

ISDC Feedback on CGIAR Portfolio Narrative 2025-2030

Executive Summary

22 May 2024

The Independent Science for Development Council (ISDC) reviewed the “CGIAR Portfolio Narrative 2025-2030” (the Document). ISDC feedback is organized into three sections and an annex and provides a mix of high-level considerations while also providing details and questions for future discussions during Portfolio development.

- **Section 1** focuses on overall feedback on the “Portfolio Level Narrative” with System Council members as the primary audience.
- **Section 2** highlights high-level feedback on “Descriptions of Portfolio Components.”
- **The Annex** provides detailed commentary on “Descriptions of Portfolio Components,” intended for CGIAR management and proposal writers.

The consolidation of the current Initiatives into Mega Programs that also include research conducted using bilateral funds is an important step in the right direction of an improved research Portfolio. ISDC appreciates the time and effort that had to be invested in this process. The feedback focuses on how the Portfolio might be improved. Specifically, it highlights the need for more focus and framing within the Document. Key questions that remain unanswered should be addressed to enhance clarity and direction. The Document serves as a steppingstone for the forthcoming Companion Document and detailed proposals expected for ISDC’s review later in the year. For future discussions and planning, consider the following points.

- **Integration of funding:** The new Portfolio will integrate pooled and bilateral funding while rationalizing and combining existing Initiatives into Mega Programs, Accelerators, and an Asset. This necessitates significant restructuring within One CGIAR and its "ways of working."
- **Research focus:** The 2025-30 Portfolio builds on existing research (80%) rather than new science content (20%). The distinction between existing and new research should be clearly highlighted. Clarify what new research is required to deliver on the CGIAR 2030 Research and Innovation Strategy and targets.
- **Mission critical work:** Identify what work is mission critical and what is lower priority. Determine which areas can be de-emphasized or ultimately de-prioritized.
- **Partnerships and scaling:** CGIAR is enhancing partnerships and scaling efforts to meet the 2030 targets.
- **Comparative advantage:** The Portfolio—at varying levels—must be informed by solid comparative advantage analyses that includes inputs, outputs, and outcomes.
- **Organizational structure:** Discuss how CGIAR can most effectively organize its ways of working to align with the new structure(s) and the overall Portfolio approach.
- **Duplication:** Duplication is inevitable within large organizations. Yet, to be efficient in today’s world with tight funding resources, an approach must exist to minimize duplication across the Portfolio. How the Portfolio components will coordinate, communicate, and complement each other are critical to success. This is a concern for Sustainable Farming and Landscapes Mega Programs noted on p. 2 within Portfolio Structure.

In summary, ISDC's review emphasizes the need for clear distinctions between existing and new research, strategic prioritization of mission-critical work, effective organizational structuring, robust partnerships, use of multi-level comparative advantage analyses, and a strategy to avoid duplication. Addressing these areas in the Companion Document will enhance the overall clarity and strategic direction of the 2025-2030 Portfolio.

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Introduction

The Independent Science for Development Council (ISDC) reviewed the “CGIAR Portfolio Narrative 2025-2030” (the Document). This feedback is organized into three sections. Because of the diverse audience needs for ISDC’s assessment, the feedback provides a mix of high-level considerations while also providing details and questions for future discussion inquiries during proposal development.

ISDC is an eight-person independent science advisory council comprised of diverse experts that provides strategic advice to the funders of CGIAR.

- **Section 1** focuses on overall feedback on the “Portfolio Level Narrative” with System Council members as the primary audience.
- **Section 2** highlights high-level feedback on “Descriptions of Portfolio Components.”
- **The Annex** provides detailed commentary on “Descriptions of Portfolio Components,” intended for CGIAR management and proposal writers.

The method ISDC used to generate this feedback included multiple ISDC consensus building sessions (N=5) and ISDC member reviews of the Portfolio Components. The criteria used included the four elements of Quality of Research for Development ([[QoR4D](#)] legitimacy, scientific credibility, effectiveness, and relevance). In addition, ISDC used other frameworks and resources including [Comparative Advantage Analysis](#), [Inclusive Innovation](#), and [Megatrends](#) in development of comments and questions for consideration.

ISDC understands the intent of the Document is high-level and does not allow for details. **Hence, many comments are meant as guidance for the next iteration of Portfolio development and should not be interpreted as criticism.** Some probing questions are included to spark further examination during the next phase. ISDC looks forward to the external moderated review to begin late September and of the Companion Document in November.

Section 1: Portfolio Level Narrative

This Section’s targeted audience is System Council and provides overarching input on the Portfolio.

Overarching Comments

- The Document is well structured and provides the logic for the new Portfolio. It would benefit from:
 - A better articulation of how W1 and bilateral funds will be used and managed to achieve the overall goals.
 - Evidence of CGIAR’s use of a reflexive practice, by recognizing that CGIAR’s impact could be better, and that strategic partnering will help to fill capability gaps that must be filled to deliver on ambitions.
 - A clear statement of work that will not be continued (surely there are some projects that are concluding; either celebrating their success or acknowledging that the intended impacts could not be delivered would be refreshing). Inevitably, this question will arise and CGIAR should articulate a clear, united message in response.
 - A connection to learning from other sectors (as suggested in megatrends)

- A balance of the Document's target audience(s): outlining science priorities versus attracting new investors. A clearer articulation of where CGIAR sees itself on this continuum of development/policy/research.
- A clear articulation of how the Portfolio, including bilateral and W1 funding, will be bundled into Mega Programs is still lacking. Bilateral funding is restricted and is provided for a specific purpose and with specific intended impacts. This needs to be honored and the lack of flexibility in shifting those funds into other areas should be clearly acknowledged.
- Alignment of the entire Portfolio with the 2030 Research and Innovation Strategy needs to be strong and explicit. How will management ensure that bilateral funding delivers against this Strategy? In addition:
 - What happens if a bilateral project is not strongly aligned with the Strategy and how will CGIAR ensure that opportunity costs are covered?
 - Will all bilateral projects across all Centers be mapped to support the Portfolio?
- A figure/table from the Strategy that aligns the 11 Impact targets with the 5 Impact Areas would be useful. Additionally, a graphic showing the clusters within the Mega Programs would be helpful.
- Outline what will happen after December 2024. Will the MELIA and capacity building sections be presented to SC? What are the risks if inception phase takes longer than three months?

Portfolio Structure

Overall, the new structure better articulates how CGIAR will contribute to addressing the challenges of increasing food and nutrition security, while reducing emissions to achieve climate targets, protecting the environment, and avoiding biodiversity loss. The new Portfolio contains two Mega Programs that address these issues—Sustainable Farming and Landscapes. The land sparing (sustainable intensification) and land sharing (regenerative agriculture/nature-based solutions) debate is ongoing and contested. Both work across scales and there is real or perceived duplication of work. There is no doubt that different solutions will be needed in different situations and geographies, and this justifies R&D addressing the diverse approaches. Both approaches urgently need good science so that benefits and trade-offs can be assessed and debated.

However, as currently proposed, two separate Mega Programs are unlikely to facilitate constructive debates, although CGIAR is well placed to narrow the gaps between these two approaches. Activities in both programs also appear to overlap with the Catalyzing Impact Mega Program. Hence, ISDC strongly encourages **considering the merger of these two Mega Programs to ensure new ideas, concepts and approaches are debated across hardened boundaries and projects are focused on obtaining evidence needed to propose new solutions that are broadly agreed to and accepted.**

Value Proposition

- The value proposition is a key element of any organizational plan and essential to engage new funders. The current draft should be strengthened, bolder, and clearer (use shorter sentences and more compelling language). It needs to convey a sense of urgency and convincingly argue why CGIAR is the organization to do so. This should include elements of its comparative advantage.

Partnerships

- Developing new strategies and approaches to partnerships through codesign, listening sessions, etc., is to be commended.
- Providing feedback on partnerships is difficult with no Partnership Strategy in place (although a [Framework](#) exists). The anticipated publication date of December 2024 for the Partnership Strategy is not in sync for it to feed into proposal development and the Companion Document. How will the Strategy differ from the Framework?
- Partnerships exist for a purpose. Sometimes a purpose is fulfilled or has run its course. Partnerships are also costly; they require resources and have opportunity costs. Hence, a strategy to respectfully disengage once an outcome has been achieved or the relationship is no longer functional is important. No organization can afford to add partnerships ad infinitum.
- Has CGIAR as much impact as it should? If not, why? This is a question for CGIAR and its partners and outlining where there is scope for improvement would benefit proposals.
- The Portfolio's next iteration will benefit from a statement about private sector engagement and how intellectual property will be managed, even at a high level.
- This global approach driven by CGIAR planning cycles needs to be complemented by building, forging, and supporting partnerships at a more local- and project-level scale. Enduring partnerships are based on trust that is built over years among individual scientists, research groups, and their partners. The Document should recognize the value of this bottom-up partnering approach and provide complementary processes for the future.

Comparative Advantage

- Currently there is no analysis in the comparative advantage section. Only inputs are included with no analysis on how to produce outputs and outcomes. For this high-level Document, ISDC doesn't expect a full analysis. However, clearly outlining the process based on a solid understanding of the methods should be a central component for the detailed proposal.
- When considering and conducting comparative advantage analyses—for the Portfolio as a whole and, most importantly, at Mega Program and areas of work levels—proposal teams are urged to recognize that comparative analyses should happen at multiple levels with a clear understanding of the weaknesses and opportunities.
- A clear statement of important areas where CGIAR does NOT have a comparative advantage would also be helpful. This could be used to develop new, strategic partnerships in areas that are mission critical.
- Clearly state what will be discontinued and what will continue but led by partners.
- The timing of comparative advantage analyses is important. It should be completed before the inception phase to inform and assist with developing partnerships, establishing Mega Program governance and management, and distributing resources.
- In proposals, future-looking scenarios for comparative advantage would be valuable, which include emerging issues and risk/uncertainty elements. Assessing risks within comparative advantage analysis is an aspect of foresight.
- Questions to consider:
 - How will the comparative advantage of partners be analyzed to make best use of their capabilities and resources? How will strengthening partners' comparative advantage feature in the capacity strengthening/sharing accelerator?

- How will CGIAR support a partner who has a comparative advantage? How will CGIAR transition work to such a partner?
- The example of comparative advantage analysis of the Genetic Innovation Science Group is useful, and it is *ex-post*. As an *ex-ante* exercise, consider what are the risks moving forward in the new organizational structure and how will crops be prioritized?

Theory of Change

- A couple of useful, guiding questions are:
 - Are Impact Areas best placed as end-goals or should they be the 2030 targets?
 - How does a Theory of Change (ToC) relate to the "Seven ways of working?"
- A challenge that should be acknowledged is incorporating bilateral funding into Mega Programs. Each Mega Program and Accelerator will be large scale and staff will be consumed by the implementation of contracted work. Trying to build Mega Program linkages in parallel with bilateral funding should be additional, allowing sufficient effort dedicated to ensuring the prevention of silos within the new Portfolio.
- The bullet points on p. 33 provide useful and succinct descriptions of the roles of the different Mega Programs and Accelerators.

Organizational Structure & Ways of Working

- Questions to consider for further Portfolio planning:
 - The Document has reiterated the "Ways of Working" recorded in the 2030 Research and Innovation Strategy, which aimed to set out "how" CGIAR does business. A summary of how each Portfolio component will address "Ways of Working" will make a clearer path to implementation.
 - What are the differences between Mega Programs and Accelerators? A clearer articulation of the role of Accelerators in supporting the work of Mega Programs would be helpful.
 - Including bilateral funding into the organizational structure will be challenging. Clearly articulating the KPIs for this task for 2025 would be helpful.
 - Funding: How will competition of pooled versus bilateral funding be managed? How will CGIAR ensure the same funders aren't approached by multiple CGIAR entities for similar projects, which is common across large organizations? How much leveraging of pooled funding is acceptable?
 - The efforts needed to transition to Mega Programs are considerable and may be underestimated given the funding integration foreseen. Integration of pooled and bilateral at reporting stage, as indicated, might be too late. Avoiding the duplication and ensuring clear implementation will be key. How will duplication of outputs/outcomes be avoided with both pool and bilateral funding towards shared results?
- An important complement to strategic "Ways of Working," is to prioritize and focus efforts in areas where CGIAR can add most value and have a well-defined comparative advantage (i.e., an 8th Way of Working).
- When alliances are mentioned in #2, add partnerships.
- The overall task of operationalizing the new structure and science needs to be acknowledged and there needs to be a stated ambition to engage and communicate with staff effectively and timely.
- Some details to consider adding in the risk analysis on p. 40/41:

- An additional risk is a lack of capacity to focus on innovation while having to manage transformation—at least for the initial period.
- Under risk on “lack of external trust and credibility,” consider adding action on focus on self/critical assessment of CGIAR capabilities. There is a considerable amount of reliance on the new collaborations and cross-cutting work, in times of challenging transformation for the Portfolio. How will this be tackled? The “integrate, coordinate, independent” process (ICI) is proposed as a solution in support of CGIAR’s new governance arrangements. Will the Companion Document be more detailed on what is integrated, what will be coordinated, and what stays independent?

Priority Setting

- In the introduction there should be more emphasis on how to manage pooled and bilateral funding vis-à-vis and which work is prioritized for pooled funding.
- Include need for ongoing trade-off analysis through Portfolio cycle. Consider to review and cite ISDC trade-off [commissioned work](#).
- There is no mention of external Evaluation studies within priority setting, which should be an important element although Evaluation findings are cited elsewhere.
- Will *all* the Mega Programs have emerging areas of research?
- Which areas have been deprioritized and why?

Impact

- NARES are important partnerships to CGIAR. This warrants its own bullet in growing impact.
- There could be specific mention of processes for linking outputs and outcomes from all Mega Programs and Catalyzing Impact.
- The three sections on national, regional, and global impact influence would benefit from a prefacing statement that CGIAR can also have impact through supporting policies and cooperation partnerships at national and regional levels. This is needed to link the previous section with these sections.
- Within Examples of Work (p. 14)
 - NARES is missing.
 - Is this CGIAR mandate: “Assist countries in creating decent jobs in food, land, and water systems?”
 - Enhancing inclusivity and access to co-creation should be highlighted.

Accelerators & Asset

- The paragraph on p. 26 is confusing and does not provide the clarity needed to understand the new structure. Why Accelerators are needed, how they will work, and what will be achieved needs to be answered.
- Given that Accelerators and Assets are there to assist in effectively delivering the outcomes of the Mega Programs, there is no need to explicitly align them with megatrends.
- To aid clarity, no need to include history on p. 26.
- The rationale must be strong and outline what their added values are.

- For the Genebank’s Asset, one of the most powerful arguments for why it is needed is hidden in the second-last paragraph: “CGIAR genebanks have a legal responsibility, under the Plant Treaty, to conserve and make genetic resources held in trust available now and for future generations.” Such fundamental roles and responsibilities should be mentioned within the opening statements.

Section 2: High-level Feedback on Descriptions of Portfolio Components

This Section’s target audience is System Council and provides concise summaries of detailed feedback provided in the Annex. Note that Mega Programs are shortened to MP for brevity. Each Component is linked to full review in the Annex.

Portfolio Component	Key Points from ISDC Feedback
Genetic Innovation	<ul style="list-style-type: none"> • The MP needs to clearly define the selection criteria for participating countries. • Ethical, regulatory, and societal considerations need to be addressed to ensure responsible and equitable use of GI. • MP should articulate a transparent framework for partnering with the private sector, ensuring that intellectual property and ownership are effectively addressed. • Ensure that the MP aligns with partner breeding targets and uses and integrates feedback mechanisms effectively. The MP needs to define strategies to enhance stakeholder engagement and co-creation. • The MP should give due consideration to breeding for quality, regulatory frameworks, and ethical considerations to ensure adherence to established standards and protocols. • There is a lack of prioritization of participatory breeding and decentralized breeding, • The MP needs emphasis on inclusivity for optimal effectiveness and impact.
Sustainable Farming	<ul style="list-style-type: none"> • The MP should be merged with the Landscapes MP and develop strong links with the Animal and Aquatic-based Foods MP, to avoid duplication and the potential for contradictory advice. • The MP would benefit from a diagram explaining the interconnections between the MPs and how these will be operationalized. • There is only a brief mention of engaging with national partners on capacity building and R&D support. A comparative advantage analysis that outlines

Portfolio Component	Key Points from ISDC Feedback
	<p>the establishment of new partnerships needs to be included in the next iteration.</p> <ul style="list-style-type: none"> • The connection to megatrends is insufficient.
<u>Animal and Aquatic-based Foods</u>	<ul style="list-style-type: none"> • This is an ambitious MP with many challenges to address in livestock systems. • The MP overview would benefit from more emphasis on systems perspectives, especially integration of crop—animal/aquatic systems and a clear rationale for the scope of areas of work. • Animal and aquatic systems not only face many challenges, but they also pose many challenges. This does not come through clearly enough. • The system’s implications will need careful integration with other MPs, such as the Sustainable Farming and Landscapes, and more explicit linkages to the Catalyzing Impact MP.
<u>Landscapes</u>	<ul style="list-style-type: none"> • This MP should be merged with the Sustainable Farming MP as mentioned earlier. • The MP is framed as working at the landscape scale, the program of work is very broad in scope and there are activities with the potential to overlap with other Mega Programs. Collaboration and differentiation of aims should be clear in the full proposal. • The MP should include some specific activities on trade-offs and opportunities at both the household and landscape scale for different nature-based solutions. • The MP could include in the scope of work how the Program builds on existing Initiatives to demonstrate ongoing scientific coherence as well as what is new. • There is no analysis of comparative advantage or description of how it will be used to create new partnerships.
<u>Nutrition and Diets</u>	<ul style="list-style-type: none"> • The narrative would benefit from greater conceptual, theoretical, and operational clarity, as well as internal cohesion. • Establishing clear operational links to relevant Mega Programs is imperative for a cohesive and impactful strategy. • Translating the evidence to date for impact at scale remains an unfinished agenda and should be considered more centrally.

Portfolio Component	Key Points from ISDC Feedback
	<ul style="list-style-type: none"> • It's essential that the proposed work aligns with the core remit of land, water, and food systems, leveraging CGIAR's comparative advantage, assets, and capabilities. • While sustainability and equity are sprinkled through the narrative, a stronger sustainability, equity, and resilience led focus would be important. • There is no mention of trade-offs or risks, which limits the potential to assess the strategic strength and assess the best use of available funds.
<u>Climate</u>	<ul style="list-style-type: none"> • While the relevance of this Program is obvious, the outline lacks ambition and reads more like a sales pitch than the outline of a research program. • The full proposal should clearly articulate how all streams of funding will be combined to increase resilience and the adaptive potential of our agrifood systems in the face of ever-increasing climate risks. • This Program draws upon previous findings, but new, innovative actions are missing. • Trade-offs and risks should be highlighted. Also, the interaction and function towards the other Mega Programs and Accelerators should be described to increase scientific credibility and applicability. • The generation of climate data and information could be of great benefit for local stakeholders, but these are mostly not available in countries in the Global South. Which MP would conduct the necessary data analysis, generation, and provision? • Overall, the MP outline contains too many motherhood statements that add little and should be deleted. Instead, a better and more advanced description of the actions should be included.
<u>Policy</u>	<ul style="list-style-type: none"> • This MP comprises of four interconnected activity blocks: research, policy engagement and communications, capacity building, and finance. Every MP will have activities in these domains, so the question is how will these overlaps be leveraged to avoid confusion, contradictions, replication, and duplication? Are there missed economies of scale? • Further clarifications are needed regarding selection of research topics listed under “Global to local to global analytics.” • Comparative advantage and partnership considerations need to be done when considering the “evidence building” research domain proposed under this MP. • Engagement with policymakers is critical to the success of this MP. The record of engagement has been mixed with some prominent and important

Portfolio Component	Key Points from ISDC Feedback
	<p>successes. How have prior successes and less successful efforts informed the strategy for engagement with policymakers? Are the priorities among local, regional, and global stakeholder groups clear?</p>
Frontiers	<ul style="list-style-type: none"> • The mapping of Initiatives into the MP is logical with evidence of demand. Whether this demand for food systems transformation translates into demand for research to facilitate food systems transformation is not clear. A stronger articulation of the role of scientific knowledge through research is needed. • A reflexive analysis as part of the next iteration should clearly articulate CGIAR’s comparative advantage in this space. There is hardly any discussion about potential trade-offs or risks, including areas that are deemed out-of-scope. • Strategic partnerships will be critical for success and this should be acknowledged, not as a weakness but as an opportunity to partner with organizations that have real strength in this field. • The Future Food System Lab sounds like an exciting development, as long as its focus is clearly defined and adequate resources are provided for its success.
Catalyzing Impact	<ul style="list-style-type: none"> • A clear definition of the key pathways to impact, and the activities included in the scope of work, would enhance the clarity of the description. Increased emphasis on approaches to local involvement would strengthen the MP. • Critical areas of scaling science are the social processes of engagement to create deeper, more trusting, and longer-term partnerships. Partners, particularly those in the private sector, have different objectives and modes of operating and understanding these differences is critical. • The approaches needed to work alongside NARES, local institutions, community associations, etc., receive little attention. This must be addressed to avoid the top-down engagement approach becoming too dominant at the expense of critical understanding of local context. • Although the MP will support the improvement and identification of CGIAR’s comparative advantage, the MP itself needs to identify its own comparative advantage and this should be undertaken during the proposal design phase. • There needs to be better internal organization and approaches used for delivery of CGIAR research, scaling, and partnership engagement.
Gender and Social Inclusion Accelerator	<ul style="list-style-type: none"> • The Accelerator would benefit from conceptual clarity on terms and definitions, including what is covered by concepts of “gender” and “social inclusion” and what the proposed research aims to address.

Portfolio Component	Key Points from ISDC Feedback
	<ul style="list-style-type: none"> • The future proposal should seek to systematically identify which challenges and opportunities will be addressed vis-à-vis the megatrends: there is a risk of missing opportunities that are very important, impactful, and where CGIAR has a comparative advantage. • While gender research has a history with CGIAR, the extent of CGIAR experience with youth and/or social inclusion matters is not evident. It will be crucial to build partnerships with organizations outside the system to ensure that their research is benefiting from the best of innovative thinking. • Within the scope of work, more clarity is needed on what is new and innovative vs. which elements are building on previous work. The Accelerator should aspire to evolve research methods to integrate gender and social inclusion throughout the research to impact lifecycle.
<p><u>Capacity Sharing for Development Accelerator</u></p>	<ul style="list-style-type: none"> • The specific narrative presented for this item in the Portfolio is among the most generic ones. The proposals and Companion Document would benefit from more specific examples, building on lessons learned in this area (external Evaluation findings are available). • On prioritization, the range proposed seems to cover all sectors and actors, which will be difficult to achieve. More targeted efforts in specific areas or for specific partners would increase the effectiveness of capacity sharing initiatives. The specific activities also need to be elaborated. • There is a lack of information on the role of this Accelerator vis-à-vis other MPs and the delineation of tasks. What will be implemented under the Accelerator? What will be done as part of capacity building under each Mega Program (many have this element)?
<p><u>Digital and Data Accelerator</u></p>	<ul style="list-style-type: none"> • As an enabling Accelerator, which sustains all MPs, the relevance is high, however, the impression is that the objectives and general actions are diffused, and the borders of the proposed actions should be better defined in the proposal. • It is not clear if this is a data accelerator (much needed) or an innovation accelerator (also needed but under other terms). The notion of “Innovation Accelerator,” suggests that other components aside from data flows and integration are to be considered. • While the Accelerator holds potential, there are concerns regarding the lack of evidence regarding data protection, privacy, stakeholder engagement, and participation. Clear goals and objectives for the Accelerator could address these issues effectively. An in-depth analysis of CGIAR’s comparative advantage in this area will help to understand the scale and the reach of the Accelerator.

Portfolio Component	Key Points from ISDC Feedback
	<ul style="list-style-type: none"> • Understanding the digital gaps and challenges in partner countries is crucial for tailoring solutions to local needs. The narrative does not yet sufficiently address how the accelerator will adapt its approach to different contexts. • The narrative does not yet provide details on how stakeholders such as small-scale farmers, local communities, and civil society organizations will be involved in the design and implementation of the accelerator's initiatives, raising concerns about inclusivity and ownership.
Genebanks	<ul style="list-style-type: none"> • Five key areas of work are described, that aim to conserve biodiversity, ensure plant health, and allow wide access to the materials. It would be useful to have more clarity on how the Asset will work together and with national genebanks for mutual benefit. • There is a description of intended outputs and outcomes at global scale in each of the five work areas. More detail should be provided in the full proposal on the intended impact that will be delivered by the MPs. • A deeper analysis of CGIAR's comparative advantage and partnerships in the proposal will add value. This might involve exploring advancements in technologies for genetic resource conservation, plant health measures, collaborations with other institutions to broaden outreach, sharing resources or implementing initiatives focused on data sharing. • The narrative effectively links the work of CGIAR genebanks to broader megatrends such as climate change and biodiversity loss, emphasizing their role in building resilience and promoting sustainable agriculture. However, it could provide more specific examples of how the Genebanks Asset will address these megatrends through its activities. • In the full proposal, the issues of financial sustainability should be addressed. There's a lack of clarity regarding funding and the challenges associated with the existing funding model. A viable funding strategy is essential to ensure the sustainability and expansion of these assets.

Annex: Description of Portfolio Components

This Section's target audiences are CGIAR management and proposal writing teams. Section 2 above provides high-level summaries of the feedback. To cope with time limitations, only two ISDC members reviewed each Portfolio Component and all reviewed Capacity Development Accelerator.

Enhancing productivity and resilience through genetic innovation: Genetic Innovation Mega Program

The Genetic Innovation Mega Program presents a compelling approach to address pressing challenges such as food insecurity, malnutrition, poverty, and social inequalities in low- and middle-income countries. These challenges are further compounded by megatrends such as demographic shifts, climate change, environmental degradation, and market concentration. By prioritizing the development of climate-resilient, market-preferred, and nutritious varieties and breeds, the Program directly addresses the needs of small-scale farmers and consumers. This strategic alignment ensures the Program's relevance to CGIAR's Impact Areas and the overarching challenges posed by megatrends.

However, it is crucial for the narrative to provide clarity regarding the introduction of new areas under this Mega Program, especially the inclusion of underserved crops and regions. The current indication suggests that it will primarily expand upon past and ongoing Initiatives. Furthermore, it's imperative to clearly define the selection criteria for participating countries, as the current lack of explanation may lead to ambiguity.

The Mega Program demonstrates credibility through its systematic approach, leveraging partnerships with public, private, and civil society collaborators. Its scientific credibility is also demonstrated by its reliance on data-driven decision-making and the integration of scientific findings into agricultural practices. Furthermore, technological innovations can have a significant impact when integrated with effective seed distribution mechanisms.

The Mega Program has considerable potential to drive significant advancement and address complex challenges. The emphasis on gender-transformative approaches further enhances its legitimacy by ensuring inclusivity and responsiveness to the needs of diverse stakeholders. However, there are ethical, regulatory, and societal considerations that need to be addressed to ensure responsible and equitable use of genetic innovations. In addition, it is essential to articulate a transparent framework for partnering with the private sector, ensuring that issues surrounding intellectual property and ownership are effectively addressed.

The Mega Program highlights key areas of work aimed at enhancing breeding pipelines, leveraging modern technologies, improving seed systems, and strengthening capacity-sharing and development efforts. To further strengthen the Program's effectiveness, it could be advantageous to ensure that it aligns with partner breeding targets, uses feedback mechanisms effectively and integrates feedback gathered from ongoing consultations and listening sessions into program implementation strategies.

While the Program demonstrates the need for research, rigorous testing, and stakeholder engagement, it should also give due consideration to aspects such as breeding for quality, regulatory frameworks, and ethical considerations to ensure adherence to established standards and protocols. Furthermore, the Program should address the impact of new products

and technologies on the seed system/Seed Equal, as this is vital for assessing their overall effectiveness.

By capitalizing on CGIAR's global science capabilities and collaborative networks, the Program is well-positioned to deliver higher genetic gains and address complex challenges effectively. With globally renowned expertise housed across diverse Centers, the Program can capitalize on its comparative strengths and share best practices effectively. Furthermore, the Portfolio narrative provided a clear analysis of the comparative advantage for the Genetic Innovation Mega Program, offering valuable guidance, while the schematic representation depicting the roles of CGIAR and its partners is well-articulated.

The Mega Program would benefit if it emphasized inclusive innovation involving small-scale farmers of all genders in the co-creation and adoption of new products and services for the desired impact. Efforts to align with partner needs and demands, gathering of feedback from CGIAR-NARES-SME breeding networks, and engaging with regulatory agencies demonstrates a commitment to inclusivity and stakeholder engagement.

The impact of new products and technologies on the seed system (Seed Equal Initiative) is not well addressed, which is crucial for understanding their overall inclusion and effectiveness. Moreover, the Program would benefit from well-defined strategies to enhance stakeholder engagement and co-creation, which is vital for fostering collaboration and ensuring the Program's success.

Climate change and the adoption of digital technologies, along with the promotion of climate-smart varieties, are adequately addressed in the narrative. However, there is a lack of prioritization of participatory breeding and decentralized breeding, as well as the exploration of new methodologies and approaches for positively leveraging climate change impacts on diverse environments.

By incorporating participatory and decentralized methodologies, the Program can enhance its relevance and effectiveness in diverse agricultural landscapes. These approaches empower farmers and local communities to actively participate in the breeding process, ensuring that crop varieties are better tailored to local needs and environmental conditions. Overall, the Genetic Innovation Mega Program presents a robust framework for enhancing productivity and resilience through genetic innovation.

The Program aims to extend existing efforts and expand its reach by leveraging CGIAR pooled-funded projects, bilateral partnerships, and collaborations with external research institutions. It also aims to enhance access to crucial tools and services, enhance market intelligence initiatives, and update breeding programs for greater efficiency and effectiveness. However, there is a need for clarity regarding the baseline and the scale of new initiatives within the Program, whether there will be the introduction of innovative approaches to improve research delivery, and the precise components of the Program's new agenda. Further details to elucidate whether there's a scope of new research being introduced or the improvements from the previous Initiatives.

In conclusion, the Program demonstrates a strong commitment to addressing global challenges through innovative genetic solutions. With its strategic focus and collaborative approach, it needs emphasis on inclusivity for optimal effectiveness and impact. The program has the potential to make significant contributions towards achieving CGIAR's impact targets and promoting sustainable agricultural development.

Realizing productivity, resilience, and sustainability at scale through integrated agronomy, plant health, and farming system solutions: Sustainable Farming Mega Program

ISDC recommends merging this Mega Program with the Landscapes Mega Program based on the rationale outlined earlier in this feedback. Note that ISDC sees no compelling reason why Mega Programs should be of similar size and does not regard size as a limitation to such a merger.

The Mega Program itself is aligned with the CGIAR 2030 Research and Innovation Strategy. It addresses challenges of food and nutrition security, climate change and environmental degradation particularly in Africa and Asia. The section on p. 49 describing alignment with partners' needs and demands shows there were wide consultations with stakeholders and partners particularly through the listening sessions. The Program draws on previous Initiatives of Excellence in Agronomy, Plant Health, and Mixed farming systems, which seems logical. It must work in close collaboration with the Landscapes and Animal and Aquatic-based Foods Mega Programs. Good links to research on conservation, soil health, and water management strategies are also crucial. Linkages with the wider Portfolio describe how the Program intends to work with others. However, it is difficult to fully understand what these connections are and how they will be operationalized. This could be shown using a diagram.

The Seven Key Areas of Work are described in very general terms. Hence, it is difficult to form an opinion on how the work will build on recent findings or any trade-offs and risks.

The feedback from Listening Sessions supports the areas of work described on p. 48. Some emerging areas of research are also described as potential for inclusion based on gaps to be identified by partners.

Contribution to impact is described with plans for accelerating impact such as engagement with public and private research and scaling partners, but details are needed in the proposal. There is a clear connection with Catalyzing Impact; how this will be operationalized must be described in the full proposal. The inclusion of climate smart varieties/genotypes and conservation agriculture uplifts its effectiveness.

There is only a brief mention of engaging with national partners on capacity building and R&D support. A comparative advantage analysis that outlines the establishment of new partnerships needs to be included in the next iteration.

This Program is framed as working at the field/farm scale. Yet, it must have close cooperation and communication with the Landscape Mega Program, which is researching agroecology and nature-based solutions at landscape level. This would be best achieved via a merger of these two Mega Programs. Research outcomes could then be used for fact-based conversations that might help to overcome contentious perspectives arising from the two different perspectives. Otherwise, there is a risk of duplication and contradictory advice being disseminated, which would perpetuate rather than close the existing chasm.

Animal and aquatic food systems for nutrition and health: Animal and Aquatic-based Foods Mega Program

This is an ambitious Mega Program with many challenges to address in livestock systems. It aligns well with 2030 Research and Innovation Strategy, contributing to all five Impact Areas and most of the global collective targets. How this Mega Program will link with other Mega Programs is explicitly described. However, there is no mention of linking to Catalyzing Impact.

In the opening paragraph the positioning of animals within our food systems is weak. A better starting point might be to highlight the role animal protein plays for human nutrition, how animals are an essential part of sustainable food production (nutrient cycle), and how animal and plant-based production systems are best integrated (circular economy?). The opening sentence is especially peculiar. It promises that nearly all global challenges will be solved in this Mega Program. This could be positioned much better.

The challenges section mentions land degradation as a challenge but only in the context of disease spread. The issue of ecosystem degradation from ruminant livestock demands a stand-alone mention because of the large area of semi-arid and arid rangelands that are degraded, and this degradation continues. Further, not only do animal and aquatic systems face many challenges, but they also pose many challenges, from overgrazing, overfishing and zoonotic diseases to methane emissions, and many more. While this is somewhat acknowledged in the challenges section, they don't come through clearly enough.

The sentence, "Moreover, the lack of comprehensive data constrains the ability of stakeholders to make informed policy and investment decisions" needs clarification as to what comprehensive data is lacking.

Given the large numbers of livestock in crop-livestock systems, how to better integrate them is a major challenge and opportunity for both livestock and crop productivity, yet this receives little attention in the current description.

The three pathways to impact are fine, but why these three and not others? Is this the outcome of a prioritization exercise or was a comparative advantage analysis used to come to this conclusion? This needs to be clarified. In the description of these three pathways, there is no mention of the Catalyzing Impact to assist in achieving impact. This is an oversight given the challenges in improving uptake of technological innovations highlighted in the challenges section.

Given the aim is to deliver bundled technologies and innovations, the system's implications will need careful integration with other Mega Programs, such as the Sustainable Farming and Landscapes.

The paragraph on research approaches is very generic and could apply equally to agronomy, seed systems etc. Also, the language should be more inclusive, i.e. "farmers and fishers." The research encompasses six diverse areas of work including genetics, nutrition, emissions reduction, health, market systems, policy and governance, and gender and social inclusion. Is there an analysis that led to selecting these six areas? The selection of the scope should be evidence-based and demand-driven. No details are required, but at least we should know why these areas have been selected and not others and ensure the rationale for such selection is clear. Further, as the proposal development proceeds, there will need to be considerable effort

to determine where CGIAR can add most value in these different areas (comparative advantage) to ensure the research in the Program doesn't become spread too thinly across too many areas.

The scope of the research section would also benefit from a broader systems perspective. What seems to be missing is how terrestrial and aquatic livestock are best integrated with cropping (e.g. fish in rice-based systems, nutrient cycling, etc.). There needs to be attention given to how the six areas of work in the scope of the Program will be connected to each other. At present that is not described.

The Productivity Plus research area mentions emissions reduction but the Resilient and Low Emissions Reduction research area makes no mention of emissions reduction and its trade-offs with production systems.

In the Market Systems research area, it is not clear how this line of research will work with actors in the market system to influence change. Analysis and modelling work will not have significant impact unless there is a clear pathway to impact.

The research approaches and methods are only covered in very general terms, which is to be expected. However, the capabilities required to deliver on the research should be broadly included.

The short section on "Aligning with partners' needs and demand" generically describes the need for a codesign approach, which is pretty much a given. Whilst it is not possible to go into much detail in these short descriptions of how this codesign approach will be implemented, it would be valuable to include a sentence or two on the capacities available or needed to fully embrace the codesign requirements across a large Mega Program.

Multifunctional landscapes for sustainable food systems, people, and environment: Landscapes Mega Program

As discussed in Section 1, the Landscapes Mega Program should merge with Sustainable Farming (see rationale provided earlier). This Mega Program aligns with the 2030 Research and Innovation Strategy by addressing challenges of managing land use (including food production systems) to protect the environment and biodiversity. However, we believe the opening paragraph would be more persuasive if it was briefer and punchier.

Alignment with partners needs and demands have been achieved by discussion with partners from the previous Initiatives and Listening Sessions where national partners advocated support to conserve biodiversity and improve soil health and water quality. Information on linkages with the wider portfolio is provided but these linkages need to be fully spelled out in the full proposal to ensure cohesion and avoid duplication.

The proposed Seven Areas of Work provide good coverage of the scope of science required for a landscape scale Mega Program. Given most of the solutions will be aimed at the landscape scale, which will largely involve multiple farms/households, it is important to include some specific activities on trade-offs and opportunities at both the household and landscape scale for different nature-based solutions. This may be planned but it isn't obvious in the current scope of work.

It would also be beneficial to include in the scope of work how the Program builds on existing Initiatives to demonstrate ongoing scientific coherence as well as what is new, noting that in the

partnering section mention is made of needing to expand into new areas not covered in any existing Initiatives.

Some of the descriptions have the potential to overlap with other Mega Programs and this should be addressed in the full proposal. For example, nature-based regenerative and agroecology solutions, nutrition-sensitive and gender-responsive approaches, and linking market systems, entrepreneurship, and bioeconomy with similar activities in sustainable farming, nutrition and diets, and catalyzing impact Mega Programs.

The engagement with key partners and stakeholders is well described and their role in codesign and implementation through action research is acknowledged. Building on existing Initiative partnerships is a good starting point as highlighted in the description. Given the Mega Program is focused on the landscape level, this involves whole communities where there will be trade-offs and potentially some negative outcomes at an individual level when considering the whole landscape. This will require careful planning and strategies for engagement at the community level because of these complexities.

The three objectives are reasonably clear though it would be best to make mention of the need to reduce greenhouse gas emissions at a landscape level. What are “decent” sustainable livelihoods? It seems an odd word choice.

The three interconnected pathways on p. 56 are repetitive of the objectives. Demonstrating the effectiveness and impact of the Program might be better expressed through starting with the high-level outcome and then being more specific about how it will contribute to the 11 global collective targets.

There is no analysis of comparative advantage or description of how it will be used to create new partnerships. With megatrends, insufficient detail on megatrends is provided for assessment. Overall, this Program is framed as working at the landscape scale, the program of work is very broad in scope and there are activities with the potential to overlap with other Mega Programs. Collaboration and differentiation of aims should be clear in the full proposal.

Delivering Sustainable Diets for Nutrition and Health – An Agenda for Evidence-Informed Transformation: Nutrition and Diets Mega Program

The Nutrition and Diets Mega Program broadly aligns with the CGIAR 2030 Research and Innovation Strategy. It encompasses three primary initiatives: Rethinking Food Markets, Sustainable Healthy Diets, and Fruit and Vegetables for Sustainable Healthy Diets and it is linked to Accelerated Breeding and Resilient Cities.

The section on Aligning with Partners’ demands and needs situates the demand for this Program at the regional and global level. While countries are mentioned, it is not entirely clear how the specific scope of work proposed with a long list of large topics here emerged. Given the consultations leading to the first phase, it is fair to assume that some of this is understandably a continuation of the earlier phase.

The narrative is vague and lacks strategic thinking, leaving the reader to presume. While the topics addressed are pertinent to nutrition, there's a notable gap in this Mega Program's emphasis on crucial themes such as equity and sustainability and environmental footprints to improve nutrition resilience. Thus, it is concerning that this area of work is delinked with sustainable, nature-positive, and climate-resilient food production systems and implications for

nutrition resilience; linkages with the relevant Mega Programs should be strengthened. Despite CGIAR's significant contributions to areas like nutrition-sensitive agriculture and biofortification, there's a lack of clarity if (and if not, why) and how this Program plans to advance these efforts to impact scale.

While the Program addresses key topics such as markets, food environments from systems perspective—which is much needed—much of the transformative thinking for the next phase, building on the current one, should be clearly explained in the proposal.

This Program should strengthen the relevance of its research focus to One CGAIR remit by transforming land, water (these two currently missing), and food systems approach to achieve consumer's nutrition outcomes sustainably and equitably. This is by no means to undermine the consumer-oriented approach, but we encourage the Program to connect these systems and system-level approaches to consumers more centrally and intentionally.

That said, everyone is a food consumer and almost everyone is a food purchaser, and this non-specific term does not confer any specific advantage. Nutritionists and economists have primarily focused on “consumers.”

There is no mention of trade-offs or risks, which limits the potential to assess the strategic strength and assess the best use of available funds. The links to other Mega Programs are intuitive, but the plans to connect them are not. It would be useful to provide some details on what this Program plans to do with Accelerated Breeding and Resilient Cities and the Gender and Inclusion Accelerator. Also missing are the links to Animal and Aquatic-Based Foods and others as noted above.

The scope of work is positioned within HLPE and the global nutrition targets. The first paragraph refers to the continuity of CGIAR's 2022-24 Portfolio and bilaterally funded research, using mixed-research methods. This section refers to “the diets and nutritional well-being of low- and middle-income countries' ... strong alliances for impact.” However, apart from the mention of school meals linked to local production and markets, there's a noticeable lack of specifics. The full proposals should seek to clearly and succinctly explicate how this agenda relates to prior research and how it seeks to remain ahead of the curve on these ideas. Additionally, the scope of work should include trade-offs, co-benefits, cost-benefits, and risks analyses and how to study these to inform policies that could be game changers.

The Program elaborates on five interrelated areas of work, which often seem similar or should be dovetailed rather than carried out separately. For example, the first three seem quite similar, all of them aiming to do similar things but written in different ways, presumably to fit the current portfolio of work. To a reader however, F&Vs are a subgroup of the first two, as a case study for how market systems will be strengthened for F&V, including reducing food loss and waste and so on. The main proposal should clearly articulate how these are distinct and yet interrelated and how the sum of these three parts will add up to something larger.

Also “We also aim to provide insights on how trade and domestic agricultural support policies shape food prices and market incentives.” Should this objective be within Policy? How does this Mega Program seek collaboration or opportunities for input with the Policy Mega Program.

There is a list of several topics, but it is important to think through what this Program will not do as its core but will support (linked to the food systems data point below). While the issue of “Leveraging the combined power of multiple systems to achieve diets and nutrition impact at

scale for vulnerable populations” is indeed important to advance nutritional outcomes, more thinking is essential in terms of what is strategic and core to the CGIAR, what it would lead and why and where it could facilitate this kind of research instead (than leading it or being substantially involved).

Some topics proposed on health systems and school meals, albeit alluding to home-grown school meal models, are included as a key component (and indeed these are the only specific examples given) appear to be a distraction to the core remit of CGIAR and also not clear if CGIAR has a clear comparative advantage compared to other groups conducting this work (while appreciating that a few capable people exist within CGIAR, but the question is how to deploy this talent). While CGIAR, specifically IFPRI, has advanced research in several of the aspects of the work proposed here (including social protection, which is a big bucket), the main proposal should provide details on how these ideas are closely aligned with the CGIAR core capabilities, comparative advantage, and remit.

As noted above, the Mega Program also needs to think through how the evidence produced to date could be scaled up for impact. As noted above, for example, food production and biofortification related aspects seem to have been completely eschewed and if not, they need to be clearly articulated in the main proposal.

On “Strengthening knowledge, governance, and capacity for transformational impact on diets and nutrition,” the Program mentions “improve the quality and use of food systems data, and evidence from across the Mega Program’s areas of work, as well as political economy analyses and decision support tools.” Is this not the remit of the Policy Mega Program and the system as a whole? If there are specific angles here that this Mega Program aims to contribute, then it should be specified clearly in the main proposal. While each Mega Program might need its own policy engagement and data systems, the future proposal should articulate how this is not a duplication and replication and these endeavors clearly complement efforts across the entire portfolio. This Mega Program wants to do it all, but also strangely misses the obvious connections and issues that should be core to CGIAR.

Several global and regional commitments to nutrition were mentioned, showing that the Mega Program is responding to a global demand. Yet, the discussion on partners was relatively shallow. Which partners will be engaged in research, intervention, and extension and why? The main proposal will need to clearly articulate these.

While it is hard to assess effectiveness from this short Document, the Mega Program description includes several points that reflect thoughts (at a high level) on how to effect change in the System. However, while the current initiatives as they stand are possibly well positioned to generate knowledge and innovations, key concerns raised above remain.

Comparative advantage is not addressed. The Mega Program needs to give some consideration to what CGIAR is good at and what is within its core remit and what other institutions would be good at providing. There is a sentence that claims they will use the “best” of both, but it gives no indication that any thought has been given to what those “best” parts are. Further, the Program needs to make a choice on what is interesting to Program researchers and what that overlap is within the core remit of CGIAR and focus on the overlap for the purpose of this portfolio.

In summary, ISDC understands the challenging task of condensing a lot of detail into a few pages for the Mega Program. While several innovative aspects of the proposal exist, especially the much-needed post-farm gate focus, there are areas that could be strengthened:

- The narrative would benefit from greater conceptual, theoretical, and operational clarity, as well as internal cohesion.
- Establishing clear operational links to relevant Mega Programs is imperative for a cohesive and impactful strategy.
- Translating the evidence to date for impact at scale remains an unfinished agenda and should be considered more centrally.
- It's essential that the proposed work aligns with the core remit of land, water, and food systems, leveraging CGIAR's comparative advantage, assets, and capabilities.
- While sustainability and equity are sprinkled through the narrative, a stronger sustainability, equity and resilience led focus would be important.

Overall, we appreciate the effort and look forward to further refining the proposal for greater effectiveness.

Climate Actions for resilient food, land, and water systems: Climate Mega Program

Given the urgency to act, this Program on climate action is pivotal for CGIAR's research. The intent aligns well with the CGIAR 2030 Research and Innovation Strategy. Given that serious climate change impacts are now unavoidable, there is considerable need/demand to increase climate preparedness and resilience across food, land, and water systems at all scales and domains. While Portfolio cohesion is implied, this should be better highlighted in the Companion Document and/or proposal. The alignment of Initiatives with the Program seems logical.

While the relevance of this Program is obvious, the outline lacks ambition and reads more like a sales pitch than the outline of a research program. Climate change is happening faster than our ability to respond. Hence, we need to move beyond diagnosis and take bold actions that are supported by strong scientific evidence. This should include structural changes of our production systems. The Program seems to build on previous findings, presumably including bilaterally funded research. The full proposal should clearly articulate how all streams of funding will be combined to increase resilience and the adaptive potential of our agrifood systems in the face of ever-increasing climate risks.

This Program draws upon previous findings, but new innovative actions are missing. Instead, traditional climate adaptation actions are mentioned. On the positive side, the activities to amplify science are inclusive and intend to be in context with the reality of the productive systems. How bilateral funding fits into this picture is unclear. Trade-offs and risks should be highlighted. Also, the interaction and function towards the other Mega Programs and Accelerators should be described to increase scientific credibility and applicability. Given that climate change affects everyone, this MP needs solid coordination across all other Mega Program—the question is how?

At this stage, it is difficult to assess legitimacy. There is a promise to engage partners further based on the Listening Session(s). Co-creation, codesign, and joint implementation are mentioned. Additionally, this Program is highly demand-driven, which increases its legitimacy. However, information to ensure fair and ethical processes is not (yet?) included.

In this high-level Document, few innovative actions are included; a reorganization of the ideas would increase effectiveness. Again, the building of inter-relations with the other Mega

Programs and Accelerators is a must, which should be clearly depicted in relation to data and information building and exchange and methods to address other Programs' needs.

This Program in itself constitutes a CGIAR comparative advantage, a fact that needs careful analysis as part of the next iteration. For instance, climate data and information are key to project impacts, but these are mostly not available in countries in the Global South. The generation of this information could be of great benefit for local stakeholders being part of a free platform; the question is which Mega Program would conduct the necessary data analysis, generation, and provision? Would it be the Digital and Data Accelerator or the Climate Mega Program? This needs to be addressed.

Climate change is a megatrend. However, links to other megatrends, particularly health, inequalities, biodiversity management, and natural resources scarcity could be more explicit and strengthen to make the case for increased funding.

Overall this section contains too many motherhood statements that add little and should be deleted. Instead, a pithier and more advanced description of the actions should be included.

In general, the style is far too verbose. Simply cutting the fluff would make the document more accessible. There is considerable room for improvement. The content is largely fine, the writing style and the lack of focus is a problem.

Innovative institutions and policies for food, land, and water systems transformation: Policy Mega Program

The Policy Mega Program broadly aligns with the CGIAR 2030 Research and Innovation Strategy, with a focus on greater collaboration within the CGIAR. It encompasses two primary initiatives: Foresight and National Policies and Strategies and is linked to three more: Gender Equality, NEXUS Gains, and Rethinking Food Markets. The narrative has a section on aligning with partners' needs and demands, and much of the underlying work seems to have been funded through bilaterals, building on 14 countries' programs already established and analytical methods, tools ("suites") deployed in 35 countries.

This Mega Program comprises of four interconnected activity blocks: research, policy engagement and communications, capacity building, and finance. Every Mega Program will have activities in these domains, so the question is how will these overlaps be leveraged to avoid confusion, contradictions, replication, and duplication? Are there missed economies of scale?

So far, each Program wrote their proposal on their own, and such narrow focus is perhaps a risk-averse and pragmatic strategy in an environment where the asks on the larger system are multiple and competing even within the One CGIAR architecture. The main proposal should articulate how these aspects dovetail under or complement the larger One CGIAR's policy engagement, capacity building, and policy engagement at various levels (and a process for what will be done where). In particular, the "Operationalization" section should help reconcile questions of how internal collaboration and redundancy will be handled. The same should be articulated with respect to the Initiatives this Mega Program is linked to.

The Policy Mega Program proposes working across the other Mega Programs and supports major projects with each of them. Yet, the description gives little thought as to how this collaboration could be strategically advantageous and where it should be prioritized. If each

Mega Program aims to collaborate with seven others, how are resources allocated and how are synergies created? Under the heading “Contribution to CGIAR’s impact,” the description makes some reference to capacity building allowing for additional engagement in policy. This capacity building needs to be argued based on comparative advantage. It should be made clear how building capacity in the way you propose is strategically more advantageous than other potential uses of the resources. This will require more specificity regarding the types of capacity being built.

The proposed research exploits the massive credibility of CGIAR (and specifically IFPRI) obtained in the space of real-time analysis of the economic implications of global events. This is a wise approach given the widely acknowledged success in the wake of the pandemic and recent wars. These deal with regional and global impacts. The description attempts to signal an additional focus on individual actors and how they respond to policies. We sensed from the framing that this is a secondary priority when compared to the global and regional impacts, though this is not explicit. In the first paragraph there is reference to a focus on micro-level insights. It is unclear from the text whether you consider these micro-level responses only as they pertain to policy outcomes, or if you are suggesting a broader focus providing advice on how micro-level actors should respond to policy.

The second paragraph proposes a vision in which stakeholders “gain access” and “skills.” The way this is worded makes it sound as if the primary purpose of the Mega Program is to communicate rather than to innovate. Will this Mega Program provide existing knowledge or create it instead? The research section has just four bullet points. Overall, an operationalization of that vision for cutting-edge, forward looking, transformative science is missing.

Below are the four research domains articulated and comments pertaining to each:

Global to local to global analytics. This domain includes a list of research topics, albeit all important, but connections between each, as well as why these topics and systems perspective were listed, are lacking. The list of foci will not be meaningful to those who are less familiar with the past body of work. Using a vague sub-heading and then following it with a long list without any details or strategic argument will likely lead readers to gloss over or ignore what should be a real strength. There is an opportunity here to step back from the list of research topics, which presumably are current research projects underway, to articulate and view this domain more strategically from land, food, and water systems perspectives. For example, building on their strength in “predicting complex interactions, synergies, and trade-offs among and within ongoing megatrends (p. 67),” the full proposal could consider a more coherent and strategic approach as illustrated below:

- How do megatrends and their interactions affect the land, food, and water systems? The document engages the megatrends but offers little in the way of prioritization of these trends for this Mega Program.
- What are the implications of the above for the 5 Impact Areas?
- What policy options at national, regional, and global levels are available to manage risk, reduce vulnerability, and build resilience?
- What the trade-offs and co-benefits are for the selection of research focus?
- Clearly articulating what in this next phase is transformative is preferred to merely mapping existing projects to this Mega Program. The proposed Mega Program in itself is not problematic as long as there is a compelling transformative research agenda for the next five years, building on existing work.
- Institutional reform and innovation. Again, the description reads similar. While research in incremental, the description could be strengthened with:

- a focus on new ideas
- how old and still important and stubborn issues will be researched and what key gaps will be addressed, why and how.
- State of art thinking and implementing research, drawing from multiple disciplines.

Evidence-building points to two points: 1) uncovering causal mechanisms at more spatially granular levels and 2) implications of and constraints to bringing innovations and reforms to scale. Some key issues to be considered in the full proposal:

- Looks like the first point is a part of the first bullet pointed topic above on analytics and the second one related to the second point on institutions above.
- Also, not clear why the above two research topics (analytics and institutional reform) are not “evidence building.” Perhaps the label here needs to be changed.
- If investigating causal mechanisms is the key point being made here, how is investigating causal mechanisms here sufficiently different or in collaboration with other initiatives? It is also not clear why this Mega Program would be undertaking this aspect.
- The description proposes an advantage in running large-scale studies of policy implementation. This advantage is less clear relative to some other groups operating in this space that would be open to collaboration. For example, there are several academic groups that are highly skilled at devising impact assessments, but perhaps have fewer institutional connections to policymakers in the target countries. This might offer opportunities to exploit productive partnerships. Have these possibilities been fully explored? Additionally, while there is less risk in pursuing research analyzing policy at the regional or global scale, there are substantial risks involved in implementation and impact assessment studies. While we recognize that One CGIAR has experience in this area, these risks need to be acknowledged and weighed in the balance of effort.
- Overall, it is not clear why this Mega Program aims to undertake impact evaluation as its core research remit, while there are other groups within an outside CGIAR that have that expertise. Again, this comes down to wanting to do it all vs. building strategic relationships and deploying resources most efficiently and impactfully.

Political economy: Not sure why this is called out separately. Please clearly articulate the distinction between Political Economy and Institutional Reform and Innovation.

The Mega Program builds on existing country programs and partner engagement. It is fair to assume there is legitimacy. But the Mega Program is broad in scope, and it would be difficult to assess which aspects have legitimacy and which aspects need to build legitimacy and the process for this beyond more stakeholder consultations. For example, is CGIAR best placed to lead work on political economy (does it have a comparative advantage, even if it has some capacity in some pockets?) or should this be done through local research partnerships? To what extent do partners have ownership of these processes and outputs (even if open access)? In the proposal, these aspects could be better justified, clearly pointing to areas where this is weak and a plan to build legitimacy in all aspects of work.

Three key aspects of ToC are presented but it remains hard to assess effectiveness, given the format of the Mega Programs. A key "building block" of this Mega Program is “Finance.” It is not clear how this is linked to the rest of the work. Should this not be a part of the analytics part of the research component? If this is not research, it would be helpful if the proposal clarified that. That said, it is worth asking if CGIAR has a comparative advantage in this area? While this is an important topic, a clear mapping of CGIAR’s comparative advantage vis-à-vis other players in

the field is needed. If CGIAR is weaker than other players who specialize in the field, some clear thinking on developing collaborations in research and/or advocacy would be important.

On policy engagement: Engagement with policymakers is critical to the success of this Mega Program. The record of engagement has been mixed with some prominent and important successes. How have prior successes and less successful efforts informed the strategy for engagement with policymakers? Are the priorities among local, regional, and global stakeholder groups clear?

Securing Future Foods for All: Frontiers Mega Program

The Frontiers Mega Program aims to build on the Centers' frontier research work in food system transformation. It aligns with the CGIAR's mandate and strategy. The mapping of Initiatives into the Mega Program is logical and there is evidence of demand. Whether this demand for food systems transformation translates into demand for **research to facilitate** food systems transformation is not clear. A stronger articulation of the role of scientific knowledge through research in this transformation process would be helpful.

The Mega Program is inspired by the megatrend analysis and highlights the particular strength that CGIAR believes to have in this space. An honest and reflexive comparative advantage analysis as part of the next iteration should clearly articulate CGIAR's comparative advantage and disadvantage in this space.

While the high-level science that is proposed appears credible and builds on current CGIAR work, it is not clear what was achieved under the Fragility, Conflict, and Migration Initiative (FCM). This all seems very vague, possibly because there wasn't enough time to do any actual research as part of this Initiative. This should be openly addressed.

There is hardly any discussion about potential trade-offs or risks, including areas that are deemed out-of-scope. It would be worthwhile to explain why some potential collaborations (both within and outside the CGIAR) are more attractive or natural than others.

Outputs and desired outcomes are clearly articulated. The path there is not—but perhaps cannot be at this point. The work is very much oriented toward early-stage research on emerging issues.

Regarding the comparative advantage analysis, there is room for improvement. It is not clear that CGIAR really has comparative advantage in this field. Strategic partnerships will be critical for success and this should be acknowledged, not as a weakness but as an opportunity to partner with organizations that have real strength in this field.

External partnerships are mentioned in the arena of scaling and identifying problems—but not the research itself. Many of the areas of needed innovation could benefit from external partners.

With some exceptions (e.g., first bullet under 'scope' which lacks focus, is very fluffy and full of jargon), this is a reasonable outline for a new Mega Program that captures some of the recent additions to the CGIAR's mandate. It is noteworthy that the proposed work that would build on FCM is very vague, while the work proposed as a follow-on from Resilient Cities is much clearer and better focused. This could be the result of actual differences between these Initiatives or reflect different writing styles.

The needs are well articulated and the methods seem mostly feasible. It provides a good basis for developing sound impact pathways. Understanding CGIAR's role in this space will be crucial for success. Ultimately, it will require new partnerships outside CGIAR's traditional groups of partners. A rigorous comparative advantage analysis will be important.

The Future Food System Lab sounds like an exciting development, as long as its focus is clearly defined and adequate resources are provided for its success.

Empowering regions and countries to scale demand-driven, evidence-based, and impactful agri-food systems solutions: Catalyzing Impact Mega Program

This Mega Program is critical to increasing the impact of CGIAR research and innovation. If most, or all, of the CGIAR scientific achievements in the last 50 years had reached beneficiaries, many of the global agriculture problems would have been solved. However, research outcomes from CGIAR have only partially achieved the level of impact needed to ensure transformative and durable change. It is important to be realistic about the substantial but also limited potential of CGIAR's accomplishments to achieve impacts without partners being key agents in scaling.

The Mega Program description is well organized, clear, and mostly realistic about the potential achievements. The catalyzing approaches are realistic as well as ambitious and can be realized if well planned.

The Mega Program is highly relevant to CGIAR's portfolio as it provides critical integration of past research and of the future actions of the Mega Programs and Initiatives. The inclusion of the inventory of demands through surveys and the scaling up activities is an important early step. The vision of CGIAR becoming a key technical partner of global financial agencies is ambitious and has the potential to be effective if CGIAR can provide the necessary engagement with other partners at regional, national, and local scales. The approach to engaging at these scales needs to be better articulated: at a regional scale, CGIAR covers a limited number of countries so how will this be addressed; there needs to be deeper engagement with NARES, including building their capacity (which is mentioned later in the key pathways to impact; relationships with private actors, local institutions, universities, etc.) needs deeper inclusion and description.

Scaling is mostly well described, showing the activities to achieve horizontal and vertical scaling, however institutional, public deep scaling is poorly included. It is good to see that the science of scaling is part of the Mega Program. The focus is on scaling strategies, innovation bundling, clearing houses, etc. Critical areas of scaling science are the social processes of engagement to create deeper, more trusting, and longer-term partnerships. Partners, particularly those in the private sector, have different objectives and modes of operating and are culturally different to research agencies and institutions. Understanding these differences is critical to successful partnering and should form part of the scaling science.

The approaches involve periodic surveys of stakeholders, contact with other Mega Programs, and with international financial institutions (IFIs) to scale and to produce more impact. However, the approaches needed to work alongside local institutions, community associations, etc., are not mentioned at all. This must be addressed to avoid the top-down engagement approach becoming too dominant at the expense of critical understanding of local context.

Building capacity through deeper involvement with universities and other centers of formation and education are also ways to collect local information on demand. However, the key is to include the social context to guarantee the impact, especially in the case of family or small-scale agriculture.

This Mega Program will be critical to increasing impact of CGIAR; therefore, being able to effectively engage with the eight Mega Programs will be essential. The approach to engaging with individual Mega Programs, cross-cutting workstreams, and Accelerators is outlined but requires elaboration. It would also be good to acknowledge that this will be an especially challenging Mega Program to manage given its depth and breadth of engagement across the whole Portfolio. Considerable effort will be needed in the development of the full proposal to determine the processes and approaches needed to effectively manage the complexity of this Mega Program and the demands that it will face.

The pathway to impact is clear but not complete, because, as mentioned above, the change will not be achieved by working only with large scale partners and IFIs (although very necessary). Local and regional governments and associations, universities, NARES, etc., are key partners to achieve the envisaged impact.

The challenge of increasing adoption is well made in terms of the complexity of the external environment. This leads to the three key objectives of the Mega Program in addressing these challenges. However, key obstacles to uptake are also the internal CGIAR processes and approaches used for delivery of CGIAR research, scaling, and partnership engagement. This challenge is not mentioned, which is an oversight that should be addressed. Acknowledging this challenge has important implications for the first objective, i.e., it is not just about more robustly engaging with stakeholders but the way this engagement is designed and implemented.

There is overlap and duplication between the sections on a “systematic approach to Portfolio-wide, demand-driven scaling; Key pathways to impact; and the Catalyzing Impact Mega Program’s key areas of work.” The Document could be punchier by removing this repetitiveness. As indicated above, a key missing element in the areas of work proposed is the social science needed around developing partnerships that can become enduring. Scaling through partnerships often fail because not enough attention is paid to the drivers, incentives, and constraints that all the organizations in the partnership face and then investing the time to understand these differences and build processes to address them.

Although the Mega Program will support the improvement and identification of CGIAR’s comparative advantage, the Mega Program itself needs to identify its own comparative advantage to increase impact as is its goal and this should be undertaken during the proposal design phase. A critical area for the comparative advantage analysis will be the Mega Program’s effectiveness in working in partnership with not just large-scale development partners but also local actors as impact will be greatly enhanced if local stakeholders are actively included and share a large part of the activities.

The megatrends analysis is not included, although implicitly it is possible to see that in case CGIAR achievements are scaled, many of the megatrends will be tackled (of course never completely) at local level.

In general, some overlap between actions to achieve impact can be observed. A clear definition of the key pathways to impact, and the activities included in the scope of work, would enhance the clarity of the description, and give space for a better description of local involvement.

Gender and Social Inclusion Accelerator

The Gender and Social Inclusion Accelerator (GESI) aligns with the 2030 CGIAR Research and Innovation Strategy. The Accelerator builds on CGIAR's strong commitment to gender and expansion of equity concerns to other social groups.

GESI would benefit from conceptual clarity on terms and definitions.

- A clear definition of GESI. Gender is a fluid concept and while it might not be CGIAR's comparative advantage to grapple with the multiple and evolving definitions of "gender," it would be worthwhile to define what the term means and what the research does not aim to address.
- The same goes for the term "social inclusion." This is vague and lacks focus. Often it says "other groups" without mentioning examples.
- Youth appears in the text, is that "social inclusion?" While youth is mentioned here and there, there is no real focus (same as social inclusion) on how to develop this agenda (and often digital tech is the only topic in relation to youth).
- People embody multiple identities that present opportunities and challenges for wellbeing. GESI should think through intersectionality, which is missing currently.

While megatrends were mentioned (and the narrative says these trends present both opportunities and challenges and proceed with saying that "methods, tools, and skills, including gender- and youth-responsive digital technologies" can be harnessed), this is rather generic. The future proposal should seek to systematically:

- identify which challenges and opportunities are presented.
- which of these are the stubbornly persistent ones and which are new challenges and opportunities.
- and clearly define the scope of work responding to the above.

If the above is not addressed, there is a risk of missing opportunities that are important, impactful. While continuation of continuing work is important, the narrative of the Accelerator needs to reflect a more forward-looking agenda, which is clearly justified with underlying analysis. The third paragraph simply misses this, and it is hard to tell what is being continued, why (what have we learned and how are we building on it), and what would be exciting and state of the art for the next 5-10 years.

Under CGIAR's contribution to impact:

- We support the Accelerator's ambition to integrate GESI into other Mega Programs and the synthesis function. This will be incredibly important and valuable. In fact, we think mainstreaming this across all Mega Programs should be a priority.
- The first bullet "Conduct foundational GESI research to transform discriminatory social institutions and unequal power relations ... systems (i.e., 'gender lab')" sounds ambitious, but it is not clear what this means. Only gender is included and more thought needs to go into youth and social inclusion.
- Many other Mega Programs also include institutional and social reform statements—how will all these be aligned across the Portfolio?
- The statement on developing capacities does not help us understand what is being proposed. The proposal should have a clear vision and operational plan detailing how this Accelerator seeks to support researchers and partners on gender responsive and socially inclusive approaches.

The scope of work:

- It is not entirely clear what is new and innovative from building on previous work.
- Only gender is alluded to in all the three bullet points and does not include youth and any other aspects of social inclusion in a compelling way.
- This Accelerator should aspire to create step change in not just what research is being conducted but also how. However, the current approach does not harness this at all.
- How can research methods evolve to integrate gender and social inclusion through the research to impact lifecycle?
- For example:
 - What codesign approaches to integrate these groups in development of the research agendas (for ensuring crop varieties, technologies or institutional innovations are taken up by these vulnerable groups), uptake and scaleup could be designed and deployed?
 - How are these approaches empowering these communities? (e.g., codesign research questions, methodologies and action plans and their codelivery; citizen science and so on)
- Working with vulnerable groups requires careful consideration of ethics and ethical frameworks. The proposal should seek to delve into this more thoughtfully (rather than merely talking of informed consent, confidentiality, etc.). There is very interesting work happening in this space and CGIAR could collaborate with institutions to draw on their work.
- As noted above, intersectionality should be firmly a part of this Accelerator. Advancing this research agenda requires careful thinking of data systems and CGIAR is strongly placed to design and create such data systems to enable intersectionality inquiry. However, this is currently missing in this vision.
- Strategies for addressing the key aspects of social inclusion need to be presented. For example, how does CGIAR research or access to technology ensure equal opportunities? The active participation and involvement of marginalized groups in decision making needs to be addressed.
- In climate and war affected areas where agriculture is feminized, it is crucial to develop special methodology that considers the specific challenges faced by vulnerable groups.
- While gender is within CGIAR's comparative advantage, it is not clear if CGIAR has any experience or comparative advantage on youth and/or social inclusion. Therefore, while undertaking this important work (which is not addressed here), it would be important to build partnerships with organizations outside of CGIAR to ensure that they are drawing on the best of innovative thinking.
- In summary, there is a strong inclusion of gender but all other aspects of social inclusion and what is the next generation of research agendas (including gender) could be much more strengthened. Thought needs to be given to partnerships, especially in areas of social inclusion, advancement in ethical frameworks, etc., where CGIAR currently has little if any capacity or comparative advantage.

Capacity Sharing for Development Accelerator

ISDC recognizes the importance of this Accelerator in terms of its cross-cutting nature. At the same time, the specific narrative presented for this item in the Portfolio is among the most generic among descriptions. The proposal and Companion Document would benefit from more specific examples, building on lessons learned in this area (external Evaluation findings available). The reference to the work of CapSha Task Force is noted—but would be beneficial to

include more details on this and how it informed the development of the Accelerator (something along the lines of Box 5, p.19). The main question is why is the goal to build capacity of partners and not build capacity within CGIAR? Also, beyond training, the narrative gives little on what “capacity building” entails or how the Accelerator defines it.

On prioritization, the range proposed seems to cover all sectors and actors, which will be difficult to achieve. More targeted efforts in specific areas or for specific partners would increase the effectiveness of capacity sharing initiatives. The specific activities also need to be elaborated. Focus is placed on training and teaching without providing evidence that CGIAR necessarily has comparative advantage. The existing comparative advantage analysis indeed seems to show that CGIAR is not a capacity builder, but facilitator, enhancer, supporter and driver of changing of mentality towards the exchange of scientific information with locals (NARES, universities, training centers, local communities and associations, etc.). By strengthening partnerships with academic institutions and local communities, an assumption is capacity building would be more effective. Incorporating academic expertise and local knowledge could enhance the quality and impact.

The approach proposed needs to have the right balance of ambition and modesty. The latter refers to the narrative of developing the capacity of someone else, without necessarily reflecting on whether there are enough resources within CGIAR to do that and how partnering with others can help reach common objectives. In addition to questioning which areas should be prioritized for capacity sharing, the Accelerator design must consider the internal capacity available for CGIAR to implement this ambitious program.

More clarification will be needed in the proposal regarding:

- partnerships with academia; role of CGIAR vis-a-vis other actors, including the government.
- co-learning that needs to be qualified in terms of partners covered and arrangements in place. With MELIA, it is not evident if the description about MELIA of this accelerator or capacity sharing MELIA, which needs to be made clearer. Also, what would be the organizational structure for coordination considering many entities conduct MELIA already.

There is also a lack of information on the role of this Accelerator vis-à-vis other Mega Programs and the delineation of tasks.

- What will be implemented under the Accelerator?
- What will be done as part of capacity building under each Mega Program (many have this element)?
- Which Mega Programs will the Accelerator primarily serve? A bit of strategic placement of this item within the Portfolio is required.

Accelerating equitable transformation of food, land, and water systems through digital innovations, data-driven insights, and impactful ventures: Digital and Data Accelerator

The Digital and Data Accelerator offers CGIAR an exciting opportunity to harness digital innovations and data-driven approaches in agricultural research. This Accelerator is relevant for addressing the pressing and rapidly evolving challenges confronting food, land, and water systems. The importance of utilizing digital technologies and data analytics to tackle these issues is crucial and resonates with current global challenges.

As an enabling Accelerator program, which sustains all other Mega Programs, the relevance is high, however, the impression is that the objectives and general actions are diffused and the borders to the proposed actions are not clear.

It is not clear if this is a data accelerator (much needed) or an innovation accelerator (also needed but under other terms). The Mega Program assumes digital data and information as innovation, or innovation restricted only to technology and data management, which on one hand confuses the reader, and on the other hand, raises the question of how? How will it leverage “participatory research approaches” with quantitative digital data and information? It could be feasible to say that it will analyze qualitative data, but is that really the intention? At this moment any program or project needs to have digital data support, even small ones such as databases and libraries. Therefore, if not demanded yet, very soon, most programs will request global database support such as this one. However, some questions arise related to relevance:

1. To be successful, operatively, the Accelerator needs to have a strong link to the other Mega Programs, and initiatives to open the information databanks, and be the integrative tool for data flows and information. This undertakes the assumption that most bilateral, individual initiatives and Mega Programs will be permanently providing information and requesting support for their research questions, thus: is that the goal for the Accelerator? Or which are the restrictions expected? Which boundaries does the Accelerator plan to work within?
2. In some parts of the Document, it is suggested that data will be processed, integrating even until model systems approach, but is that not a role of the Mega Programs? Are we not potentially duplicating roles that should be performed according to their objectives by each Mega Program?
3. In the second paragraph, the name changes to “Innovation Accelerator,” suggesting other components aside from data flows and integration, and this “intention” flows until the end of the Document. However, innovation acceleration (if that is the intended goal) is much more than collecting data. It involves business support, markets opening, etc. Additionally, as we repeatedly argued, “innovation” is technology and needs to be inclusive. Thus, is the intention to truly become an “innovation accelerator” which addresses inclusivity and institutional arrangements? Is that the intended role?

In general, “Digital Innovations” as initiative was clearer in the scope and intention and in the goals intended to be achieved.

The credibility of the Digital and Data Accelerator is well-supported by CGIAR's extensive research capabilities, quality data assets, and commitment to responsible innovation. With its established reputation as a leader in agricultural research, CGIAR is well-positioned to drive meaningful impact through digital innovations and data-driven solutions.

Being an enabling technological program, the scientific credibility relies on the methods and technology to process the data they receive and information the accelerator provides. This is not well described in the short Document. For instance, AI is included, but for what purposes? Generate new scientific paradigms for and of research? Will the Accelerator generate new technologies?

The Accelerator should be a strong support to generate for instance solid and locally validated climate information which is super important and rarely available, libraries of maps and indexes included, statistical tools and databases, or even provide support to other MPs and initiatives for generating paradigms.

It is mentioned that the Accelerator will be built upon the previous initiatives: Digital Transformation, Genetic Innovation and Excellence in Agronomy, However, it does not elaborate on how this will be achieved.

The legitimacy of the Digital and Data Accelerator is reinforced by its alignment with CGIAR's mission and strategic priorities, particularly its focus on leveraging digital technologies to address key challenges related to food security, climate change, and sustainable agriculture. By harnessing frontier technologies and fostering collaborative partnerships, the Accelerator demonstrates a genuine commitment to advancing CGIAR's goals in a responsible and inclusive manner.

While the Accelerator holds potential, there are concerns regarding the lack of evidence regarding data protection, privacy, stakeholder engagement, and participation. Clear goals and objectives for the Accelerator could address these issues effectively.

The effectiveness of the Digital and Data Accelerator is yet to be fully realized, however, its comprehensive scope of work and strategic approach suggests considerable potential for generating impactful outcomes. By leading the digital research agenda, harnessing frontier technologies, unlocking the power of data innovation, providing enabling digital infrastructure for research, and establishing innovation hubs, it will also foster collaborative solutions, and this further demonstrates the potential effectiveness in achieving its objectives.

CGIAR's comparative advantage in research capabilities and quality data assets further strengthens its position. However, an in-depth analysis of CGIAR's comparative advantage in this area will help to understand the scale and the reach of the accelerator, recognizing that certain infrastructures are outdated and that there's a need for significant investment to elevate the accelerator to a level where its benefits can be fully realized and valued—for a significant return on the investment in the long run. It is also essential to understand whether CGIAR will tap into partnerships with the private sector, which possesses more advanced expertise in the technological revolution domain.

Although the Document includes a mention of supporting the CGIAR's comparative advantage, an analysis for the specific Accelerator is not yet included and, in some paragraphs, the narrative suggests some overlapping with research questions and planning from other Mega Programs. For example, "... In coordination with the Mega Programs, it will leverage innovation systems and participatory research approaches to identify strategic entry points for systems transformation..." This needs to be clarified.

By addressing megatrends like climate change and food insecurity, the Digital and Data Accelerator aligns with CGIAR's broader mission and contributes to achieving sustainable development goals.

The megatrend related to Frontier Technology and innovation is largely discussed due to the typology of the Accelerator. While there are few references to others, it's logical considering this Accelerator's association with data and information technology. This focus is beneficial as it minimizes the risk of overlap with MPs and ensures efficiency in resource allocation, thereby maintaining a stringent approach to avoid duplicating efforts and budget usage.

Overall, the Digital and Data Accelerator presents a promising approach to address complex challenges through digital innovations and data-driven insights, positioning CGIAR as a

frontrunner in championing the ethical and responsible use of AI and other emerging technologies for advancing agricultural research for sustainable development.

The Accelerator introduces new strategies and technologies to enhance digital and data science applications, especially in AI and generative AI approaches. A highlight of successful case studies or pilot projects would effectively showcase the accelerator's potential impact and underscore CGIAR's preparedness to underpin the 2025 – 2030 research portfolio through this accelerator.

Understanding the digital gaps and challenges in partner countries is crucial for tailoring solutions to local needs. The narrative does not sufficiently address how the accelerator will adapt its approach to different contexts, potentially leading to ineffective solutions in some regions. There should be clear metrics to measure the impact of the accelerator's efforts, it will be challenging to assess its effectiveness in empowering small-scale farmers. The proposal should include specific indicators or benchmarks to track progress and ensure accountability. Inclusive innovation requires active engagement with diverse stakeholders, including small-scale farmers, local communities, and civil society organizations. The narrative does not yet provide details on how these stakeholders will be involved in the design and implementation of the accelerator's initiatives, raising concerns about inclusivity and ownership.

Conserving, exchanging, and using plant diversity: Genebanks

The Genebanks Asset narrative effectively underscores the critical importance of conserving plant diversity in the face of global challenges, such as climate change and food insecurity. It outlines how the Asset will play a pivotal role in this regard by maintaining and disseminating diverse plant collections to address these pressing challenges. It also emphasizes the central role of these genebanks as crucial pillars in the achievement of sustainable agricultural development.

Genebanks provide diverse plant materials (wild species, landraces) to aid research across several of the Mega Programs, notably, Genetic Innovation, Sustainable Farming, Landscapes, and Animal and Aquatic Foods. As such they are a key resource that underpins the 2030 CGIAR Research and Innovation Strategy.

The credibility of CGIAR genebanks as custodians of plant diversity is well-established, backed by decades of experience and internationally acknowledged capacity and expertise. This credibility is bolstered further by adherence to rigorous international standards and best practices in biodiversity conservation. Overall, CGIAR genebanks' long-standing track record and commitment to excellence emphasizes their credibility in safeguarding plant diversity for current and future generations.

Five key areas of work are described, that aim to conserve biodiversity including ensuring plant health and allowing wide access to the materials. It would be useful to have more clarity on how the genebanks work together, and plans for future work with national genebanks for mutual benefit. Is there an aim to increase the number and types of accessions? To define service levels, are there policies or procedures to prioritize requests for material or a target timeframe to supply material?

The narrative highlights CGIAR's significant role and reputation as a trusted source of germplasm for researchers, breeders, and farmers worldwide and they engage well with the international community and contracting partners to the Plant Treaty. With a legacy spanning

decade, these genebanks have consistently demonstrated their expertise in preserving and managing diverse plant collections.

The scope of work demonstrates the effectiveness of CGIAR genebanks in facilitating access to plant diversity and supporting research efforts globally. There is a description of intended outputs and outcomes at global scale in each of the five work areas. Although, more detail should be provided in the full proposal and that much impact will be delivered through the Mega Programs.

Its comparative advantage is evident—capacity and expertise, extensive collections, strategic location in diversity hotspots, and commitment to harmonizing processes to enhance efficiency and effectiveness. However, a deeper analysis of CGIAR’s comparative advantage and partnerships in the proposal will add value. This might involve exploring advancements in technologies for genetic resource conservation, plant health measures, forging collaborations with other institutions to broaden outreach, share resources or implementing initiatives focused on enhancing data sharing and accessibility.

While the narrative emphasizes CGIAR genebanks' role in facilitating access to diverse plant materials for a wide range of users, including farmers and local communities, it could provide more explicit details on approaches aimed at ensuring inclusivity, particularly for marginalized groups. Strengthening partnerships with local communities, farmers, and national agricultural institutions could foster greater inclusivity and ensure that the Genebank Asset’s activities align closely with the needs of end-users.

The narrative effectively links the work of CGIAR genebanks to broader megatrends such as climate change and biodiversity loss, emphasizing their role in building resilience and promoting sustainable agriculture. However, it could provide more specific examples of how genebanks are addressing these megatrends through their activities. While the narrative touches on the importance of genetic diversity in addressing global challenges such as food security and climate change, it could provide more explicit connections to other megatrends. For example, the proposal could highlight how genebanks contribute to resilience against environmental degradation and changing agricultural practices driven by demographic shifts and market dynamics or to identify and prioritize neglected crops for abiotic and biotic stress tolerance, or landraces that perform well in low input systems.

The narrative provides a comprehensive overview of activities and contributions. To enhance clarity and readability, it could benefit from concise summaries of key achievements and future priorities. Genebanks Asset collaboration with national partners, local communities, farmers, and international organizations is highlighted as essential for achieving its objectives.

The narrative emphasizes the importance of leveraging emerging technologies such as advanced genomics, phenomics, and artificial intelligence. Incorporating these technologies will enhance the efficiency of conservation efforts and facilitate more precise utilization of genetic resources.

While CGIAR genebanks play a crucial role in conserving plant diversity, there may be challenges related to accessibility for certain stakeholders, particularly in low-resource regions. Providing more information on efforts to improve accessibility, such as capacity-building initiatives or innovative distribution methods, could address this concern.

In the full proposal, the issues of financial sustainability should be addressed. There's a lack of clarity regarding funding and the challenges associated with the existing funding model. A viable funding strategy is essential to ensure the sustainability and expansion of these assets.