

ISDC Reflections on Emerging One CGIAR Research Portfolio and Investment Plan April 1, 2021

The Executive Management Team (EMT) requested the Independent Science for Development Council (ISDC) to comment on the preliminary set of Research Initiatives. The rapid evolution of the Investment Plan presents limited information and time to review. Therefore, this document provides brief reflections that used additional information such as material from the 12th CGIAR System Council Meeting and learnings shared from the ISDC Investment Advisory Group (IAG) members. ISDC also drew on issues raised during discussions with System Council members in early March.

ISDC's response is largely framed as questions to EMT to ensure important aspects of the Research Initiatives (or the Portfolio) will be considered in the draft of the 2022-24 Investment Plan. The questions do not necessarily indicate a deficiency in the Portfolio; they are simply a reflection of the limited information available.

General Comments

ISDC acknowledges and recognizes the considerable effort that has led to this first draft of the Research Portfolio and Investment Plan. The titles of the Initiatives reflect the vision and ambitions stated in the CGIAR 2030 Research and Innovation Strategy. Ultimately, One CGIAR must demonstrate international leadership for transformational change by providing platforms for cross-disciplinary and cross-sectoral research collaborations and partnerships, particularly with National Agricultural Research and Extension Systems (NARES), Advanced Research Institutions (ARIs) and the private sector. The Portfolio must also balance short- and long-term opportunities and challenges across the three Action Areas. Finally, the Portfolio can only be successful if it explicitly addresses regulatory, policy, capability, and capacity constraints within and across the regions that will hinder the uptake of innovations. Hence, engaging with local stakeholders in the further development of the Portfolio will be essential.

ISDC also urges EMT and Initiative Design Teams (IDTs) to balance the need and the desire for bold, new initiatives with the reality of important, existing partnerships and the ongoing research that will be essential for business continuity and for the delivery of outcomes and impacts in the near future. Lessons learned from past experiences have been documented and should be used in the design process. This includes providing a safe landing for current research that will be discontinued.

Overall Process

ISDC assumes that the Investment Plan will be based on a robust, adaptive management strategy that includes monitoring, reviewing, and correcting unplanned challenges in the early design and launch process. ISDC also assumes that business continuity priorities have been considered and that foresight and trade-off tools will become part of routine Portfolio and project management to enable ongoing rebalancing of the Portfolio and for capacity building.

1. How will the Research Initiatives adequately plan for unexpected changes, emerging opportunities, and synergies with other Research Initiatives?
2. The Research Initiatives seem chosen to reflect current casual perceptions of the CGIAR's comparative advantage and asset base. Will any effort be made to thoroughly assess CGIAR's comparative advantage and asset base to inform adaptive

management of the Portfolio? The 50th anniversary might provide an ideal moment for such a rigorous assessment.

A key question that emerged through the materials reviewed is about the codesign process. Research led by partners from the Global South is an important investment criterion for many funders.

3. Now that the IDTs have started, how will the mission-critical partner and stakeholder groups be engaged or invited to engage?
4. National Agricultural Research Extension Systems (NARES) are critical partners. In advancing partnerships with NARES and local actors, is there a consolidated perspective and strategy on how best CGIAR will engage across the Portfolio (e.g., local universities, NGOs, private sector, ARIs)?

The most recent timeframe for the Research Initiative proposal assessment suggested commencement in August at the earliest.

5. Considering the external assessment will require a minimum of six weeks, is there time for improvement following ISDC assessment?
6. What would be the process if SC asks for resubmission?

Succession planning is a key risk management strategy for any institution. This is particularly important during a time of fundamental institutional change. The design of the Portfolio is an excellent opportunity and appropriate time to involve and mentor junior scientists in shaping the organisation's future. ISDC is keen to see how the composition of IDTs will reflect succession and lead to proposals that blend the experiences and learnings from CRPs with new insights and approaches to create a new Portfolio.

7. How does each IDT plan to assure the baton is appropriately passed forward?
8. How will IDTs ensure a right mix between experienced science leaders and more junior staff to capture experiences and tap into new ideas and approaches?
9. How will the new Portfolio ensure that talented people remain engaged, even if their area of activity will be wound up?

Portfolio Cohesion

Coherence across all Research Initiatives is important and the tools to ensure cohesion are critical. An assumption is that the Investment Plan will ensure coherence between CRPs and Research Initiatives through efficient business continuity, transition, and improvement.

10. Is there a common set of hypotheses across the Research Initiatives?
11. Has a gap and capability analysis been conducted to ensure that this research is a) not provided by another organization, b) if it is, is the Research Initiative designed to be complementary and c) does One CGIAR have the needed capabilities to lead it?
12. How will the Portfolio consider complementarities between biophysical systems isolated in different initiatives?
13. Is there sufficient balance across the five Impact Areas? Although all the Impact Areas are cross-cutting, based on the Research Initiative titles, "Nutrition, Health, and Food Security" appears less prominent than others. Do the crops of focus encompass those for a nutrient-dense and diverse diet in any substantial way (e.g., fruits and vegetables, nuts, etc.)?
14. The Genetic Innovation area appears to only contain plant genetics? Is there an intention to include livestock genetics? If not, will that gap be filled by other organizations or research partners?

15. Plant and livestock pests and diseases are a huge burden. How will the research area of pests and diseases be addressed strategically, especially given the risks around zoonotic diseases and human implications?
16. Will the current impact pathway under Genetic Innovation lead to disconnects and fragmentation?
 - a. What is the reasoning for a separate Initiative on market analysis?
 - b. Currently, it is not clear if any of the 20 crops will be prioritized.
 - c. The gene editing Initiative could be incorporated into breeding technologies.

Topics like foresight and trade-offs should be part of a research dialogue process as a thread through all Research Initiatives rather than just a stand-alone Initiative. A recommendation from the 2020 ISDC foresight and trade-off work is that these analyses should be embedded throughout Research Initiatives.¹

17. How will foresight and trade-offs be used across Research Initiatives for timely decision-making across food, land, and water systems?

Some of the titles are more oriented towards rationalities rather than being scientific descriptors. Terms such as nature-positive agriculture, climate smart livestock, sustainable intensification, agroecology, and even resilience are descriptors for concepts that will resonate with certain interest groups, thereby excluding others. Many of these concepts are neither new nor scientific and have the tendency to polarize debates and lead to miscommunication. As Giller et al. ² described, many practices promoted under labels such as crop residue retention, cover cropping and reduced tillage are central to the canon of “good agricultural practices.”

18. Have IDTs considered alternatives or is there a strategic imperative for using such concepts that appeal to specific interest groups and are, to some extent, beyond the realm of science?
19. The geographical focus is quite appropriately on densely populated regions with high needs. However, when lives are at risk, other areas also deserve attention. The Pacific region, where climate change impacts already constitute existential threats, appears to be missing from the Portfolio. Will this be addressed?

Continuing CGIAR Legacy and Leading Innovation

A critical process consideration is to keep and reinforce knowledge and capacity built by CRPs. The initial titles of the Research Initiatives overlap with one or several CRPs (e.g., several Research Initiatives have aspects of Climate Change, Agriculture and Food Security [CCAFS]). However, one of the benefits of CCAFS has been in building quite specific climate impacts, adaptation, and mitigation capacity and research approaches. A risk to consider is that the momentum and well-organized capacity from CRPs are dissipated among individual Research Initiatives, resulting in impact loss.

20. The Research Initiatives appear to overlap existing research, with an imbalance of innovations. While a mix of old and new is ideal, how will the Portfolio ensure innovation to attract new funders?
21. Which Research Initiatives will be prioritized to launch in January 2022?

¹ Antle, J. & Valdivia. 2020. *Tradeoff analysis of agri-food systems for One CGIAR*. Rome: CGIAR Independent Science for Development Council (ISDC).

² Giller et al. 2021. Regenerative agriculture: An agronomic perspective. *Outlook on Agriculture* (March). <https://doi.org/10.1177/0030727021998063>.

During its 50th anniversary, CGIAR has a lot to celebrate with its rich history.

22. Should the Investment Plan highlight more past achievements, scientific contributions and appraisal?

Impact and Theory of Change

The Research Initiative template is geared toward a three-year cycle. However, the CGIAR Research and Innovation Plan will be for the next 10 years.

23. Will a three-year Theory of Change (ToC) be useful for longer-term Research Initiatives?
24. Should intermediate outcomes in the ToC be used to represent three-year funding cycle achievements with longer-term outcomes framed to give the required context around proposed impact on the 10+ year timescale?

Innovations are supposed to lead to systems transformation and improved performance outcomes.

25. Is the Portfolio constructed and composed in full knowledge of the possibility of diverse audiences' limited ability to conceptualize causality and recognize interconnectedness of highly complex systems, including their often vague or even spurious cause/effect relationships?

Influencing and advancing policy and regulatory environment has been a discussion point among SC members.

26. How will policy implications be portrayed in the Initiatives and ToC?
27. Will policies outside of government be considered, such as private sector policies involving product and process standards, intellectual property, etc.?

To drive systems in a certain direction requires excellent technologies and innovation. However, achieving permanent change requires a clear alignment of incentives.

28. Can Research Initiatives incentivize the right behaviors by farmers, value chain actors, and policymakers needed for adoption?

The proposal template has a section designated in which to hyperlink to evaluations, reviews, and studies to demonstrate evidence of past learning.

29. Beyond the formal aspects of fulfilling the proposal template, how are the IDTs organizing work and involving experts to ensure that the knowledge generated about successes and failures of CRPs (through evaluations and reviews) and past bilateral projects (through independent or self-commissioned evaluations) appropriately influences the Portfolio design?

A learning from the 2020 CRP reviews was that ToCs are not imbedded into the research process management in a systematic way.

30. Do researchers have the expertise in developing ToCs to be used as a management tool? What processes will be put in place to support researchers in actively using ToC in daily project management?

Partnerships

CGIAR relies on diverse partners to ensure innovation is adopted and scaled. Stronger, more productive partnerships with, for example, NARES and the private sector are an explicit goal of the new CGIAR 2030 Research and Innovation Strategy.

31. How will such partnerships be developed and resourced?

32. How will IDTs ensure the appropriate balance between private and public goods generated by the research?
33. How will IDTs ensure partners and partnerships are appropriate with good governance and transparency under politically challenging conditions?

The various system components such as breeding, agronomy, livestock, aquatic foods, and health/sustainability aspects feed into food security and livelihoods that are then delivered with a regional dimension. This then feeds into the global food, land, and water systems.

34. Are Research Initiatives missing that are necessary to deliver at higher levels that might require sourcing via partners? Forestry is mentioned under the “water-energy-food-forest-biodiversity nexus” but not elsewhere?