

Cover Note ISDC Review of 19 Initiative Proposals

Purpose

This pre-read for SC14 is the report of the Independent Science for Development Council (ISDC) external review of 19 Initiative proposals. The external review of proposals is an essential part of good governance and quality assurance, delivering benefits for the researchers, leadership, and System Council. The reviews presented in this report provide confidence to funders that their investments in One CGIAR research are appropriately targeted with high chances for success.

The report is divided into two sections: an executive summary and the individual review reports. The executive summary includes essential details of the proposal review to better understand the process and review criteria. The executive summary also provides a high-level synthesis of the proposals. The individual review reports are the consensus among the three external subject matter experts and ISDC member who conducted the review of each proposal.

Action Requested

The action requested by System Council is to read and reflect on the review of the 19 Initiative proposals. The information presented is intended to support System Council in making decisions and recommendations for the One CGIAR research portfolio.

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Council



ISDC Review of 19 Initiative Proposals

November 2021

Credit: 2011 CIAT Neil Palmer

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Executive Summary

The external review of 19 Initiatives is an essential part of good governance and quality assurance, delivering benefits for the researchers, leadership, and System Council. The main benefit is an assurance that the best possible science is conducted to deliver the intended development outcomes. The reviews presented in this report provide confidence to funders that their investments in One CGIAR research are appropriately targeted with high chances for success. The backbone of the review criteria stemmed from the Quality of Research for Development in the CGIAR Context (QoR4D [2020]) and the Eschborn Principles (Appendix A). QoR4D is a framework that facilitates CGIAR System-wide agreement on the nature and assessment of the quality of science.

To operationalize the QoR4D framework for the Initiative assessments, ISDC embarked on a codesign process with One CGIAR scientists that resulted in 17 criteria using the four elements of QoR4D: relevance, scientific credibility, legitimacy, and effectiveness. The QoR4D criteria also aligned with the Eschborn Principles—a set of codesigned principles developed by system funders and other stakeholders and endorsed by System Council in April 2020. The criteria were framed to ensure proposals presented context understanding, anticipated needs and opportunities of end-users, and built partnerships and activities.

The Executive Summary is divided into two sections.

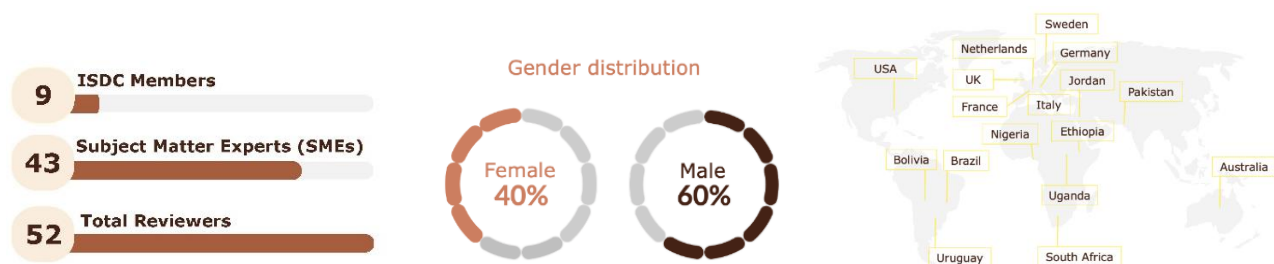
- Section 1 presents essential details necessary to understand the review process
- Section 2 provides a high-level synthesis of the 19 proposals

Section 1: Essential Details of Proposal Review

Each Initiative was reviewed by an independent and anonymous review team comprised of three external subject matter experts (SMEs), led by an ISDC member, and supported by the CGIAR Advisory Services Shared Secretariat (CAS Secretariat). The CAS Secretariat identified SMEs through a competitive roster enrollment that contains more than 100 social and biophysical scientists representing more than 25 countries. The CAS Secretariat matched SMEs to proposals based on their expertise to each Initiative review team, with one serving as a coordinator who aggregated and built a consensus among the team, working closely with the ISDC member proposal lead. The ISDC member lead vetted the matched SMEs.

Reviewer Composition and Diversity

The names of all SMEs who served as reviewers will be listed on the CAS Secretariat website at the conclusion of all 32 reviews in Spring 2022. The information in this report provides analytics on the diversity of the reviewers. Each team had a minimum of one social scientist. The composition was 40% female and 60% male, located across 17 countries. Diversity among the review teams was essential because of the cross-cutting goal of the Initiatives and five Impact Areas. The diversity of the reviewers explains, in part, the variance among the QoR4D scores of each review that can be found in the proposal reporting.



QoR4D Criteria

Table 1 on the following pages depicts the 17 QoR4D criteria along with each Eschborn Principle and where the criterion should be presented in proposals. Bolded words represent primary QoR4D element.

Table 1. Criteria for Proposal Assessment and Mapped QoR4D Elements, Eschborn Principles, and Related Proposal Sections

Criteria	QoR4D Elements	Eschborn Principles ¹	Proposal Section
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to shared, multi-funder priorities, and is well informed by previous research findings and evaluations	Relevance, Effectiveness	4, 6	Challenge statement 2.1, Learning from prior evaluations and Impact Assessments 2.3, Impact statements 5
2. Evidence that the Initiative is demand driven through codesign with key stakeholders and partners (Investment Advisory Groups, governments, private sector, funders) and research collaborators within and outside CGIAR ²	Relevance, Effectiveness	4, 5, 6, 11	Participatory design process 2.6, Challenge statement 2.1, Work Package ToCs 3.2
3. Research questions, objectives, outputs, and outcomes are aligned to the research problem, and are measurable with defined deliverables	Relevance, Effectiveness	4, 7, 10	Work Package ToCs 3.2, Measurable three-year (End of Initiative) outcomes 2.2, Priority-setting 2.4, Management plan 7.1
4. Overall Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact	Effectiveness, Relevance	3, 7, 10	Full Initiative ToC 3.1
4a. Individual work package ToC Work package 1 Work package 2 Work package 3 Work package 4	Effectiveness, Relevance	3, 7, 10	Work Package ToCs 3.2
5. Research methodology and methods (and supporting activities) are fit-for-purpose, feasible, and assumptions and risks are clearly stated	Credibility, Relevance, Effectiveness	2, 5	Work Package ToCs 3.2, Priority-setting 2.4
6. Analysis of trade-offs and synergies across the CGIAR Impact Areas; ex-ante assessment of project benefits provides logical rationale for scaling of impacts	Effectiveness, Credibility	4,6	Projection of benefits 2.7, Result framework 6.1, Impact statements 5
7. Evidence that the Initiative will likely lead to impact at scale through integrated systems approaches that drive innovation in research and partnerships, including linking to and leveraging of other Initiatives within and outside CGIAR	Effectiveness, Credibility, Relevance,	5, 6, 9, 11	Projection of benefits 2.7, Work Package research plans and ToCs 3.2

¹ See Appendix A for Eschborn Principles

² The types, range, and roles of partners need to be fully explained. For example, partners involved in research implementation may be different to those partners needed for delivery of outcomes and scaling of impacts and they will have different roles in codesign and codelivery. How these partners have been included in the Initiative design process needs to be described with evidence of their support.

Criteria	QoR4D Elements	Eschborn Principles ¹	Proposal Section
8. Ethics, including equitable partnerships, information disclosure, biases, and potential conflicts of interest are considered; proposal defines how formal research ethics approvals will be sought/granted ³	Legitimacy, Credibility	11	Policy compliance and oversight 8
9. Research design and proposed implementation demonstrates gender and social inclusion that can be tracked in outcomes	Legitimacy, Effectiveness	2	Gender equality, youth & social inclusion 5.3, Projection of benefits 2.7
10. A risk framework that details main project risks and mitigation actions across areas of science, funding, operations, partnerships, ethics, and environment	Credibility, Legitimacy, Relevance	9	Risk assessment 7.3
11. CGIAR capacity and its comparative advantage and appropriateness to lead the work is justified. This includes the skills, diversity and multi-/trans-disciplinarity of the research team and approaches to meeting gender and diversity targets	Relevance, Legitimacy, Effectiveness	2, 5, 6	Comparative advantage 2.5, Initiative team 9.1, Gender, diversity and inclusion in the workplace 9.2
12. Capacity building within project teams, partners, and stakeholders captured in capacity development plan. This can include development of early career researchers and partner staff, support/empowerment for under-represented stakeholders, and building partner networks	Credibility, Legitimacy	2, 6	Capacity development 9.3
13. Project management mechanisms and (if applicable) additional scientific oversight and governance measures effectively and efficiently support the Initiative objectives ⁴	Legitimacy, Credibility	7, 11	Management plan and Risk assessment 7, Research governance 8.1
14. Justified and transparent costing explicitly linked to expected Research for Development results	Legitimacy, Effectiveness	8	Financial Resources 10
15. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident. Protocols for open-data and open-access compliance are evident in plan (including budget)	Credibility, Effectiveness	4, 9	Work Package research plans and ToCs 3.2, Open and FAIR data assets 8.2

³ Proposal do not include individual Initiative ethic statements but robust all-CGIAR policies and mechanisms section. Initiatives will confirm alignment with CGIAR Research Ethics Policy. This was a CGIAR decision during proposal development.

⁴ Each proposal had standard text on CGIAR research governance arrangements already agree for section 8.1 This was a decision during proposal development.

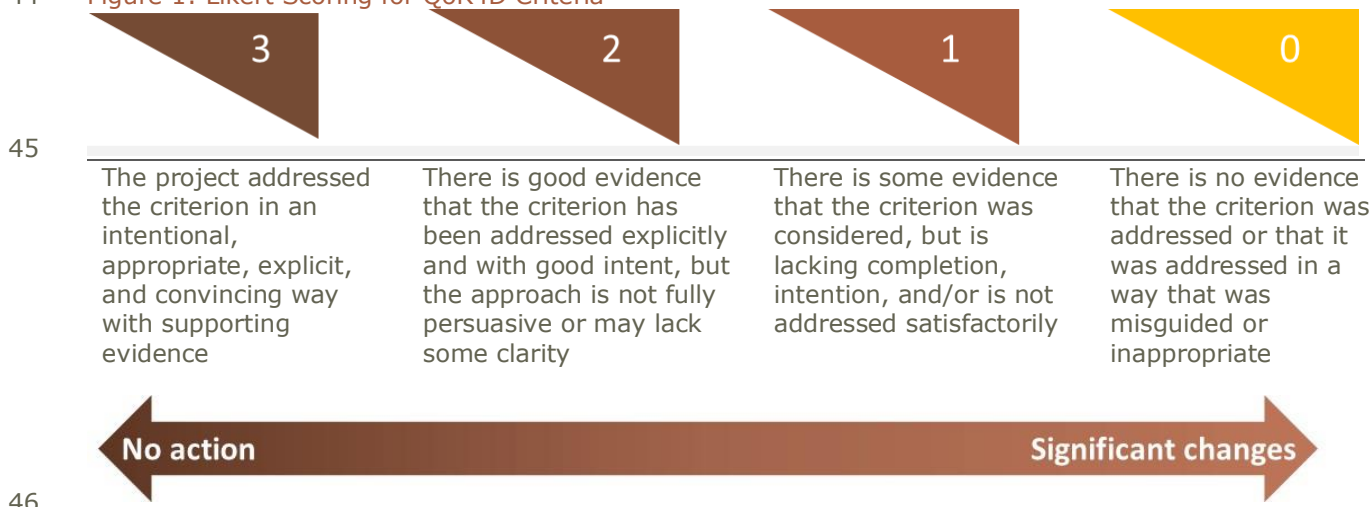
Criteria	QoR4D Elements	Eschborn Principles ¹	Proposal Section
<p>16. Monitoring, evaluation & learning (MEL) plan for the Initiative is clearly defined, with flexibility to adapt. MEL plan supports effective management and learning, including baseline data collection, and evaluative and review processes corresponding to stage-gates and course-correction decisions. MEL occurs during the life of Initiative and is used proactively to reflect on and adapt the Theory of Change, where appropriate</p>	<p>Credibility, Effectiveness, Legitimacy</p>	<p>4, 7, 10</p>	<p>MELIA plan 6.2, Planned MELIA studies and activities 6.3, Measurable three-year (End of Initiative) outcomes 2.2</p>
<p>17. Well-defined plan for Initiative-level evaluation and impact assessment based on expected end-of-Initiative outcomes and impact. Links between the impact assessment plan and indicators in the Theory of Change are clear</p>	<p>Effectiveness, Relevance</p>	<p>3, 4, 10</p>	<p>MELIA plan 6.2, Planned MELIA studies and activities 6.3, Full Initiative ToC 3.1, Work Package ToCs 3.2 Projection of benefits 2.7</p>

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41 **Scoring of Criteria**

42 Figure 1 below describes the scoring for the 17 QoR4D criteria.

43
44 **Figure 1: Likert Scoring for QoR4D Criteria**



48 **Section 2: High-level Synthesis of Proposals**

49 Initiative proposals are unique, and each proposal had its strengths and weaknesses, which are described
50 qualitatively in proposal reports. Relevant aggregated quantitative data are presented in this section
51 based on the QoR4D criteria and feedback from reviewers.

52 As a research-for-development organization, CGIAR is positioning its research within a development
53 context related to food, land, and water systems. With a strong development and impact emphasis in
54 proposals, and tight word limits, attentiveness to some of the underpinning best practice in presenting
55 scientific research needs appears to have been sacrificed. Although the development needs were clearly
56 articulated, the ISDC review found that most Initiative proposals were lacking in solid scientific
57 justifications outlining why this research needs to be conducted.

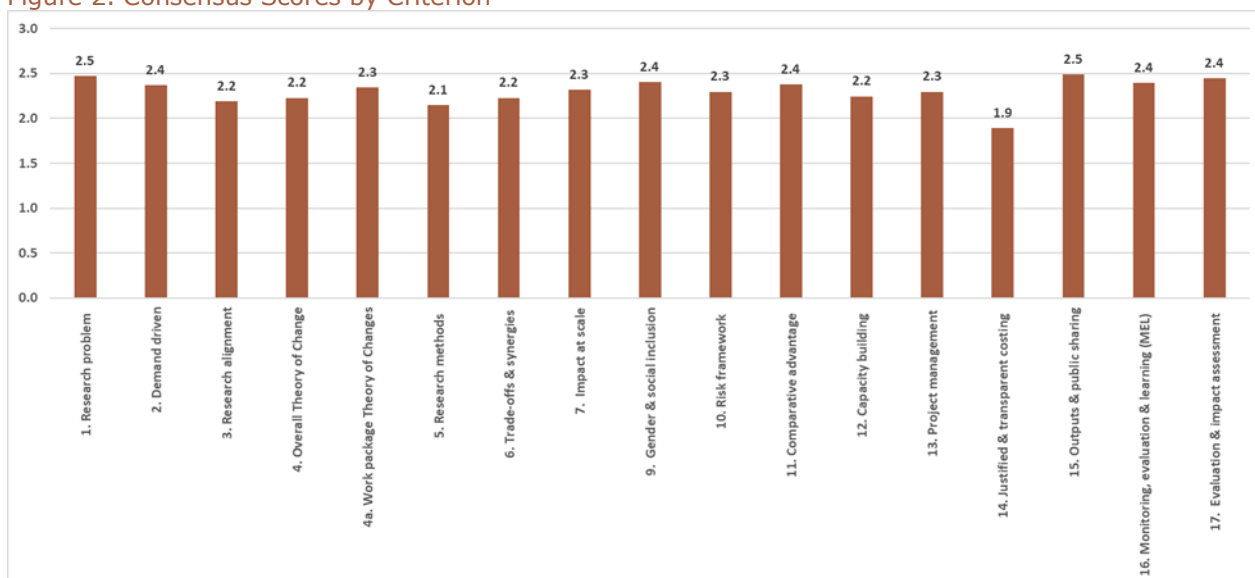
58 In the ISDC Reflections on the Emerging One CGIAR Research Portfolio and Investment Plan,⁵ item 10
59 asked for a set of hypotheses across the Research Initiatives because early outlines of the proposals
60 lacked this crucial element. Following the review of these 19 Initiative proposals, ISDC again urges the
61 Initiative Design Teams to provide a much better balance between the science and development.
62 Knowledge gaps that inhibit further development should be articulated, followed by the research
63 questions and their underlying hypotheses. These are essential requirements for a science-based
64 organization. An explicit requirement within future calls to incorporate the hypotheses to be tested into
65 the Theory of Change (ToC) could resolve the problem, at least partially.

66 Figure 2 below shows the average consensus score for each criterion across the 19 Initiatives. Criterion 8
67 that focused on ethics was not scored because Initiative Design Teams were instructed to use standard
68 language across proposals. While this directive helped to address some of the procedural aspects of
69 compliance with ethical guidelines and requirements, it is not sufficient to judge the broader aspects of
70 legitimacy of the research process. At the aggregate level, all criteria across proposals—except for
71 justified and transparent costing—received scores above “2.” A score of two was described as, “There is
72 good evidence that the criterion has been addressed explicitly and with good intent, but the approach is
73 not fully persuasive or may lack some clarity.”

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⁵ See [ISDC Reflections on Emerging One CGIAR Research Portfolio and Investment Plan](#) p. 3. (2021)

75 Figure 2. Consensus Scores by Criterion

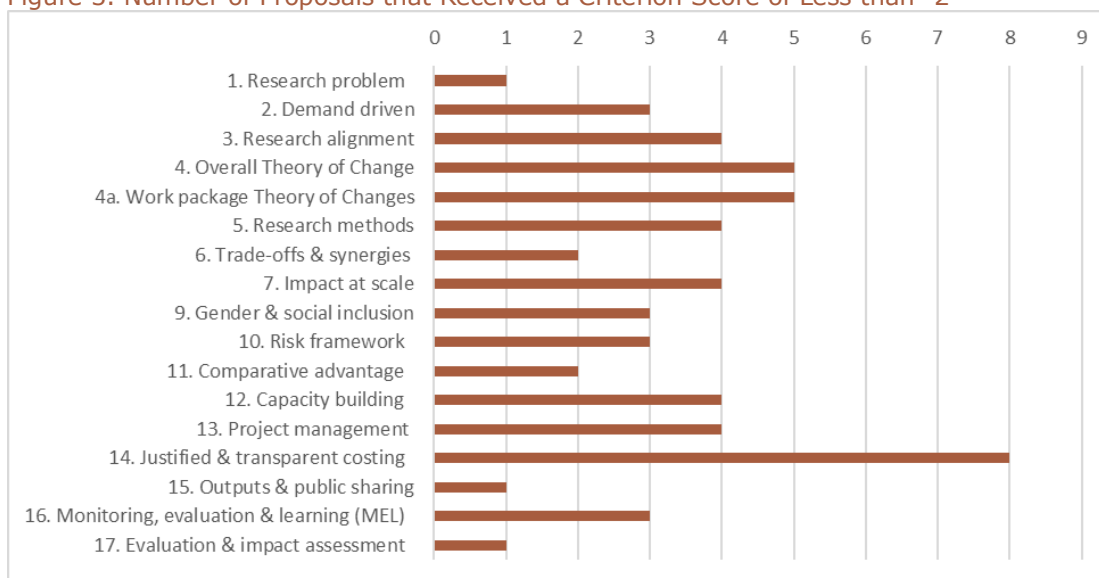


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77 **Criteria Across Proposals that Scored as Needing Improvements**

78 Figure 3 shows the number of proposals with a consensus score of below "2." A score of "1" was defined as, "There is some evidence that the criterion was considered, but is lacking completion, intention, and/or
79 is not addressed satisfactorily." Many of the consensus scores were not round numbers (integers)
80 because the decision on how to report the consensus was up to the review teams; some teams decided
81 to use the average of their scores as representing consensus. Each proposal summary found in this
82 report includes individual reviewer scores, as well as the team's consensus score to show the variance
83 among reviewers.
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85 Figure 3. Number of Proposals that Received a Criterion Score of Less than "2"



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88 To further refine areas for improvement, Tables 2, 3, and 4 below highlight criteria where at least eight
89 (Table 2), five (Table 3), and four (Table 4) Initiatives scored less than "2."

90 Eight of the 19 proposals (42%) scored the criterion related to budgets lower than a "2." The main cause
91 for the low score was the lack of information and insufficient granularity due to budget template
92 limitations. Reviewers expressed concerns that the costing lacked clarity; at a minimum, budgets should
93 detail salaries, operating, and capital investment costs. The proposal budgets only presented line items
94 by work package and country, organized by year. Expectations of co-investments from partners were also
95 absent.

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98 Table 2. Criteria with Eight Proposals Scoring Less than “2”

Criteria	QoR4D Elements	Eschborn Principles
14. Justified and transparent costing explicitly linked to expected Research for Development results	Legitimacy, Effectiveness	8

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100 Five proposal reviews cited the overall ToC (criteria 4 & 4a) as needing improvements. One comment
101 was, “While we believe that the overall ToC is clearly stated and has much merit, we have problems with
102 the assumptions, causal linkages and partners (in this regard especially the absence of participation by
103 the NARES).” Another comment from a proposal that scored both the overall ToC and work package ToCs
104 below a “2” mentioned that the challenge with the ToC is to give appropriate weight to the work package
105 results that are within the Initiative’s sphere of control.

106 Table 3. Criteria with Five Proposals Scoring Less than “2”

Criteria	QoR4D Elements	Eschborn Principles
4. Overall Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact	Effectiveness, Relevance	3, 7, 10
4a. Individual work package ToCs (score individually)	Effectiveness, Relevance	3, 7, 10

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108 Table 4 below provides details on the five other criteria that scored less than “2,” which occurred in four
109 proposals. Commentary on research alignment (i.e., criterion 3) is considered throughout the strengths
110 and weaknesses of the reviews. One review noted, “The research questions and Impact Areas could be
111 more specific, measurable and time-bound.”

112 For research methodology and methods (criterion 5), one review stated, “The suggested methodology
113 seems appropriate, however as only a very general overview of methodology is presented, it is hard to
114 accurately evaluate this criterion.”

115 Criterion 7 on impact at scale raised questions regarding partnerships. One review commented, “The list
116 of partners to be engaged is impressive, but [it is] not clear how these partnerships will be leveraged.
117 This is an especially critical issue for areas where CGIAR does not have much expertise.”

118 For capacity development (criterion 12), one review reflected, CGIAR needs to develop its own capacities
119 before it can attempt to develop capacities among local partners and rural communities, including not
120 only CGIAR early-career scientists but senior team members as well.

121 Lastly, for criterion 13 on project management, reviewers wanted more details on how the Initiative will
122 be managed and how risks will be addressed. One review stated, “Project Management plan isn’t detailed
123 enough and/or actionable enough to be convincing. It will primarily rely on initial planning.”

124 Table 4. Criteria with Four Proposals Scoring Less than “2”

Criteria	QoR4D Elements	Eschborn Principles
3. Research questions, objectives, outputs, and outcomes are aligned to the research problem, and are measurable with defined deliverables	Relevance, Effectiveness	4, 7, 10
5. Research methodology and methods (and supporting activities) are fit-for-purpose, feasible, and assumptions and risks are clearly stated	Credibility, Relevance, Effectiveness	2, 5
7. Evidence that the Initiative will likely lead to impact at scale through integrated systems approaches that drive innovation in research and partnerships, including linking to and leveraging of other Initiatives within and outside CGIAR	Effectiveness, Credibility, Relevance,	5, 6, 9, 11
12. Capacity building within project teams, partners, and stakeholders captured in capacity development plan. This can include development of early career researchers and partner staff,	Credibility, Legitimacy	2, 6

Criteria	QoR4D Elements	Eschborn Principles
support/empowerment for under-represented stakeholders, and building partner networks		
13. Project management mechanisms and (if applicable) additional scientific oversight and governance measures effectively and efficiently support the Initiative objectives	Legitimacy, Credibility	7, 11

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Conformity of Eschborn Principles

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The CGIAR 2030 shared agenda is primarily to be supported by pooled funding. Since the QoR4D criteria aligned with the Eschborn Principles (Appendix A), the scoring echoes how well those Principles are addressed. The lowest scores were associated with Eschborn Principles 3, 7, 8, and 10 (Table 5).

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Table 5: Eschborn Principles Associated with Low QoR4D Scores

Eschborn Principle and Proposal Concern
<p>3. Compelling Theory of Change to achieve impact at scale on SDG2 and other Sustainable Development Goals (as framed by CGIAR's five Impact Areas)</p> <p>Concern: Many ToCs lack causal linkages (e.g., synergies and collaboration with key actors), making uncertain that the End of Initiative outcomes would result from specific work packages. ToC diagrams need clearer headings (e.g., outputs, outcomes, and impacts) as well as narratives on geographical focus, scale, or timeframe of actions and impacts. Some ToCs rely on too many partners, and do not clearly articulate how co-production of knowledge will lead to evidence-based solutions.</p>
<p>7. Manage the research-to-development process via a sequence of stage-gated decision points at which there is a review progress along the theory of change and a resulting reallocation of resources, to support an ongoing funnel of best-bet innovations from early stage through to scaling</p> <p>Concern: A gap among many proposals is the research-to-development process management resulting in negligible reflection of a stage-gating process within Initiatives. Without decision points, progress along the ToC is difficult to track, resulting in a lack of information for the reallocation of resources to support specific innovations.</p>
<p>8. Realistic and transparent costing explicitly linked to expected results</p> <p>Concern: Proposals present superficial cost information and inadequate budget breakdown and do not allow rigorous linkage between budget and expected results. Lack of systematic granularity in the distribution of critical funds (e.g., personnel, capital equipment, capacity building, partnership development, investments into innovations) is coupled with the absence of narrative justifying the expenditures.</p>
<p>10. Use appropriate and innovative metrics of success, considering time lags from research to large-scale impacts, and making the most of modern tools such as genetic markers</p> <p>Concern: Additional quantifiable metrics that are SMART (specific, measurable, achievable, realistic, and time-bound) would help make proposals more convincing and result-oriented. Some proposals have high-level statements not supported with quantifiable metrics linked to Impact Areas. Others do not consider metrics for the inclusion of objectives, linking project activities directly to expected outcomes. This can jeopardize solid monitoring, learning and evaluation (MEL) plan and how ex-post assessments can be used to refine management going forwards. Overall, integration of metrics into MEL plans needs to be more explicit.</p>

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Comparative Advantage

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The need for a better understanding and articulation of CGIAR's comparative advantage is evident from the vastly different interpretation of what constitutes comparative advantage across the 19 Initiative proposals. Ideally One CGIAR should ensure that the Initiative proposals use a common approach to

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136 identify and speak to the comparative advantage of CGIAR vis-a-vis other country, regional, and global
137 players. Such a common, systemwide approach is particularly important in new areas of research where
138 CGIAR might not yet have a comparative advantage, but decides for legitimate, strategic reasons to
139 invest and engage.

140 Although criterion 11 that addresses the issue of comparative advantage scored well overall, the score
141 reflects different interpretations by different teams. A consistent thread through the 19 Initiative
142 proposals is missing. Achieving development outcomes at scale will require CGIAR to define its
143 comparative advantage in research for development, measure its contributions appropriately, and sustain
144 its engagement and resources through 2030. Sufficient prioritization and resources are required to
145 establish the appropriate contribution of CGIAR, and to develop relationships and strengthen the capacity
146 of external public- and private-sector partners and stakeholders over time, starting from the beginning of
147 the research process.

148 **Proposal Template Considerations**

149 Like all large and complex processes, no matter how thoroughly planned and tested, opportunities for
150 learning and continuous improvement arise. One of these areas is in the final proposal template⁶
151 requirements. The System Office relied on a strong codesign principle inviting ISDC, among others, to
152 weigh in on the proposal template design. From the perspective of ISDC, this was mainly to ensure the
153 QoR4D criteria were incorporated under the proposal outline sections. Yet clusters of feedback during the
154 ISDC moderated external proposal review were linked directly to perceived shortcomings in the proposal
155 template. For example, although eight proposals gave criterion 14 (justified and transparent costing)
156 below a "2," the qualitative reviewer feedback indicate that the majority of reviewers perceived there was
157 not enough information to adequately assess the budgets due to the prescribed template.

158 **Criterion 8: Ethics, including equitable partnerships, information disclosure, biases, and** 159 **potential conflicts of interest are considered; proposal defines how formal research ethics** 160 **approvals will be sought/granted**

161 ISDC decided to not score criterion 8 and included "not applicable" because proposals did not include
162 individual Initiative ethic statements. Rather, the proposal template had a robust all-CGIAR policies and
163 mechanisms section. The System Office instructed that Initiatives would confirm alignment with CGIAR
164 Research Ethics Policy.

165 Yet, the ethics of the Initiatives warrants more than a procedural element presented in standard text
166 across Initiatives. Ethics should be considered and evidenced at every stage of a research project
167 including the development and management of partnerships. As CGIAR begins to partner more with the
168 private sector, the ethical development of partnerships must be carefully and transparently managed
169 throughout the partnership's lifespan.

170 **Criteria 14: Justified and transparent costing explicitly linked to expected Research for** 171 **Development results**

172 As described earlier, although the scoring of the criterion focused on budgets ranged across reviews,
173 almost half (42%) of teams expressed that the proposal template did not allow for the details necessary
174 to adequately assess whether the budgets were "justified and transparent." One review stated, "There is
175 no granularity in the distribution of the funds and the country allocations. Investment activities will
176 require some justification that is not described in the current budget form. All reviewers agreed that the
177 summarized table style of the budget did not help in understanding and the budget lacks transparency."
178 The proposal template also did not include a narrative budget justification, which is a standard
179 component in funding proposals.

180 **Organization of Proposals**

181 Proposals followed a detailed template created by the System Office. Feedback from both ISDC members
182 and external reviewers commented that assessment was difficult because of the disjointed flow between
183 the sections. The proposals lacked full story narratives that connected the sections. For example, one
184 review team remarked, "Frequent lack of coherence within Section 5 with a lot of jumping from one
185 aspect to another."

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⁶ ISDC and reviewers used the proposal template dated 14 September 2021.

187 **Individual Proposal Reporting**

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

195 **1 Accelerated Breeding (ABI): Meeting Farmers' Needs with**
 196 **Nutritious, Climate-Resilient Crops**

Review Summary and Actionable Recommendation

ABI proposes an ambitious program of structural, scientific, and philosophical change to the breeding portfolio within CGIAR reform, which is needed and possible given the new One CGIAR organization. The five work packages do provide a roadmap toward a more impactful breeding portfolio. The broad aims of the Initiative are to improve alignment with the activities of NARES and to ensure acceptability to producers and consumers. The extent of the background work and the involvement of many different players, both within and without CGIAR is impressive. The priorities also have been thoroughly researched.

Greater detail is required in:

- The rationale for the allocation of budget to work packages, crops, regions, and countries
- The science to be applied to the plant breeding programs—particularly in allele discovery, genomic selection, gene editing (see Weaknesses section for details below)
- Plans for training staff in the breeding programs
- The definition of contracted outcomes

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: MELIA plans

The MELIA plans are critically important for the success of this Initiative. The depth and breadth of these plans are extremely impressive and if successful, should make a major difference to the effectiveness of farming in the areas involved. Section 2.7 gave examples of measuring the overall impact of selected current projects (p. 10-13) on the five CGIAR Impact Areas, which are compelling. This gives confidence that when the MEL function is undertaken in 2024, and again in 2030, when the “long-term outcomes” are due, it will measure considerable, real impact.

Strength 2: Work packages 1, 2, 3 to refocus, reorganize, and transform the breeding portfolio within CGIAR

TRANSFORM clearly aims at alignment and integration of breeding activities with partner organizations. This is a key function of CGIAR and is appropriately given prominence. The challenge statement (section 2) and the work packages (section 5) do tackle significant plant improvement and variety deployment challenges, which CGIAR is well placed to lead and be an agent for change. Past learnings from the breeding communities across Centers and of external assessments of breeding programs (section 2.3) appear to have been harvested thoroughly.

Strength 3: Consultation and priority setting

The extent of the background work, the involvement of many different players both within and without CGIAR is impressive. The priorities also have been thoroughly researched and the research questions to be answered are one of the outcomes. The ToC issues were also well explained, and partners were involved. Throughout the project, MELIA is essential to keep everything on track, and its importance is acknowledged throughout the proposal.

However, clarity and consistency in framing the outcomes is required. In the Companion Document, there are eight outcomes of the Genetic Innovation Action Area arising from all five Initiatives. Of these, four are listed in this proposal (p. 53) but then follows 11 outcomes on p. 53-44. Section 2.2 lists five “principal outcomes.” The proposal also mentions nine “Core Innovations” (Section 3 work packages; Section 4, p. 37), which are not listed and fully described. The proposal, in general, would benefit from greater focus—these nine Core Innovations could provide that focus. Alternatively, it could be the “key 2024 outcomes” described within each Work Package description (Sections 3.2.2.1-3.2.2.5) or the 11 outcomes listed on p. 54.

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: Budget

1. Budget (section 10). The explanation and presentation of the budget was inadequate, because:
 - a. The basis of the split between work packages that ranged from \$2m to \$57m is unclear. Work packages 1 and 2 (\$5.5m, \$2.2m) could be described as organizational, structural, and philosophical changes whereas the science-type work packages (4 & 5) were more expensive (\$14m, \$57m). Work package 3 is mainly capacity and organizational work (\$24m). There is insufficient information to relate the work proposed with the requested budget.

- b. A simple global break down by year does not afford an understanding of investment by region, country, cropping system or crop. In section 5.2, there is a statement that ABI's breeding portfolio is directed to crop x region combinations that encompass 85% of the poverty weighted value of crop production. This could be the basis of a more informative budget breakdown.
- c. Financial and scientific control by the Initiative leads is not clear. The authority of the Initiative and work package leads needs to be made explicit.
- d. The purpose of the budget allocated to "crosscutting across work packages" is not described (is this a management budget to pay for the salaries of the leads and to organize internal work package meetings?).

Weakness 2: Depth of detail in the science of "newer" breeding technologies such as genomic selection and gene editing

Work package 5 ACCELERATE reads as though it is about evaluating Genomic Selection as a tool. To a degree this is appropriate, but if the Initiative does not also set about understanding the (genetic) determinants of the traits of interest, it will make little progress. This work should be emphasized in work package 4. The work packages dealing with genome-assisted breeding are not spelled out in sufficient detail. Does this work package also include genome editing? Clarity on this issue would be helpful and its inclusion would be critical.

The two major outcomes are higher rate of genetic gain and increased demand for CGIAR germplasm. At least four approaches are mentioned to drive the acceleration (genomic selection, contra cycle nurseries, rapid cycle recurrent selection, genetic distance analysis for heterotic crops). The implementation of these techniques is complex even in the developed world. There are significant risks and very significant training required to implement these techniques (genomic selection in particular), which are not discussed in this section.

Weakness 3: Training—reviewers raised the need to elaborate plans for training especially in the newer areas of plant breeding

It was disappointing not to read of a doctoral training fellowship scheme or for the development of skills within CGIAR by placement or visits to NARES.

There will need to be serious investment in professional development in the scientific disciplines required to build successful plant breeding programs past 2030. Skills in genomic selection, gene editing, bioinformatics, and statistical analysis (among others) have moved so far that anyone trained pre-2010 will need significant mid-career training. The good news for the gender equity aspects of this proposal is these discipline areas offer very attractive careers for women.

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**Areas of Divergence among Review Team and ISDC Resolution
(if applicable)**

Consensus among the three reviewers was generally strong to very strong. Of the 17 criteria, only criterion 13 showed some divergence. The difference was resolved as one reviewer re-considered the issue to amend the consensus score.

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

The proposal clearly describes the interactions and dependencies between the work proposed in ABI work packages and the other Genetic Innovation Initiatives with good internal coherence and seemingly little duplication. Codelivery of innovations will be achieved particularly with Market Intelligence and Product Profiling, N4ETTSS, and SeEdQUAL. The interactions with Genebanks to draw on natural genetic diversity is less clear. The envisaged strengthened CGIAR-NARES-SME breeding networks will use CGIAR's comparative advantage and should strengthen breeding capacity in NARES. However, training and capacity building in new breeding technologies is crucial and the CD should include further details of how this will be achieved. Impact could be achieved across the developing world, but it is not clear which regions and crops will be prioritized by ABI. The descriptions alternate between global and SSA/South Asia, leading to a lack of clarity. In general, the Initiative supports the wider portfolio aims and spheres of impact, i.e., providing affordable, nutritious crops that are climate and disease resilient and that will contribute to poverty reduction and gender equity.

200

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202 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
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204 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.

205

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
NA			

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Additional Comments

QoR4D Criteria 1 and 3: We expected to see a clearly defined pitch—in this case, there are many outputs or innovations, but they are not well articulated and consistent through the proposal.

QoR4D Criteria 4a/5: While we believe the new breeding technologies (genome editing, genetic engineering, genomic selection) will be covered in other Initiatives, two work packages (4 & 5) in ABI will work in allele discovery and genomic selection.

The trait discovery methods could have been described in more detail so we could better evaluate the science and risks of each approach. Work package did not describe how Market Intelligence and Product Profiling identified targets can be translated into allele discovery and the importance of understanding the genetic basis of the target traits was not emphasized.

The application of genomic selection is the biggest change to breeding in the developed world over the past 10 years, with now many more crops substantially swinging into this technology, e.g., wheat, barley, canola after years where the major application was in corn. This Initiative needs better articulation of how these new technologies and particularly GS will be accessed and implemented in the CGIAR-NARES-SME breeding networks. The integration of genomic selection strategies with other means of accelerating genetic gain (e.g., contra cycle nurseries, rapid cycle recurrent selection, genetic distance analysis for heterotic crops) needs to be explained. The implementation of genomic selection for consumer preference traits is likely to be difficult given that this method is reliant on extensive phenotyping of a changing 'test' set.

Criteria 1: The targeted geographies are not clear—with emphasis swinging between “global” and “SSA/South Asia.” The letters of support are all from sub-Saharan Africa and south Asia, yet this Initiative should aim to have the widest possible impact across the developing world.

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Reviewer and Consensus QoR4D Criteria Scoring

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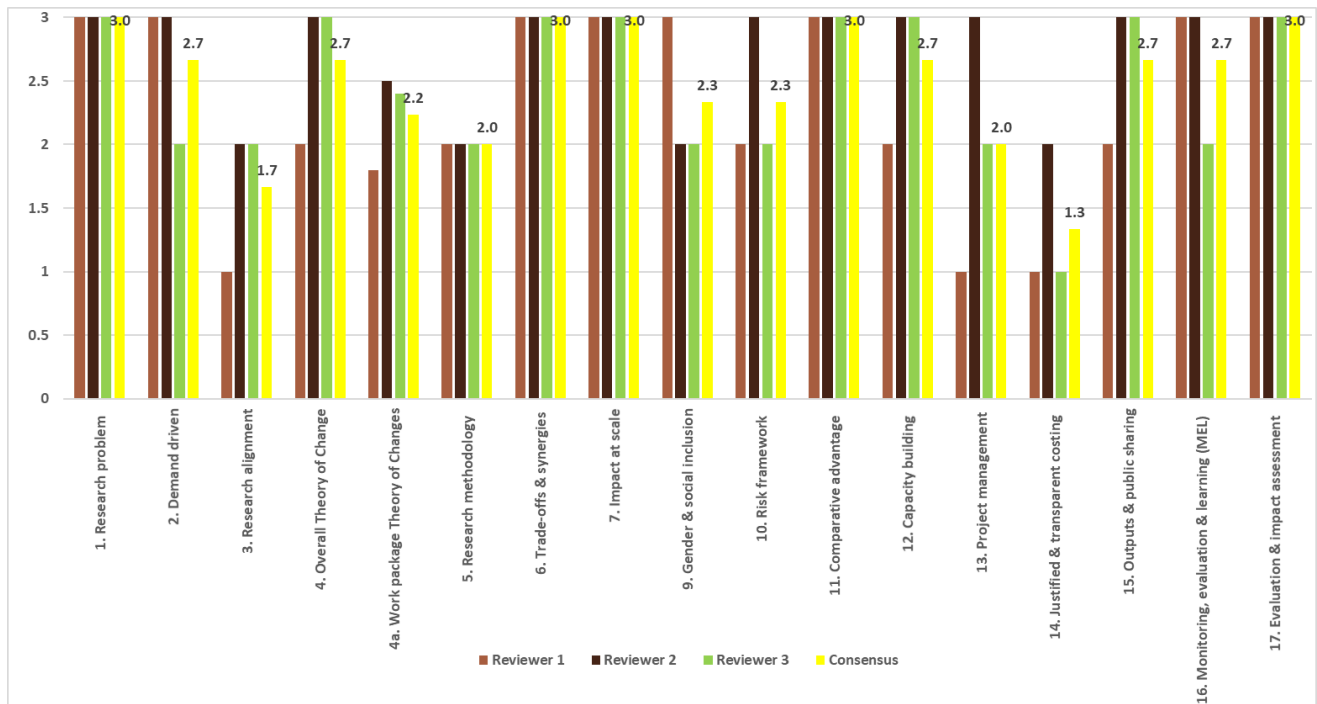
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215

216 **2 ClimBeR: Building Systemic Resilience Against Climate**
 217 **Variability and Extremes**

Review Summary and Actionable Recommendation

The ClimBeR Initiative is a very ambitious project, highly aligned with One CGIAR. The objective of ClimBeR responds to the QoR4D framework in its inclusive approach for credibility, relevance, legitimacy, and effectiveness. Second, the project is strongly aligned with the first four CGIAR Impact Areas and indirectly with the fifth Impact Area of environmental health and biodiversity. The activities are geographically well distributed, and the pathways detailed in the various ToCs are very appropriate.

However, with such a complex project setting there are several issues for consideration (not criticisms). The resilience and adaptation outcomes are all supporting jobs and women, and consequently stability. This impact of the project assumes that the social context is static and would benefit by bringing other political and economic dimensions beyond climate change. The review team nevertheless supports the intent of the project to establish equity and peace through adaptation/resilience, a long overdue action for vulnerable communities. For a long-lasting impact, the project could be clearer about how the planned work overlaps with other projects/programs in operation in the countries and what practical steps will be taken to leverage synergies/collaboration with them.

Other significant points to note:

- Why didn't the Initiative select other countries such as Malawi or Tanzania, which are facing equally (or more) urgent climate and security issues?
- Gender diversity of the research team is discussed in the proposal, but there is limited discussion of how the Initiative will ensure that its partners do the same, and youth outcomes are not as well detailed.
- The capacity development plan for partners could be improved to feature more in-country-based capacity building for researchers as opposed to relying on external universities to train PhD students.
- The outside CGIAR leverage is limited to big centers and networks and national and local partners are not appearing to be a strong focus in this proposal. More stakes and places for local partners is needed, while at the same time promoting cross-country learning and partnerships.
- There is limited detail on the budget spending within each work package, e.g., how much will be spent on capacity building and partnership development or be invested into the innovations.

218

Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: Partnerships. ClimBeR is very much established on the principle of strong institutional partnerships. The partnerships start with CGIAR's various programs and previous engagements. The partnerships also go down to countries (with less clarity of engagement), triggered by the recognition of the importance of enabling policies, investment plans in place, and the expression of interest by the country stakeholders themselves to working with ClimBeR. Most of the Initiative target countries have a legacy of collaborative work building on the foundations of CCAFS. The team is transdisciplinary with explicit attention paid to women and youth. Local partners will be able to help round out and ground the specific implementation.

Strength 2: Coordination. The proposal has tailored activities and outcomes for each country, which indicates that the project was designed to address specific needs, aligned programs, and policies within the country. The wide participatory design processes are akin to the inclusive requirement of the new CGIAR strategy. Work package 4 on multiscale governance seems to have a great potential for cross-pollination across agencies domestically and international and having a clearinghouse for the information they seek to gather can help in avoiding duplication of effort. The connection with previous CGIAR projects and partnerships can be harnessed to avoid various possible design and implementation challenges or important structural problems to tackle.

Strength 3: Implementation. One of the most compelling aspects of this Initiative are those that focus on how to aid in prioritizing the relevant investments at the right place. Building resilience requires a careful balance in what to do at what time to trigger transformation and how to monitor the evolution of drivers as they unfold, that include climate and non-climate factors. The goal to develop instruments to inform policy and investments seems critical for scaling the work and supporting its longevity beyond the target three years. Adequate implementation for impact in this proposal seeks to shape at least nine policies or investments in support of agricultural resilience, with a third of these targets on agriculture-related climate security.

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: Method. ClimBeR must recognize and build from previous programs beyond CGIAR related projects, particularly those that have successfully identified and remedied issues relevant to the "root causes" of

vulnerability (e.g., projects with significant results on Climate Information Services work in Kenya and Zambia, Senegal). The combination of tools and frameworks designed from the Initiative Team tends to exclude countries' experience at various scales to accelerate transformation, bridge implementation gaps, improve the budget allocation, and scale up of innovation to address climate change adaptation (NAP, PANA, NDC, National Climate Policies, Transparency frameworks, SDGs 15/2, etc.). This will help improve budget distribution among countries and optimize the investment.

Shaping policies to do what? What policies do they target and who are the actors and scale of these policy aspects of interventions, proof of evidence? To what scale will the adaptation instruments play out? A particular precision may arise about market dynamics and opportunities. Increased production does not necessarily lead to income increase. Many commodities such as groundnuts, cotton, cocoa, and coffee show that local farmers income didn't increase with yield, as external drivers dictate the prices.

Weakness 2: Engagement in Countries. Countries selected are different in terms of capacities and environmental policies. Each country needs different sets of interventions. That influences what local project management will look like and how staff are recruited and deployed. The process itself has aspects of budget distribution for various activities such as adaptation projects, capacity building, codesign, and development of replicable tools and frameworks that bundle various lessons for various programs. It is a complex task, but the review team is confident that initial activities will manage this aspect. Development of local capacities will not come naturally; it should be a deliberate objective connected with the role of local scientists and practitioners and how they contribute to the project.

Reviewers observed that the focus changed from one country to another (e.g., work package 1, productive systems). It might be good if the considerations for water, agriculture, land were consistent, and each country chooses case studies in these Action Areas. Then the cross-cutting issues should include governance as a key element for gender, equity, and community engagement to scaling up the innovations.

Some impactful action will not be about change, but a consolidation of what is being done. More coordination between work packages is recommended and work package 4 can be flagged as the integration work package as it builds from all others to deliver the local level package of actionable knowledge.

A very good idea was to work on farming categories: differentiation between agribusiness and smallholders' farms in focus countries make sense. Yet, the proposal needs more clarity on how the different pathway options will be pursued. Job creation may not be a natural consequence of increased farming opportunities. It must a deliberate effort that considers non-farm parameters that requires clear plans to work with value chain actors. Job opportunities from land resources include climate responsive options on food products transformation.

Weakness 3: Impact. While the Initiative insists on trade-offs, the time sensitivity of climate mitigation and adaptation projects will require more consideration on what to do in the short- and medium-term versus what may generate systemic change in the medium to long-term. Also, the food-land-water interaction in adaptation may not be limited to "social-ecological technologies" (SET). It is important therefore to explore other drivers (e.g., market, commodity cash influence on land use) that would lend credence to the project impact expectation. This will also reflect on the project evaluations (MEL) that assess the difficult to measure social outcomes. The review team hopes that mitigation will it be a spinoff of adaptation from the land, food, and water interaction in deriving the readiness elements.

The technical approaches can be effective only if there is a good coordination, mostly to build from country experiences and making sure that the codesign involves local partners. A work package on coordination is probably needed, including engagement between work packages and between countries. Maybe work package 4 can play that role (p. 30). The project implementation should not be established on individual and separated countries sub-projects. The aspects of food and nutrition are blended into CSA but how diversification in CSA support the nutrition objective wasn't clear.

The quantitative measures of impacts area difficult to assess both in term of investments, people reached, and surface transformed. The review team expects the project to tell what partners and stakeholders will do differently at the end of the project. A hope is the MEL will not only focus on numbers but what comes as different practices triggered by various policies.

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Areas of Divergence among Review Team and ISDC Resolution (if applicable)

- Data sharing and climate service will improve food security, respond to impact of climate change, including pest control, drought control, and increase production. Some reviewers seem to support the data sharing approach, others had reservations on how data ownership will help harness solutions.
- Ethics is not explicitly addressed (although it's unclear how exactly it would be) in this risk framework nor is environment (though the proposal focuses on responses to environmental change). Risk is not all about climate change responses.

- Gender is a strong dimension of the Initiative. The gender aspects seem to be a legacy statement, where impact is shown in numbers rather than the deep change in practices on ways food is produced under severe climate conditions for poverty and inequalities reduction. The gender dimension is still a place for improved engagement and participatory efforts. Women’s exclusion is a serious threat to adaptation in targeted countries. Gender is seen as women’s leadership.
- Impact assessment: a reviewer is positive about proposed trade-off activities to reach sustainable impacts whilst other reviewers felt that planned trade-off approaches are weak.

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

The Initiative addresses strongly the first four Impacts Areas of One CGIAR and partially the fifth: 1) Nutrition, Health, and Food Security, 2) Poverty Reduction, Livelihoods, and Jobs, 3) Gender Equality, Youth, and Social Inclusion, 4) Climate Adaptation and Mitigation, and 5) Environmental Health and Biodiversity. With climate-smart agriculture and diversification, ClimBeR will support strongly Impact Areas 3 and 4, and contribute significantly to Impact Area 1, 2, and 5. Capacity, innovation, and policy-oriented actions have been carefully identified with their priority setting and the design of the project.

221

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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
Criteria 14: Justified and transparent costing explicitly linked to expected Research for Development results, financial resource	Financial Resources 10	Legitimacy, Effectiveness	1
Rationale: The budget is opaque, and this appears to be a problem with the template design. There is no granularity in the distribution of the funds and the country allocations. Investment activities will require some justification that is not described in the current budget form. All reviewers agreed that the summarized table style of the budget didn’t help in understanding what is behind it (i.e., it lacks transparency).			

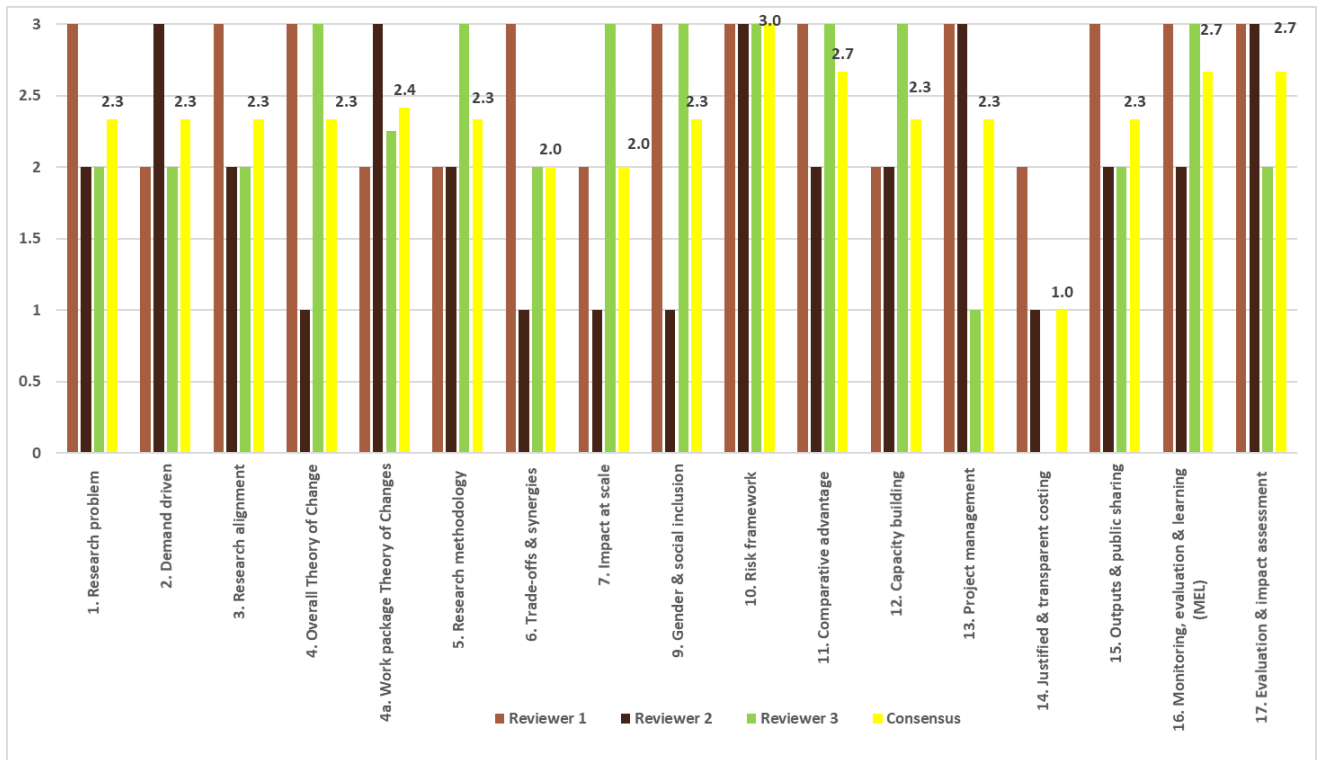
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Additional Comments

- As a preamble, it would be good to describe the key nature of work that assesses the vulnerability to climate change. Vulnerability mapping has gained traction in order to have more targeted interventions. National Action Plan implementation can benefit from the project if we encourage a deeper analysis of vulnerability rather than relying on shallow assumptions that are often based on few perceptions.
- The project relies on upfront planning articulated around a readiness plan. However, the budget is very small for this very important activity if the intent is testing feasibility with communities, i.e., not just theory but implementation.
- The program may need to define the role of local scientists in NARES and academic institutions, and how they contribute to the various categories of action. There was a time when CGIAR couldn’t rely on local scientists because of a lack of critical mass. Now all countries have advanced degree researchers who have real capacity to be part of the project.
- For engagement with communities, a wide campaign of country scoping and priority-setting may be required to develop specific work plans for ClimBeR in each country. The difference between country’s priorities will an interesting comparison and provide lessons for different policy recommendations.
- Work package 3 is not consistent with stratification given on page 5, on ways various dominant climate impacts will guide the type of intervention. It will be important for the project to describe (or plan to bring details information on) the production-systems in place, which ones work well, which need more knowledge to become resilient, and which ones to put in place for a climate-proofing intervention. Maybe work package can be expanded to include these aspects.
- The countries are full of great institutions that need to be engaged in the project, e.g., in Senegal there is CSE, IPAR and ISRA. In other countries there are similar organizations who can be fully involved in project implementation. These local partnerships can be more apparent in work package 4. The success of the program’s partnerships might be dependent on the plurality of local stakeholders’ engagement. Where strong partnerships can be developed that lead to reaching of project targets, e.g., 20% income increase, there needs to be a good exit strategy for the ClimBeR project team.

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233

234 **3 Conservation and Use of Genetic Resources (Genebanks)**
 235 **Initiative**

Review Summary and Actionable Recommendation

Genebanks can play an important role in conserving some of the genetic biodiversity essential for addressing major challenges the world is facing is unequivocal. Genebanks require secure long-term funding, but to justify the significant scale of investments required must be able to demonstrate their commitment to relevance and efficiency. CGIAR has experience and some comparative advantages in managing Genebanks.

However, the stated focus of the One CGIAR Genebanks on just 23 crops and a few specific varieties with high provitamin A or zinc, stress tolerance or faster cooking time etc. traits, appears counterintuitive to addressing the stated challenges of *increasing homogenization of farming landscapes and simplification of diets, and unprecedented biodiversity loss.*

Recommendations:

- a) focal research problem needs to be clearly stated
- b) the objective needs to be clearly stated (conservation obligation and support for CGIAR research)
- c) several of the specific research questions in the work packages need rephrasing
- d) many sections of the proposal lack sufficient detail or clarity to enable the proposal to be evaluated. For example, the research methods and budget. Gantt charts describing the planned activities, their geographical and crop foci, time frames, and resource requirements (by budget line type) are required to enable justification of any investment
- e) use of open and competitive funding mechanism would improve quality of proposals through removal of assumptions of continued on-going funding
- f) involvement of social scientist/s within the team
- g) involvement of a wider range of stakeholders, particularly:
 - i. in trait selection and related systems to support increased use of One CGIAR Genebanks;
 - ii. for addressing policy and governance-related challenges around genetic resources; and
 - iii. for meaningful MEL and the necessary associated redirection and changes needed to the work
- h) greater details of planned partner and stakeholder engagement processes and roles to ensure their active (as opposed to passive) participation and ownership
- i) more prominent recognition of role and reach of national genebanks, and opportunities for partnerships with them beyond the already positive plans in work package 4
- j) identify opportunities for greater promotion of and support for biodiversity
- k) rework sections where criteria scored 1 or less (i.e., 1, 2, 4, 5, 6, 9, 14 see final section of this report), and address those which scored <2 (i.e., criteria 3, 7, work packages 1 and 2)

236

**Overall Strengths of Proposal
(limit to top 3 strengths)**

Strength 1: 3.2 Work package research plans and ToCs

Research questions and methods appear strong for the work packages (particularly work packages 2, 3, 4 (more information on methods for work package 1 needed), although graphical ToC diagrams need redoing as currently illegible. Further needed information on expected scale and location of outputs for work packages 2, 3, and 4.

Details of planned coverage of different crops/germplasm and geographical regions needs adding and is crucial for supporting MEL.

- Work package 1 covers critical Genebank core activities, and these need secure long-term funding, particularly given the CGIAR Genebanks legacy of already having improved and inclusive procedures and accounting.
- Work package 4 is ambitious going beyond current CGIAR reach and if successful will be a game-changer. Success will be partly dependent on the engagement and co-learning processes and pathways taken with national genebank stakeholders.
- Work package 2 could include more ambitious basic research and strong collaboration with Universities, Research Institutes and Tech Companies
- Concern that the work package 3 output "*High-value genetic resources available to relieve bottlenecks usually encountered in trait development efforts*" is out of scope for a Genebank and is more of a breeding/pre-breeding activity.

Strength 2: 2.1 Challenge statement

Section 2.1 convincingly describes challenges that humankind will fail to solve without genetic resources, including biodiversity losses; susceptibility to pests, diseases, abiotic stresses, climate change; malnutrition; reduced selection gains; and increased PGRFA-related "nationalism."

While the challenges listed in 2.1 are valid and important, the Genebank Initiative's research problems linked to addressing the challenges are not clearly stated.

Additionally, there is concern as to whether the Genebanks focus on such a limited number of staple crops ([Annex I](#)) will address as oppose to exacerbate the challenges of "the homogenization of landscapes and farming systems is matched by the simplification of diets."

This also affects the priorities for CGIAR Genebanks as required by international law: the obligation to conserve and make available crop collections.

Strength 3: 6.1 Result framework

This clearly shows the baseline and 2024 targets for each indicator—these could be broken down further by geographic target region and by crops to ensure good coverage of a range of locations and crops, and to facilitate MEL implementation.

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: 2.7 Projection of benefits

Section 2.7 seems oversimplified and appears to be a generic section describing the projected benefits of the Genetic Innovation Action Area as opposed to of One CGIAR Genebanks and the role, objective, and benefits of PGR conservation. The "How" remains unclear, as the section has not been integrated with the Genebank's planned activities or outcomes.

Stakeholders/ farmers should be considered as equal and knowledgeable partners, instead of "Beneficiaries."

In 2.7.4., number of people benefiting from climate-adapted innovations: This argument relies on breeding progress. But PGR conservation, characterization and use will contribute to climate change adaptation also by identifying resistance sources, robust landraces, and crop alternatives that, in synergy with diversification of agricultural systems, value chain linkages and seed systems work, can directly benefit people in climate risk-prone areas. Fostering such direct use of PGR is largely missing in the proposal.

Table on p. 11 states likely varietal adoption numbers and income impacts. However, they are focused on very few varieties of just a few crops (e.g., cassava, sweet potato, rice, wheat, beans, maize)—and unlikely to capture the diversity of demanded traits amongst different types of farmers, traders, processors, etc., nor contribute significantly to the stated challenge (2.1) of need for greater dietary and agrobio-diversity. Successful Genebanks actions should lead to greater development of and flows of a wider range of varieties, crops, and forages. More information is needed on the type of germplasm (composition) to be conserved and the focal geographical areas.

Weakness 2: 5. Impact statements (particularly 5.3 Gender equality, youth, and social inclusion)

Frequent lack of coherence within Section 5 with a lot of jumping from one aspect to another.

Concerns that research questions starting with "How can genebanks..." are not easily operational and should be reformulated to state what the hypothesis is and what will be tested and evaluated.

5.3 Gender equality, youth, and social inclusion: this section needs strengthening as it omits any mention of relevant research questions, KPIs, partners, capacity development, etc. Different social groups will identify and value the importance of different traits and crops. Focused action is required to better understand these traits and to enable them to be identified and retained within the planned improved accession management. This proposal would really benefit from the involvement of an experienced social scientist with interests in participatory breeding or seed systems, etc.

Weakness 3: 6.2 MELIA plan

Insufficient evidence of any 'learning' being planned as part of MELIA.

The text suggests they will continue to use existing monitoring systems and regular ongoing studies, alongside the use of SOPs as a training tool.

The MELIA plan should provide opportunities for on-going learning, pro-active or responsive adaptation to improve both the delivery and targeting of the significant investment being requested.

**Areas of Divergence among Review Team and ISDC Resolution
(if applicable)**

NA

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

From the Genebanks proposal it is not clear how the Initiative will interact with any of the six RIIs.

The Genetic Innovation (GI) Action Area includes: Genebanks; Market Intelligence and Product Profiling; Network 4 Enabling Tools, Technologies, and Shared Services (N4ETTSS); Accelerated Breeding (ABI); Delivering Genetic Gains in Farmers' Fields (SeEdQUAL). Genebanks will also link closely to Plant Health and Rapid Response to Protect Food Security and Livelihoods, which is within the Resilient Agri-food Systems Action Area. Examples of the expected flows of information, knowledge, and products between the different Initiatives would be informative and that enable a deeper understanding of the expected relationships. Current visuals such the CD's Figure 3 (p. 6) just shows connecting lines but do not unpack or share any substance regarding these expected connections.

The stated focus on faster replacement rates and varietal turnover and adoption of new varieties is not necessarily aligned with the GI aim of addressing the challenge of the limited and decreasing biodiversity underpinning our crop and food systems, nor does it appear to sufficiently recognize the importance of context-specificity and indigenous knowledge. Diversity is an important element of resilience and how Genebanks, the GI Action Area, and One CGIAR will support messaging and action around the importance of diversity in fields and diets is not clear. The focus in the current text on just a few very specific traits in a limited range of crops appears contradictory to this.

The crucial role of co-created new partnership models is flagged in the CD but does not permeate sufficiently through the continuum of the six GI Initiatives to be integral within Genebanks. What important partnerships and behavior-related outcome changes can Genebanks influence, and how?

The Genebanks proposal does not provide sufficient granularity on activity details to enable meaningful Monitoring, Evaluation, Learning (MEL). That in turn prevents understanding of planned methods or opportunities for cohesion between proposals, and thus thwarts MEL of the cohesion of the portfolio. The details are necessary and important. Currently, the only Genebanks indicator listed in the Results Framework Table (CD's Annex 1) is *GI 1.1 Number of accessions data used at various levels of the breeding pipeline (level of use: used in crosses, backcrosses, incorporated in elite germplasm*. More attention to improved processes and efficiencies, and to partnership and capacity-related metrics would be beneficial.

238

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242 *include in this section*. Please refer to p. 8 for the Likert scoring definitions.

243

Criteria that Scored an Average of 1 or 0	Proposal Sections	QoR4D Elements	Consensus Score
1. Clearly defined research problem that addresses Impact Areas, is a high priority in the targeted geographies, is well aligned to shared, multi-funder priorities, and is well informed by previous research findings and evaluations	Challenge statement 2.1 Learning from prior evaluations and Impact Assessments 2.3, Impact statements 5	Relevance, Effectiveness	1
<p>While major global challenges are listed (biodiversity loss, climate change, vulnerability, malnutrition, need to better link conservation and use, benefit sharing, compliance to international laws) and some opportunities to achieve impacts (trait discovery, breeding progress, resilience, better nutrition...), the research problem illustrating how the proposal will address them is not clearly defined in 2.1.</p> <p>More specific aspects are clearer in Research Questions in section 5, although missing for 5.3 (<i>Gender equality, youth, and social inclusion</i>). Focus on limited crops and varieties seems counterintuitive for addressing homogenized farming systems and simplification of diets.</p> <p>Only global level targets are given. This masks or ignores distinctions regarding priorities between different geographical regions or crops. In depth reviews of each CGIAR Center's Genebank produced specific recommendations. Table 1 is not sufficiently complex to mention these or provide SMART indicators to measure whether these recommendations will be met, only generic lessons are mentioned.</p>			

Criteria that Scored an Average of 1 or 0	Proposal Sections	QoR4D Elements	Consensus Score
<p>Previous research findings and evaluations are considered. However, a more interdisciplinary approach to achieving envisaged Impact Areas is missing. Engagement and involvement of a wider group of national/international stakeholders would be positive. The limited attention given to national genebanks could exacerbate existing challenges around PGR governance disagreements. Empowering national breeding programs—that reach beyond the scope of CGIAR segments/markets—could increase users/requests for materials from One CGIAR Genebanks. Increasing private sector (i.e., local/regional seed companies) and university research users and partnerships appears to have been overlooked and could bring contributions to budgets and/or aspects of PGR governance.</p>			
<p>2. Evidence that the Initiative is demand driven through codesign with key stakeholders and partners (Investment Advisory Groups, governments, private sector, funders) and research collaborators within and outside CGIAR</p>	<p>Participatory design process 2.6 Challenge statement 2.1, Work Package ToCs 3.2</p>	<p>Relevance, Effectiveness</p>	<p>1</p>
<p>Genebanks appears heavily-based on a Chatham House 2020 report, which involved a small group of CGIAR and Crop Trust (mainly former CGiAR) staff—reliance on small groups of trusted insiders can limit the diversity of opinions.</p> <p>The proposal’s participatory design process is vague, just two NARES scientists in the Initiative Design Team support letters attached from very few key stakeholders. No details of a stakeholder demand study or of proposal’s codesign process provided.</p> <p>Limited number of mandated focal crops ignores significant efforts of national genebanks and universities in characterizing and conserving valuable (non-mandated) PGRs crucial for dietary and agro-biodiversity, and resilience.</p> <p>The proposal flags addition of extra trait information to meet demands of 20 countries, but no details provided on planned trait selection process with knowledge stakeholders (e.g., private sector, agroecologists, farming systems experts, traders, food processors, pre-breeders, breeders, farmers, gender experts, etc.) for all Impact Areas across crops and countries, which will influence outcome/use.</p> <p>While complexity, challenges, and risks around negotiating germplasm exchange agreements are flagged insufficient mention of codesign/ ownership type solutions and processes for addressing this are provided.</p>			
<p>4. Overall Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact</p>	<p>Full Initiative ToC 3.1</p>	<p>Effectiveness, Relevance</p>	<p>1</p>
<p>Overall ToC 3.1 makes sense and presents a cohesive approach, but lacks the “How”/causal linkages, e.g., synergies and collaboration with other key actors. Other researchers (apart from breeders) who might be required to achieve the outcomes and contribute to the impacts are not specified (e.g., food processors, market experts). Farming systems experts could help identify PGRs with ecosystem services that support diversification for greater sustainability. The required interdisciplinarity and processes for engagement with non-CGIAR stakeholders need to be clearly stated.</p> <p>Scale of expected impacts not clear, statements are extremely general.</p> <p>Outputs for work package 3 are mentioned in 3.1.2 but not for other work packages.</p> <p>Assumptions are not documented in ToC 3.1. They are only shown in 3.2 for work packages 2, 3, and 4.</p> <p>Work package 4 is novel in going beyond CGIAR Genebanks current influence area. More detail required on engagement processes which need to go beyond the passive presence of these partners in training workshops to strengthen co-ownership and help widen specific relevance of and use of CGIAR Genebanks to realize real and sustained impact.</p> <p>Work package 3 statement, <i>“Breeders will use landraces and wild relatives as sources of novel alleles to accelerate genetic gains for climate resilience, nutrition, and processing traits (‘Accelerating crop improvement through precision genetic technologies’)”</i> suggests limited knowledge regards plant breeding pipelines and strategies. This leads to overestimation of the impacts of Genebank accessions</p>			
<p>5. Research methodology and methods (and supporting activities) are fit-for-purpose, feasible, and assumptions and risks are clearly stated</p>	<p>Work Package ToCs 3.2, Priority-setting 2.4, Innovation Packages and</p>	<p>Credibility, Relevance, Effectiveness</p>	<p>1</p>

Criteria that Scored an Average of 1 or 0	Proposal Sections	QoR4D Elements	Consensus Score
	Scaling Readiness Plan 4.1		
<p>The suggested methodology seems appropriate. However as only a very general overview of methodology is presented it is hard to accurately evaluate this criterion. The work packages present a coherent set of strategies, but there is insufficient information on the expected scale of the outputs from the methods, rendering the proposal ambiguous and preventing monitoring or evaluation of it. Further information on methods needed for work package 1. Further information on expected scale and location of outputs for work packages 2, 3, and 4. A detailed set of activities plus Gantt chart should be included for all work packages to facilitate MEL, and to clarify the related go/no-go decisions/events.</p> <p>Key assumptions and risks are explicitly stated for work package 3, but not sufficiently for the other work packages. Rephrasing of some research questions required to enable them to become operational.</p> <p>Section 4.1 describes Genebanks as designing and assessing ≥ 5 core innovations, 15 support innovations within 5 Innovation Packages, but details of these '5,15,5' are not clearly provided.</p>			
<p>6. Analysis of trade-offs and synergies across the CGIAR Impact Areas; ex-ante assessment of project benefits provides logical rationale for scaling of impacts</p>	<p>Projection of benefits 2.7, Result framework 6.1, Impact statements 5, Innovation Packages and Scaling Readiness Plan 4.1</p>	<p>Effectiveness, Credibility</p>	<p>1</p>
<p>No analysis of trade-offs is provided.</p> <p>Discussion of synergies across One CGIAR Impact Areas is limited, more focus is given to synergies between Initiatives (e.g., crop improvement and seed systems). Evidence of greater accountability to users would be positive. Scaling Readiness plan is convincing.</p> <p>Section 2.7 appears oversimplified. For example: Which game-changing traits? How would market intelligence shorten variety adoption? Food security is complex, and development of improved varieties alone will not automatically increase food security. Unclear why Table (p. 11) provides examples mainly for biofortified crops, while proposal focuses on maintenance, increased diversity, and increased use of accessions for a broader range of crops and characteristics. Potential reach of benefits is likely to be larger than for the few crops/ traits mentioned in 2.7. Suggested adoption time appears very fast for improved varieties—knowing how slow their adoption has been to date, how realistic are these projections, and what learning around adoption barriers is planned?</p> <p>Clarification required regarding output measurement of, "Ready-made genetic resources for trait development (e.g., GWAS, CSSL, NIL panels)."</p>			
<p>9. Research design and proposed implementation demonstrates gender and social inclusion that can be tracked in outcomes</p>	<p>Gender equality, youth & social inclusion 5.3, Projection of benefits 2.7</p>	<p>Legitimacy, Effectiveness</p>	<p>1</p>
<p>This aspect is not sufficiently evident in the proposal, the two paragraphs in section 5.3 highlight an example of how understanding men and women's crop preferences and responsibilities is important, but there are no linked research questions, measuring performance and results, partners or HR and capacity development aspects related to this (unlike for the other four impact statements).</p> <p>The Initiative includes a stated focus on crops with specific benefits for women, vulnerable and poor, i.e., crops/varieties that reduce women's workload, can be used as cash crops, are robust, or have health benefits. Section 5.3. mentions the benefit of heterogeneous landraces for yield stability, but states that "<i>changes in consumer and market preferences pose challenges to maintaining the diversity of landraces in farming communities.</i>" To address the challenge of <i>homogenized landscapes</i> and <i>simplification of diets</i> there is a need to reverse this trend through promotion of greater appreciation of diversity on plates and in fields. The distinct-uniform-stable (DUS) criteria for variety registration are counterproductive, highlighting the need for policy changes to foster registration of heterogeneous landraces? How will Genebanks help correctly maintain and promote within-landrace genetic heterogeneity?</p>			

Criteria that Scored an Average of 1 or 0	Proposal Sections	QoR4D Elements	Consensus Score
Also need to explain how Genebank's work will address social differences beyond just men and women's different crop trait preferences.			
14. Justified and transparent costing explicitly linked to expected Research for Development results	Financial Resources 10	Legitimacy, Effectiveness	1
Using the current Budget tables, it is impossible to meaningfully respond on criterion 14 regarding justified and transparent costing. The per work package and per year breakdown is given, but no geographical breakdown, all funds are listed as global. No information on expenditure by budget line (i.e., personnel, overheads, capital equipment, travel, consumables, etc.) is presented. No narrative justifying the planned expenditure is provided. In addition to the \$78 million requested for three years of One CGIAR Genebanks operations, co-funding from the Crop Trust and others is anticipated. It is imperative that a more transparent budget breakdown is provided, linked to clear sets of activities and timelines and that a full justification of the requested budget is provided to enable potential funders to compare expected value-for-money across different investment options, i.e., One CGIAR Initiatives versus other competitive grant opportunities addressing the same Impact Areas or for other public expenditure requirements.			

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Additional Comments
Following consensus building between the three reviewers the following sections scored an average of 1 or less (i.e., 1, 2, 4, 5, 6, 9, 14) and the rationale for these low scores are described above.

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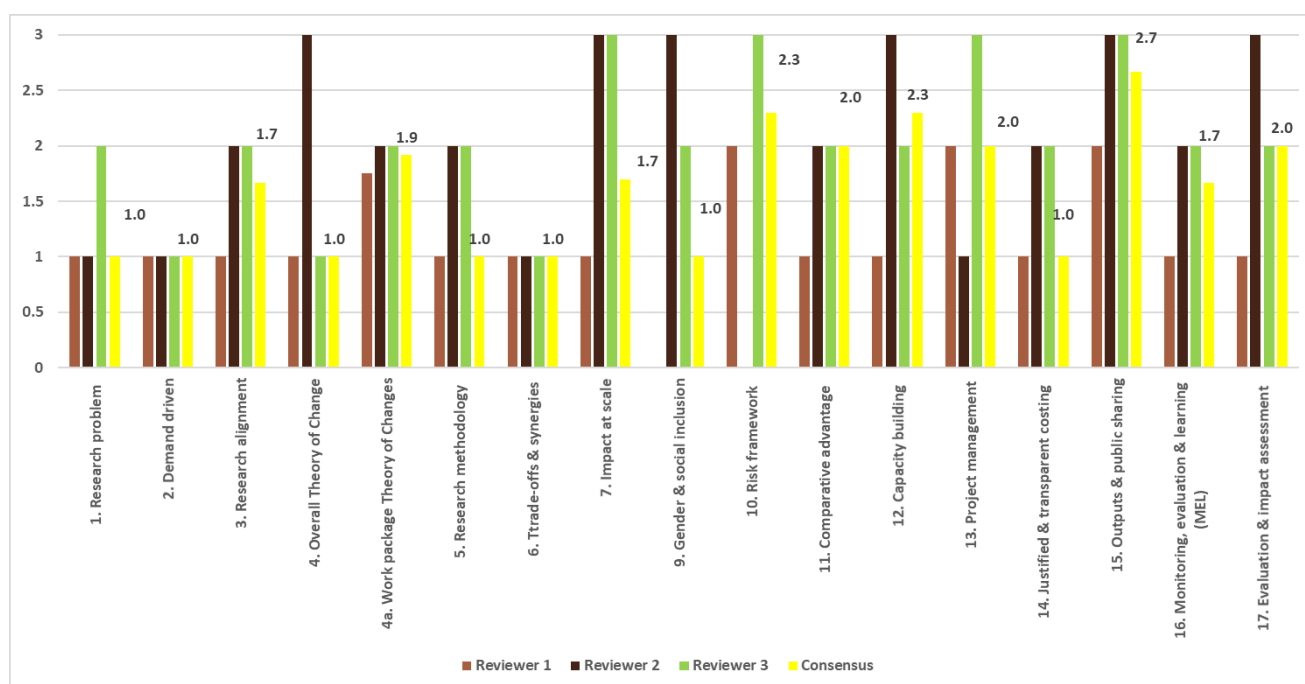
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Reviewer and Consensus QoR4D Criteria Scoring

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253

254 **4 Excellence in Agronomy for Sustainable Intensification**
 255 **and Climate Change Adaptation (EiA)**

Review Summary and Actionable Recommendation

EiA seeks to exploit new data-rich tools and digital approaches coupled with innovative collaborations with scaling partners to improve the effectiveness of agronomic research. The proposed connections between research teams, dissemination partners, and farmers hold promise in improving the targeting of agronomic research and facilitating the adoption of agronomic innovations that are adapted to climate change and gender issues. The justification for EiA, its work packages, partnerships, and geographic regions of focus are convincing, and if successful could become a field-lab with different comparative scenarios to explore relative impacts of climate change, gender insertion, and climate change mitigation by agriculture activities, including those related to soil organic carbon.

There are strong and logical linkages between work packages and with other CGIAR Initiatives. Given the complexities of EiA's structure, activities, outputs, and impacts, however, it is not always clear what EiA hopes to achieve. A simple example of a "Use Case and a Minimum Viable Product" might be helpful to the reader to conceptualize this approach. Improvement to the Risk Assessment is needed. Greater consideration there and elsewhere in the proposal on how the environment, socio-economics constraints and policies might impact the adoption of innovations is warranted. Information on the agrotyping platform is lacking. Sustainable Intensification was lost in the work packages. Plans for capacity building of NARES on data platforms and tools needs elaboration.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: The conceptual basis for the project is well supported. It draws upon previous research activities, incorporates information from various institutions, and participatory processes with key stakeholders and is informed by the SDGs and CGIAR Impact Areas. The process used for prioritization of target geographies was logical, rigorous, and objective. It proposes explicit involvement of farmers in the different steps of the project.

Strength 2: The prominence of scaling partners and small farmers in informing the research process and in facilitating the extension of recommendations/innovations to small farmers was well described. The scaling plan is sound. The work packages were very detailed with the science and Theory of Change well-stated. The linkage between research and scaling partners together with the well-designed linkages and workflow between the work packages are strongly supportive of the Initiative achieving its aims.

Strength 3: The impacts of EiA are strongly oriented towards the critical transformational areas of food security, gender, climate change adaptation, and mitigation and environmental health. It brings together a diverse, competent, and globally respected team of scientists and their existing programs and international connections. EiA has clearly described linkages to other CGIAR Initiatives, further strengthening its capacity to deliver on its objectives.

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: The risk assessment should be strengthened. It should consider the risks associated with partner performance and the role of socio-economic, environmental, and policy constraints on the potential for the adoption of agronomic recommendations as examples of additional/alternative risks. These risks will be reduced with a strong involvement of farmers, farmers' associations and other actors of the proposal, but should be stated. Strategies for dealing with funding uncertainties need greater consideration.

Weakness 2: In work package 2, it is not clear where the data needed for this activity will come from initially. Furthermore, data to action does not occur automatically. A recommendation that is based on information that is data-driven still requires that the farmers have the means to implement.

Weakness 3: Additional justification on how the budgets were developed and will be expended would be useful. Also, the word "mitigation" appears as an ornament because actual actions for mitigation are not included, even marginally.

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**Areas of Divergence among Review Team and ISDC Resolution
(if applicable)**

NA

Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

Pursuant with principles in the CD, EiA builds on existing research expertise with a strong presence in high priority geographies. EiA proposes strong linkages with scaling partners that have a comparative advantage in working with farmers and rigorous procedures for establishing new collaborations. Significant collaborations with CGIAR’s global, system, and regional Initiatives are proposed, as are modalities for these collaborations. EiA plans to use standard protocols for data management and Monitoring, Evaluation, Learning (MEL) activities to facilitate these collaborations. Connections with Impact Area Platforms need greater elaboration. Funding uncertainty was identified as a risk but plans for addressing it are inadequate.

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 260 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
 261 consensus building process, *scores that ranged from 1 to 2 were up to the review team whether to*
 262 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.
 263

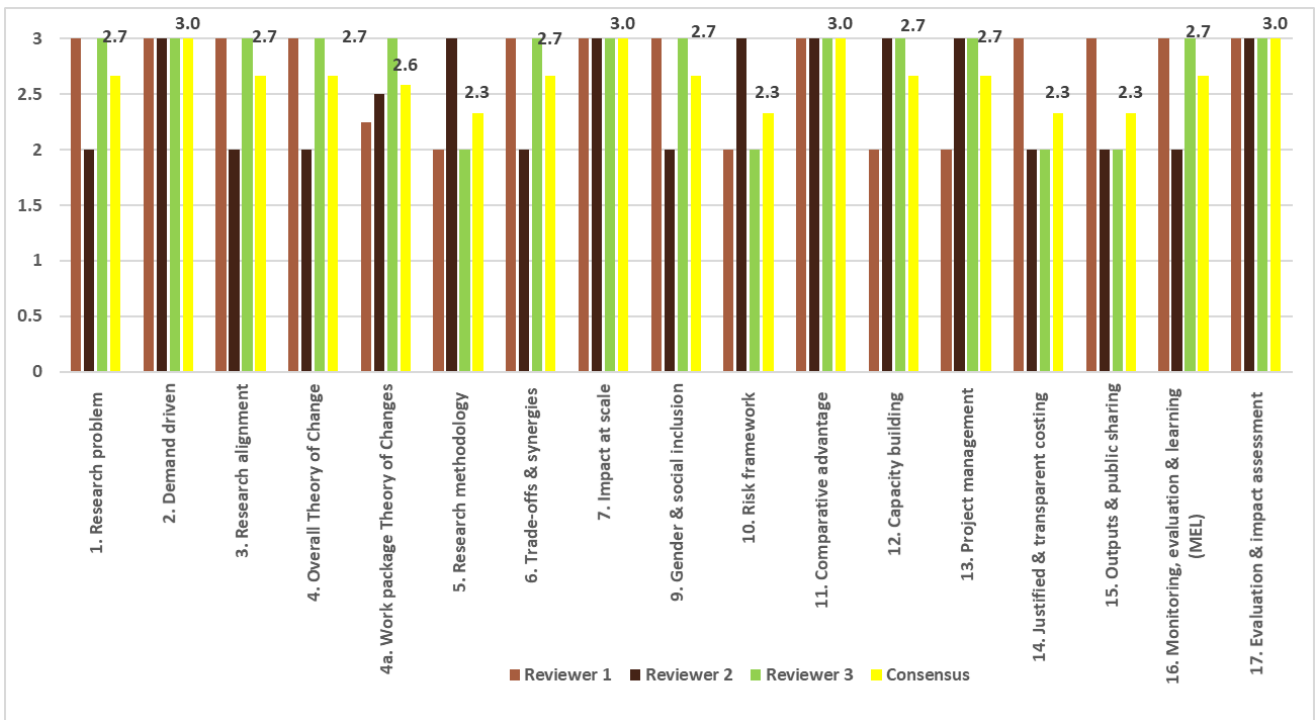
Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
NA			

264

Additional Comments
NA

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 266 **Reviewer and Consensus QoR4D Criteria Scoring**

267
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 271 note that criterion 8 on ethics was not scored.



274 **5 Livestock, Climate and System Resilience**

Review Summary and Actionable Recommendation

The review team found that this was a well-presented case with areas of excellence and appropriate ambition. The proposal is well founded, and the work packages work well together and individually in a coherent way. The review team agreed that the work is timely and globally important and assess that the efforts proposed can result in the achievement of the impacts, although the timeframe is extremely ambitious and the risk very high. However, the situation is extreme and the risks acceptable.

Areas of weakness included issues of governance and inclusion of local actors, targets and measurement of capacity building, and clarity on the detailed justification for the budget. This last issue was felt to be the most serious and although it appears to be a shortcoming in the proposal template rather than an omission from the proponents, a supplementary report to address this issue is a recommendation. Other weaknesses are not new to CGIAR and it is hoped that they will be addressed strategically and systematically under the new One CGIAR approach.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: Demand for the research is well explained (section 2) and note the depth of learning from previous evaluations and impact assessments. This shows that the proposal is well grounded in strong existing partnerships, record of outputs and impact, and research challenges/questions of genuine importance. The proposal clearly shows how activities in different work packages are connected to the five Impact Areas and what is the expected contribution to each of them.

Strength 2: The authors have been commendably "brave" in describing and assessing the risks and this was appreciated by all reviewers. Clearly the risk is that this research can fail, its findings may not be taken up, and if they are the hoped-for impacts may not occur. Clarification of measures to mitigate risks where they are high would have been helpful.

Strength 3: Developing and applying monitoring, evaluation and learning frameworks for this body of research is challenging and a good effort has been made to complete a credible plan to undertake the work. One area for improvement in the proposal would be some information on conducting baseline studies for outcome indicators.

Overall Weaknesses of Proposal (if applicable; limit to top 3 weaknesses)

Weakness 1: Justified and transparent costs (section 14) were not provided, which appears to be the way the proposal template was designed rather than an omission from the Initiative proponents. The reviewers consider the table impossible to assess "legitimacy" and "effectiveness" adequately from this aggregate table. How much of this funding is going to CGIAR and its staff and how much to partners (particularly in the target countries)? Where is the analysis of value for money? Where is the counterfactual explained (what is the cost of not making this investment)? How is all this expenditure justified? How can the expenditure of \$55m be assessed based on this single summary table?

Weakness 2: Capacity building (section 12) is disappointing. The main shortfall is the absence of specific targets that include both quantity and quality indicators. The reviewers would also like to see ambitious targets for leadership by women and by partners from various none CGIAR background especially in the target countries. It was difficult to determine the capacity of the whole team in term of number of persons that will work in the project and their skills and the roles of partners.

Weakness 3: Research management, scientific oversight, and governance. The reviewers were disappointed with the level of commitment to local level engagement in management, governance, and scientific oversight. It was felt that more could be done to engage local actors in these aspects and to provide a greater convening function that may be lacking in some countries.

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Areas of Divergence among Review Team and ISDC Resolution (if applicable)

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document

Internal coherence: The efforts to align LCSR with the portfolio are good: the narrative is fairly clear, and some aspects are a definite step forward from previous practices. The Initiative's ToC aligns well with the Resilient Agricultural Food Systems ToC. Do projected benefits in LCSR contribute sufficiently to overall CGIAR targets? For example, projected 2030 benefits in the Poverty Impact Area of LCSR are 2.96 million people out of an overall CGIAR target in the CD of 500 million people.

Research questions and methods as described in the work packages provide confidence in the science quality proposed but it is difficult to put this in the context of the overall CD because it uses more rudimentary indicators such as numbers of peer-reviewed papers and altimetric scores.

External coherence: Country prioritization is logically argued and is consistent with the approaches set out in the CD. Partnerships to achieve impact are a key element in the CD but this area is a little vague in the LCSR proposal. This is in part due to proposal word limit but approaches to scaling through national commitment could be more clearly articulated.

282

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284 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
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287

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
14. Justified and transparent costing explicitly linked to expected Research for Development results	Financial Resources 10	Legitimacy, Effectiveness	1

288

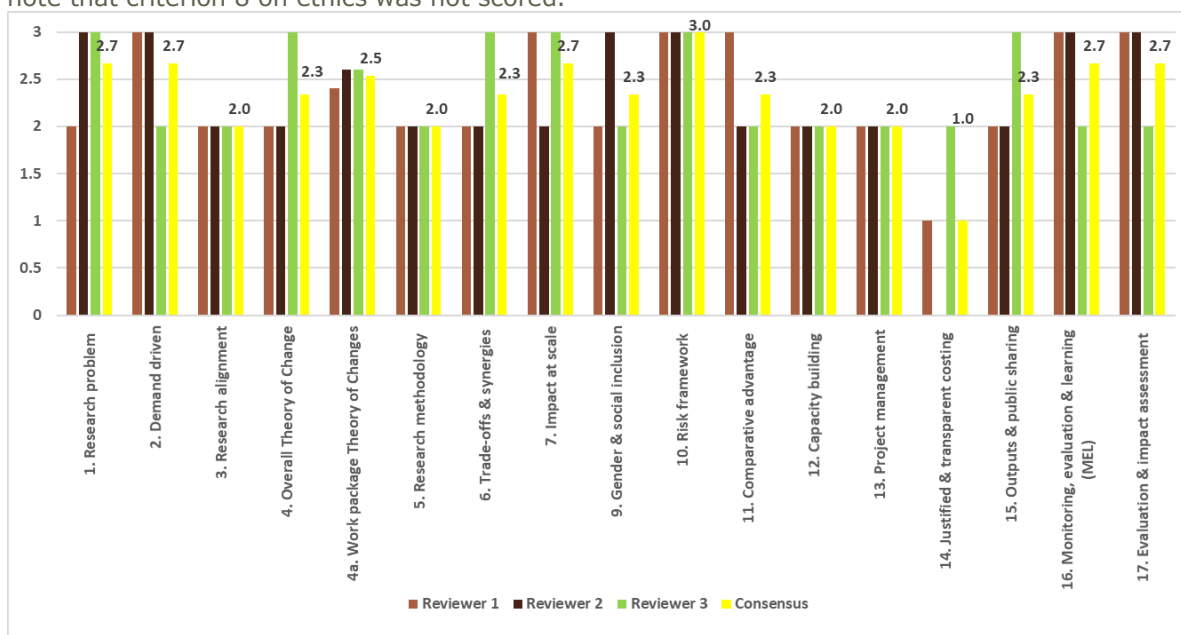
Additional Comments
NA

289

290 Reviewer and Consensus QoR4D Criteria Scoring

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295 note that criterion 8 on ethics was not scored.



296

297 6 Market Intelligence and Product Profiling

Review Summary and Actionable Recommendation

This is a great and transformative Initiative, with a clear objective of maximizing the return on investment in breeding, seed systems, and other Initiatives across the five Impact Areas. Not only does the Initiative meet the 2030 goals, the proposal also is presented in a logical, clear, and thorough way. The goals and actions are well defined, the impacts clear, and the planned process of achieving them is reasonable and believable. The hyper-links to references are commendable, which made reviewing key assumptions more convenient and should become a CGIAR best practice. The ambitious nature of the Initiative comes from the fact that MANY aspects of the whole chain of food production and consumption are targeted at once through gender-intentional product profiling.

Actionable Recommendations (apart from those listed below):

6. The outcome indicators in 6.1 are somewhat simplistic and could be improved. Fewer varieties → greater impact?

15. Open-data and open access protocols and plans are vague, including descriptions of meta-data. More information about what is envisaged and how it will be achieved would improve the proposal. There is a need for impact focused metrics.

General:

- The Initiative should consider the biological constraints (genetic and physiological variations) of each of the targeted crops that may render impossible the development of breeding products. These constraints are known by breeders and agronomists—make sure they are included in a feedback loop in work package 2.
- A detailed budget breakdown and justification should be provided in the proposal, as it is difficult to address the criteria on transparent costing and the linkage to expected research for development results.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: Criterion 1. The challenge statement is clearly outlined with the emphasis on end-user demands- and data-driven processes to guide genetic innovation. The review team likes the approach of focusing the CGIAR breeding programs on upstream research and prioritization of breeding product profiles based on market intelligence while the in-country partners are more involved in downstream applications. Bringing in the partners right from the start is excellent, as taking stakeholders into account is a long-standing challenge. This Initiative is therefore timely and relevant in the frame of One CGIAR because its generic nature means it can be applied worldwide for many crops.

Strength 2: Criterion 9. This Initiative has been designed to be integrative, including other Initiatives such as N4ETTSS and SeEdQUAL. Impact at scale will depend on building transdisciplinary teams with shared visions, including the often-overlooked needs of women, indigenous people, and minority groups. This is clearly spelled out in this criterion.

Strength 3: Criterion 13. The management and governance system seems to have been well thought through. It is therefore likely that the extended internal team managing the project will be effective. Diversity in leadership is critical for success. Involvement of industry and other experts able to supply a feedback mechanism to assess the impact of the breeding products will be important.

Overall Weaknesses of Proposal (if applicable; limit to top 3 weaknesses)

Weakness 1: Criterion 4a (work package 2). The review team thinks that this Initiative ignores the biological constraints (that may vary among crops) that may impede the relevance of a product profile. The more complex a product profile, the more difficult it will be to implement it in a breeding program with the objective of combining many traits into a single genotype. These constraints (mainly genetic and physiological) should be systematically interrogated in work package 1. Also, it would be good as well to keep in mind that customers do not always know what they want beforehand, so use judgement and other information to make sure the product profiles are right. This Initiative could also benefit from the implementation of a feedback loop in work package 2.

Weakness 2: Criterion 12 (Capacity development #9.3). The Initiative states that capacity building will be conducted through the G×I Learning Alliance, but this is one of the least clear and least persuasive sections. It does not seem as well thought out and supported as the other sections. Although there's a list of training activities provided (e.g., workshops, conferences, etc.), there is no clearly mapped training framework on how the project will build capacity and where, it seems to more assume it will happen among the collaborators through the identified training platforms. Nonetheless, it is commendable that there is a plan for the Initiative team members to attend a gender, diversity, and inclusion training—a major asset and core to the Initiative.

Weakness 3: Criterion 14. The Budget! All reviewers had a problem with the budget. These problems included that it was not clearly enough described to make any assessment as to its strength. One cannot judge its relevance if the costs are not detailed.

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Areas of Divergence among Review Team and ISDC Resolution (if applicable)

NA

300

Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

The Initiative certainly aligns with the portfolio as it aims to ensure that improved varieties contribute to productivity gains, but also generate a well-balanced portfolio of impacts across all five Impact Areas. It also aligns with the rigorous use of Monitoring, Evaluation, Learning and Impact Assessment (MELIA) for similar impacts. In addition, the leadership plans are sound and in keeping with the aim of identifying bottlenecks, designing a scaling strategy, and monitoring change for use of innovations. It is important to recognize that change is hard.

301

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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
NA			

307

Additional Comments

NA

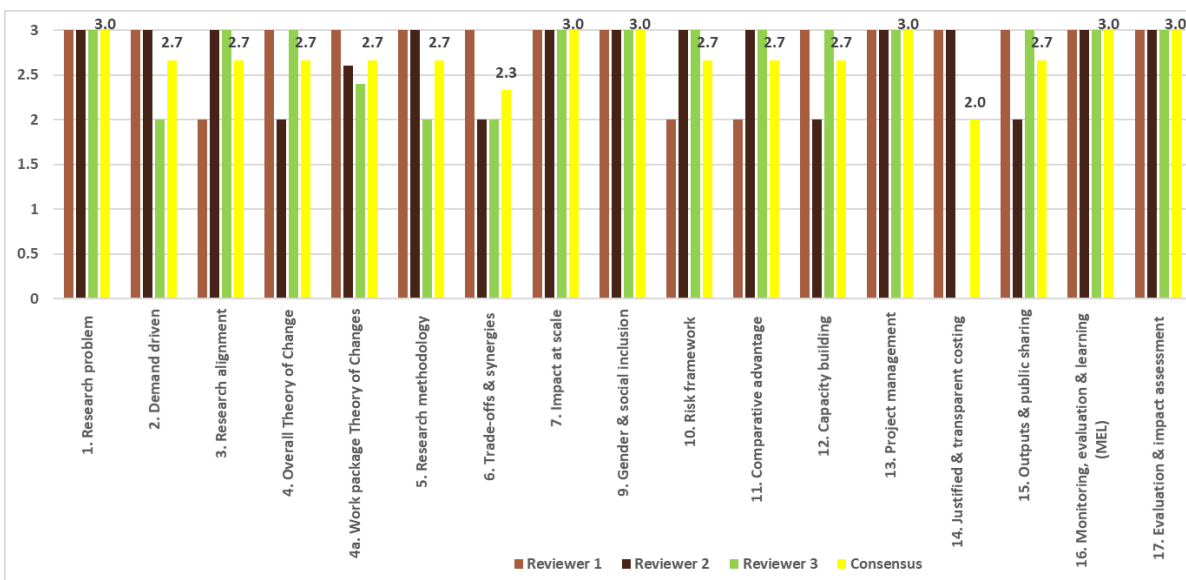
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Reviewer and Consensus QoR4D Criteria Scoring

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318 **7 Mitigation and Transformation Initiative for GHG**
 319 **Reductions of Agrifood Systems Related Emissions**
 320 **(MITIGATE+)**

Review Summary and Actionable Recommendation

- Overall, the need for this Initiative is well argued and the components of the Initiative are clear; the work packages and target audiences have been well conceptualized, and the components of the proposal have good internal and external coherence. The need for MITIGATE+ is critically important to the mission of CGIAR and for the sustainability of global agricultural systems more broadly.
- The high-level nature of the proposal document obscures many important details. Additional details—both metrics and methods—would help articulate specifics of the scope and size of the intended deliverables. Addition of quantifiable metrics that are SMART (specific, measurable, achievable, realistic, and time-bound) would help make the proposal more explicit and convincing.
- Further details on the Management Plan are required, including interdependencies with other Initiatives. This specifically includes the need for baselining (initial) information that is critical to enable accurate quantification of MITIGATE+ activities. The capacity of the countries involved (governance and effectiveness) and criteria for their selection also needs to be more clearly announced.
- On the mitigation approaches and innovations proposed: while the potential for carbon mitigation together with food security and climate smart farming are well considered, there is little evidence of consideration of other co-benefits and trade-offs that will result from innovations developed in MITIGATE+. The proposal should aim to include a process and metrics for identification of positive co-benefits and adverse trade-offs (e.g., on environmental stewardship, biodiversity, inclusion of marginalized demographics, etc.) arising from MITIGATE+. The proposal regularly mentions “reducing food systems emissions” but this is only half the equation: this reduction must occur without having detrimental effects on food security, the environment, gender diversity of end-users etc. Consistent with SMART, demonstration of reduced emissions should be a minimum standard and some efforts should be made where possible to show co-benefits arising from mitigation options implemented.

321

Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: The challenge statements, work packages, and their underpinning science are comprehensive and well considered. The global importance and main research questions are explicit and appropriate. The need for the MITIGATE+ Initiative is clear and compelling. The work packages account for all five CGIAR Impact Areas and are well informed by previous research.

Strength 2: There is very good evidence that the Initiative is demand driven in the countries listed and processes for participatory engagement are envisioned. This includes participatory action research in codesigning and encouraging adoption of work package outputs.

Strength 3: Consideration of FAIR principles of data management are clearly evident and aimed at providing legacy. The need for findable, accessible, interoperable, and reusability is integral to the design of MITIGATE+. The authors have clearly articulated the need for FAIR datasets and outputs to improve the rigor and certainty in data, knowledge, tools, and capacity to improve food systems GHG emissions monitoring and UNFCCC national communications in the target countries. Given the importance of FAIR data, the proponents would do well to ensure that sufficient funds are budgeted for open and transparent transfer of CGIAR data.

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: No detail on the budget justification and intended use of funds is provided, which appears to be a short-coming in the proposal template. Ideally, management of funding and funding uncertainties should be covered in this section. CGIAR could consider whether a three-year time frame for MITIGATE+ is sufficient to achieve the ambitious goals (Reviewer suggested that five years may be a more appropriate time frame).

Weakness 2: The research questions and Impact Areas could be more specific, measurable and time bound. The proposal has many high-level statements, but more quantifiable metrics are needed. Clear explanations of specific protocols near the beginning of the proposal would also be useful. Additional quantitative (metrics: people, tonnes of CO₂, number, and purpose of Living Labs, etc.) could then be better linked to the Impact Areas. Part of this weakness is lack of defined engagement with the private sector. The Management Plan also needs more detail, including a process for collecting baseline information that can then be used in the MELIA and calculation of impact. Addition of detail should include information on counterfactuals (if CGIAR did not do the research) so that change can be measured.

Weakness 3: Gender diversity and inclusion of marginalized members of society is addressed in the proposal; however, the process by which social inclusion of youth, women, and men would occur under MITIGATE+ is not clear (e.g., section 2.5 includes an overarching statement, but no specifics, while the gender equality text in section 2.7.2 says little how income diversification will improve social outcomes for women and youth for example). Section 5.3 highlights the challenges and prioritization regarding gender equality, and while the intent is commendable and clear, there seems to be no mechanisms to regulate gender inclusiveness or ensure that it occurs. What happens for example, if all the people who actively want to engage in MITIGATE+ extension processes are middle-aged white men? Will some of them be turned away? What measures will be undertaken to ensure that gender, ethnic and demographic inclusiveness occurs?

322

Areas of Divergence among Review Team and ISDC Resolution (if applicable)

Reviewer 1 suggested that the priority countries could be better justified, reviewer 2 suggested they were well justified but questioned whether inclusion of China would skew the results (if all countries except China failed to meet the metrics, would this be considered a success because China represents such a large proportion of global emissions?). Reviewer 3 suggested that the justification and interest from China and Columbia was not sufficiently detailed, and given China's role in mitigation, it would be necessary to understand how MITIGATE+ will contribute to the GHG mitigation strategies of Columbia and China (i.e., do the MITIGATE+ activities align with national priorities of China and Columbia?).

After consideration of these issues, the reviewers agree that the rationale for choosing the countries listed in the proposal is well considered but some additional justification for the criteria is warranted (e.g., why only pan-tropical countries are selected, etc.). The reviewers suggest that a quality assurance process be put in place to manage or standardize the impact of MITIGATE+ across countries, i.e., ensuring that benefits occur in all countries, rather than just substantive benefit occurring in one or two countries that have large shares of global GHG emissions. While this result would satisfy the objectives of MITIGATE+, it may not necessarily benefit most of the target countries list in the proposal. The reviewers also suggest that the objectives of MITIGATE+ align with national priorities in emissions mitigation of the target countries.

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

External coherence (country, regional, global levels): This is covered reasonably well, although some reviewers questioned the choice of and criteria used to select the seven countries in MITIGATE+ (Table 1, Initiative proposal).

Internal coherence including Impact Area Platforms: The proposal has good documentation of the expected amount of CO₂-e averted and the number of people benefitting from climate resilient innovations. While the descriptions of the work packages are clearly laid out, the linkages between the research plan and main proposed scientific methods are not evident: this leads to a lack of continuity between the research plan, scientific methods, and outputs. This could be simply improved with consistent titles and subtitles for example.

Interdependencies between other thematic/regional Initiatives: These are well mapped (linkage with ClimBeR, NEXUS Gains, SAPLING, LCSR, EiA, SHiFT, etc.) although additional detail on how constituent parts of MITIGATE+ depend on other Initiatives is required. Improved clarity regarding the linkages between work packages, methods and End-of-Initiative outcomes are also required.

Management of funding uncertainties: This seems to be completely absent from the proposal. Aside from total budgets in section 10.1, no other information on the budget is apparent and appears to be a shortcoming in the proposal template design. More detail of intended management (including metrics) is required.

Integrated results framework at Initiative, Action Area, and CGIAR Levels: In general, this is well covered.

Measurement and reporting at multiple levels and timeframes: The management plan and Gantt table in section 7.2 contains annual "pause and reflect" workshops, but how this reflection will be subsequently acted upon is unclear. Ex-post impact assessments of the work packages are well covered in the proposal, but ex-post assessments of the monitoring and evaluation (and how this assessment will be used to refine management going forwards) could be more transparent. The linkage of management to the work packages could be better detailed (metrics, aim, achievability and timing).

324

325 Reviewers scored each of the 17 QoR4D criterion individually. The review teams then built a consensus
326 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
327 consensus building process, *scores that ranged from 1 to 2 were up to the review team whether to*
328 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.

329

Criteria that Scored an Average of 1 or 0 (limit rationale to 100 words)	Proposal Section	QoR4D Elements	Consensus Score
NA			

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Additional Comments
<p>**The major MITIGATE+ review comments are provided above. Please note that the following text is additional and secondary to comments other comments proceeding.</p> <p>**It is important to note that the comments below are reviewer suggestions only. The authors of MITIGATE+ have put in extensive effort to plan, design, and write the proposal. These suggestions are not intended to be a critique, rather systematic thoughts on pathways for improvement and perceived gaps in the proposal. Even in its present form, the proposal is very good, as evidenced by the reviewer scores below.</p> <ol style="list-style-type: none"> 1. Ensuring that intended outcomes have positive co-benefits. While the overall aspiration of the Initiative to reduce GHG emissions is clear, some additional quantifiable metrics pertaining to co-benefits (economic, social, cultural, environmental, psychological) resulting from GHG emissions mitigation interventions would be beneficial. These should be SMART (Specific, Measurable, Achievable, Realistic and Time-bound). While the plan and potential for co-benefits is implicit to the proposal, the metrics to be measured, and their integration into the monitoring and evaluation needs to be more explicit. 2. The focus of work package 1 being a digital tool (FOODCLIP). In general, reviewers were uncomfortable with the notion that the main output of work package 1 would be a digital tool. The inherent assumption of work package 1 seems to be that stakeholders will use the integrated modeling and planning framework (FOODCLIP). Would it be better to first codesign with stakeholders the main work package focus and path to impact? Electronic and digital tools are generally only suitable for a small proportion of target audiences. Is a digital tool that right mechanism for designing farming systems emissions mitigation pathways? work package 1 could go broader to include additional engagement processes. Other than this, the science underpinning work package 1 (p. 16) is sound are well written. 3. Research questions, objectives, outputs (criterion 3): The main concern of the reviewers was the ability of MITIGATE+ leaders to accurately measure the success of the outcomes (especially in section 2.2). More focused research questions may help develop more quantifiable metrics (e.g., numbers or percent increase). It also is unclear how the outputs of the three-year funding cycle will lead to the long-term outcomes, and although there is some mention of this, it tends to be inconsistent. 4. Clarity in methods and intended impacts of the work packages: a more detailed summary diagram near the beginning of the proposal would help new readers understand the intent of MITIGATE+. Part of this diagram could focus on the methods employed in each work package and expected impact, rather than end-of-Initiative outcomes (e.g., diagram on p. 13). It seems that there is overlap between work packages, though it is difficult to discern which parts of this overlap are intentional (e.g., how will the scaling of the living labs practices be conducted in work packages 3 and 4, and how does engagement in work package 5 differ from that to be conducted in work package 3 and which parts are not intentional). 5. Involvement of farming communities and rural poor to ensure awareness and uptake of GHG emissions mitigation options. Work package 3 details involvement and codesign of Living Labs with food sector actors and communities, which is really good to see (note however that two reviewers were unfamiliar with the term 'Living Labs'). The reviewers could not see a clear line of sight between how farming communities and particularly the rural poor were to be engaged to encourage adoption. As it stands, MITIGATE+ has a good description of engagement with stakeholders (e.g., policymakers, institutional decision-makers), but the extent to which adoption packages are developed specifically for the rural poor and smallholder farmers (which differ from communications items in work package 5 is unclear).

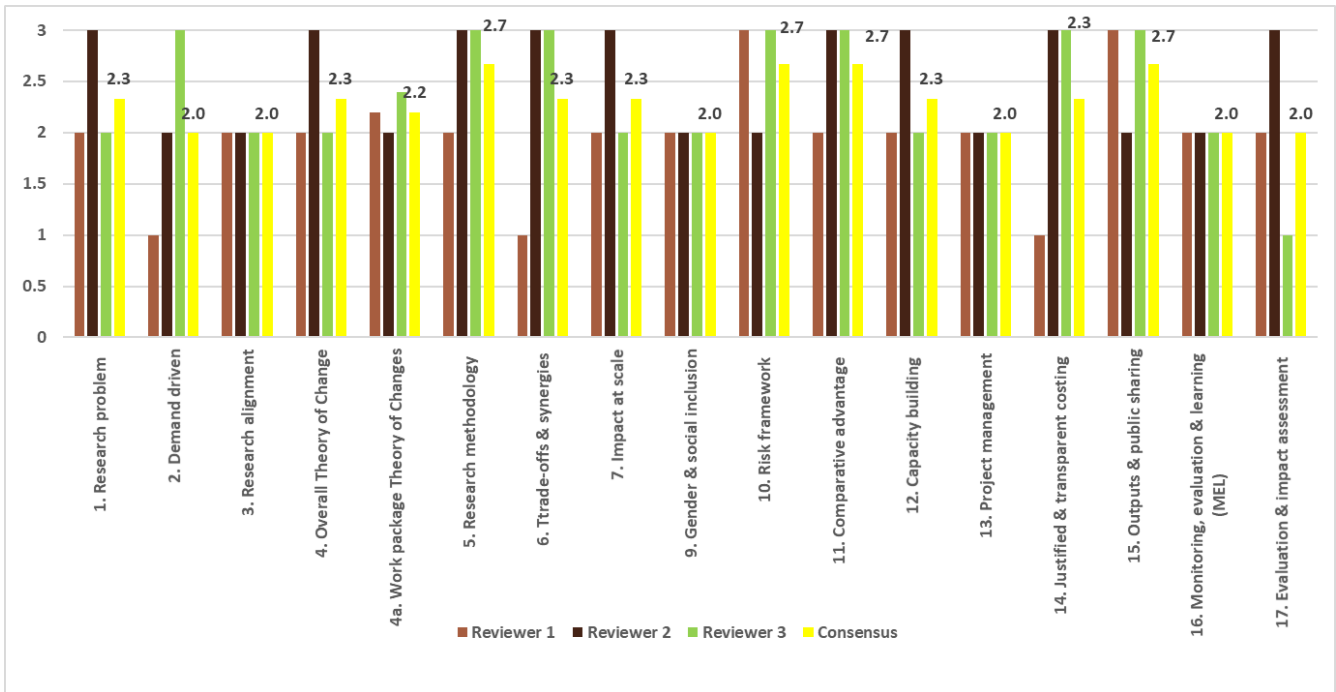
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332 *Review continued next page.*

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Reviewer and Consensus QoR4D Criteria Scoring

The Figure below represents original scoring from each reviewer and consensus scoring for each criterion. *The consensus score across reviewers may not reflect the mathematical average.* For purposes of the Figure, the QoR4D criteria have been shortened. Please refer to p. 5 for full criteria definitions. Please note that criterion 8 on ethics was not scored.



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342 **8 National Policies and Strategies for Food, Land and Water**
 343 **Systems Transformation (NPS)**

Review Summary and Actionable Recommendation

NPS is a critically important Initiative, directly targeting the challenges of food systems transformation. NPS correctly focuses on strengthening country-led policy development efforts. While the CGIAR is well-positioned to lead this important work, the proposal has significant weaknesses.

- Saying that NPS will “codesign” national policy with elected governments (work package 1) seems like over-reach and could be misinterpreted. Recommendation: revise to accurately reflect NPS’ role in providing technical support.
- Not taking the time to get buy-in from diverse stakeholders carries real reputational risks. Recommendation: follow up with non-respondents to the Stakeholder Consultation to gain a better understanding of demand and potential revisions needed to reflect a more inclusive, demand-driven approach.
- CGIAR modeling capacities are well-respected, but the new challenges of modeling impacts and trade-offs across multiple sectors are beyond what CGIAR has done in the past. Recommendation: Explain how modeling efforts/partnerships will be strengthened (work package 2).
- The proposal focuses almost entirely on the development and refinement of policy analysis methods/tools with government and external think tanks. Although NPS outcomes and impacts all rely on successful policy *implementation* by government with engaged stakeholders, the Initiative does not deal with the links between policy development and implementation strategies, programs, and plans. Recommendation: Clarify how NPS research methodology, methods, and activities will address critical implementation and operational themes, including government implementation capacity and effective stakeholder/partner engagement (work package 1/3).
- The success of the project resides on hefty assumptions that make the proposal risky: governments demand this; citizens are not troubled by the CGIAR’s involvement in domestic policy creation; governments’ priorities and interests align with CGIAR efforts, etc. It will be important to clarify the outcomes that can reasonably be delivered by NPS vs outcomes/impacts that NPS can *contribute* to, in collaboration (that is encouraged and facilitated) with other partners.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: Management plan (7.1). The proposed project management and research governance mechanisms are excellent. Questions: (a) What resources will be available to facilitate coordination between Initiatives at the country level? (b) Will there be a steering or advisory committee in each country or other opportunities for country stakeholders to provide input on the program? (c) More detail on adaptive management is needed—what latitude will program leaders have to make ongoing program changes to respond to opportunities and issues that arise or from monitoring evidence?

Strength 2: The creation of the community of policy practice (CoPP) as part of work package 4 (3.2.1) is an innovative way to bring together active policy practitioners from partner organizations to encourage regular communication, share experiences and facilitate cross-country and -region learning. Because staff turnover can be high in some organizations, the CoPP may also play an important role in preserving “institutional memory” of knowledge and practices developed over time to inform the future development of policies and implementing mechanisms.

Strength 3: Challenge Statement (2.1): This proposal articulates a clear and pressing need for systems-based policy making both to address policy incoherence and to achieve multiple objectives. The Impact Statements were compelling (5), particularly given the diffuse nature of the Initiative. The key research questions (3.2), particularly those with a cross-country comparative approach, could produce important learning on how to support policymakers interested in pursuing systems-based policymaking. This could support expansion of this Initiative to other locations.

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1. The top-down, somewhat technocratic tone of NPS is troubling. The use of “codesign” terminology (2.6, 3.2) reflects the perception that think tanks and funders are the major partners in design and work products—rather than civil society and private sector stakeholders at the country level. Section 7.3 suggests that NPS will rely on funders for risk mitigation. Not taking the time to get buy-in from diverse stakeholders (17% participation in country consultations) carries reputational risks and does not respond to criticisms raised by CRP

evaluators. A slower, more inclusive, and demand-driven approach could increase the likelihood, and sustainability, of NPS success.

Weakness 2. Work Package ToCs (3.2).

(a) It is not clear that CGIAR's existing models will be adequate to address the challenge of modeling credibly across multiple sectors—NRM, climate change, health/nutrition as well as ag/rural development. How might they need to be integrated and strengthened?

(b) Relatively little importance is given to research on policy implementation—moving from tactical to operational levels, and to the nature and dynamics of governance. For example, NPS highlights the importance of stakeholder coalitions and their participation in the policy process and scaling. But the methodology, methods, and activities do not deal with these aspects. It is also unclear (i) what capacity strengthening will take place for these groups, or for government bodies responsible for policy implementation, and (ii) how the quality of partnerships and stakeholder ownership of the policy agenda will be assessed/improved. Work package 1 and 3 could be strengthened to address these issues.

(c) The success of the project resides on hefty assumptions that make the proposal risky: governments demand this; citizens are not troubled by the CGIAR's involvement in domestic policy creation; governments' priorities and interests align with CGIAR efforts, etc. It will be important to clarify the outcomes that can reasonably be delivered by NPS vs outcomes/impacts that NPS can *contribute* to, in collaboration (that is encouraged and facilitated) with other partners.

(d) Given political uncertainties, and the implications for shifts in national priorities and for manager/staff turnover, projected outcomes may not occur in all countries within three years. This does not mean that NPS should necessarily be considered unsuccessful. Documenting why the Initiative did not work may be as valuable (or more) for rolling out the Initiative in other countries.

Weakness 3: NPS puts a strong focus on water systems, stating (5.4) that the "connections between sectoral policies in water and food systems and climate adaptation and mitigation planning and investment are at the heart of this Initiative". However, this priority is not well reflected in the discussion of NPS human resource and capacity development needs (5.4-5.5). There is a need to engage expertise on water systems management, especially in small scale agriculture.

Weakness 4: Financial resources/budget (10.1). This section consists of only a summary budget table. It is impossible to determine the basis for the allocation of funds between activities and countries, and how they are linked to the expected R4D results. For future revisions, it will also be important to know what proportion of funding will be allocated to local institutions and organizations.

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**Areas of Divergence among Review Team and ISDC Resolution
(if applicable)**

NA

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

With its strong focus on national-level policies and strategies, NPS has a critical role in the CGIAR portfolio. The proposal does a good job of identifying the main Initiatives and offices (RII) with which it will need to coordinate. What is less clear—from both the NPS proposal and the CD—is how the country-level interdependencies will be managed, practically. For example:

In its six focus countries, will NPS take the lead on coordinating ALL national policy and strategy work for Initiatives with a policy element? For example, on p. 11, NPS highlights opportunities to examine the experiences with safety net programs in Egypt and Kenya. Although micronutrient/dietary diversity is not a focus of NPS, presumably another Initiative will tackle this. How would the work of (potentially) multiple Initiatives targeting safety net programs be coordinated at the country level?

NPS focuses on national policies and strategies but will have a specific policy focus in several pre-defined areas (Table 1, p. 10.) NPS will analyze trade-offs among policy options within those specific areas. But at country level, how/who will support governments in undertaking a wider-lens meta-analysis to show costs, benefits, trade-offs among investments across multiple sectors (per the charge of UNFSS, and to inform national ag transformation strategies)? And how would those results be reflected in NPS and other Initiatives? This seems like a step that must be taken before countries can decide on the policy priorities implied by NPS (and other "targeted" policy Initiatives).

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 351 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.
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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
2. Evidence that the Initiative is demand driven through codesign with key stakeholders and partners (Investment Advisory Groups, governments, private sector, funders) and research collaborators within and outside CGIAR	Participatory design process 2.6, Challenge statement 2.1, Work Package ToCs 3.2	Relevance, Effectiveness	1
An impressive external advisory group (regional policy organizations, funders) provided oral and written feedback on NPS. In focus countries, the “structured process of input and participatory design” was more concerning. The pre-concept and questions were shared by email with a range of stakeholders, but only 17/98 provided substantive comments (per the Stakeholder Consultation Report). A breakdown of nonresponse by country/stakeholder would be helpful to understand whether there is less interest in the Initiative in some countries, or some groups, than others. More generally, the requirements of footnote 3 have not been met. It is not possible to assess the extent to which NPS is demand driven or has been codesigned with stakeholders.			
4. Overall Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact	Full Initiative ToC 3.1	Effectiveness, Relevance	1
<p>The ToC is logical, but it is not clear that the End of Initiative outcomes (and related Action Area outcomes and project benefit impacts) would result from the work packages. The ambitious EoI Outcomes happen outside of CGIAR control but within its sphere of influence. NPS relies on the government to do the heavy lifting of adopting and refining policies, engaging in multistakeholder coalitions, and institutionalizing evidence-based policymaking. CGIAR can play a supportive role but lacks direct control of these pivotal processes upon which the larger outcomes depend. To rely on others to produce these outcomes is both ambitious and inherently risky, yet there is no alternative in the policy sphere.</p> <p>The challenge with the ToC is to give appropriate weight to the work package outcomes that are within NPS’ sphere of control, and on the dynamics of how work package outcomes <i>contribute</i> to the larger EoI (AA, PB) outcomes/benefit. These outcomes are so large and important that it would be helpful to place the NPS in the landscape of other actors who are working/contributing to the same large outcomes. How might the TOC recognize/incentivize NPS’ role in <i>contributing</i> to the efforts of a broader coalition—rather than inadvertently creating unrealistic/unhelpful expectations of what NPS will be able to achieve on its own?</p>			
4a. Work package 3	Work Package ToCs 3.2	Effectiveness, Relevance	1
<p>Work package 3 focuses on a narrow range of public sector and think tank capacities. To assess stakeholder dynamics and strengthen capacities for effective engagement, tools beyond political economy will be needed—including sociology, communications/outreach, behavioral psychology, organizational dynamics.</p> <p>What measures of process transparency other than budget will be used, e.g., outcome and impact trackers? How will the private sector and investors engage with policy development and implementation?</p> <p>The rationale for focusing only on scaling <i>CGIAR</i> innovations is not clear.</p> <p>What is the objective of RCTs in work package 3? If it is to generate knowledge or assess impact of existing policies, explaining how policies will be selected to fill knowledge gaps would be helpful. If it is to generate knowledge about new “codesigned” policies, the timing for completing an impact evaluation of the policy change seems too ambitious (p.44).</p>			
10. A risk framework that details main project risks and mitigation actions across areas of science, funding, operations, partnerships, ethics, and environment	Risk assessment 7.3	Credibility, Legitimacy, Relevance	1

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
<p>The tone of this section is concerning. It seems to imply that NPS will codesign national policies with the government. The proposal needs to be very clear that its role is supportive rather than as an equal partner with national ministries so that CGIAR’s status as honest broker is not jeopardized.</p> <p>Overall, the identified risks make sense. The risk mitigation strategies raised some questions.</p> <ol style="list-style-type: none"> 1. “Lack of sense of ownership by stakeholders....” Consultation is not equivalent to ownership. NPS and other ST Initiatives will require a much more explicit understanding of stakeholder/partner engagement and processes that result in effective engagement, commitment, empowerment and strengthened capacity. 2. “Government turnover and volatility.” Working with multiple levels of government is important, but broadening stakeholder engagement beyond government will also be important for mitigation. Effective policy development, implementation, and financing will require a broader coalition that includes the private sector. 3. The risk mitigation strategy for “lack of government will and support” might be interpreted to mean (problematically) that if government will is not there, CGIAR will use funder pressure to move its agenda forward. 4. “Poor coordination between ministries/agencies” is almost a given. The proposed mitigation actions are weak. 			
14. Justified and transparent costing explicitly linked to expected Research for Development results	Financial Resources 10	Legitimacy, Effectiveness	0
<p>This is impossible to assess based on the summary budget table alone. There is no indication of how the various allocations—by activity or geography—were arrived at.</p>			

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Additional Comments
NA

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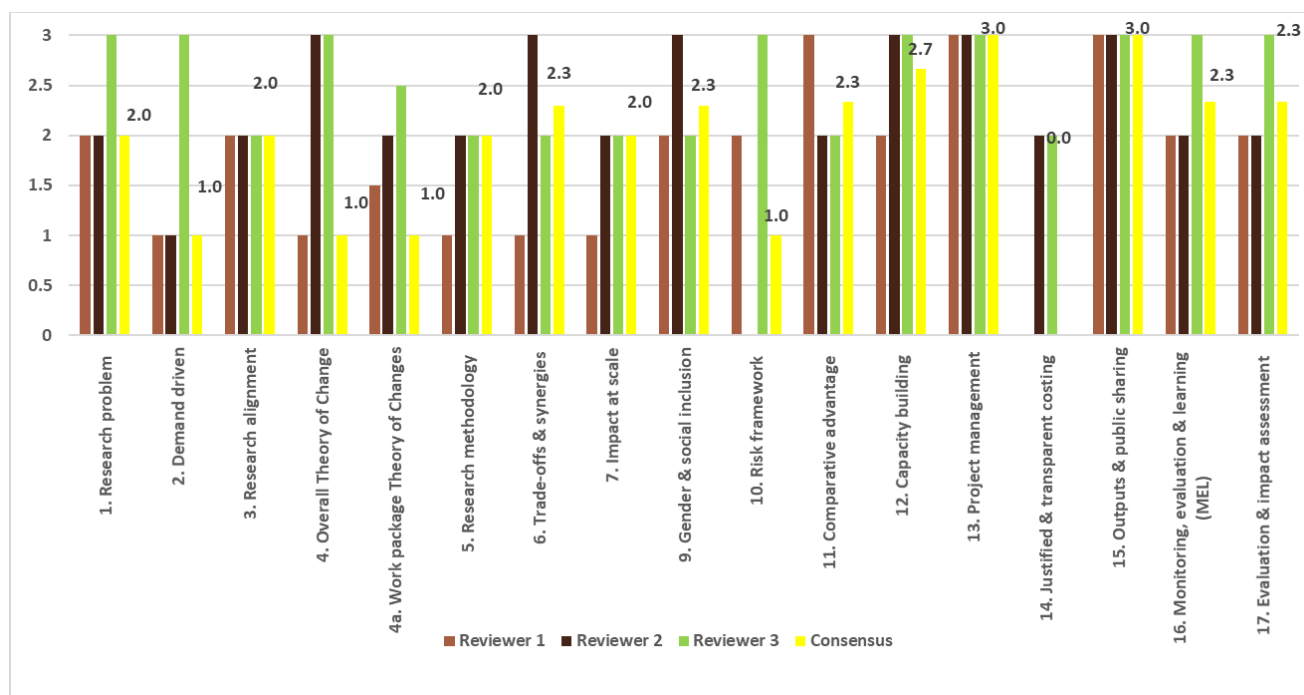
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Reviewer and Consensus QoR4D Criteria Scoring

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363 **9 Network 4 Enabling Tools, Technologies ,and Shared**
 364 **Services (N4ETTSS)**

Review Summary and Actionable Recommendation

There is overall good consensus and positive assessment of the N4ETTSS Initiative, considering that N4ETTSS is an ambitious, yet timely Initiative that endeavors to level-up breeding programs (genetic, economic, social, and environmental performance level) across the CGIAR-NARES networks. Given its size, complexity and global span, there will undoubtedly need to be some adjustments made to the action plan to manage unforeseen realities on the ground once started. In this regard, monitoring, evaluation, learning, and impact assessment are integral to the Initiative. However, the review teams accepts that it is extremely difficult to assess an impact on breeding programs on a three-year time scale. The proposers made a good job in trying to adapt the impact assessment strategy on this short time constraint.

The three main actionable recommendation concerns:

1. The budget (although this seems to be a common weakness across Initiatives). A detailed budget justification should be provided as it is difficult to address the criteria on transparent costing and the linkage to expected research for development results.
2. Data management and partnerships. The way the use of metadata is planned requires clarity, in particular, how it will be standardized and searchable.
3. Human resources and capacity development. The proposal includes a brief statement about capacity development within project teams, partners, and stakeholders although it would be helpful to describe training for partners and stakeholders a little more explicitly. In addition, in table 9.1, the size of the teams should be provided.

Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: This is a transformative and funder-aligned proposal that, if implemented well and adopted across CGIAR, will increase breeding development cycles, reduce cost, and impact several 2030 goals. Review item #7 does an exceptional job of showing the transformative features of this Initiative. The research questions are also well aligned with the objectives (optimizing breeding platform performances worldwide), outputs (strategies to bring TTSS to breeding platforms and improving cost-effectiveness through sharing services), and outcomes (implementation of new technologies and tools in remote breeding platforms).

Strength 2: Bridging ARIs and NARES for efficient technology transfer is an asset of the Initiative. In addition, interactions and learnings from industry experts who have faced related challenges and introduced similar technology configurations and shared services, further strengthens the proposal.

Strength 3: The Initiative considers the technical, management, and cultural challenges that needs to be addressed. Although the research plan is complicated, it is broken down logically into its component work packages. and the theory of change descriptions are clear and detailed.

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: Review bullet 12. Partnerships could be improved. Specifically, how partnerships will be developed could be described better. This proposal seems very CGIAR-focused, and partnerships are assumed, but a clear plan to identify, build and cultivate them in the document is missing. What incentives and processes would be in place to establish and manage innovative partnerships?

Weakness 2: Review bullet 4a, work packages 3 and 4 could be improved. Adoption is critical. How the data will be documented and shared, especially the meta-data, in a standardized searchable way should be better described. Additionally, there should be a plan to monitor the shape, quality, and distribution of the data to ensure quality and usefulness and screen for lapses in quality control. It is a good section, but these points are critical.

Weakness 3: Financial resources. There is no transparency and justification of the resources requested for this project—how each budget line is broken down across the different types of expenditures as well as across different geographical zones is unclear.

**Areas of Divergence among Review Team and ISDC Resolution
(if applicable)**

NA

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

The Initiative aligns well with the cohesion of the portfolio, as exemplified by the following (among the 92 items of the CD):

The Initiative builds on a clear consultation process, including regional advisory forums and structured regional consultation in Initiative design. The codesign process is very well described, there’s a participatory design process to gather input from various stakeholders (including NARES breeding platforms).

The Initiative is fitting with the CGIAR’s Research and Innovation Strategy and is a high priority area aligned with funders priorities.

Through the implementation of novel methods to accelerate the improvement of crops, N4ETTSS has explicit connections with other Genetic Innovation Initiatives, such as Market intelligence and product profiling, Genebanks, and ABI. Thus, N4ETTSS impacts will initially occur through ABI, with ABI’s success influenced by Market Intelligence and Product Profiling, Genebanks, and SeEdQUAL.

From a comparative advantage, CGIAR has a presence in and knowledge of the many countries where it works and has institutional links, combined with a solid scientific reputation. These solid and trusted relationships will be leveraged to promote the adoption of tools, technologies, and shared services by NARES.

Although the timeframe for Initiatives is three years, N4ETTSS has built its ToC that identifies plausible pathways to generate impact over a 10-year period. This recognizes the longer timeframes needed for achieving meaningful impact.

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371 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.

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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
NA			

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Additional Comments
<p><u>General comments:</u></p> <p>The major issue that, most reviewers of all Initiatives have raised comes from the very poor description of the budget. This probably was a recommendation for the proposers at this stage of the submission process. However, reviewers feel that it is very hard to provide a fully relevant expertise of the Initiative without at least some basic information regarding geographical distribution of budget and/or how it is broken down into the various actions of the Initiative.</p> <p>The Companion Document provided for the Initiative cohesion was very difficult to exploit. There are far too many items (over 90) to review to come up with a short synthesis of 100 words. We therefore selected only few items that we considered as major strengths in terms of cohesion to the portfolio.</p> <p><u>Specific comments for N4ETTSS:</u></p> <p>Most of the comments that the three reviewers wished to make on the Initiative are included above. However, an additional item based on the critical reading of the annexes is below.</p> <p>All the support letters from partners (provided in Annex E), were puzzling/confusing as they all included the same paragraph. Was it copied and pasted from a document the partners were provided with? If yes, this considerably weakens the support received for the Initiative. Could this be clarified?</p>

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375 *Review continued next page.*

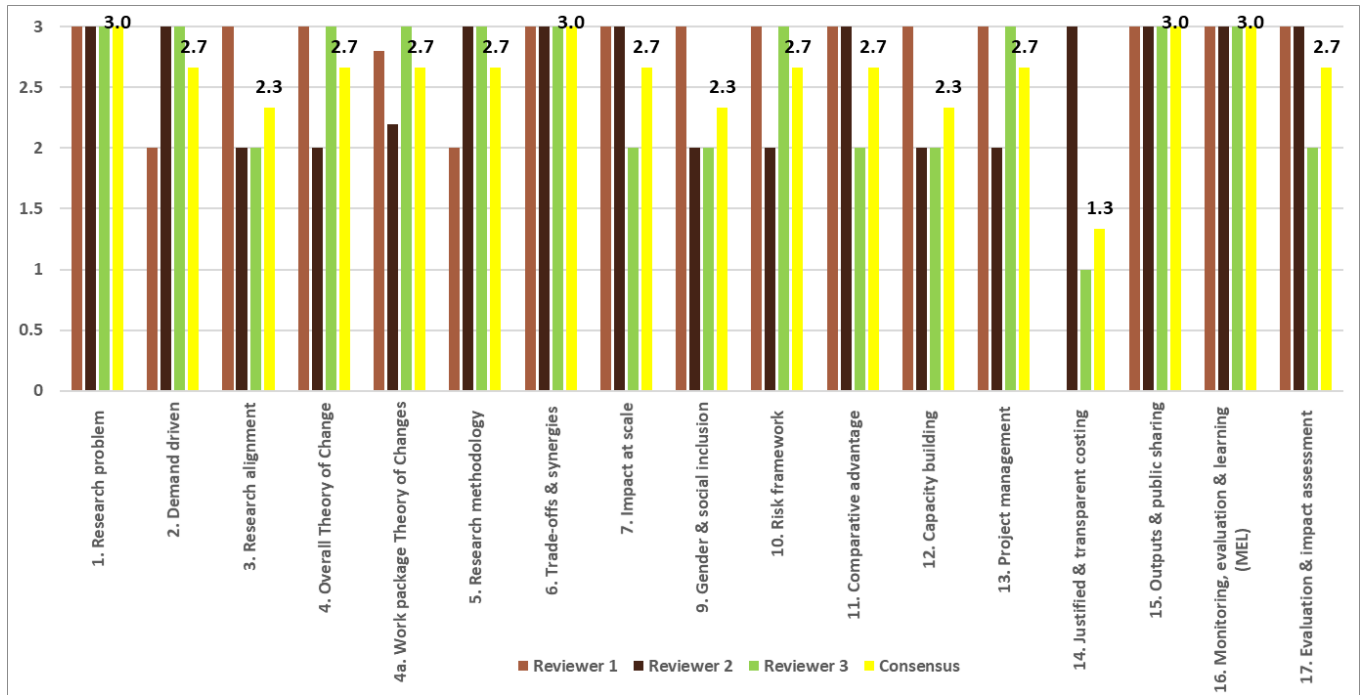
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10 NEXUS Gains—Realizing Multiple Benefits Across Water, Energy, Food and Ecosystems (Forests, Biodiversity)

Review Summary and Actionable Recommendation

Overall assessment: NEXUS Gains generally addresses review criteria in a complete and convincing manner. Rationale for NEXUS Gains and its innovative approach and methods clearly have stakeholder support and great potential for impact across Action Areas. The proposal is very ambitious, and some outcomes may not be achievable within the timeframe of this Initiative. Key strengths include: 1) water (and watersheds) as organizing concepts and frameworks for prioritization and implementation; 2) clear work package ToCs; and 3) codesign with partners and stakeholders.

Opportunities for improvement: First, revisit assumptions that users' access to data and tools will result in uptake, which is not supported by social science evidence; greater reference to scientific literature on motivation theory and environmental psychology could address this.

Second, appropriately, the narrative recognizes: "transboundary conflicts over nexus resources," "complex political economy," "conflict between resource users," and in work package 4, "A major barrier to adoption ... is the political economy surrounding potential solutions." Yet much of the logic relies on existence of collaborative solutions. Political economy and administrative concerns deserve more emphasis in work package and overall design, assumptions, and risk assessments. Systematic attention in Initiative design (and budgeting) to political economy research needs and methods (including law, anthropology, sociology) and public administration research partnerships and capacities (including mediation and organizational design) could help address this. In this same vein, the proposal does not describe the institutional arrangements that will be required for effective transboundary actions. It would be helpful if the proposal provided more concrete detail on the institutional arrangements and agreements that are necessary for improved management of the international watersheds.

Third, while the Initiative appropriately aims "to connect systems to optimize equitable economic and social welfare and environmental sustainability," and it needs to be clearer about the systems (and specific resources and environmental services) to be connected and the functional links among them, with a particular need for more explicit attention to soil resources (for example how agrobiodiversity—as measured by the Agrobiodiversity Index—affects soil quality and land productivity) and to climate as an overall driver of change across water, energy, food, and ecosystems. Currently, neither soil nor climate receive adequate discussion.

Fourth, links are not sufficiently clear between some end-of-Initiative outcomes (EoIs) and key Action Area outcomes (AAOs): for example, how will NEXUS Gains activities lead to "farmers use technologies or practices that contribute to livelihoods..." and "smallholder farmers implement new practices that mitigate risks associated with extreme climate change..."? These are plausible connections, but the ToC (and proposal) is not specific about those farm-level technologies and practices. Consultation, participation, and co-creation of programs and project outcomes involving researchers with farmers, other local innovators and entrepreneurs, and other end users need to be included in work package design and budgeting.

Finally, while work package 5 seems well-designed, gender inclusion needs to be a cross-cutting element across the work packages and the Initiative as a whole.

Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: (2.6) Participatory design. Consultations are documented with government, NGOs, educational institutions, international agencies, and others, including consultations at various levels of geographic granularity. This section is very convincing and contains ample evidence of consultative meetings, using hyperlinks to workshop reports. The Initiative consulted with more than 500 stakeholders across the focal basins, with meetings building on "decades of co-generation of knowledge, capacity building and advisory roles." These processes "helped [to] more clearly articulate the needs of a wide range of stakeholders in the design process" but also ensured legitimacy and lasting participation for impact. However, there are some gaps in details at the level of the work packages—for example, Aral Sea partnerships often are not indicated even though activities are specified.

Strength 2: (3.2) Specific work packages are excellent. Possible improvements:

Work package 1: How will ecosystem services be assessed and linked to other work packages?

All work packages: What about financial incentives for good management (e.g., PES)?

Work package 3 over-emphasizes solar energy for irrigation, what about other sources (e.g., biofuels, wind, hydro) and needs (e.g., heating, cooking, lighting)? Re-conceptualize through an integrated systems lens.

All work packages: How will rural women be engaged from the beginning? Village-level women's (and girls') perspectives are especially important for work packages 2 and 3, since their well-being is shaped dramatically by access to both water and energy. As mentioned above in the overview, gender needs to be addressed as a crosscutting backbone issue of each of the work packages and the Initiative as a whole.

Strength 3: (6.2) MELIA. Exemplary clarity: many adaptive mechanisms built in; well-aligned with EoI outcomes. Process learning and key evaluation questions are excellent. Baseline establishment consistently listed in MELIA studies. EoI outcomes are measurable (yet ambitious) for three years. Clarification: Is it possible to adjust human resources / Initiative team (9.1) in response to process learning?

Opportunities: (1) Could key evaluation questions also address nexus interactions and synergistic outcomes linked to human wellbeing over combined work packages across the water-energy-food-ecosystems nexus? (2) Is it possible to include learning and behavioural change as outcomes as well as numbers of beneficiaries or improvements in livelihoods?

Overall Weaknesses of Proposal (if applicable; limit to top 3 weaknesses)

Weakness 1: (2.5) Comparative advantage: The proposal builds on strong CGIAR presence and relationships in the regions concerned and on existing technologies and models to deliver integrated impact. And yet the proposal does NOT give evidence of why this Initiative "will deliver a unique or more cost-effective set of results compared to other credible partnerships or service providers." Instead, it mentions CGIAR legacy assets, which risks perpetuating business as usual. Effort to collaboratively inventory and assess other credible providers could reveal some important partnerships (or enhanced roles among current partners) that could strengthen implementation and impact. Also, important actors appear to have a minimal importance for the proposal, for instance, youth is named a few times, but no actual insertion within the proposal is clear.

Weakness 2: (8.1) Research Governance: The management plan in section 7.1 is vague and CGIAR-centric. No mechanisms are mentioned for shared leadership, governance, or accountability to non-CGIAR partners and stakeholders. Governance mechanisms need to be specified in relation to management structures. Consider appointing stakeholder advisory panels for the Initiative as a whole (and perhaps also for specific geographies) to promote accountability, legitimacy, and learning. Such panels have minor budget implications and can yield major benefits in usefulness and legitimacy, plus building champions for the Initiative, with ultimate payoffs in uptake and impact.

Weakness 3: (9.3) Capacity Development has room for improvement. Co-learning with partners, including policymakers, implementers, and farmers, could receive more emphasis as means to build awareness, learning, and motivation and thereby improve uptake and continuity. Such tools already are included; these could be used for learning about NEXUS Gains work, as well as providing evidence to further inform decision making.

Second, while partnerships for capacity development (especially addressing women's agency) are stated specifically for East Africa, these are not detailed for South Asia and Central Asia, regions with particular challenges and where identifying appropriate partnerships may be challenging. Moreover, investment in capacity development for women is largely confined to work package 5; gender inclusion and empowerment needs to be a cross-cutting element in capacity development activities across the Initiative, with explicit mention of opportunities for women and men (and youth) to benefit from capacity building activities.

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Areas of Divergence among Review Team and ISDC Resolution (if applicable)

All reviewers ranked each criterion either 3 or 2, except the overall theory of change (criterion 4), which received a 3, a 2, and a 1. All reviewers felt the diagram and the narrative successfully show how work packages flow together. The reviewer who scored a 1 felt that the ToC did not shed much light on value added by the Initiative as a whole. NEXUS Gains has a very high-level vision with complex nested work packages, so it is perhaps too much to expect a 1-page diagram and 500 words to be adequate to portray how research, engagement, and development activities will trace through the specific levels of outcomes (both EoI and AAO) to impacts and on to SDGs. However, further development and refinement of the overall ToC, starting with an inception meeting and continuing through ongoing collaboration and consultations, can be used to sharpen the assumptions and the roles of different types of partners in driving impact. Implementation also should yield greater clarity on appropriate technologies and practices within each work package, and these could be incorporated in ongoing elaboration of the overall ToC as well as greater integration of Impact Statements (Section 5).

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

The problem statement aligns effectively with the System Transformation Action Area priorities in the CGIAR Investment Prospectus, specifically as a “broader, integrating effort to tackle climate change, NRM, and nutrition/health,” to “identify place-based programs in priority agroecologies,” and to “address contextual food-land-water challenges.” These trace through convincingly to impact on Action Areas. However, a clear mechanism to make an effective regional impact is not clear, regional inter-country governance is almost unmentioned.

394 Reviewers scored each of the 17 QoR4D criterion individually. The review teams then built a consensus
 395 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
 396 consensus building process, *scores that ranged from 1 to 2 were up to the review team whether to*
 397 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.
 398

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
NA			

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Additional Comments

Individual reviewer comments that are significant:

Overall. The proposal is clear and aims to address systemic challenges, specifically to achieve transformative change through research. The proposal may want to clarify what it means by transformative systemic change and be more explicit in describing how the proposed research will be a catalyst for this. The “levers” and “leverage points” for transformative change, described in IPBES 2019 and Chan et al. 2020, could provide useful guidance. Chan et al. 2020. Levers and leverage points for pathways to sustainability. *People and Nature* 2(3):693–717. <https://doi.org/10.1002/pan3.10124>

Criterion 1. Consider incorporating elements from the IPCC special report on climate change and land which is not amongst the references.

The challenge statement is not clear why forests and biodiversity are prioritized within the proposed geographies. (And it is not explained why the narrative switches acronyms between WEFE and WEFFB: see for example 3.1 Full Initiative ToC.)

ICIMOD hosted and led HIMAP—<https://www.icimod.org/Initiative/himap>—the Hindu Kush Himalayan Monitoring and Assessment Program, “a platform for long-term collaboration and coordination among a broad and diverse group of leading researchers, practitioners, and policy specialists working in HKH,” which would seem an important point of departure, especially for work package 1. It seems to be a major omission that the HIMAP report is not referenced in the NEXUS Gains proposal.

A table of measures of water, energy, land/ecosystem issues and basic Impact Area indicators, disaggregated by basin, would have been very helpful.

The impact statements (Section 5) are disconnected and the least integrated, and do not resonate very well with the Context section; it seems to deviate somewhat from the core theme of cross-Nexus integration. Section 5 could be adapted and expanded to resonate more strongly with 2.1 by focusing on interactions between the different sections and demonstrating how they cut across all the work packages.

Criterion 3. Section 2.4 “priority setting” gives no insight into how priorities were set. It would be very helpful to have a table that disaggregated geographies and provided some basic indicators, for example, on problems, potential impact indicators, and potential beneficiaries—even headcounts by basin would have been helpful. The case for the Ganges and Indus may be self-evident, and the Aral Sea may be complementary to those, but that is not explained, and it is hard not to view the Aral Sea as one basin too far (with limited time and resources). That could be totally wrong; the point however is that its priority cannot be assessed within this proposal. On the other hand, why just the Eastern Nile Basin and not the Nile Basin as a whole (including Uganda, DRC, and especially Egypt), particularly since the Initiative emphasizes transboundary issues? And, as becomes clear in the work packages, coverage across basins is not uniform: that may make sense, but there is no explanation for the activities prioritized (in terms of specific geographies or comparative importance across geographies).

Criteria 4/4a. It isn’t clear how the Agrobiodiversity Index feeds logically through to the outcomes.

It seems policymakers, investors and practitioners would all use the same set of tools. Would it make sense to differentiate and modify tools to suit their respective objectives and capacities?

It is unclear how silos will be overcome, and which strategies will be used. Skilled facilitation will be key. Is this budgeted for?

Criterion 5. These mixed methods seem appropriate, especially in an AR4D Initiative. However, taken together, one wonders whether it might be advised to be less ambitious—focusing on comprehensive proof of feasibility and cost-effectiveness of this methodology (really a complex of methods) in fewer geographies in the first instance?

Climate change and mitigation benefits can be expanded by looking into soil carbon improvements and improved efficiencies—not just reduced emissions from solar pumps.

The Agrobiodiversity index does not measure landscape degradation/restoration. How will this be assessed, or is it not envisaged to be part of the program?

Criterion 6. Climate change benefits can be expanded by including soil C fixation, landscape restoration, and increased water efficiency through watershed restoration. Area under improved management excludes landscape-level restoration and soil improvements. The Table mentions soils fertility improvements—but it is unclear how this will happen; which work package will achieve that?

Criterion 10. Some of the likelihoods may be too low (e.g., risk of travel restrictions / social tension in these geographies seems it should be much higher.) The discussion in the Risk Assessment (7.3) seems much more credible than the “probabilities” presented in Projected Benefits (2.7), especially as summarized in Table 1. The credibility of the Initiative would be enhanced if these subjective assessments of risks and probabilities of benefits were more consistent in tone.

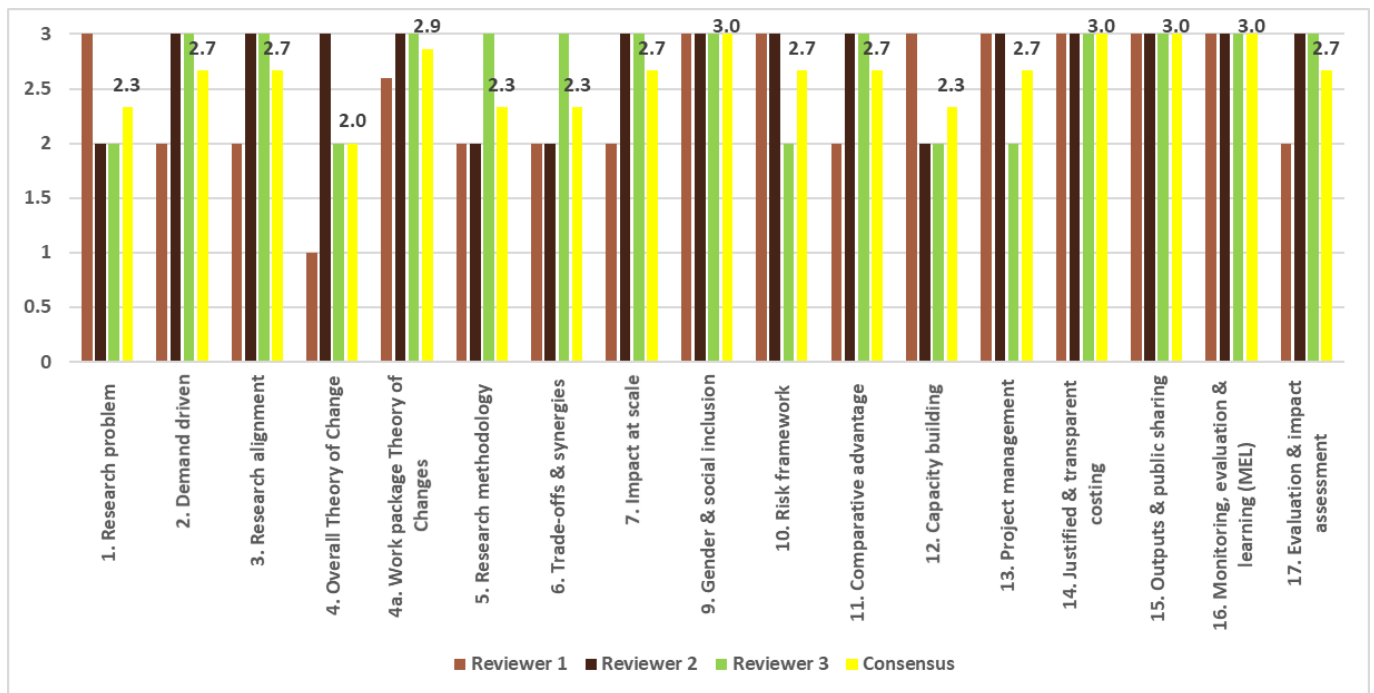
Criterion 14. Is there a sound balance in resource allocation among work packages? For example, work package 5 may be under-budgeted if capacity development extends beyond women to youth and others.

There is no MEL budget line. Without proper budgeting for it, MEL inevitably moves to the back burner.

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Reviewer and Consensus QoR4D Criteria Scoring

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409 **11 Plant Health and Rapid Response to Protect Food**
 410 **Security and Livelihoods**

Review Summary and Actionable Recommendation

The Plant Health and Rapid Response to Protect Food Security and Livelihoods Initiative addresses key Impact Areas and aims to develop IPDM solutions for a large number of farmers over three years. It has potential to be an excellent, demand-driven Initiative. The work packages are generally relevant and credible, but work package 1-3 need to be more strategic. All work packages should be supported by a prioritized list of high impact P&D problems, innovations, scaling plans and target geographies. The team has clear comparative advantage based on scientific capacity, research infrastructure, long-established partnerships and networks and feet on the ground.

Recommendations:

- Further clarity is needed on the priority setting process.
- The scaling readiness plan needs to be articulated.
- Further clarity is needed on the prioritized innovations from the CRP era to truly assess effectiveness.
- Further clarity is needed on the youth strategy.
- Linkages with One Health and MITIGATE+ should be sought.
- One CGIAR is urged to seek independent oversight to support development of linkages between RIIs and other Initiatives to achieve full portfolio integration.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: Comprehensive consultation with a wide range of stakeholders and partners generally relevant to the activities planned in each work package is noteworthy. Inclusion of consultations completed, and partnerships formed during the CRP era build on established partnerships. Although the level of codesign is less clear, there is strong evidence that the proposal is demand driven. However, there is a need for further reflection on appropriate scaling partners.

Strength 2: The proposal work packages are generally well done and include coverage, priorities, research questions, methods, and outputs, ToCs, partners, risks and assumptions, and links between work packages and other Initiatives. Of note: work package 4 is clearly laid out with appropriate depth and specific deliverables and based on outputs from the CRP period while work package 5 will feed key information to the other work packages as well as integrating social and biological sciences, critical to the success of the Initiative. However, work packages 1-3 are somewhat generic. Further clarity is needed on a strategic plan for selecting major pest and disease problems for the targeted crops and geographies.

Strength 3: The proposal reflects the research problem, addressing the issue of plant health management for more Resilient Agri-Food Systems. The problem is of high priority in the selected geographies targeted in the proposal (Africa, Asia, and Latin America). The Initiative aims to build viable networks for this purpose comprising national, regional, and global institutions that can implement integrated crop protection innovations, including agroecological and technology-based approaches. The team has clear comparative advantage based on scientific capacity, research infrastructure, long-established partnerships, and networks and feet on the ground.

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: The priority setting process involved wide consultations with partners, assessment and ranking of existing innovations (both golden eggs and others under development from the CRP period), use of four criteria, consultations with funders, and a review of relevant published papers, and ex-post impact assessments. However further clarity is needed on how the different demands of the various groups were reconciled, how the four criteria were weighted and the influence of funders. Further clarity would also be welcome on whether the available expertise of the Initiative team influenced priorities.

Weakness 2: The Initiative will build on selected innovations for pest and disease management from the CRP period (list provided). However, the lack of details on these especially their stages of development, causes difficulties in scoring credibility and effectiveness for several criteria, not the least measurable three-year outcomes. There is a need for clarity on priority pests and diseases, innovation status, scaling plan, target country, etc.

Weakness 3: The innovation and scaling processes appear to be under-resourced. Clarity is needed on the responsibilities of the Plant Health team and partners to implement scaling, how it will be funded and how a feedback loop from end users to the research team will enable MEL to be effective. The scaling readiness approach/plan is not described and awaits the appointment of an Initiative scaling expert. However, a proven

scaling readiness plan was developed by RTB and WUR during the CRP period. At the least, this proven plan should be put in place to begin with. It can be modified if needed when the staff member is recruited.

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Areas of Divergence among Review Team and ISDC Resolution (if applicable)

Here we list issues that were raised by one/some but not all three of the external reviewers rather than areas of divergence *per se*.

1. 2.1 Challenge statement does not reflect that Plant Health is building on a substantial body of relevant research already done by CRPs on surveillance systems, IPDM and aflatoxin management.
2. 5.3 The gender equality, youth and social inclusion section does not recognize sufficiently that problems affecting youth can be very different to those affecting women and men.
3. 9.2 Gender, diversity and inclusion in the workplace does not meet the CGIAR guidelines and is especially poor in the Initiative design team being 73% male (19) and 27% female (7). However, it is noted that the implementation team is 35% female. Further opportunities for female members to lead on this proposal would achieve a better gender balance.
4. 7.3 Risk assessment regarding secrecy of information on whether a pest or disease occurs in an area is a key consideration. It would be prudent to secure agreements with key collaborators such as the CABI Plantwise network ahead of implementation. The Initiative may need to be flexible in dealing with governments and policymakers in this regard.
5. 3.1 ToC: There is a need for feedback loops through the innovation pipeline where learnings can be made continuously and an agile approach to respond to positive and negative learnings. This is pertinent as in the CRP era the ToC was not used as a monitoring tool when it should have been the key tool.
6. The budget requires an accompanying narrative to justify allocations with respect to expected outputs and the increase over the three years

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

The problem statement aligns effectively with the System Transformation Action Area priorities in the CGIAR Investment Prospectus, specifically as a "broader, integrating effort to tackle climate change, NRM, and nutrition/health," to "identify place-based programs in priority agroecologies," and to "address contextual food-land-water challenges." These trace through convincingly to impact on Action Areas. However, a clear mechanism to make an effective regional impact is not clear, regional inter-country governance is almost unmentioned.

Cohesion of the CRP portfolio was an important aspiration during Phase II. However, the level of cohesion was limited due to lack of alignment among individual CRP priorities. Lessons must be learned from this to inform One CGIAR. CD's Figure 3 (p. 6) shows how the planned Initiatives will link together for cohesion. Plant Health and Rapid Response to Protect Food Security and Livelihoods Initiative has close links with Genebanks, SeEdQual, ABI, EiA and Market Intelligence and Product Profiling but does not appear to be linked to One Health (for mycotoxins) and MITIGATE+ (IDPM strategies). As priorities in different Initiatives will be decided by different teams how will cohesion be achieved? (Note: while there is no mention of mycotoxins in One Health, yet this was an important part of A4NH).

A related concern is the multitude of links with the RIIs for scaling innovations. There will be considerable transaction costs and competition among all Initiatives. How will priorities be decided and what will happen to the lower priority innovations? The management structure detailed in the CD is very complex and most importantly, lacks clear hierarchy or lines of authority which could lead to delays in making decisions. There is a need for clear prioritization principles and guidelines as well as designated independent arbiter to make final decisions. Portfolio integration is a high priority for One CGIAR.

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418 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.
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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
5. Research methodology and methods (and supporting activities) are fit-for-purpose, feasible, and assumptions and risks are clearly stated	Work Package ToCs 3.2, Priority-setting 2.4	Credibility, Relevance, Effectiveness	1
<p>Priority-setting 2.4. Despite the considerable consultations and application of four criteria, the prioritization exercise is not clear, especially how different demands of the various groups were reconciled, how the four criteria were weighted and the influence of funders. The scaling readiness approach and plan is mentioned many times in the Initiative, but the methodology is not elaborated—hence it lacks credibility. A proven scaling readiness plan was developed by RTB and WUR during the CRP period. At the least, this proven plan should be put in place to begin with. It can be modified if needed when the staff member is recruited. The resource plan for scaling and selection of scaling partners also needs clarification.</p>			

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Additional Comments
<p>1. Criterion 1. 2.1 Challenge statement: clarify that the Initiative will build on a substantial corpus of research already done by CRPs; 2.3 Lessons learned from prior CRP reviews: review reports have useful findings that could add context and credibility to challenge statement and work packages; 5 Impact statements: 5.1 Links with the Health Initiatives, e.g., One Health and mycotoxin management needed; 5.2 Impacts from successful Initiative interventions on poverty reduction, livelihoods and jobs need to be made more explicit; 5.3 Gender and youth are dealt with together—acknowledgement that problems facing both groups can be very different needed; 5.4 Links between IDPM outcomes and climate change Initiatives, e.g., MITIGATE+ needed; 5.5 Under Measuring Performance and Results there is a need to clarify how the impacts on the health, poverty, environment and biodiversity will be measured.</p> <p>2. Criterion 3 and 4a: 3.2 work packages. More details needed on work packages (especially 1-3)—prioritized pests and disease targets and partner selection and why; work package 3, the difficulties in scaling IPDM packages are well-understood (lack of capacity and policies) together with significant transactional costs—what will Plant Health do differently to address these successfully?; work packages 4, how will the Initiative build on the significant advances already made on aflatoxin management through IITA/A4NH? 2.2, the effectiveness of Initiative with regard to measurable 3-year outcomes is difficult to judge without more detailed work packages.</p> <p>3. Criterion 5: 3.2 Further thought is required on the risks associated with work packages. Secrecy regarding pest and disease presence was highlighted but the additional risks from the introduction of alien pests and diseases through commercial seed imports and emergency feeding programs need to be acknowledged.</p> <p>4. Criterion 6: Analysis of synergies across CGIAR Impact Areas. Many synergies between the Initiative and other One CGIAR Initiatives as well as with other partners are noted in various parts of the proposal and details are given under the work packages. Awareness of the potentially considerable transaction costs of realizing such synergies especially through linkages with other Initiatives is needed in order to prioritize the most important. Further work is needed on trade-offs across Impact Areas.</p>

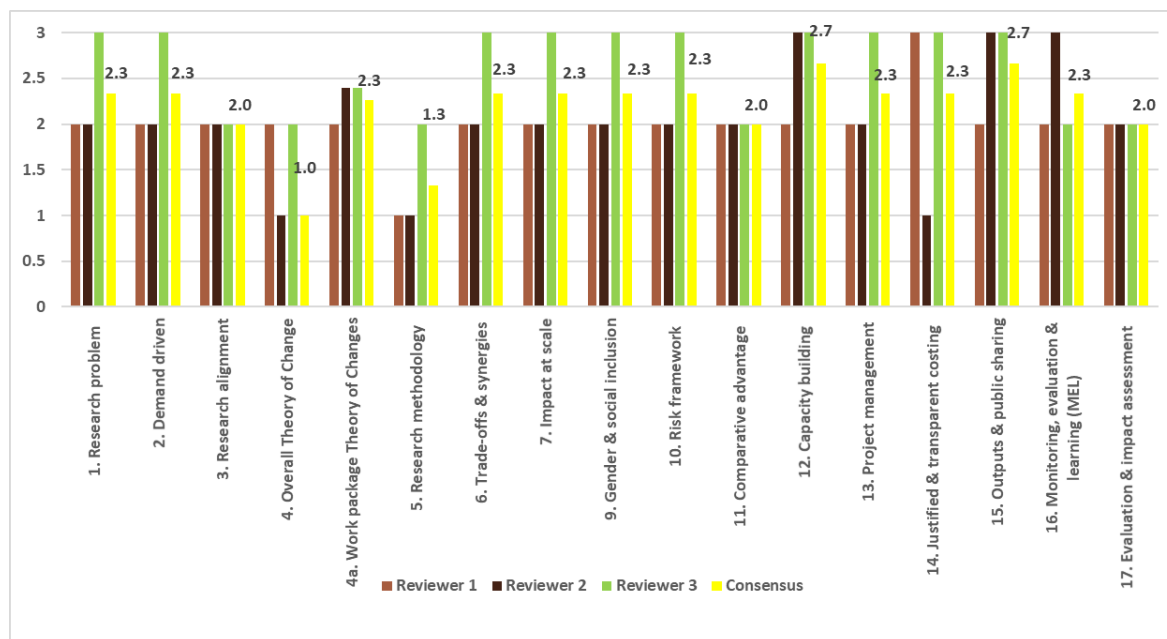
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Review Summary and Actionable Recommendation

This Initiative addresses an important area of research for future resilience; uses strong science, including strong social science and gender components; and has the potential to generate useful outcomes.

Reviewers recommend strengthening the following elements: a) articulate a better strategy to identify partners and to specify their roles/ToRs, including other CGIAR research projects; b) be more specific/focused regarding zoonoses, EIDs/pathogens and to be studied, lab procedures, and especially biosafety & biosecurity; c) more clearly articulate the CGIAR role/comparative advantage in newer areas of research in work package 3 and work package 4; d) provide a plan for capacity development of early career researchers in partner organizations; and e) articulate a plan for project management that provides clear lines of authority.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: A primary strength of the proposal is the integration of elements for a truly One Health approach, including the well-articulated synergies among work packages as well as the potential for meaningful research outcomes. Reviewers noted that the combination of the work packages is strong, and the proposal represents a true One Health approach, which is often discussed but rarely achieved.

Strength 2: Gender and social science elements are well integrated into the proposal. Gender equality is nicely discussed and elaborated. Research questions relating to gender, include women's time spent on zoonosis control, manure management and food safety; the impact of women's access to livestock profits; and the role of female food business operators. Similarly, the economic research design which includes perspectives on private incentives and public goods is nicely articulated. It was noted that work package 5 is a model for how to integrate economic analysis into a large research project and should contribute to a more successful project overall.

Strength 3: The project is demand driven by stakeholders and clearly meets important needs for future resilience in agricultural systems. In particular, reviewers noted that work package 1 addresses a critical need by applying science to develop new tools for monitoring EIDs/zoonosis as they relate to agricultural and food-gathering activities.

Overall Weaknesses of Proposal (if applicable; limit to top 3 weaknesses)

Weakness 1: Overall, the project proposal lacks a clear strategy for several related elements, which together weaken the potential for impact at scale. The first element is demonstrating appropriate linkages to other CGIAR research. A real potential strength would be the integration of efforts within CGIAR, which is not adequately addressed. The second element is choosing and leveraging partners for outcomes and scaling. A clear strategy on partners is missing and needs to be developed. This includes not only identifying them but also detailing how to work with them, and what time and resources are needed. Finally, the countries chosen for focus of activities seem to be driven by where research is already underway rather than a strategic plan for comparative results that would add up to international public goods.

Weakness 2: More specifics are needed regarding focused/selected diseases (zoonosis/EIDs/ Water borne pathogens, Food borne illness, AMR), laboratory procedures, and biosafety, biosecurity. Prioritization in terms of listed focused/selected diseases in targeted geographies would strengthen the proposal. As the proposal addresses the diseases and food safety under One Health, therefore, the laboratory research and diagnostic approach in the methodologies needs further focus/attention to achieve desired outcomes. It will be very important to articulate the procedures for bio-risk management (biosafety and biosecurity).

Weakness 3: Some elements of the proposal are outside CGIAR comparative advantage (i.e., other organizations are better equipped to carry out these activities). The role of the CGIAR in AMR and water quality research needs to be more clearly defined, and appropriate partnerships identified. Both work packages 3 and 4 need to be narrower in scope and to demonstrate that activities make sense within the larger global efforts underway in these areas of research.

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Areas of Divergence among Review Team and ISDC Resolution (if applicable)

There was significant agreement on the main strengths and weaknesses of the proposal. The critical comments for the five criteria that scored an average below 2 are detailed below, as these represent areas of consensus on the need for improvement.

435

Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

This Initiative clearly aligns with the cohesion of the portfolio as part of the Resilient Agrifood Systems Action Area. Linkages to other projects in livestock production, markets, gender, and peri-urban agriculture are noted in the connections diagram in the CD. This Initiative will clearly contribute to collective global targets in health and food security and to all the Action Area outcomes (both shared and specific) for Resilient Agrifood Systems.

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 438 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
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 440 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.
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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
4a. Individual Work Package TOC (for work package 3)	Work Package ToCs 3.2	Effectiveness, Relevance	1.67
In work package 3, the scope of activities is too broad relative to the capacity and comparative advantage of CGIAR. The ToC relies on too many partners, as well as calls for integrated services and policies, which may or may not be effective. Work package 3 should be recast with narrower goals that can more easily be translated into outcomes. Specific weaknesses include: 1) The use wildlife as sentinels needs more clarity about what happens if not suitable. 2) The use of antimicrobials is more than just amount. Using less but not responsibly is worse for AMR than using more as it selects for resistance. Think about responsible and effective use. 3) Consider behavioral change models from human medical psychology, such as studies of change in antibiotic prescribing and patient acceptance.			
7. Evidence that the Initiative will likely lead to impact at scale through integrated systems approaches that drive innovation in research and partnerships, including linking to and leveraging of other Initiatives within and outside CGIAR	Projection of benefits 2.7, Work Package research plans and ToCs 3.2	Effectiveness, Credibility, Relevance,	1.33
The list of partners to be engaged is impressive, but not clear how these partnerships will be leveraged. This is an especially critical issue for areas where CGIAR does not have much expertise, such as AMU/AMR and water modeling. Most focus on impact is on the Initiative's engagement with governments in the focus countries. How will this lead to impact at international scale? Need to detail how external partners will be integrated/used to achieve impact. Other Initiatives within CGIAR needs a convincing discussion on these and perhaps the depth of relationship. One way to show would be core groupings and then different spheres/rings of partnering so one can see the breadth and depth of engagement and how this project might develop new partnerships over time.			
11. CGIAR capacity and its comparative advantage and appropriateness to lead the work is justified. This includes the skills, diversity and multi-/trans-disciplinarity of the research team and approaches to meeting gender and diversity targets.	Comparative advantage 2.5, Initiative team 9.1, Gender, diversity and inclusion in the workplace 9.2	Relevance, Legitimacy, Effectiveness	1.33
Comparative advantage is established for work packages 1, 2, and 5 by previous track record, ability to work in multiple countries, and little activity by other actors. Work package 3 and 4 do not clearly fit within CGIAR comparative advantage, and there is insufficient explanation of how partnerships with other actors will be leveraged; or the specific role of the CGIAR. Two examples include a) sampling of drugs for sale under work package 3 and b) design of manure management under work package 4. An important element of CGIAR comparative advantage is generation of international public goods. How does the choice of countries and activities lead to international public goods? Sections 9.1 and 9.2 are lacking detail—seems like “corporate” lines and nothing specific to this proposal to really allow this to happen or mitigation measures should targets not be met.			
12. Capacity building within project teams, partners, and stakeholders captured in capacity development plan. This can include development of early career researchers and partner staff, support/empowerment for under-represented stakeholders, and building partner networks	Capacity development 9.3	Credibility, Legitimacy	1.33

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
<p>This lacks detail—needs far more information on what is on offer and how it will be delivered. There is no clear statement or goals for how capacity will be fostered among LMIC collaborators or staff.</p> <p>A research skills’ needs assessment exercise of CGIAR partner institutions—and possibly of early career LLMIC scientists working at CGIAR Centers—in relation to national/regional research priorities could be carried out; and a then a program of short courses, should be designed and co-delivered by CGIAR, and partner organizations and others. Identification of funds be dedicated to training or to fellowships for collaborators would also be useful.</p>			
13 Project management mechanisms and (if applicable) additional scientific oversight and governance measures effectively and efficiently support the Initiative objectives	Management plan and Risk assessment 7, Research governance 8.1	Legitimacy, Credibility	1.67
<p>Project Management plan isn’t detailed enough and/or actionable enough to be convincing. It will primarily rely on initial planning. This needs more detail relating to how it will actually be operationalized and the “meetings” etc. used to ensure x, y and z happen and what will happen if additional actions are required. What is unclear is how conflicts will be resolved or how adjustments will be made if risks or negative findings are encountered? Where will authority for making adjustments (and disbursing funds) be vested?</p> <p>Risk assessment may be improved in terms of mitigation actions that will be undertaken if risks emerge as foreseen.</p>			

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Additional Comments
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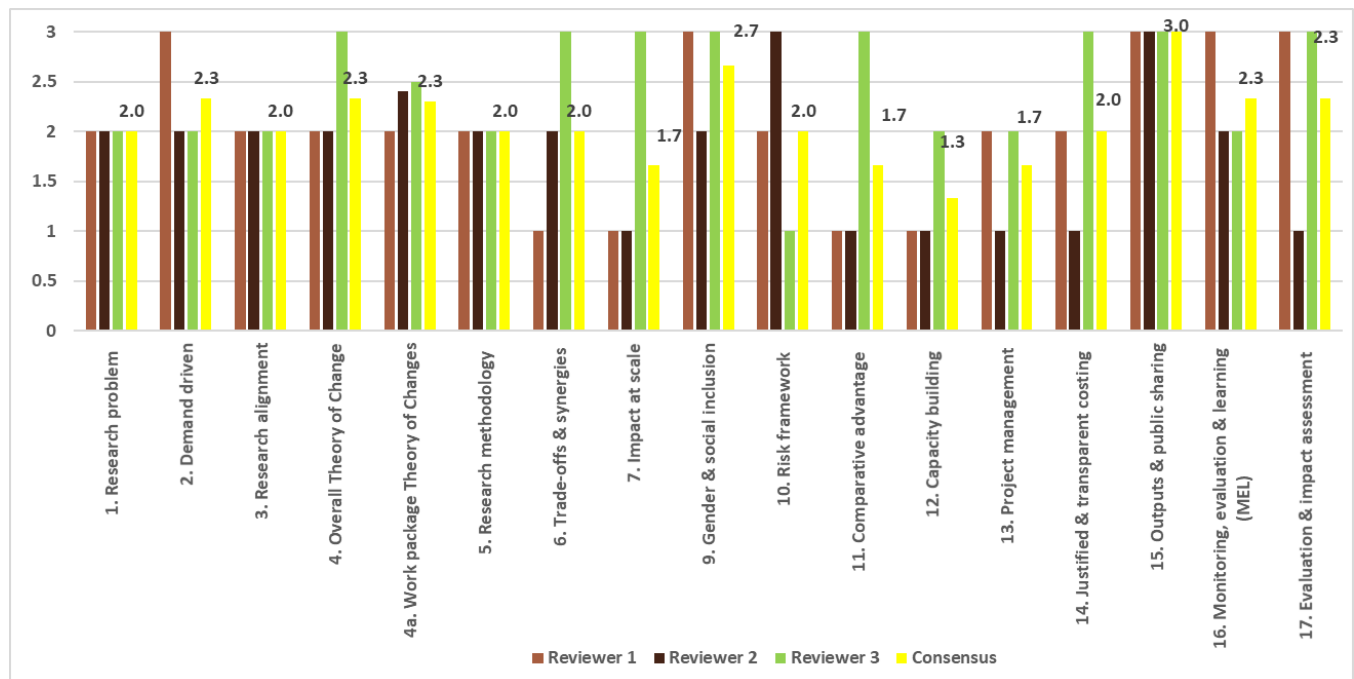
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452 **13 Rethinking Food Markets and Value Chains for Inclusion**
 453 **and Sustainability**

Review Summary and Actionable Recommendation

Overall, this is a well-developed and appropriate proposal that has the potential to address high priority needs in seven target countries, across multiple commodities, and both global and domestic value chains.

Recommendations are as follows:

1. The Initiative puts a high priority on collecting information and making it available to stakeholders and decision-makers. This assumes that effective interventions will soon be available. Even if this were true, three years is too short for meaningful impact at scale of such interventions. The Initiative team should consider laying the foundation for follow-up impact assessment at appropriate horizons beyond three years.
2. The specific challenges of reaching women should be addressed in greater depth. It is necessary to clarify who the targeted women are (married women or female heads of household), to elucidate how the Initiative will adapt to social contexts to achieve inclusion and specify the channels through which inclusion will be achieved.
3. Define more specific and relevant impact indicators
4. Clarifying hypotheses on market structure, (speed of) adoption or adaptation of technologies, ability to reach women (depending on the social context), and environmental impacts, would help strengthen the risk framework. As it stands, the risk framework seems overly optimistic, in particular for the first three risks that are listed.
5. Include postharvest scientists, agronomists, and/or food scientists in the core team

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: Challenge statement

The general challenge to provide more nutritious and healthy food to consumers and retailers is clearly a high priority in the targeted geographies. The Initiative will address this challenge by trying to improve food market functioning and helping to profitably include small market actors in the value chain. It is informed by the findings of an international expert panel, the CGIAR-PIM program has generated evidence for the approach, and it builds on decades of CGIAR experience and reviews. There is evidence of alignment with multi-funder priorities. However, it should be noted that it assumes away inefficiencies in the production process that often result in acute shortage on the supply side of some markets.

Strength 2: Design process

Expert and stakeholder consultations were conducted to identify target geographies and value chain priorities. The design team engaged with over 150 stakeholders across the seven selected countries and brought together a wide spectrum of food system actors including farmer organizations, small and large agribusiness, wholesalers and retailer, domestic and export organizations, processors, logistics companies, financial services, NGOs and Government agencies and international development and funding partners. As a result, the project is demand driven and is codesigned with key stakeholder groups within and outside the CGIAR. Despite the large number of stakeholders consulted, there is nevertheless no indication that they constitute a representative sample of the diversity in terms of geographic, demographic, and technical conditions.

Strength 3: Capacity building

The proposal identifies key areas for capacity building within the project team, for example, inclusive leadership; gender diversity and inclusion and transformative approaches; support for junior policy members that will contribute to their early career development. The team also recognizes the need for capacity building in areas of new work that are not the core strengths of the CGIAR, for example big data approaches. The proposal also sets timelines for this capacity building. That said, the proposal could be strengthened in the area by detail on who would provide this capacity building and how it may occur.

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: Research design and proposed implementation demonstrates gender and social inclusion that can be tracked in outcomes

The indications of the specific strategies that will be used to actually achieve inclusiveness for women and youth are not sufficiently developed, beyond general statements such as pledging to use "gender transformative approaches." Since many interventions will be market-level ones, these inclusive goals will not be

straightforwardly achieved. Whether the targeted women are living in male-headed households or not is not specified, while the strategy to include women should probably take this into account. The same is true for youth. For work packages 1-3 causal impact assessments are planned, without more precision: are those new RCTs, or is it piggy-backing on pre-existing interventions? If so, are they designed so that they potential for reaching women and youth can be evaluated?

Weakness 2: Indicators

The proposal is weak in terms of the indicators chosen to monitor the Initiative and assess its impact. Many of them seem rather crude, maybe easy to measure but not informative of the successes and difficulties of the Initiative. For example, in the result framework the outcomes considered for each work package for farm households or small-medium enterprises are measured on the basis on the number of them “using evidence and guidelines.” More meaningful indicators are needed, measuring real outcomes and impacts in terms of practice change, reductions in poverty, environment improvements, etc.: e.g., average increase in farmers income, and maybe the distribution of those gains (by gender). Better metrics also needed for the inclusion objectives, linking project interventions directly to expected outcomes and impact (qualitative and reliably measurable benefits for women and youth from the relevant CGIAR interventions, rather than the number of women/youths “benefiting” from those interventions).

This would affect the MEL, the impact statement, the result framework, and the ToC at the work-package level.

Weakness 3: Analysis of trade-offs and synergies across the CGIAR Impact Areas; ex-ante assessment of project benefits provides logical rationale for scaling of impacts

The rationale for projected benefits is logical, although there is an unavoidable degree of arbitrariness in the scaling factors chosen. Environmental benefits that are not estimated (and environmental risk isn’t considered in the risk framework)

In section 5 (Impact Statements), the research questions under 5.2 (Poverty reduction, Livelihoods and Jobs) are closed questions and need to be reworded as open questions: (“How can certification standards...”, rather than “do certification standards...”)

The impact assessment carried out the end and just after the end of the project appears to be overly optimistic in terms of effectively measuring all impacts. The nature of this project is such that at least some of these impacts may not materialize during the life of the project and this assumption risks missing the impact from the potentially useful outputs and outcomes developed by this project.

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**Areas of Divergence among Review Team and ISDC Resolution
(if applicable)**

NA

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

The Initiative aligns very well with the cohesion of the portfolio described in the CD. It sticks closely to the integrated results framework, but in some sense, this comes at the expense of precision and informational contents of the indicators for outcomes. The Initiative remains at a level of generality that is consistent with the portfolio but doesn’t allow specifying strategies and channels of impact. Strong links to multiple other global Initiatives and to regional integration Initiatives are evident. This Initiative could spearhead greater CGIAR engagement with the private sector, which seems strategically essential.

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458 Reviewers scored each of the 17 QoR4D criterion individually. The review teams then built a consensus
459 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
460 consensus building process, *scores that ranged from 1 to 2 were up to the review team whether to*
461 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.
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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
NA			

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Additional Comments

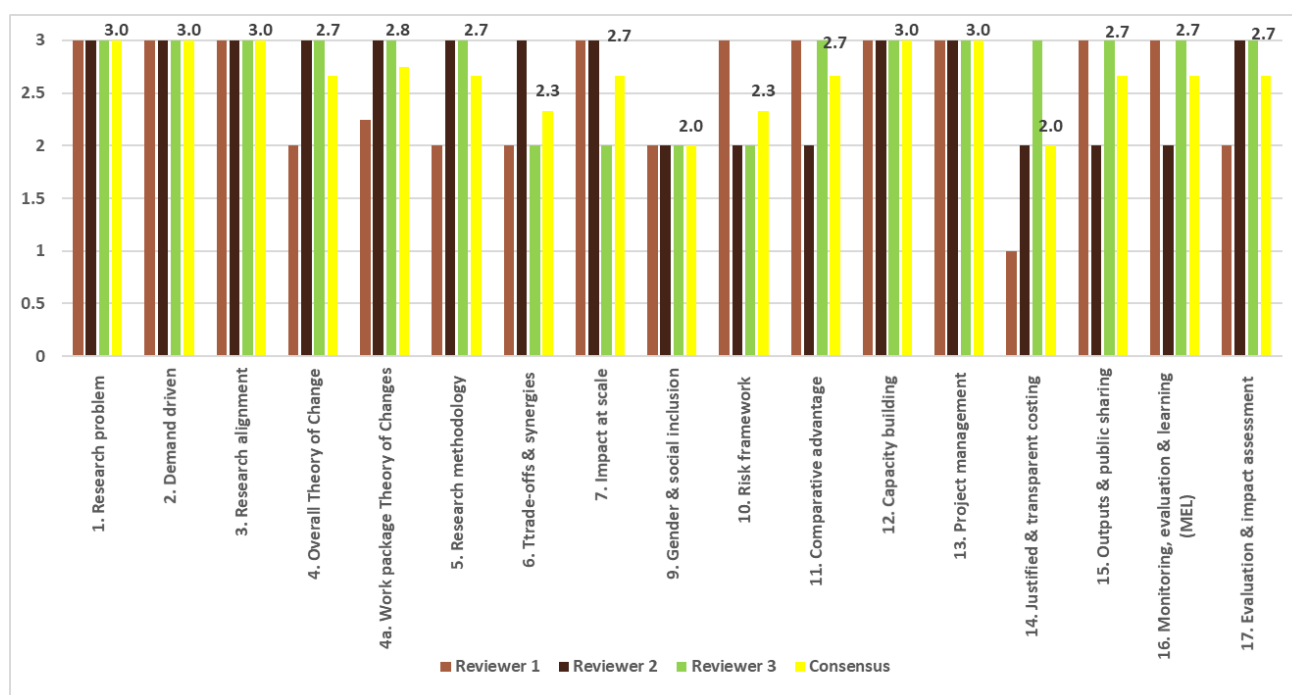
One of the reviewers rightly stressed that more attention needs to be paid to market structures. In the consensus, the review team mentioned that hypotheses about those market structures need to be clarified, but maybe worth going further.

Attached to criterion 7, the reviewer indicated the following: what is the market structure like? A big firm with monopoly powers or a cartel will distort scale and possible partnership. Which also affect the conduct and performance of the food value chain. Then the restrictive attitude of regulatory agencies may likely hinder of limit smallholders and Agrifood SMEs

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Reviewer and Consensus QoR4D Criteria Scoring

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Review Summary and Actionable Recommendation

The rationale for this Initiative is strong, the team has credibility and a profound understanding of the complex issues that need to be addressed to support improved seed systems. The team is well connected with other actors in this pipeline. The research plan focuses on priority areas that are synergistic with other CGIAR Initiatives. The project ToC is detailed and convincing.

However, it will be challenging to achieve all the planned research studies and co-learning activities at scale across different geographies for so many crops within a three-year period and achieve the substantial envisaged adoption of improved varieties. Especially so, given the time needed for seed bulking activities, plus training rollout of new ICTs. Also, it is uncertain whether the team will be able to capitalize on important cross-crop group learning opportunities within this short busy project period.

More details of management structures, risk mitigation, and an explanation and justification of the budget would clarify the proposal. Seed delivery support to disadvantaged farmers is unclear and there is little indication of different approaches that will be deployed to reach these unreached groups. The outcomes for gender and youth could be presented more clearly and should go beyond the stated focus. Farmers should be seed-business partners, not "beneficiaries." Farmer involvement is not explicit enough. Instead of promoting "few in-demand varieties," CGIAR should foster "best-fit" variety *portfolios* serving diverse farming contexts.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: Impact statements—these are well developed and show the clear and crucial linkages between the research topics and priority Impact Areas. The impact statements are all credible and cover the five CGIAR Impact Areas in a convincing manner.

Strength 2: 2.1-2.6 Context—these Context sections are strong, well connected, and evidence based. The challenge statement (2.1) is strong and clear, there is a good overview of the expected outcomes (2.2) and these sections give confidence about the knowledge, experience, and vision of the team (2.3-2.6). The participatory design process sounds strong—and gives a good overview of the complexity of the problem being addressed and how synergies will be developed with other funders and stakeholders although the participation of farmer-based seed cooperatives could be clarified as could the inclusion of farmers' preferred crops or varieties?

Strength 3: 3.2 Work Package ToCs—the science and the ToC sections are strong and informative—albeit extremely ambitious for many of the work packages (e.g., 1-3). The work package descriptions address issues such as farmer involvement in variety testing, cost-effectiveness, and value addition of inclusive seed business models, providing public- and private-sector seed agencies with evidence and strategies for including varieties preferred by women and disadvantaged groups (work package 6). For work package 5, additional research questions could be considered such as: What are the potential returns and risks to a reduction in varietal release rules and procedures? What are the potential returns and risks to a reduction in regulatory procedures? Do the complementary approaches of farmer-based seed production and formal systems, contribute to the increased demand of improved varieties?

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: Financial Resources 10—There is no detailed justification of resources or explanation of the budget. Geographic distribution remains unclear. Work package 2 and 3 seem relatively underfunded compared to work package 1. Work package 1 is also focusing on few crops as compared to the priority crops of CGIAR. Pipeline varieties by NARES partners can be used as an opportunity to target food security crops like barley and sorghum. There is no indication of the share of resources across the different elements of each work package or the multiple crops or geographies within each work package, or between budget line items (e.g., personnel costs, overheads, seed production, T&S, etc.). A much more detailed budget breakdown is required to be able to evaluate planned expenditure in the proposal and to implement the project.

Weakness 2: Risk assessment 7.3—A risk assessment table is presented that focusses on the top five perceived risks. For all risks identified, there is insufficient comment about mitigation. Some of the risks identified are rather generic, such as inadequate funding and climate change. Given the complexity and cross-disciplinary nature of the program, managing such a diverse set of issues should be considered a major risk. Other major risks that could be considered are that varieties delivered by ABI and Market Intelligence and Product Profiling are inadequate/do not fulfill farmers' needs and the risk that different approaches are required to reach

disadvantaged farmers. The limited engagement with few crops and varieties may introduce unintended negative impacts on inequality of varietal access and increased homogenization of landscapes.

Weakness 3: Projection of Benefits 2.7—No discussion of trade-offs across Impact Areas given in 2.7, although some synergies are mentioned. Ex-ante assessment of project benefits does not mention sociocultural barriers to adoption of many new varieties by smallholders nor what pathways and opportunities will be invested in to overcome these barriers. The high dependency on ABI and Market Intelligence and Product Profiling is a major risk. While there are feedback loops, the potential lack of integration of breeding with seed systems work is a concern, especially when it comes to serving vulnerable and poor smallholder farmers. Farmers are considered as “beneficiaries” (2.7), as opposed to seed business partners, the participation of farmer-based seed cooperatives as a major partner should be considered /clarified as could inclusion of farmers’ preferred crops or varieties.

Weakness 4: The role of farmer-based seed production is not sufficiently considered as a major entry/intervention. The integration of formal and informal seed system for the improvement of access to farmers’ preferred crops and varieties is not sufficiently considered. The theory of change should consider a complementary approach in action. This will improve the focus on food security crops, and access to the best varieties released at national level in collaboration with CGIAR.

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**Areas of Divergence among Review Team and ISDC Resolution
(if applicable)**

NA

476

Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

In general, SeEdQUAL is highly cognate with the cohesion of the portfolio. SeEdQUAL is an essential part of the Genetic Innovation Action Area that provides a continuum from Genebanks to reaching and benefiting farmers. SeEdQUAL is particularly well-linked within the Action Area with ABI, Market Intelligence and Product Profiling, and Genebanks but also with Resilient Agrifood Systems Action Area with strong links to EiA, Plant Health and Rapid Response to Protect Food Security and Livelihoods—thus has the potential to benefit across all five Impact Areas. However, coherence with CGIAR funding strategy is not clear.

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479 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
480 consensus building process, *scores that ranged from 1 to 2 were up to the review team whether to*
481 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.

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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
4. Overall Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact	Full Initiative ToC 3.1	Effectiveness, Relevance	1
The full-Initiative ToC includes important aspects but lacks causal linkages. ToC (3.1) diagram needs clearer headings (outputs, outcomes, impacts), and clearer linkage between i) the work packages and ii) work packages and outputs. Insufficient information currently provided in the diagram and narrative on geographical focus, scale or timeframe of actions and impacts. Farmers are included as passive adopters instead of being promoted to equal partners in sustainable, inclusive seed business networks. Smallholder-inclusive seed business models are missing.			
6. Analysis of trade-offs and synergies across the CGIAR Impact Areas; ex-ante assessment of project benefits provides logical rationale for scaling of impacts	Projection of benefits 2.7, Result framework 6.1, Impact statements 5, Innovation Packages and Scaling Readiness Plan 4.1	Effectiveness, Credibility	1

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
<p>No discussion of trade-offs across Impact Areas given in 2.7 or 5, although some synergies are mentioned. Ex-ante assessment of project benefits does not mention sociocultural barriers to adoption of many new varieties by smallholders nor what pathways and opportunities will be invested in to overcome these barriers. The proposal team recognizes the impact of Genetic Innovation (GI) is materialized when improved varieties are adopted by smallholder farmers, including women. However, they follow the GI projection, linear projection with no consideration to the differential response of varieties. This kind of hypothesis can mislead the whole effort unless we capture inclusive projection of benefit in the target as well as selection environment.</p> <p>The high dependency on ABI and Market Intelligence and Product Profiling is a major risk. While there are feedback loops, the potential lack of integration of breeding with seed systems work is a concern, especially when it comes to serving vulnerable and poor smallholder farmers. Farmers are considered as “beneficiaries” (2.7), instead of seed business partners.</p>			
7. Evidence that the Initiative will likely lead to impact at scale through integrated systems approaches that drive innovation in research and partnerships, including linking to and leveraging of other Initiatives within and outside CGIAR	Projection of benefits 2.7, Work Package research plans and ToCs 3.2	Effectiveness, Credibility, Relevance,	1
<p>It will be challenging to conduct and analyze all the proposed studies within a three-year period. Given the short timeframe there would need to be huge pre-proposal seed bulking already occurring to convert learning to the promotion and uptake required to create the stated impact. The proposal’s high impact projections lack supporting evidence of per crop, geography, or trait-specific prior adoption findings. There are many well-known cultural and behavioral barriers to adoption; for example, yellow cassava and OFSP, this is not discussed, nor the learning required to overcome them—without the Figures in 2.7 will remain theoretical. The projection of benefits should be specific to each proposal’s activities and therefore section 2.7 appears rather meaningless. Seed systems include not only formal seed system, but no planned activities to address the complementarity and integrated action with the inclusion of informal/farmers-based seed systems.</p>			
10. A risk framework that details main project risks and mitigation actions across areas of science, funding, operations, partnerships, ethics, and environment	Risk assessment 7.3	Credibility, Legitimacy, Relevance	1
<p>A risk assessment table is presented that focusses on the top five perceived risks. For all risks identified there is insufficient comment about mitigation. Some of the risks identified are rather generic such as inadequate funding and climate change. For example, drought is considered as a risk factor, to find varieties of the crops they are already growing, or even different crops altogether—which are better adapted to the changing climatic conditions reduce the risk, the necessity to consider this agenda as intervention plan by promoting seeds for climate change. Priority (for the three-year project) be given to those crops/varieties that that are better adapted to changing conditions than seeds without borders. There is a need to consider the issue of emerging and re-emerging crop diseases (like what is happening for improved varieties of wheat). Integrated research agenda that could help mitigate future plant disease pandemics should be planned as an opportunity to mitigate.</p> <p>Given the complexity and cross-disciplinary nature of the program managing such a diverse set of issues should be considered a major risk. Other major risks that could be considered are that varieties delivered by ABI and Market Intelligence and Product Profiling are inadequate/do not fulfill farmers’ needs and that different approaches are required to reach disadvantaged farmers.</p>			
12. Capacity building within project teams, partners, and stakeholders captured in capacity development plan. This can include development of early career researchers and partner staff, support/empowerment for under-represented stakeholders, and building partner networks	Capacity development 9.3	Credibility, Legitimacy	1
<p>Section 9.3. largely focuses on the Initiative team, but rather poorly describes the capacity strengthening activities in the partner network. It is likely that a lot of capacity development—particularly “on the job learning,” and long term (graduate training) through partnership interactions—will be occurring during this Initiative and a means of capturing that would be an important addition to the MELIA.</p>			
13. Project management mechanisms and (if applicable) additional scientific oversight and governance measures effectively and efficiently support the Initiative objectives	Management plan and Risk assessment 7, Research	Legitimacy, Credibility	1

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
	governance 8.1		
Project management mechanisms are briefly described with a commitment to establish a detailed implementation and MEL plan during project setup. Management risks are not explicitly considered in the risk assessment. Given the complex web of partnerships on which the project relies, a project advisory committee with representatives from collaborating Initiatives might assist in coordination. Details of the timing of the pre-determined decision gates could be included.			
14. Justified and transparent costing explicitly linked to expected Research for Development results	Financial Resources 10	Legitimacy, Effectiveness	1
There is no detailed justification of resources or explanation of the budget. Geographic distribution remains unclear. Work package 2 and 3 seem relatively underfunded compared to work package 1. There is no indication of the share of resources across the different elements of each work package or the multiple crops or geographies within each work package, or between budget line items (e.g., personnel costs, overheads, seed production, T&S etc.). A much more detail budget breakdown is required to be able to evaluate planned expenditure in the proposal and to implement the project.			

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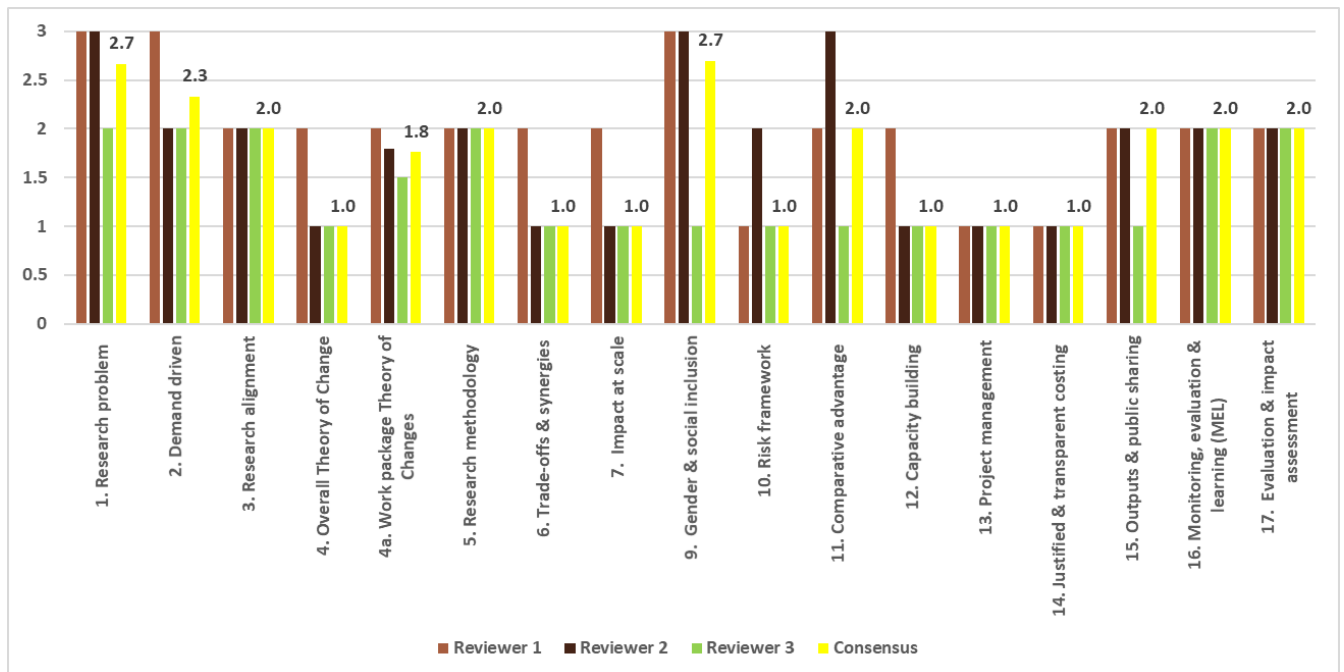
Additional Comments
After consensus building between the three reviewers the following sections scored an average of 1. Comments on these sections are included above. Section 4a was regarded as a strength.

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Reviewer and Consensus QoR4D Criteria Scoring

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492

15 Sustainable Animal Productivity for Livelihoods, Nutrition and Gender Inclusion (SAPLING)

Review Summary and Actionable Recommendation

Under the CGIAR Research Initiative SAPLING, the proposal presented is clearly articulated and provides relevant information to judge its merit and relevance, and to gauge the ability of the interdisciplinary team of scientists to implement the proposed activities. The Initiative is a unique and a critical driver for the resilient food systems and particularly leveraging livestock development opportunities. The proposal builds on the foundational work, on the lessons learned, and on the collaborations for research, delivery and impact assessment established under the now concluding CRP livestock program.

The proposal is a mix of five work packages centered on the development of technologies and innovations to drive sustainable livestock productivity (work package 1). The other four work packages set out to address the challenges associated with better and balanced consumption of livestock products, gender equity and social inclusion, competitive and inclusive value chains, and evidence to support decisions and scaling of innovations. Based on the overall assessment of the proposal, it is recommended that the Initiative progresses to the next level of the process leading up to its implementation. The weaknesses outlined below and made in the spirit of improving the Initiative both in its articulation and the subsequent implementation.

Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1—The overall proposition and its articulation: The proposal focuses on leveraging livestock development opportunities as an important contributor to building resilient food systems. The unique selling point of the proposal is the plan to simultaneously focus on the development of technologies and innovations in animal health, in genetic improvement and in feed to create solutions to productivity, adaptation and resilience challenges of livestock systems in selected regions and countries. The proposed body of work, if successfully implemented, will offer real solutions to sustainable productivity challenges. It is also anticipated that these solutions will leverage the socio-economic, gender, youth, and other dimensions of livestock in LMICs, and will in the short term demonstrate that healthy and efficient farmed animals are part of the solution to the impact of livestock on the environment.

Strength 2—Interdisciplinarity of the approach: The ability to constitute a team with diverse and relevant expertise and track record poised to provide end-to-end interventions in six livestock value chains (dairy cattle, beef cattle, small ruminants, chickens, pigs, and buffalo) is a strong foundation for the implementation of the work. However, LDFs have profound sociological and cultural significance which could potentially affect the uptake of innovations and/or translation of these into impacts at scale and these issues could be further strengthened. Addition of social scientists, national and regional partners with expertise in these dimensions would add value to the Initiative.

Strength 3 —WELI (Women's Empowerment in Livestock Index): The team has demonstrated innovation in gender inclusion and particularly in livestock development through the WELI approach. Within this context, our review stated that "the gender and social inclusion proposition, based on work done on WELI, is a strong feature of this proposal and something that others can learn from."

Overall Weaknesses of Proposal (if applicable; limit to top 3 weaknesses)

Weakness 1—No articulation of the promising technologies for use to drive sustainable productivity or how such innovations would be scaled up and sustained: The overall proposition relies on successfully leveraging new technologies and innovations in animal health, genetic improvement, and feed for sustainable production systems in the seven priority countries. There is however no assessment of the current status of the innovation pipelines to demonstrate that relevant technologies would indeed be developed, tested, and adopted within the indicated project timeframe. For example, which innovations/technologies are close to be delivered at scale (and with which partners), which ones are in the middle of development and which ones at the discovery stage. How would these suites of technologies at various stages of discovery to scale-up look like in the next three and five years? The team could prepare a list of potential candidate vaccines and other animal health products, improved livestock breeds, and related genetic improvement strategies and feed options and their timelines for development, delivery, and application/adoption (and with which national and regional partners) within the three years period.

Weakness 2—Weak alignment with target countries' priorities, regional and other CGIAR Initiatives and weak focus on equitable partnerships with national and regional institutes and scientists: The role of scientists and other experts from the seven target countries is important for the success of the proposed work building on their participation in the codesign consultations. The proposal is however not clear on their level of engagement and

participation during the implementation phase. The team should develop a workplan with key principles on how to ensure equitable partnerships with national and regional scientists (and their institutions) and other experts from the target countries.

Other CGIAR Research Initiatives have a regional focus; but there is very little mention of how SAPLING will interact with the regional Initiatives. This weakness is very obvious in the context of the companion document and particularly on p. 6 on the “Analysis of interlinkages across Initiatives.” Since the Initiative does not adequately tackle some key Impact Areas such as nutrition (as it lacks focus on affordability of LDFs) or planetary health (as its focus on biodiversity, scale-up within planetary boundaries is weak at best), it is crucial that synergies are built from the get-go with other Initiatives (some of which are alluded to in the proposal, but no specific details articulated).

Weakness 3—Capacity development plan: A clear and more convincing strategic plan for capacity strengthening beyond occasional support for MSC and PhD fellowships could be codeveloped with other key stakeholders. Of interest, a capacity strengthening plan jointly developed with relevant institutions in the target country will ensure that new capacity will fill important gaps and also transfer the relevant technical skills to the countries/institutions thus ensuring sustainability of the interventions proposed under SAPLING. A strategic approach to institutional capacity strengthening at national and regional levels requires serious attention, commitment, and resources.

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**Areas of Divergence among Review Team and ISDC Resolution
(if applicable)**

While not exactly a disagreement, the ISDC member thought that the treatment of potential trade-offs is weak. The Initiative proposal is weak on identifying any potential trade-offs across Impact Areas, then explicating why these trade-offs might be an opportunity or threat and examining underlying mechanisms behind these trade-offs. If serious trade-offs exist, then what would that mean for the five Impact Area targets? What do trade-offs look like when managing risks (not mentioned under Risk Assessment either)? The Initiative could be much stronger in answering these trade-off questions.

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

There is evidence that the team ensured proper alignment with the cohesion of the proposed CGIAR portfolio.

External cohesion: While SAPLING has demonstrated a strong consultative process in designing this Initiative, the proposal is weak on external coherence. External coherence could be addressed by articulating how SAPLING is positioned and complements other Initiatives at global and regional levels. It also does not articulate its comparative advantage vis-a-vis other global players in innovation and technology development and delivery.

Interconnectedness of thematic and regional integrated Initiatives: There is some evidence presented regarding various Initiatives SAPLING would work with. The recognition of interdependencies across Initiatives is currently weak. As commented in the SAPLING proposal review, it must be deliberated and regularly reviewed during the implementation. For example, for a proposal that does not address planetary health and affordability of livestock-derived foods (LDFs) as its central concerns, the Initiative needs to ensure that the interlinkages with other relevant Initiatives are deliberately and synergistically built throughout the three-year period.

Other provisions (i.e., data, ethics, result framework, etc.): The articulation of ethics and data sharing principles are in the proposal, but the CD itself is not very visionary in these aspects.

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502 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.

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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
NA			

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Additional Comments

Additional details/clarification under various work packages:

Work package 1—Provision of clear examples and status of technologies under consideration would be beneficial in guaranteeing some success in three years. This will additionally help in confirming the demand for such technologies. Given that other key players exist in these areas, it would be beneficial to scan the landscape for grater synergies with other players/programs (i.e., Feed the Future).

Work package 2—Would be beneficial to elaborate more on how the team will effectively collaborate with relevant government bodies in the target countries to demonstrate accurate understand of the consumers' needs and how they will be met. Noting that policies and political environment are key to food safety and improved nutrition. Finally, some assumptions are based on pushing for some institutional changes which is complicated at least in a short term.

Work package 3—A significant focus on women is appreciated. But some statements on their roles in sustained livestock systems would be helpful in completing the design and follow up during the implementation of the proposed activities.

Work package 4—The strength of the business models will be highly depending on creating incentives for investment of key actors. A careful analysis of possible incentives in the design stage will help anticipate important challenges and support a mitigation plan to address them.

Work package 5—It would be complementary to also focus on decision support tools to help livestock producers generate income. For example, ask key questions such as: how to make dairy profitable? How to make pig production profitable?

Research methodology: The overall proposal remains high level. It will therefore be beneficial to review the assumptions and risks and ensure that they are clearly stated and will support the research management process moving forward. The risk on relying on private sector investment is particularly important one to monitor.

Capacity building and sustainability: It is anticipated that in the three-year implementation period, success and sustainability of SAPLING will be highly dependent on the strength of the collaboration with partners in the target countries. It is therefore proposed that the design team continue to engage and work with key partners in the target countries to confirm their capacity gaps and the key elements required for long-term sustainability of all interventions proposed for the three years implementation period. These clearly mapped collaborative plans could be in the form of SAPLING aligning with the national livestock development and nutrition improvement programs for example.

Costing and budgets: At such high-level presentation, it was difficult to fully assess budgets and costs allocations. System-wide guidance on budgets with key principles on costs allocations would be key to ensure equity and transparency to help reduce the long-standing criticism that CGIAR centers only provide token support to national partners/collaborators.

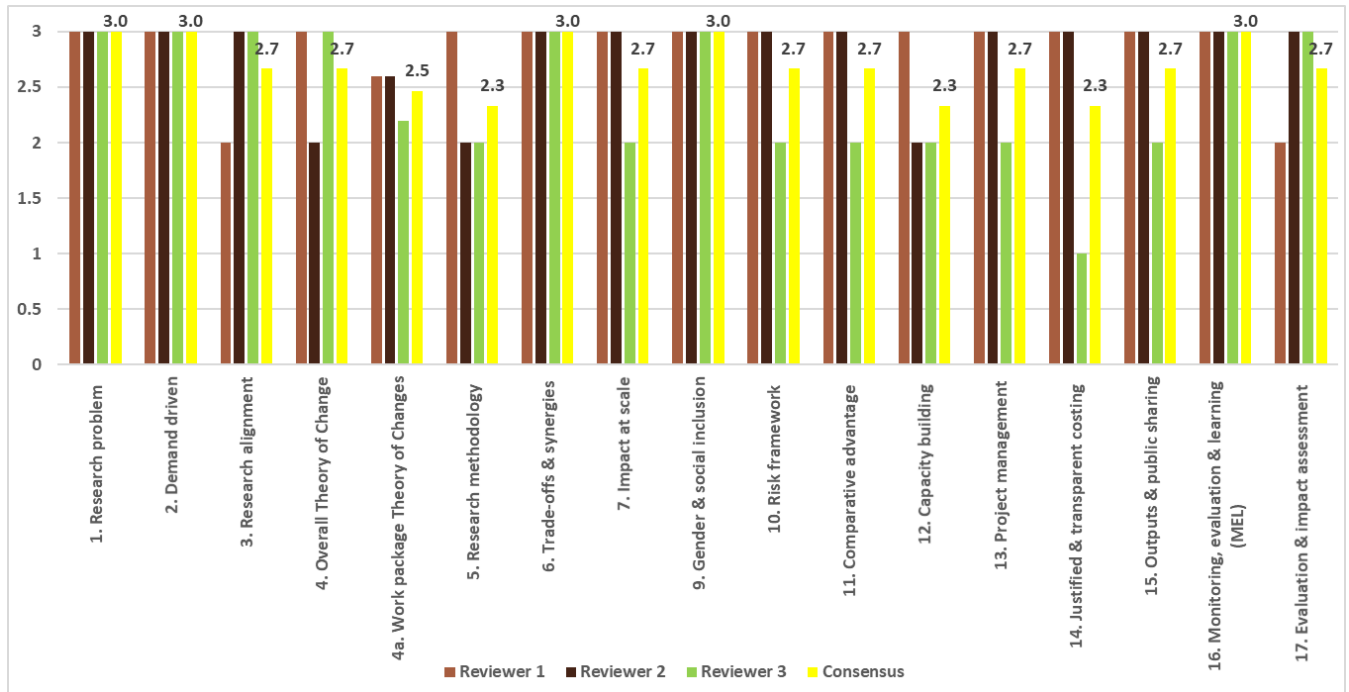
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506 *Review continued next page.*

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515 **16 Sustainable Healthy Diets through Food Systems**
 516 **Transformation (SHiFT)**

Review Summary and Actionable Recommendation

All reviewers agreed that SHiFT addresses a very important area of high priority to stakeholders, and that the assembled team is very strong and well-placed to deliver impactful research. The five work packages range from investigating food environments (work package 1), interventions to improve food environments by working with MSMEs (work package 2), addressing governance and political economy challenges (work package 3), trade-offs and scenario analyses (work package 4) and finally translation of evidence/innovations into action in the focus countries (work package 5).

There was a spread of scores across the review team for this proposal; while noting the strengths of the team, the review team also noted important shortcomings that need to be addressed as SHiFT moves into its implementation. Some important shortcomings include:

- An absence of focus on sustainability: Although the title of the Initiative is Sustainable and Healthy Diets, the proposal hardly engages with the sustainability dimension.
- Lack of a clear articulation of value added and comparative advantage: This field has witnessed a burgeoning global body of work. The proposal is silent on how it builds on this work and what comparative advantage One CGIAR has.
 - Work package 1 is largely descriptive in nature, has a disproportionate budget attached to it, and yet the value it is likely add to fast moving field of sustainable diets and food environments undertaken by non-CGIAR Initiatives is unclear. The partnerships forged do not show links with such groups either.
 - Work package 2 as currently described is unfocused and covers a very broad landscape, and the pathways to impact are risky and unclear.
- Sequencing poses a challenge given the short three-year timeframe. It seems doubtful that results and hypotheses emerging from the earlier stream of research, e.g., in work package 1 will be able to sufficiently inform later streams, particularly RCTs that will have to commence early to have sufficient time to run.

Actionable recommendations are:

- Clarify work package 1’s value added in light of past and ongoing work and existing data in the rest of the world. Explain how dietary gaps will be identified and prioritized by characterizing food environments that is innovative, different, or more effective than what is already being done. Consider reallocating some of the work package 1 towards other areas.
- Sharpen and obtain better focus in work package 2 plans, e.g., by identifying priority food product spaces and value chain segments or actors that offer the best prospect of impact. Elucidate scaling potential better. Justify why working with MSMEs is the way to address food systems transformation.

Based on the overall assessment of the proposal, it is recommended that the Initiative progresses to the next level of the process, but the identified weaknesses are important enough that they should be addressed before moving into implementation.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: All reviewers agreed that an impressive team has been assembled that has the necessary experience and expertise to deliver this important research agenda. The research team as well as the scaling and innovation partners are excellent.

Strength 2: Gender and social inclusion aspects are thoughtfully developed in the proposal, and the team is well positioned to make equity a central plank of the research agenda.

Strength 3: Learning and uptake plans are strong. A dedicated work package for building multi-stakeholder platforms to facilitate research uptake is a good idea. Cross-country teams provide a good entry point for supporting country-based learning.

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: Weak scientific vision, justification, and articulation of comparative advantage

While the topic itself is undoubtedly important, the proposal is not clear on how the proposed work packages (especially work packages 1-4) build on the key achievement of efforts to date by CGIAR and other non-CGIAR research Initiatives; what specific lessons were learned and what scientific gaps and science to policy gaps require filling; and why One CGIAR is best placed to fill these gaps (i.e., what is its comparative advantage vis-a-vis other major global and regional Initiatives in this area). Work package descriptions, especially work packages 1 and 2, were surprisingly missing hypotheses and scientific justification.

- Work package 1: As noted above, a vast amount of budget is allocated to work package 1, which focuses on collecting data for food environments (when CGIAR already has a lot of data to begin with). This has been raised as an unequivocal concern by all the reviewers as the value added of such efforts is unclear and reallocation of this budget to other work packages or rethinking the components of this work package is warranted.
- Work package 2: Work with MSME is well-trodden territory. While the review team does not object to this approach per se, the team recommends a better explanation which includes the following: a) given all the work to date, what promise do MSMEs hold for food systems transformation? What does the evidence show? b) What kind of products is this suitable for? And at what parts of the value chain and c) what is the theory of change for scale? There seems to be an assumption that this model is scalable (despite huge heterogeneity in MSMEs in LMICs) and yet no justification is provided.

Weakness 2: Absence of sustainability focus

Sustainability as implied in this proposal needs unpacking, and sustainability aspects need more attention and explanation. Currently it is not even clear if sustainability encompasses climate, water, pollution, soil, or some or all of the above. In terms of Impact Areas, climate and environmental aspects are noted as being of secondary focus. However, the proposal is about sustainable healthy diets, and not elaborating sustainability and not making it a primary focus seems unusual. It also is not clear why sustainability Impact Areas are secondary. The proposal does not lay out how synergies will be created with relevant sustainability (climate, planetary health focused) Initiatives.

Weakness 3: Weak alignment with regional and other CGIAR Initiatives and weak focus on equitable partnerships with national and regional institutes and scientists

The proposal could better link with other CGIAR Initiatives in several ways, but its choice of Initiatives does not seem to cover some key aspects. For example, while collaboration with FRESH is important, it is not clear why SAPLING or other Initiatives focused on animal source foods are missing. Alignment with sustainability related Initiatives, as noted above, is also missing. The proposal notes collaboration with only one Regional Initiative (TAFSSA) and not the others, which is puzzling.

The role of scientists and other experts from the target countries and regions is important for proposed work, which built on their participation in the codesign consultations. The proposal is, however, not clear on their level of engagement and participation during the implementation phase. One key worry is the displacement of leadership of some of the work done by key non-CGIAR regional groups (Africa Food Environment Research Network is one example). The Initiative must be careful to not compete with but rather support and collaborate with such networks and research programs. Analysis of what exists, how SHiFT is placed within that context, what value added each of its work packages and activities bring, what the intentionality of these efforts needs serious revisiting. For example, a plethora of networks exists and yet SHiFT does not articulate the value added of establishing new (and more) networks. As such, the proposal is currently silent on how it seeks to build equitable partnerships and seek complementarities with other research groups.

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Areas of Divergence among Review Team and ISDC Resolution (if applicable)

NA

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

SHiFT has a good number of incoming links from other Initiatives, see CD's Figure 3 (p. 6). The Initiatives that SHiFT is formally partnering with make sense and offer good synergies (although it is not clear why the only regional Initiative in the partnership is TAFSSA—why not any of the African ones or the Latin American one given the country mix in SHiFT?). While these efforts were noted by the team, several potential opportunities for furthering internal and external coherence and strengthening interconnectedness across Initiatives (as noted in SHiFT proposal review's weaknesses) could be leveraged better and with a priori intentionality.

Benefits projections in each Impact Area are appropriately considered in terms of synergistic delivery with other Initiatives.

520 Reviewers scored each of the 17 QoR4D criterion individually. The review teams then built a consensus
 521 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a consensus
 522 building process, *scores that ranged from 1 to 2 were up to the review team whether to include in this*
 523 *section.* Please refer to p. 8 for the Likert scoring definitions.
 524

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
NA			

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Additional Comments
<ul style="list-style-type: none"> • Work package 4 needs to provide more clarity on tools. More specificity about the trade-offs or hypotheses under consideration would be helpful. It appears that in most cases actual outputs will be reports of scenarios, which are not really tools that can be used by the stakeholder (most likely the actual tools, e.g., complex partial or general equilibrium models intersected with environmental models, etc., are quite challenging to serve as user-friendly tools). • Criterion 4: The ToCs could be improved. They repeat the research activities and allude to the partners, but without spelling out a pathway for actual change. In the ToC diagrams, it would have been good to have a first column on the LHS that explicates the knowledge gaps and constraints that the outputs seek to fill. Also, embedding the key assumption in the diagrams would make clear what is viewed as a likely outcome and what is an assumption. • Criterion 13. The management plans are somewhat generically described. It would be good to see clearer plans for coordinating or managing the work packages, their expected linkages, and the partnerships required, going beyond "Managing in a collegial fashion." Who will be in charge of disbursing funds, managing coordination among activities, or managing risks/ conflicts when they arise? Also, it would have been good to see more on additional scientific oversight. Even though there is a strong scientific team at the helm of this project, independent advice can be invaluable.

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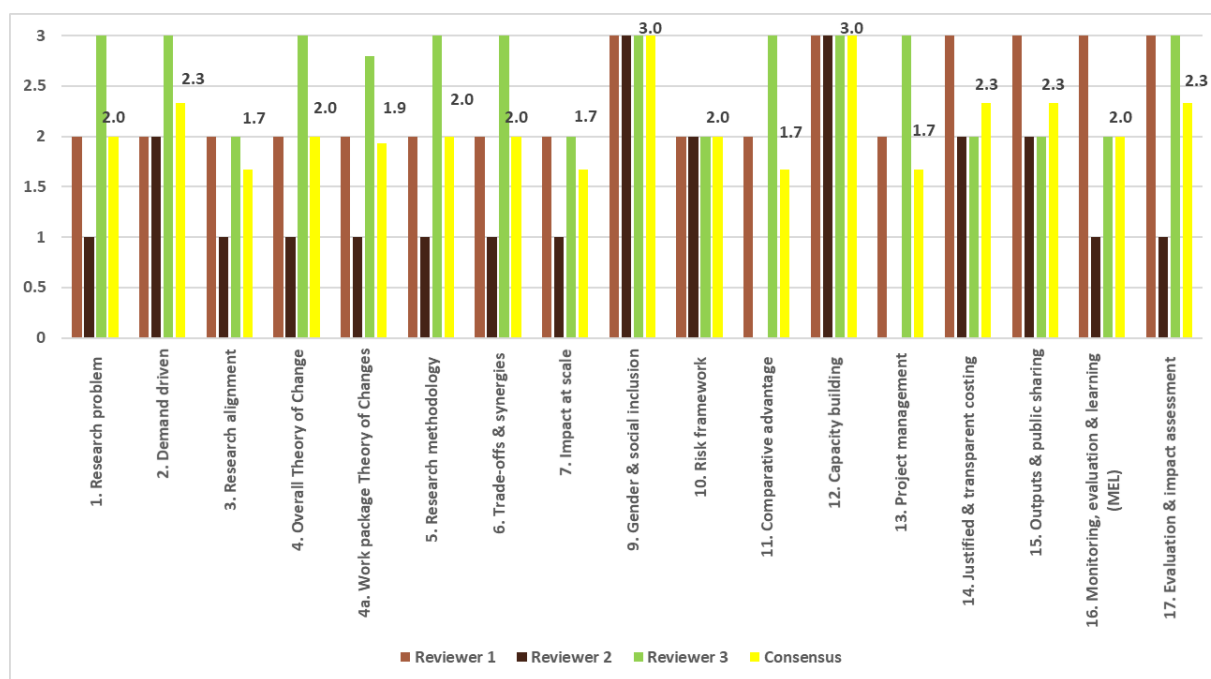
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Reviewer and Consensus QoR4D Criteria Scoring

The Figure below represents original scoring from each reviewer and consensus scoring for each criterion. *The consensus score across reviewers may not reflect the mathematical average.* For purposes of the Figure, the QoR4D criteria have been shortened. Please refer to p. 5 for full criteria definitions. Please note that criterion 8 on ethics was not scored.



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535 **17 Transformational Agroecology Across Food, Land and**
 536 **Water Systems**

Review Summary and Actionable Recommendation

The proposal is structured as a classical multidisciplinary (agronomy + social sciences), top-down research project, as those historically designed, implemented and monitored by CGIAR and its Northern partners in the global South. The ToC model is generally well structured, following a unidirectional, if-then logic that is similar to the approach followed under the CRP and other previous programs. Although the team did have a limited amount of time and resources to develop this Initiative, during COVID times, they managed to develop a well-structured research proposal, as indicated by the average scores received in most of the 17 criteria.

However, the term “agroecology” could be replaced here by “climate smart” or “conservation agriculture” and this proposal would look exactly as many others that were written and conducted by CGIAR scientists in the past. And this is perhaps the main weakness of this Initiative. It replicates the classical CGIAR model of knowledge generation and transfer, only that now it is applied to agroecology. This is also evident from the choice of “case studies,” which are mostly the sites where the authors of this proposal have been implementing their previous projects under the CRP, and where other Initiatives that are being written in parallel will also deploy their activities. The selection of sites seems to have included some form of “consultation” with stakeholders (cf. annexes), but this is not enough to be considered a co-construction with local communities and organizations, which are not part of the proposal (organizations that do exist in most of the target countries proposed, but do not appear in the appendices).

It is questionable to what extent such an approach—and such a consortium—could be able to deliver results (foster innovations) in the realm of agroecology, where even the applicability and pertinence of the ToC model is questionable. There is little proven or recognizable experience on agroecology in the consortium of this Initiative. The authors do not seem to have fully understood the emic essence of the bottom-up, co-innovation approaches used in agroecology. While the contentious nature of agroecology, particularly in the global South, has been acknowledged in the proposal, no attempt has been made to unpack the reasons of such contention. This is a major, missed opportunity. Simply proclaiming that the CGIAR would act as an honest broker to bridge these contentions is insufficient, particularly when CGIAR scientists have not yet established their credibility in the domain of agroecology. A very carefully designed inception phase would be required, if CGIAR truly wants to assume such a bridging function. This would require capacity building throughout the organization involving the highest levels of governance (see later).

In building the proposal, it would have been more useful to select case studies (countries/regions) where seeds of agroecological innovations—both technical and organizational—are already in place, so that the CGIAR researchers learn about agroecology and its approach before attempting to “promote” it. It is therefore recommended that the authors link up with on-going Initiatives and organizations supporting agroecology innovation, especially from the Global South, where transformations have been taking place for about two decades. CGIAR scientists would then have the opportunity to first learn from these actors, learn about transformational processes, political, social and technological. This would equip them with valuable insights to be able to write—together with these new partners—a proposal that could be truly transformative. For this Initiative to be transformational, it first needs to transform the CG, its capacities, and its business-as-usual approach. This would be very much in keeping with the overall design objectives of the new Research and Innovation Portfolio. Sections 18, 67, and 70 of the Companion Document clearly state the need for such inception phases particularly for new Initiatives that are outside of the CGIAR’s core competencies and not yet part of their comparative advantage.

Hence, a two-stage project proposal is recommended, which comprises (i) a learning and capacity development phase for CGIAR scientists to experience and learn from agroecological approaches in countries/regions where transitions are well underway, followed by (ii) a phase of codesign and implementation of an Initiative together with its new partners worldwide, with the historical CGIAR partners and with the rural communities and other stakeholders in the proposed target regions (which may even be different than the ones proposed in this first version). Building two-stage Initiative is contemplated in this process as explained in the companion document.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: A well-structured, logical link between the Initiative and the CGIAR Impact Areas (Rev# 1)

Strength 2: A properly outlined management plan, following the logic outlined in the ToC (Rev#1)

Strength 3: The Challenge statement 2.1 and Priority setting 2.4 sections (Rev#2)

**Overall Weaknesses of Proposal
(if applicable; limit to top 3 weaknesses)**

Weakness 1: No real co-construction process. "Consulting" stakeholders is not enough to state that this proposal was co-constructed with relevant actors—a prerequisite of any transformational process, and one to be expected at the start of any agroecological transition. Most of the partners that were consulted through the stakeholder consultation process—judging from the lists of attendees presented in the Annex—were people from international research organizations such as the CGIAR or CIRAD, or large international or regional NGOs without experience on agroecology. How could such groups of arbitrary stakeholders decide on priorities and needs for advancing agroecology, on relevant research questions, or on capacity development needs?

Weakness 2: There is evidence that the consortium lacks knowledge and expertise on agroecology. A literature search on most of the authors of this Initiative confirms that. In addition, the proposed "living labs" is a classical CGIAR approach that does not sit well in an agroecological innovation processes. A main reference used here is the HLPE 2018 report on agroecology, which was written mostly by people without experience with real-life agroecology. It is advisable that the authors engage in ongoing, real-life agroecological transition processes such as those taking place at government level or facilitated through social movements in different countries and humbly learn from such processes, identify research questions, and find niches for whatever the CGIAR has to offer to enhance such processes. This weakness is also evident in the unfounded claims of a comparative advantage in agroecology that clearly does not exist. A much more honest and meaningful appraisal of comparative advantage would openly admit such shortcomings while outlining the need and the possible development pathways towards creating it. There can be compelling strategic reasons for an organization to branch out into domains where a comparative advantage does not yet exist. This should be recognized and acknowledged. Whether or not this is the case for agroecology needs to be carefully considered (see section on "lateral cohesion" below).

Weakness 3: Overlap and lack of coherence between the approaches followed by the different work packages. These sections read as if they were written by different teams independently. There seem to be confusion between work packages 1 and 2 in terms of research questions (cf. Rev#1); CBA was mentioned in relation to "business models," but not AE technologies, where it might be even more useful given the non-market impacts of AE (cf. Rev#1). Work package 1 and 5 overlap too. Besides, in work package 5 there are activities and outputs that are described in a wordy yet cryptical way (e.g., Figure p. 35 and related text; p. 37). An "inventory of research interventions?" Which ones? Where, in the target regions? Since when to when? What for? On which topics? On agroecology or in general? An "inventory of agroecological science?" Hard to imagine how this is done... is this a literature review about agroecology in general over its 100 years of existence? On which aspects? Pest and disease management? Animal welfare? Markets and value chains? Soil biology? Social processes? An "inventory of agroecological practices?" is this to be done in the target regions or in general, worldwide? An "inventory of political economy factors?" Where, in target regions? Is this not supposed to be a step that is done BEFORE designing a proposal? The added value of work package 5 is totally unclear.

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**Areas of Divergence among Review Team and ISDC Resolution
(if applicable)**

There is wide divergence between the reviews by Rev#1 (average score 2.67) and Rev#2 (average score 2.51) and that of Rev#3 (average score 1.17). Rev#1 and 2 are both positive, and their major recommendations relate to structural issues such as modifications needed in the ToC, in the flow of information between work packages, overlaps between work packages, or in terms of balance between target regions (e.g., less focus in Latin America). Rev#2 was less detailed in assessments and mostly positive overall. Rev#1 questions the scalability of agroecology to large scale farms. Rev#2 warns about insufficient baseline activities to feed the MEL indicators, and the need to assess capacity needs prior to designing capacity building activities. Rev#1 questions some of the assumptions in terms of revenues and deforestation reduction that may be associated with AE. Rev#2 recommends that national project boards or technical steering committees could be established, as well as regular project reviews involving the implementing partners and other key actors and stakeholders. Calculations of the number of beneficiaries should distinguish male, female, and youth.

Rev#3's assessment includes most of these suggestions, but it poses also questions that are of a more fundamental nature, that go beyond the project design, its structure and the ToC. In other words, agreement with Rev#1 and Rev#2 positive assessments if this project was about conservation agriculture or climate smart farming or any other set of technologies, which is the way these two reviewers appear to see agroecology.

Since this is a project about agroecology, and since agroecology calls for new ways of designing projects and engaging with local actors and social organizations, to build truly bottom-up efforts with enduring results, one fails to see how this proposal and consortium—mostly new to AE and devoid of any social actor engaged in the agroecology movement—could be able to foster or support any AE innovation. The partnership is inadequate, the

consortium inexperienced, and hence the ToC model is well written but not credible in terms of “delivering” AE innovation.

Moreover, the use of the term ‘transformational’ in the title of this Initiative is not a happy choice, it is actually rather misleading; it conveys the idea that this consortium of people with little or no experience in agroecology has the ability to deliver AE transformations in rural communities (i.e., in the same communities with which they’ve been working for years already), and do so single handedly, without engaging existing social partners, and teaming up almost exclusively with Northern hemisphere universities and organizations (and of course, with the usual NAROs). The use of the term “transformational” would make a lot of sense if this Initiative was aimed at ‘transforming the CGIAR’ to prepare it to step into agroecology in the future.

Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

Vertical cohesion: The Initiative is structured based on the ToC framework and hence it aligns well with the CGIAR result framework (cf. CD’s Figure 6 and Annex 1), which is basically an application of the classical ToC. However, this model works well when Initiatives are top-down and/or unidirectional, moving from activities, to outputs, outcomes, and impacts, assuming causalities between these steps and an if-then logic. This model is, however, not always applicable—almost never to co-innovation approaches in agroecology, which are emic, bottom up, co-constructed, adaptive, emergent, and where the role of researchers and development agents is to facilitate, to broker knowledge, to create a dialogue of wisdoms to support self-investment, a sense of ownership and a risk-taking attitude by local actors, motivated by their active participation in a co-innovation process. Problems are addressed as they emerge, and solutions are developed through trial and error, experimenting together between different actors of a platform. There is no participant in such platforms that poses itself above the others, setting the agenda, deciding on the problems to be addressed or their priority. The Initiative evaluated here still speaks of “delivering CGIAR innovations” or “agroecology interventions,” which shows that the authors have no experience on how innovations emerge in the realm of agroecology.

Lateral cohesion: This Initiative is part of the overarching results framework that comprises the 32 Initiatives that will be deployed by the CGIAR as from January 2022. Many (or most) of the scientists participating in this Initiative will also participate in other CGIAR Initiatives, and several Initiatives will be implemented in exactly the same target regions (and likely with the same households and communities). However, the messages conveyed by these different Initiatives are often contradictory. This will create confusion among the partners and beneficiaries on the ground. If the CGIAR wants to take up agroecology as its main approach to ag innovation and rural development, then the entire portfolio of 32 Initiatives should follow an agroecological approach. If the motivation of the CGIAR is to take up agroecology because the funders push for this, then a major transformation is needed across CGIAR, including capacity development and engagement with new types of social actors. Alternatively, CGIAR authorities could explain to funders that their core business is ecological or sustainable intensification, and not agroecology. Agroecology is a different paradigm for which the CGIAR has not been designed for or properly equipped.

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540 Reviewers scored each of the 17 QoR4D criterion individually. The review teams then built a consensus
541 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
542 consensus building process, *scores that ranged from 1 to 2 were up to the review team whether to*
543 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.
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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
12. Capacity building within project teams, partners, and stakeholders captured in capacity development plan. This can include development of early career researchers and partner staff, support/empowerment for under-represented stakeholders, and building partner networks	9.3 Capacity development	Credibility, Legitimacy	1.3

Rev#1 is positive (3) and suggests hiring locally and to coordinate with local agronomic universities/training centers to provide internships for undergraduates. Rev#2 finds this point not satisfactory (1), indicating lack of clarity in terms of targets for capacity building, as this should be responsive to address the capacity needs that first need to be identified. Furthermore, Rev#2 suggests that capacity development should include also institutional and technological capacities. Rev#3 questions very strongly (0) the legitimacy of a consortium that lacks experience in agroecology to be embarking in capacity development for agroecology. The CGIAR team needs to develop its own capacities in agroecology before it can attempt to develop capacities amongst local partners and rural communities. On this point, the Initiative proposes (page 74): “empowerment and capacity building of junior level team members, partners and stakeholders.” However, in this case, it is not only the junior but specially the senior team members that need capacity development. One way to address this would be to engage with social organizations, researchers and policy makers that have experience in agroecology, to build together—

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
through shared learning—the necessary capacities that the CGIAR currently lacks in the field of agroecology. Involving partners from countries that exhibit successful experiences in agroecological transitions could be another way of developing capacities within the consortium.			

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Additional Comments
<p>It is important to highlight that the average scores are the result of generally widely dissimilar individual scorings except for criteria 4, 14, and 17 on which all reviewers tended to agree). In addition to the main comments presented to the authors in the report, it is important to emphasize criteria 1 and 2 (research problem and social demands). Below are some additional comments pertaining to these two criteria:</p> <p>The research problem does not appear to be clearly defined. There is a reference to a report by Oxfam from seven years ago as 'evidence' that agroecology is the right approach. And the problem the authors identify is 'lack of upscaling', so they propose a.o. 'business models' and 'living labs' to address this problem. This is too simple.</p> <p>There are four barriers proposed to explain the limitations to upscaling agroecology: "(i) insufficient evidence and lack of knowledge of what agroecological innovations work, where, when, and why; (ii) insufficient integration of required capacities and resources; (iii) lack of, or misaligned, policies, institutions, and governance practices; and (iv) lack of financial mechanisms"</p> <p>Yet no evidence is presented on any of these barriers. Where do they come from? Are they the opinion of the authors of this proposal or the result of stakeholder focus groups, of literature review, of expert consultation? Is the lack of knowledge on what AE innovations work, where, when and why a problem that farmers truly face and prevent them from transitioning to AE, or is this a problem among researchers or HLPE members who are new to AE? What type of capacities and resources are insufficiently integrated? Do these barriers apply in all the target regions selected? Do the authors think that lack of financial mechanisms is what prevents farmers in e.g., Sahelian Burkina Faso or the Zambezi valley from engaging in agroecological transitions? Do they really think so?</p> <p>These four hypotheses need testing, and one immediately wonders whether the living labs approach is the right one to explore them. The problem is that the entire proposal is built on these four main assumptions.</p> <p>Beyond grassroot organizations, several governments worldwide have now adopted agroecology in their policies and programs; yet they still have plenty of questions that need research and where the CGIAR could help, by liaising with ongoing Initiatives of local organizations. But this demand has not been explored, perhaps due to the limited time available to build this proposal, by scientists who are mostly new to agroecology. Agroecology is co-constructed, even from the identification of research questions; there is no co-construction in this proposal, and there is no evidence that this Initiative is demand-driven either, unless we consider funders to be the main demanders. There is no evidence of codesign with the social organizations or political institutions that convey agroecology in every country; this is a key type of stakeholder for any successful Initiative on agroecology.</p>

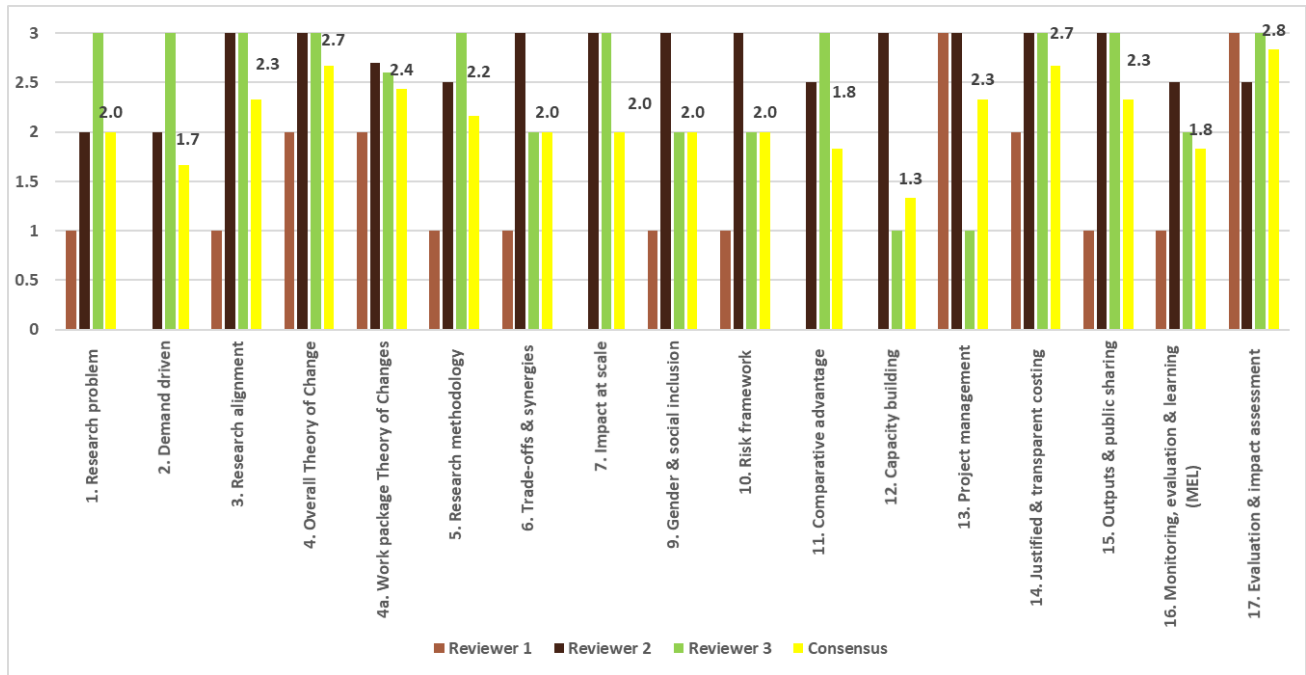
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547 *Review continued next page.*

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Reviewer and Average QoR4D Criteria Scoring

The Figure below represents original scoring from each reviewer and consensus scoring for each criterion. *The consensus score across reviewers may not reflect the mathematical average.* For purposes of the Figure, the QoR4D criteria have been shortened. Please refer to p. 5 for full criteria definitions. Please note that criterion 8 on ethics was not scored.



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Review Summary and Actionable Recommendation

The overall quality of the TAFSSA proposal is good. The reviewers agree that its geographical and thematic fit is relevant to the One CGIAR research and innovation agenda. However, the review team is of the view that the ToC of the proposal needs to be strengthened for the Initiative to make meaningful impact in the domain of AR4D. As it stands the proposal fails to serve as an integrator of other Initiatives' outputs and outcomes within a specific geographical and socio-economic setting. Hence:

1. We recommend an improved definition of who is being targeted by this Initiative, particularly in relation to gender. For instance, is the target women and youth included in households of beneficiaries; or women or youth heading their own households? It would be helpful if capacity development activities were embedded in a CGIAR network of national/regional partners with top priority being given to training aspiring women professionals on how to generate and work with innovative new methods of participatory research and learning.
2. We propose the interlinkages between ToCs for work packages be strengthened. For example, what is the relevance of linking smallholders to supply chains via crop aggregation models (work package 3)? We recommend an environment scan of the extensive current/ongoing work on diets, food environments, food prices and cost of diets to ensure that this Initiative is not spending time/resources repeating similar analyses. This would also help with the identification of future, potential partnerships that have so far not been considered.
3. We conclude that a focus on data interoperability (via the open-access system—work package 1) can create multiple pathways of learning for the CGIAR. We recommend the composition of the team be adapted to include at least one scientist with experience in institutional analysis and policy engagement within an AR4D context. This would improve the ability of the project to demonstrate outcomes and impact of relevance to gender disaggregated data analysis and capacity development among the network of project partners.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: Research framing

Strong research framing that demonstrates relevance to South Asia region. Many stakeholders have been engaged who are drawn from a wide range of organizations. work package 1 aims to demonstrate the value of creating integrated agri-food systems datasets while work package 2 examines how TAFSSA can create an evidence base that can ensure that sub-national governments and regional extension agencies are held accountable for impact outcomes.

Strength 2: Participatory design

Participatory design of the Initiative appears strong. By employing an east-west grid approach, the proposal attempts to engage small holders, women, and youth to build a strong case for transformation of agri-food systems in South Asia. The project aims to examine how market incentives can potentially lead to changes in dietary practices with implications for overall health of the population. The proposal would benefit from better integration of learnings from past Initiatives in South Asia. Notably, to develop new research approaches and methods that would enable the project to assess the dis-aggregated benefits of agri-foods systems with a focus on critical groups such as women and youth.

Strength 3: Team composition

Team with wide expertise is engaged. The team includes representatives from funders, CGIAR staff and private sector. The proposal aims to leverage the expertise to examine how knowledge gaps can be filled across scales both at landscape and farm levels. Expertise in institutional analysis needs to be strengthened to amplify benefits of TAFSSA for policy and practice. This would generate benefits particularly for climate change assessments as they relate to the agri-foods sector in South Asia.

Overall Weaknesses of Proposal (if applicable; limit to top 3 weaknesses)

Weakness 1: MELIA The method for tracking outputs, outcomes, and impact is weak. There is no evidence that new methods will be developed and employed for tracking the impact of TAFSSA. MELIA should be strengthened with a particular focus on the following: RAFS 2.1, STRAFS 1.1, STRAFS 2.1, ST 4.3 and ST 4.5. This would enable the project to build regional capacity to effectively monitor and improve design of future interventions that target marginalized groups such as women and youth in the context of climate change. Further, a well thought MELIA will pre-empt a necessary discussion about comparative advantage. Comparative advantage requires two

things fundamentally: (i) a comparison between alternative outputs and (ii) comparison with at least one alternative supplier.

Weakness 2: Theory of Change

The Theory of Change (ToC) for TAFSSA needs strengthening. This would greatly enhance the potential for the “open-access” system that is proposed to advance data interoperability and gender disaggregated data analysis under TAFSSA. Work packages 4 and 5 should be revised to enhance the policy engagement of the Initiative. Besides superficial reference to co-curation of data, the proposal’s ToC needs to clearly articulate how co-production of knowledge will lead to evidence-based solutions. Further, under work package 1 the ToC should articulate more clearly how knowledge gaps will be identified and what resources will be allocated to address them. For example, who will host the open-access system and how are its specifications aligned with the goals of the project?

Weakness 3: Previous work

The Initiative should build more explicitly on previous work by engaging with the literature on diets, institutions, and policy. Under work package 2, it would be beneficial if the proposal would explain clearly what methods will be employed to identify the nodes at which landscape analysis intersects with institutional analysis to undertake prioritization of research activities in line with CGIAR impact pathways. Under work package 3, how does the project propose to link smallholders to supply chains via aggregation models? How reliable are historical time series data for this purpose? It would be helpful to clarify what is meant by “intensification of rice-fallow cropping sequences.” From a climate perspective what can the research propose as steps to encourage a transition towards a diversified cropping strategy? Further, how will the proposed research encourage behavior change in terms of people’s diets in South Asia?

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Areas of Divergence among Review Team and ISDC Resolution (if applicable)

NA

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

The Initiative should enhance the cohesion of the portfolio and demonstrate measurable and verifiable outputs, outcomes, and impacts in line with CGIAR results framework. This shortcoming is especially visible in work packages 4 and 5. Connection of the research to policy is especially weak. This shortcoming could be overcome by providing justification through robust institutional analyses that shows how TAFSSA can produce verifiable outcomes and impact for programs and policy. Greater clarity is needed on “open-access system” that TAFSSA proposes to demonstrate the potential of the Initiative to support co-production of knowledge and monitoring and learning on issues of data interoperability and gender disaggregated data analysis.

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561 Reviewers scored each of the 17 QoR4D criterion individually. The review teams then built a consensus
562 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
563 consensus building process, *scores that ranged from 1 to 2 were up to the review team whether to*
564 *include in this section.* Please refer to p. 8 for the Likert scoring definitions.

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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
16. Monitoring, evaluation & learning (MEL) plan for the Initiative is clearly defined, with flexibility to adapt. MEL plan supports effective management and learning, including baseline data collection, and evaluative and review processes corresponding to stage-gates and course-correction decisions. MEL occurs during the life of Initiative and is used proactively to reflect on and adapt the Theory of Change, where appropriate	Monitoring, evaluation, learning and impact assessment (6) Measurable three-year outcomes (2.2)	4, 7, 10	1

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
<p>TAFSSA has the potential to produce attributable evidence of changes in policy. It would be helpful if the proposal can be specific about the extent and levels of engagement with the change agents within ministries or departments at federal or state level by stage-gating stage (year three of the project). For this purpose, the team could benefit from considering the extensive current/ongoing work on diets, food environments, food prices and cost of diets. Further, the composition of the team should be adapted to include at least one scientist with experience of institutional analysis and policy engagement in a AR4D context. This would support the development of a MEL plan that effectively tracks management and learning, including baseline data collection, and evaluative and review processes corresponding to stage-gates and course-correction decisions during the lifecycle of the project.</p>			
<p>17. Well-defined plan for Initiative-level evaluation and impact assessment based on expected end-of-Initiative outcomes and impact. Links between the impact assessment plan and indicators in the Theory of Change are clear</p>	<p>Monitoring, evaluation, learning and impact assessment (6) Full Initiative ToC (3.1) Work Package ToCs (3.2)</p>	<p>3, 4, 10</p>	<p>1</p>
<p>The ToC especially for work packages 4 and 5 should be strengthened. The proposal should demonstrate more overtly how it builds upon previous Initiatives in South Asia (for example, the AMUL experiment). The interlinkages between ToCs for work packages in general are weak. Problem framing in relation to the SDGs should be improved and reflected in a revised set of indicators in ToC. In this context, the potential value addition of the project in a South Asian context could come from demonstrating how a focus on designing a multi-faceted Management Information System (MIS) can support the design and monitoring of an integrated crop-health insurance scheme that builds regional preparedness to respond to the risks posed by droughts and/or floods. From the perspective of comparative advantage that we outlined earlier, it may be fair to conclude that the CGIAR may benefit from partnering with alternate suppliers (private sector) to fine tune the targeting and objectives of a crop-health insurance scheme.</p>			

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Additional Comments
<p>Individual Reviewer Comments</p> <ol style="list-style-type: none"> Gender and social inclusion are part of the objective of most work packages. The research design is not very specific on this point, apart from mentioning data collection that will be gender-disaggregated, or an intended share of women among beneficiaries. To track this inclusion if the outcomes, the metric used is the number of women affected. It would be important to clarify how women and men are individualized when they belong to the same household, and to assess potential positive and negative externalities in other dimensions than the one targeted by each specific work package (<i>See summary of actionable recommendation in review report template</i>). MELIA. The indicators and target are often too vague to be fully informative: targets are set number of people or of policies, or of regions... and measures of success are therefore those basic counts. There are hardly any intensity measures nor more qualitative ones. It would be possible for some of the end of Initiative outcomes to have more informative measures of impact: one could for example think of reduction in CRB, caloric intake, food diversity index, food security index (<i>See weakness highlighted in review report template</i>). Work package 4: there is a lot of work going on around the world in terms of characterizing diets and their drivers, and more recently around food environments, food prices, and diet costs, etc. Work package 4 will have to be careful to not spend resources doing things that are already being delivered by the wider research community. Some consideration has been given to trade-offs, e.g., in terms of expansion of animal source foods in the diet and climate implications. Some other trade-offs may need thinking through—e.g., will mechanization and automation displace labor thereby reducing employment opportunities? Scaling assessment is well thought through, even if some aspects e.g., the number of people who can be influenced in terms of reducing unhealthy foods, seem a bit optimistic (<i>See actionable recommendation in review report template</i>). The main risks and associated mitigation options are well described for the most part. I do think the second risk in the table, “unable to incentivize right behavior by farmers, value chain actors and policy makers needed for adoption” is critical. I reckon this is not only slightly more likely than indicated, but

also that its impact could be slightly larger than indicated. The main mitigation mechanism described for this is work package 1, but the multistakeholder platform has been discussed mostly in terms of data generation. Could this platform become much more research translation oriented to help mitigate this risk (see comments under 4a above)? (*See actionable recommendation in review report template*).

5. Assumptions for work package 2 need to be revised to answer the question: "to what extent can past trends in factor and product markets, agricultural terms of trade and trade policy affect project outputs, outcomes and impact." Specifically, how can research under TAFSSA help identify land management options which can deliver development impact at scale? Engagement with the relevant literature on institutions and policy may help improve the ToC as it relates to demonstrating how the proposed research "can create an evidence base to ensure that sub-national governments and regional extension agencies are held accountable for development outcomes." In this regard expanding the expertise of the project team expertise to reflect engagement with literature on institutional and policy analysis would also strengthen MELIA framework (*See weakness described in review report template*)

ISDC Member additional comments

A well thought MELIA will pre-empt a necessary discussion about comparative advantage. Comparative advantage requires two things fundamentally: (i) a comparison between alternative outputs and (ii) comparison with at least one alternative supplier. From the perspective of comparative advantage, the potential value addition of TAFSSA could arise from demonstrating how the CGIAR may benefit from partnering with alternate suppliers (e.g., the private sector) to fine tune the targeting of a crop-health insurance scheme in South Asia.

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Reviewer and Consensus QoR4D Criteria Scoring

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The Figure below represents original scoring from each reviewer and consensus scoring for each criterion. *The consensus score across reviewers may not reflect the mathematical average.* For purposes of the Figure, the QoR4D criteria have been shortened. Please refer to p. 5 for full criteria definitions. Please note that criterion 8 on ethics was not scored.

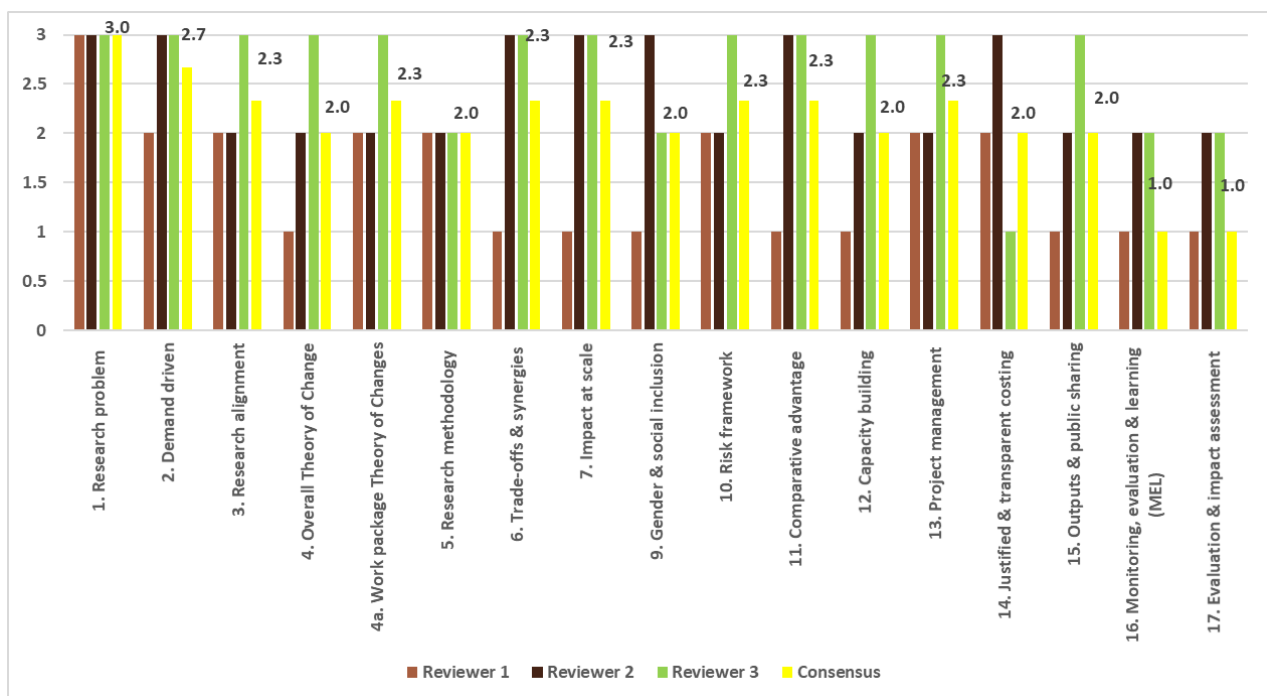
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19 Ukama Ustawi: Diversification for Resilient Agribusiness Ecosystems in East and Southern Africa (ESA)

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Review Summary and Actionable Recommendation

This proposal has potential merit, but the review team identifies some important shortcomings that need attention:

1. There is little evidence of how the lessons of past CGIAR work have been accounted for;
2. This is reinforced by a lack of description of forward-looking research to bring new ideas to the fore, leaving the impression of an information gathering exercise;
3. The strong primary focus on one SDG (SDG1) risks creating trade-offs between SDGs;
4. The ToC should engage with the narrative of the roles of agriculture in economic development;
5. The work packages are disciplinary in focus and should be reorganized to ensure multi/cross/inter-disciplinary research especially important for a regional integration Initiative;
6. It is necessary to de-risk adoption of the proposed interventions in work package 1 through better integration with the other work packages. This includes attention to land issues;
7. The leaders should consider using elements of behavioral economics where appropriate (work package 1)
8. There is little mention of capacity building in general, or specifically in terms of engagement with NARES;
9. While gender and youth are recognized as important elements, much needs to be done to clarify how research is to address that aspect fully;
10. Issues related to ethical and equitable research practices are not addressed in either the code or the proposal.

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Overall Strengths of Proposal (limit to top 3 strengths)

Strength 1: The MELIA framework (section 6)

Strength 2: The regional approach means that the project will more readily address cross-border value chains and markets for products and farm inputs.

Strength 3: Section 3.2 Work packages even though this is also the section requiring the most work to demonstrate that disciplinary silos become integrated across the different work packages, and that an integrated and multi-disciplinary approach is codesigned in close collaboration with NARES, NGOs, governance institutions and agribusinesses.

Overall Weaknesses of Proposal (if applicable; limit to top 3 weaknesses)

Weakness 1: Even though the ToC is the clearest section in the proposal, a lot of work is required to generate clear linkages across the multiple disciplines involved and make sure that synergies and trade-offs are captured and managed. In this regard the absence of any statements about the contribution that this program could make to capacity building in agriculture across Africa, including in the NARES—a key mandate of the CGIAR—is missing.

Weakness 2: Although the proposal builds on the work of previous and related projects in the region, there is limited reflection on the lessons learned and particularly how this Initiative builds on these projects. There is also limited evidence to convince the reader that the project is not a replication of ongoing or completed projects.

Weakness 3: While the proposed ToC has merit, there is limited evidence of actual research as opposed to information gathering, and consideration needs to be given to shift the narrative to include the role that successful implementation of these agricultural policies will play in (sustained and equitable) farm and non-farm productivity growth and economic development—a narrative that is well known to researchers on the socio-economic aspects of development, especially in Africa. This will more readily allow a focus on more in-depth research.

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Areas of Divergence among Review Team and ISDC Resolution (if applicable)

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Does the Initiative Align with the Cohesion of the Portfolio as Described in the Companion Document?

Ukama Ustawi addressed partnerships with some Global Thematic Initiatives (ClimBeR, LCSR, EiA) but is weak on others (Rethinking Food Markets, One Health). As a RII, Ukama Ustawi should act as the relationship steward with partners and host region-based research spearheaded by Global Thematic Initiatives. It should function more as the provider of a platform on which the Global Thematic Initiatives build than as a standalone source of new research on its own. Ukama Ustawi focused heavily on field- and landscape-scale innovations, but less on policy and institutional innovations, creating an imbalance among other CGIAR Initiatives. This is a missed opportunity for regional integration. There is evidence of strategic partnership efforts, e.g., WorldVeg, but more is required even in domains where CGIAR has capacity. Overall, more attention and resources should be allocated to work package 6 to improve coordination across CGIAR Initiatives and with partners.

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587 average. The criterion that received between a 1 or 0 are presented with a rationale. As part of a
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589 *include in this section.* Please refer to p. 5 for the Likert scoring definitions.

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Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
4. Overall Theory of Change with intended outputs, outcomes, and impacts at scale clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impact	3.1	Effectiveness, Relevance	1
Rationale: While the overall ToC is clearly stated and has much merit, we have problems with the assumptions, causal linkages and partners (in this regard especially the absence of participation by the NARES).			
4a. Individual Work Package ToCs (score individually)	Work Package ToCs 3.2	Effectiveness, Relevance	1
Rationale: 1. The proposal (especially work package 1) relies on information gathering, not clear what is new for science. 2. The work packages look like silos: how will this be prevented? 3. Work package 2 is about de-risking sustainable intensification and diversification, and climate is the most significant risk so add risk management tools or processes. 4. Work package 3: No clarity on actual activities and no mention of the role of governance, policy, and politics. 5. Work package 4: Appears out of place and a different project, it needs closer links to work package 1 and work package 2. 6. Work package 5 should focus on interventions to maximize the likelihood that the benefits are more equitable. 7. Work package 6: Actively scale project innovations through a funded scaling partners program could be an option			
5. Research methodology and methods (and supporting activities) are fit-for-purpose, feasible, and assumptions and risks are clearly stated	Work Package ToCs 3.2, Priority-setting 2.4, Innovation Packages and Scaling Readiness Plan 4.1	Credibility, Relevance, Effectiveness	1
1. Unintended effects such the impact on women and youth or the likelihood of market distortion as are not accounted for. 2. Problems associated with land ownership are downplayed and should instead be considered as a key component that will determine the long-term success of the project. 3. Methods are unclear and tend to be "off the shelf," there is lack of innovation in general.			
9. Research design and proposed implementation demonstrates gender and social inclusion that can be tracked in outcomes	Gender equality, youth & social inclusion 5.3, Projection of benefits 2.7	Legitimacy, Effectiveness	1

Criteria that Scored an Average of 1 or 0	Proposal Section	QoR4D Elements	Consensus Score
<ol style="list-style-type: none"> 1. Women and youth are not distinct categories. Also, gender is used as shorthand for women while the concept is more complicated. 2. How will the project equitably target different groups of women and youth? The project should also avoid common practices that disproportionately place the burden of development on women and youth. 3. Research activities are not clear and appear to focus only on skilling of women and youth—necessary but needs to account for the required cultural changes, and the methods seem naïve. 4. Why World Bank estimates from Ghana when CIMMYT results from ESA are available? 			
10. A risk framework that details main project risks and mitigation actions across areas of science, funding, operations, partnerships, ethics, and environment	Risk assessment 7.3	Credibility, Legitimacy, Relevance	1
<ol style="list-style-type: none"> 1. Issues of land ownership are a major risk if they are not addressed directly, and mitigation measures should be in place. 2. Additionally, land issues need to be integrated into the project. 3. Other highly likely risks are not indicated, for example loss of staff, lack of cooperation between the co-leaders, loss of participating farmers, climate variability, and pests and diseases. Also, why is the risk of non-adoption not considered? 4. What non-CGIAR sources of co-funding have been achieved as a means of mitigating risks of lack of funding? 5. There should be a COVID-safe plan at all levels. 			
12. Capacity building within project teams, partners, and stakeholders captured in capacity development plan. This can include development of early career researchers and partner staff, support/empowerment for under-represented stakeholders, and building partner networks	Capacity development 9.3	Credibility, Legitimacy	1
<ol style="list-style-type: none"> 1. The capacity building proposals are thin, with no indication of what capacity building will be given to which stakeholder, or when or how this will be implemented. 2. The proposers should consider a separate cross-cutting work package, particularly in building NARES capacity. 3. The mentorship program is unclear and lacking in detail on how many mentorships, etc., and probably unachievable in its current form. 			
14. Justified and transparent costing explicitly linked to expected Research for Development results	Financial Resources 10	Legitimacy, Effectiveness	1
<ol style="list-style-type: none"> 1. The budget is very high level with no clarity on the split between items (salaries, operating expenses, etc.) or countries. 2. Expectations of co-investments from partners should be included. 			
15. Anticipated research outputs (knowledge, technical, or institutional advances, specific technologies or products, policy analyses) are described and knowledge/gaps they will fill are evident. Protocols for open-data and open-access compliance are evident in plan (including budget)	Work Package research plans and ToCs 3.2, Open and FAIR data assets 8.2	Credibility, Effectiveness	1
<ol style="list-style-type: none"> 1. There is limited information on how the project will protect startup small-medium enterprises from exploitation in local, national, or regional markets. 2. Ownership of knowledge and innovations is not addressed. 3. How will the data be stored and shared, particularly with communities and partners? 4. There is a mismatch between the proposed digital ag tools and the focus of the program. These tools could also include satellite imagery or proximal sensing, monitoring, IoT, etc. 5. The focus seems to be on things that are already known and not on research in the conventional sense. 			

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Additional Comments

NA

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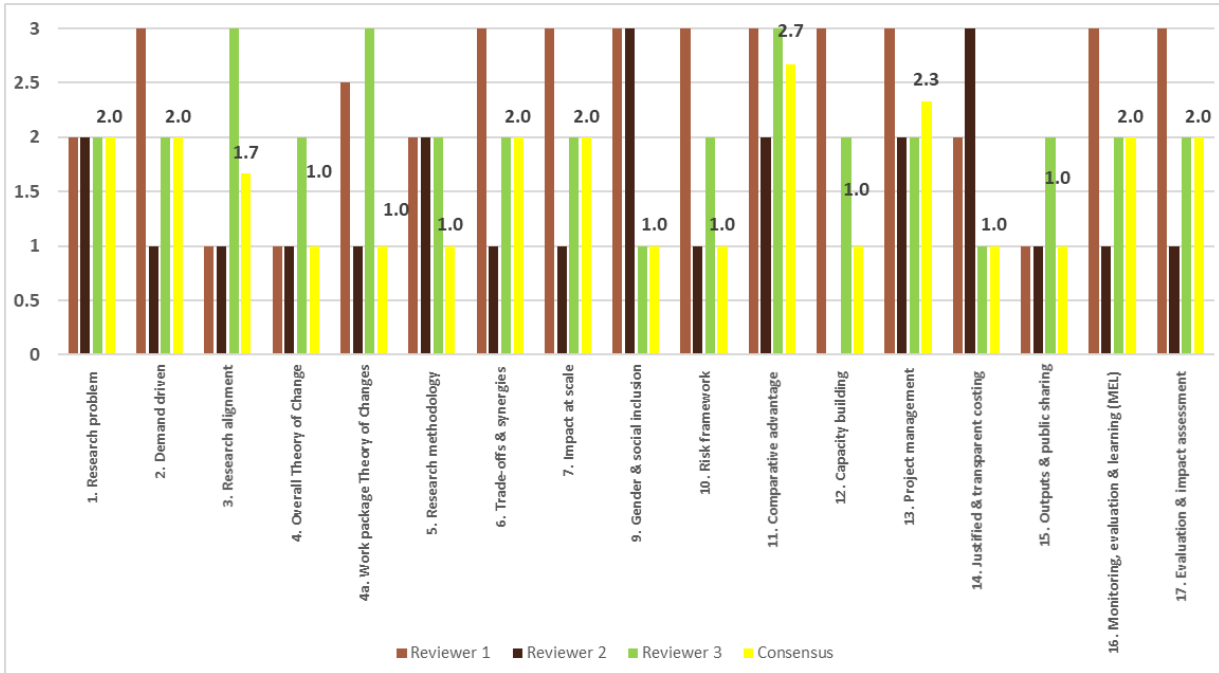
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601 **Appendix A: Eschborn Principles**

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603 ***Inclusion of Eschborn Principles in QoR4D Criteria***

604

605 Each QoR4D criterion was mapped against the Eschborn Principles that were adapted by Transition
606 Consultation Forum in April 2020.

607

608 1. Major multi-funder, strategically aligned, fully funded CGIAR Initiatives, laid out in multi-year investment
609 plan. This definition explicitly rules out “buckets” or “gluing” together of bilaterally funded projects.
610 Together, these CGIAR Initiatives constitute the CGIAR shared agenda funded by pooled funding.

611

612 2. Different disciplinary knowledge and research is used to address food, land and water system issues
613 identified with the stakeholders in any specific region/country, drawing on the global agenda of work.

614

615 3. Compelling Theory of Change to achieve impact at scale on SDG2 and other Sustainable Development
616 Goals (as framed by CGIAR’s five Impact Areas).

617

618 4. A clear problem statement, rigorous priority-setting, purpose-driven solutions and a focused set of
619 metrics for success.

620

621 5. Generate diverse approaches designed to address the stated problem as effectively as possible using an
622 integrated systems-based approach, rather than relying on supply-driven solutions.

623

624 6. Apply operational and geographic focus in areas of recognized CGIAR competencies and achieve impact
625 by working strategically with partners that have complementary competencies, at all stages of research-
626 for-development.

627

628 7. Manage the research-to-development process via a sequence of stage-gated decision points at which
629 there is a review progress along the theory of change and a resulting reallocation of resources, to support
630 an ongoing funnel of best-bet innovations from early stage through to scaling.

631

632 8. Realistic and transparent costing explicitly linked to expected results.

633

634 9. Inspired by the future (where we want to get to, but also unforeseen events) not only by where we come
635 from; some innovations might not be demanded at the present, but their importance will emerge (in
636 often unpredictable ways).

637

638 10. Use appropriate and innovative metrics of success, considering time lags from research to large-scale
639 impacts, and making the most of modern tools such as genetic markers.

640

641 11. Integrate strongly with emerging work on country-collaboration, financial modalities, resource
642 mobilization, governance and shared services (through smart interactions with other TAGs).

643



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