purposes of the figure, the QoR4D criteria have been shortened. Please refer to p. 6 for full criteria definitions.



** One consensus score varied by more than 0.5 from the mathematical average. Please refer to criteria 3 above for the rationale behind this consensus score, with a variance of 1.67 from the mathematical average.*

Annex 1: Summary of Scoring

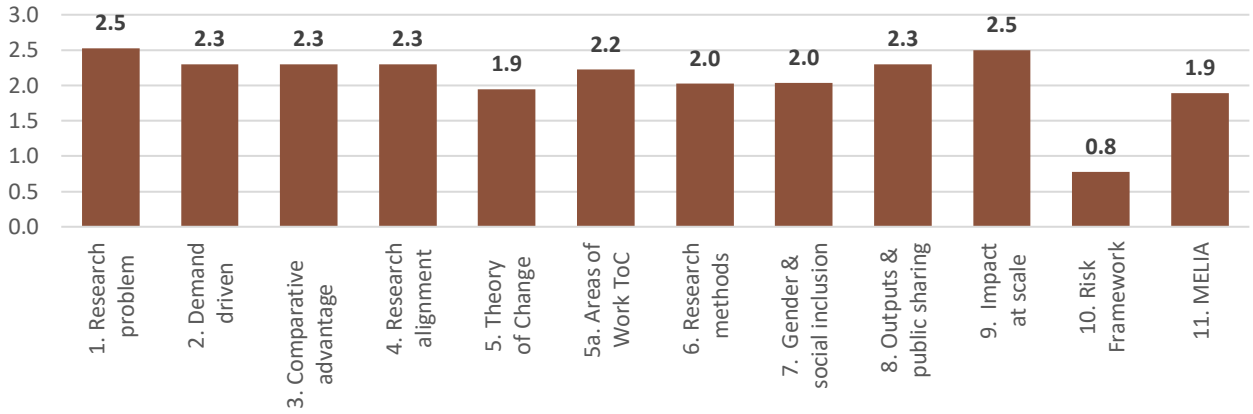
Science Programs

Figure 3 below shows the average consensus score for each criterion across the nine Programs. At the aggregate level, the criteria that received scores less than "2" include the following.

- Overall Theory of Change (criterion 5)
- Risk framework (criterion 10)
- MELIA (criterion 11)

Overall, the proposals received three aggregate scores less than "2." A score of two was described as, "There is good evidence that the criterion has been addressed explicitly and with good intent, but the approach is not fully persuasive or may lack some clarity."

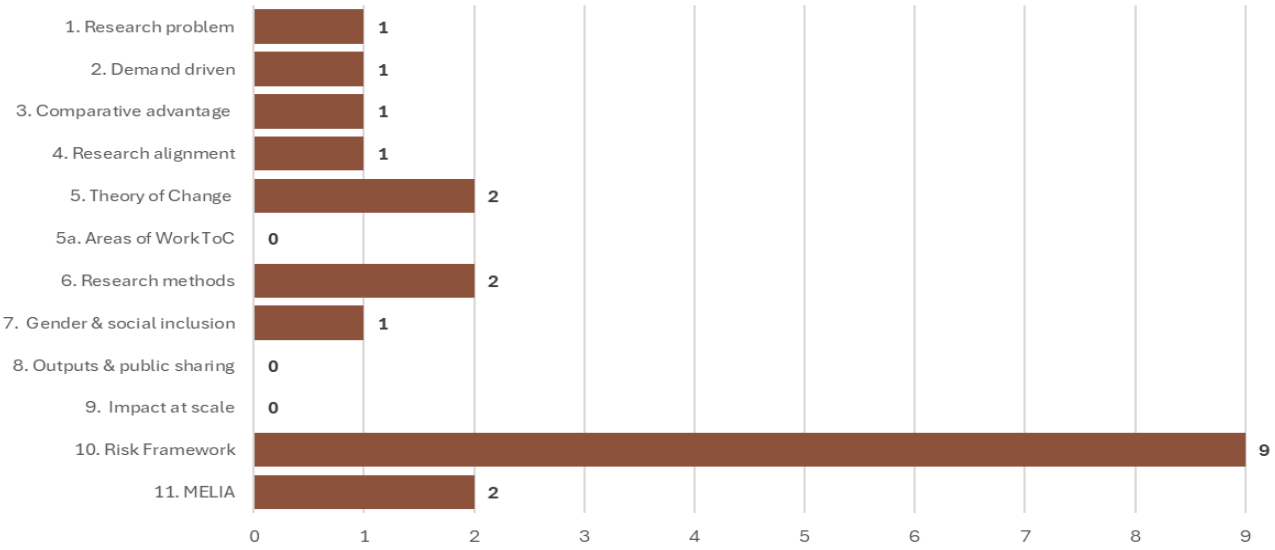
Figure 3: Average of the Consensus Scores by Criterion for Science Programs



Criteria Across Science Programs that Scored as Needing Improvements

Figure 4 shows the number of proposals with a consensus score of below "2" per criteria. A score of "1" was defined as, "There is some evidence that the criterion was considered, but is lacking completion, intention, and/or is not addressed satisfactorily." Many of the consensus scores were not round numbers (integers) because the decision on how to report the consensus was up to the review teams; some teams decided to use the average of their scores as representing consensus. Each proposal summary found in this report includes individual reviewer scores, as well as the team's consensus score to show the variance among reviewers and the consensus scores.

Figure 4: Number of Science Program Proposals that Received a Criterion Score of Less than "2"



Tables 3 and 4 highlight criteria where at least nine (table 3), and two (table 4) proposals scored less than "2" for Programs.

Table 3: Criteria with Nine Proposals Scoring Less than "2"

Criteria	QoR4D Elements	Proposal Section
10. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	**Credibility**, Legitimacy, Relevance	**13** Risk management

Table 3: Criteria with Two Proposals Scoring Less than "2"

Criteria	QoR4D Elements	Proposal Section
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	**Effectiveness**, Relevance	**5** Theory of Change
6. Research approach and broad methods are fit for purpose, feasible, are innovative and rigorous in data collection and analysis, and make appropriate use of laboratories, field sites, modelling assets, and digital infrastructure (soft and hard).	**Relevance**, Effectiveness	Partly in **6** Areas of Work
11. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	**Credibility**, Effectiveness, Legitimacy	**9** MELIA **10** Capacity sharing

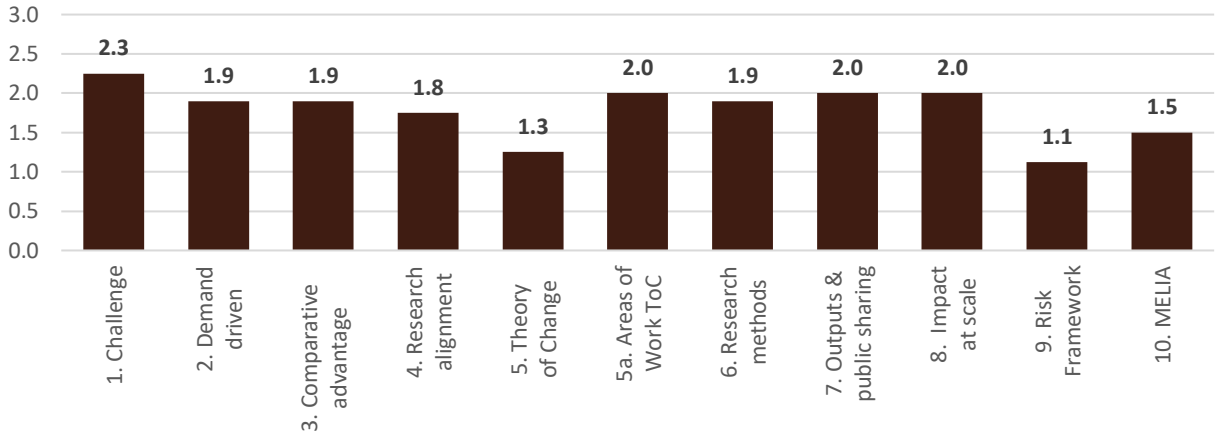
Accelerators and Asset

Figure 5 below shows the average consensus score for each criterion across the 3 Accelerators and 1 Asset. At the aggregate level, the criteria that received scores less than "2" include the following.

- Demand driven (criterion 2)
- Comparative advantage (criterion 3)
- Research alignments (criterion 4)
- Overall Theory of Change (criterion 5)
- Risk framework (criterion 10)
- MELIA (criterion 11)

Overall, this round of proposals received six aggregate scores less than "2." A score of two was described as, "There is good evidence that the criterion has been addressed explicitly and with good intent, but the approach is not fully persuasive or may lack some clarity."

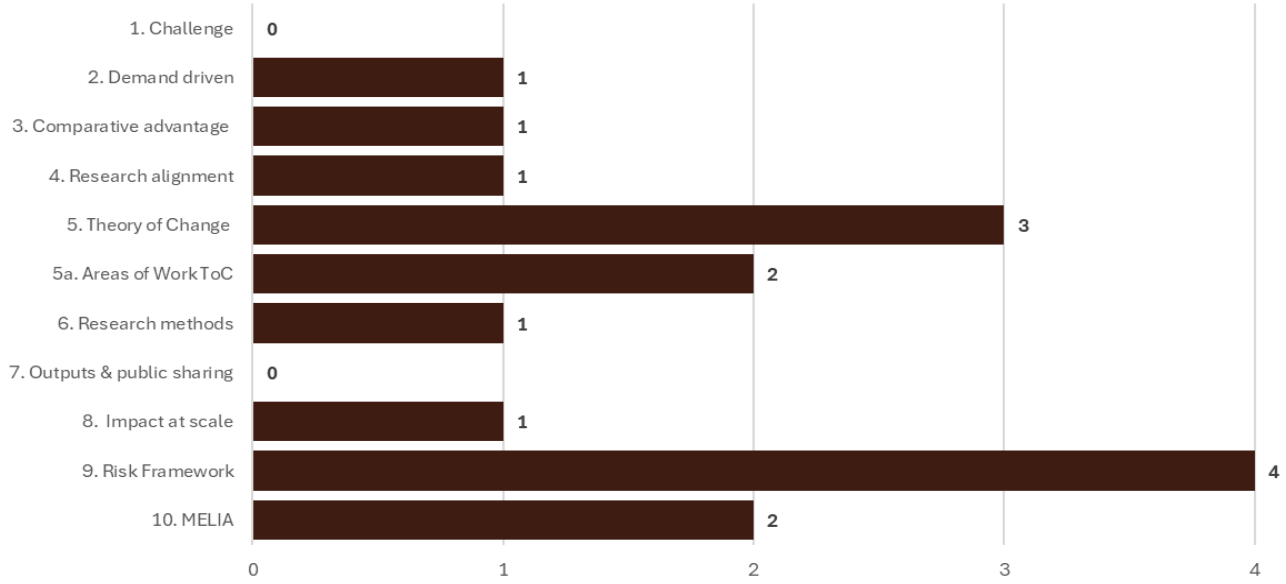
Figure 5: Average of the Consensus Scores by Criterion for Accelerators and Asset



Criteria Across Accelerators/Asset that Scored as Needing Improvements

Figure 6 shows the number of proposals with a consensus score of below "2" per criteria. A score of "1" was defined as, "There is some evidence that the criterion was considered, but is lacking completion, intention, and/or is not addressed satisfactorily." Many of the consensus scores were not round numbers (integers) because the decision on how to report the consensus was up to the review teams; some teams decided to use the average of their scores as representing consensus. Each proposal summary found in this report includes individual reviewer scores, as well as the team's consensus score to show the variance among reviewers and the consensus scores.

Figure 6: Number of Accelerator and Asset Proposals that Received a Criterion Score of Less than "2"



Tables 5 and 6 highlight criteria where at least four (table 5), three (Table 6) and two (table 7) proposals scored less than "2" for Accelerators/Asset.

Table 4: Criteria with Four Proposals Scoring Less than "2"

Criteria	QoR4D Elements	Proposal Section
9. A risk framework that details main program risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects.	**Credibility**, Legitimacy, Relevance	**13** Risk management

Table 5: Criteria with Three Proposals Scoring Less than "2"

Criteria	QoR4D Elements	Proposal Section
5. Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact through inclusive innovation, and all indicators made explicit.	**Effectiveness**, Relevance	**5** Theory of Change

Table 6: Criteria with Two Proposals Scoring Less than "2"

Criteria	QoR4D Elements	Proposal Section
5.a Areas of Work Theory of Change	**Effectiveness**, Relevance	**6** Areas of Work
10. MELIA approach that supports effective adaptive management and learning. Lessons are used to proactively reflect on and adapt the Theory of Change. Impact assessment strategy outlined.	**Credibility**, Effectiveness, Legitimacy	**9** MELIA **10** Capacity sharing

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