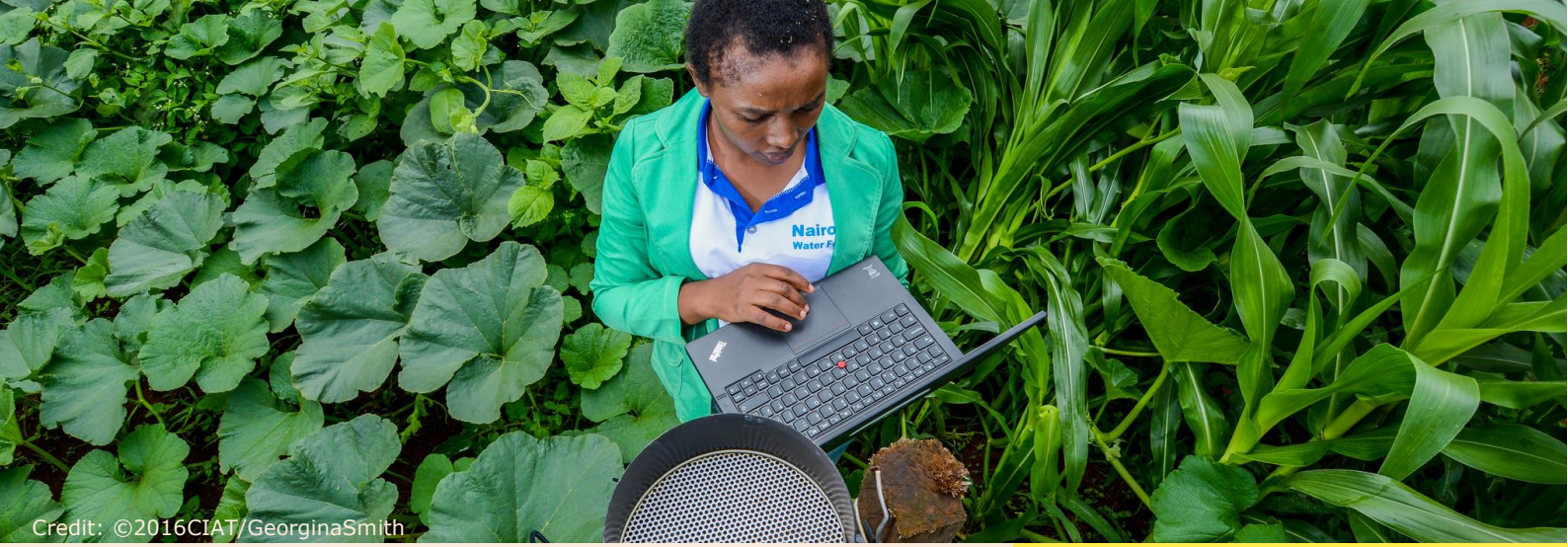


Quality of Research for Development in Practice for One CGIAR

Independent Science for Development Council

April 2021

ISDC Brief 2

Background

This Brief is to be used in conjunction with the Quality of Research for Development in the CGIAR Context (ISDC 2020 [QoR4D]) in the operationalization of the framework for assessment of One CGIAR Research Initiative proposals. The aim of QoR4D is to have broad applicability across CGIAR and go beyond the specific application of assessing Research Initiatives. QoR4D explicitly recognizes that good science is necessary but not sufficient to achieve transformational change. The criteria are framed to ensure Research Initiative developers put inquiry into understanding the context, anticipating needs of end-users and opportunities that might emerge, and building a package of partnerships and activities required to reach high-level outcomes and impacts. The criteria also have been designed as a means of providing feedback for improving individual proposals and their implementation, and to provide advice to System Council.

The aim was to develop criteria that encompassed the four underpinning elements of QoR4D:

1. **Relevance** refers to the importance, significance, and usefulness of the research objectives, processes, and findings to the problem context and to society, associated with CGIAR's capacity to address the problems.

2. **Scientific credibility** requires that research findings be robust and that sources of knowledge be dependable and sound. This includes a clear demonstration that data used are accurate, that the methods used to procure the data are fit for purpose, and that findings are clearly presented and logically interpreted.

3. **Legitimacy** means that the research process is fair and ethical, and perceived as such. This encompasses the ethical and equitable representation of all involved and consideration of interests and perspectives of intended users. Legitimacy suggests transparency, sound management of potential conflicts of interest, genuine involvement of partners in codesign and codelivery demonstrating recognition of partners' contributions.

4. **Effectiveness** (Positioned for Use) means that research generates knowledge, products, and services with high potential to address a problem and contribute to innovations, outcomes, and impacts. Effectiveness implies that research is designed, implemented, and positioned for use within a dynamic theory of change, with appropriate leadership, capacity development, diversity of research skills, and support to the enabling environment to translate knowledge to use and to help generate desired outcomes. To achieve target outcomes, the research requires a clear path to impact in one or more of the One CGIAR five Impact Areas, regardless of where across the spectrum the research sits, from fundamental to applied.

Recent experience in deriving a set of criteria (Belcher et al. 2016; Belcher and Hughes 2020) from the four elements in assessing projects after the fact (*ex post*) showed operationalization is

rigorous and provided reasonable consistency across different assessors (Brian Belcher personal communication, October 2020). Belcher (2016) used a scoring system with a three-point scale but in discussions with Belcher, he suggested a four-point scale system would be more appropriate to better distinguish among proposals and avoid a bias toward the median score.

A survey of CGIAR Science Leaders in June 2020 showed that 88% of responses stated that QoR4D should be part of the CGIAR 2030 Research and Innovation Strategy (CGIAR 2020). However, the survey also revealed that Science Leaders found QoR4D elements of Legitimacy and Effectiveness to be challenging to mainstream into planning, management, and practice. ISDC suggested the mapping of the four QoR4D elements to criteria used to assess proposals would help overcome some of those challenges.

In addition to the four key elements, the Eschborn Principles adopted by the Transition Advisory Group (TAG) for the CGIAR 2030 Research and Innovation Strategy (CGIAR 2020 [Appendix 1]) were explicitly considered in the development of the criteria. This ensures that the proposed metrics are responsive to and reflect the fundamental criteria System Council[1] prioritized for CGIAR Research Initiatives through a codesign engagement.

Developing the Criteria

Rather than assess proposals directly against the four QoR4D elements, criteria and a scoring system were developed that align with the development of proposals. This resulted in criteria that can span more than one key QoR4D element.

A consultative and codesign process was implemented from October 2020 through April 2021 to develop a robust set of criteria stemming from QoR4D that could be applied to Research Initiative proposals:

- two consultations with Brian Belcher—an expert on research effectiveness—whose publications as noted above provided much of the foundation to QoR4D
- three consultations with the CGIAR Advisory Services Secretariat Evaluation Function that provided input based on recent and ongoing experience in evaluating CGIAR Research Programs (CRPs)
- the draft criteria were compared to the main headings of the Research Initiative proposal template drafts, which the System Organization Programs Unit circulated for ISDC feedback
- two virtual discussion and feedback sessions held with CGIAR Science Leaders (40+ in attendance) where working groups reviewed the criteria and provided strengthening feedback to ISDC
- a discussion session held with the Executive Management Team (EMT), the Strategic Impact, Monitoring and Evaluation Committee (SIMEC) Chair, and the System Board Chair where the approach was presented, and feedback sought during a 2020 ISDC meeting
- exchanges with 20 members of System Council through four meetings
- submission to SIMEC for any remaining input before finalization.

During the process, the criteria were revised, reduced in number, and their alignment with QoR4D elements and Eschborn Principles was made explicit (Table 1). The criteria were finalized in an iterative process with the development of the Research Initiative Proposal templates. A four-point scoring system for the criteria then was developed.

[1] The System Council consists of up to 20 voting members: https://www.cgiar.org/how-we-work/governance/system-council/.

Table 1. Criteria for proposal assessment

Criteria	QoR4D Elements	Eschborn Principles[2]
1. Clearly defined research problem that addresses CGIAR 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	**Relevance**,* Effectiveness	4, 6
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[3]	**Relevance**, Effectiveness	4, 5, 6, 11
3. Research questions, objectives, outputs, and outcomes are aligned to the research problem, are measurable with defined milestones and stages amenable for assessment and corrective action through the project life cycle	**Relevance**, Effectiveness	4, 7, 10
4. Theory of Change with intended outputs, outcomes, and impacts at scale are clearly described. Assumptions are documented, causal linkages are clear, especially the role of partners in driving impacts. All indicators including stage-gate indicators are made explicit	**Effectiveness**, Relevance	3, 7, 10
5. Research methodology and methods (and supporting activities) are fit-for-purpose, feasible, are state-of-the-art, and rigorous in data collection and analysis. Limitations are clearly stated	**Credibility**, Relevance, Effectiveness	2, 5
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
7. Evidence that the Initiative will likely lead to impacts 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
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	**Legitimacy**, Credibility	11
9. Research design and proposed implementation demonstrates gender and social inclusion that can be tracked in outcomes	**Legitimacy**, Effectiveness	2
10. A risk framework that details main project risks and mitigation actions, including intended and unintended consequences of technologies/innovations for natural resources, GHG emissions, and social and economic aspects	**Credibility**, Legitimacy, Relevance	9
11. Capacity statements indicate why the proponents are the ideal implementers for the work. The value proposition is stated and CGIAR capacity and appropriateness to lead the work is justified. This includes the skills, diversity and multi-/trans-disciplinarity of the research team and collaborators	**Relevance**, Legitimacy, Effectiveness	2, 5, 6
12. Capacity building within project teams, partners, and stakeholders evident in project activities. This can include development of early career researchers and partner staff, support/empowerment for under-represented stakeholders, building partner networks	**Credibility**, Legitimacy	2, 6
13. Project management mechanisms and (if applicable) additional scientific oversight and governance measures effectively and efficiently support the Initiative objectives	**Legitimacy**, Credibility	7, 11
14. Justified and transparent costing explicitly linked to expected Research for Development results	**Legitimacy**, Effectiveness	8
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 with a demonstrated focus on quality, forward-looking, and impact relevance and how they will be disseminated. Protocols for open-data and open-access compliance are evident in plan (including budget)	**Credibility**, Effectiveness	4, 9
16. Monitoring and evaluation (M&E) plan for the Initiative is clearly defined, with flexibility to adapt. M&E plan supports effective management and learning, including baseline data collection, and evaluative and review processes corresponding to stage-gates and course-correction decisions. M&E occurs during the life of Initiative and is used proactively to reflect on and adapt the Theory of Change, where appropriate	**Credibility**, Effectiveness, Legitimacy	4, 7, 10
17. Well-defined plan for Initiative-level evaluation and impact assessment based on expected end-of-Initiative outcomes and impacts. Links between the impact assessment plan and indicators in the Theory of Change are clear	**Effectiveness**, Relevance	3, 4, 10

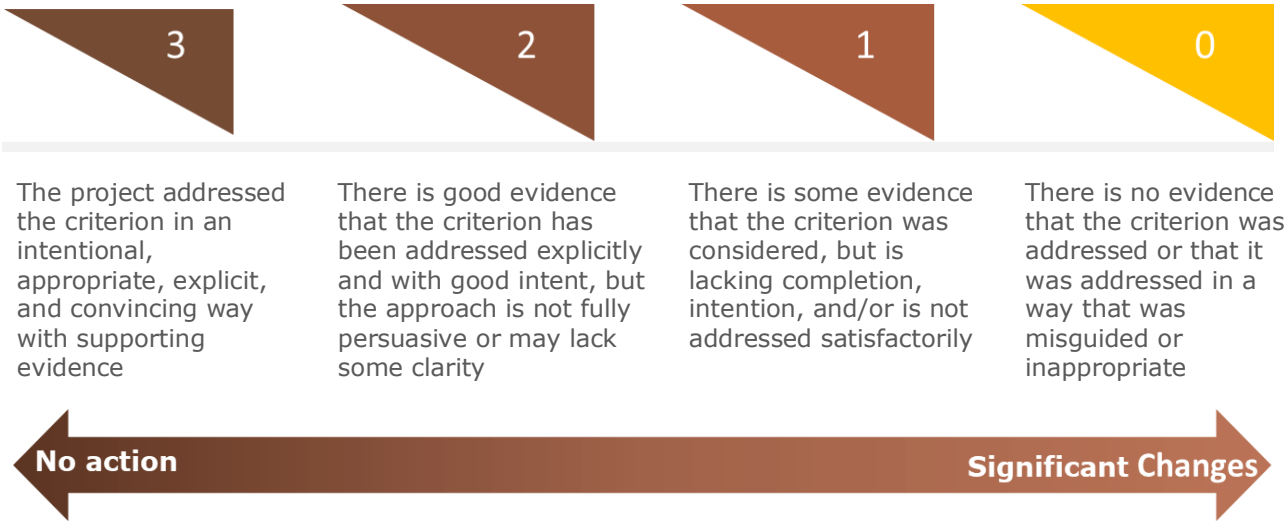
* Bolded represent primary QoR4D element

[2] See Appendix 1 for Eschborn Principles.

[3] 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.

Scoring System

Based on the recommendations of Brian Belcher, a four-point scoring system (Likert scale) was developed, building on the three-point system described by Belcher (2016).



Given the design and review process that occurs before Initiatives are considered by ISDC, a surprising outcome would be many zero scores. An example of how the scoring system would be applied using one of the criteria is provided below.

Example Application of QoR4D Scoring System

Criterion
A risk framework that explicitly addressed consequences (intended and unintended) of technologies/innovations for natural resources, GHG emissions, and social and economic aspects

Score 3
A comprehensive risk framework that is thorough in its coverage of intended and unintended consequences, including the process for identifying the risks. The framework clearly identified consequences and likelihoods of each risk and has a clear and feasible set of actions that can be taken to mitigate each of the risks. Just as importantly if a risk can't be mitigated this is transparently identified.

Score 2
A comprehensive risk framework that identified major intended and unintended consequences and clearly identified a set of consequences and likelihoods. However, the process for identifying risks is not entirely clear or the consequences, likelihoods, or mitigating actions are adequate but not fully comprehensive.

Score 1
A risk framework was explicitly discussed but poorly addressed, with relatively superficial attention given to identifying risks and developing a set of consequences, likelihoods or mitigating actions (i.e., the risks have not been treated explicitly, thoroughly, or adequately).

Score 0
Risks are not addressed explicitly, or they are addressed in a misguided way that indicates scant attention has been applied to this criterion.

References

Belcher, B. M., Rasmussen, K. E., Kemshaw, M. R., and Zornes, D. A. 2016. Defining and assessing research quality in a transdisciplinary context. *Research Evaluation* 25(1), 1–17. https://academic.oup.com/rev/article/25/1/1/2362728.

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Appendix 1: Criteria for CGIAR Research Initiatives

(adapted by Transition Consultation Forum from the *Eschborn Principles,* April 2020)

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

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

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).

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

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

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

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.

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

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

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.

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