

ISDC Feedback for One CGIAR Draft Research Strategy August 27, 2020

The Independent Science for Development Council (ISDC) commends TAG 2 on drafting a Research Strategy during a time of a major organizational reform and a global pandemic, particularly given the very diverse stakeholder groups and some of their strongly held views. This is an extremely important task undertaken under difficult conditions. We sincerely appreciate the creativity, energy, and consultative efforts involved in crafting this draft.

In the interests of constructive criticism of such an important document, ISDC offers the following consensus, based on our individual reading and comments and dialogue among the full Council. Our feedback is organized into two sections. The first section provides general and strategic direction comments. The second section provides specific feedback with coordinating page numbers.

General Comments

1. While the Research Strategy proposes a new paradigm, the content was presented at a high-level and missed some important details. The Research Strategy should be told as a coherent story and flow logically; this draft is still disjointed. In particular, the Research Strategy lacks innovative pathways demonstrating how One CGIAR will connect the various strategic directions and why One CGIAR is positioned to achieve this Research Strategy.
2. The Research Strategy should clearly state at the beginning of the document what is new with One CGIAR and the advantages of the reform. The Strategy also should include how One CGIAR will approach potential challenges.
3. The document lacks an articulation of a unique CGIAR value proposition. Further, the term “comparative advantage” is used incorrectly. A key strength of the CGIAR System is a diverse array of skills located throughout many regions of the world. This research and delivery capacities of One CGIAR across its 8,500+ personnel need to be more clearly articulated.
4. The Research Strategy does not differentiate between outputs and outcomes that can be systematically tracked and impacts that require research that permits an assessment of attributable impacts. Therefore, the Strategy threatens One CGIAR by overpromising impacts that cannot be supported. See SPIA’s feedback for additional background.
5. Although the draft includes food, land, and water systems, they are not well integrated in their conceptualizations.
6. No parity exists among the five impact areas with climate change receiving most of the attention. The fact that none of the other four get even passing mention in the initial descriptions of the 10 strategic directions suggest that either the impact areas or the strategic directions need revisiting. These two elements should be strongly aligned, since the Research Strategy must be designed to generate the five core impacts One CGIAR declares.
7. Given that this Research Strategy spans 10 years, the three-year investment plans are not about the Research Strategy but around funders’ operational considerations. This makes the draft very funder-focused and not targeted to the broader CGIAR audiences. Three-year budgets and stage-gating are important strategy implementation/operational details, but

not strategy. A clearer separation between strategy and the implementation of this strategy would help with communicating the intent.

8. This also highlights a general shortcoming of the Research Strategy: the target audience seems to be funders rather than the broader, global community and the intended beneficiaries of the Strategy. Ideally, a strategy should express the explicit thinking of the people investing in it. It should not be a pitch for investment. Here, these two issues are conflated.
9. Clarity is needed on the primary role of One CGIAR (i.e., primary researcher, research partner, or policy influencer) in each element of the Research Strategy.
10. References are needed to support claims made throughout. The Research Strategy should model good research practices.
11. Engagement and partnerships with the private sector are lacking. How will One CGIAR work with the private sector and all the issues arising from such collaboration such as conflicts of interest, research ethics, and the tension between private and global public goods? The private sector is portrayed as a third party rather than a true research partner. The term “engagement” is used in relation to the private sector but so is the term “partnership.” A much clearer distinction between these two concepts is needed. The partnership section lacks details specific to One CGIAR.
12. Regional demand-led research needs capacity building and resources, which are not mentioned. The Strategy lacks detail on how the regional demand-led research priorities were selected and how they will be resourced.
13. Terminology needs to be explained much more for a broader audience, such as digitalization.
14. No arguments are included on the importance of technology adoption. The Strategy assumes adoption will happen.
15. Statements that would be beneficial to include explicitly:
 - a. CGIAR has a tremendous track record in germplasm development and preservation as well as in policy research. Especially as it partners more actively with for-profit private sector actors in agrifood value chains and taps additional resources, CGIAR will expand its work on functional foods such as nutrient-rich fruits, legumes, pulses and vegetables, and on improvements in its traditional cereals, roots and tubers expertise—e.g., through biofortification—to deliver affordable, healthy diets. This requires soil and water management skills, plant and animal genetics expertise, and value chain and policy research capacity, as well as an active presence in varied regions to tailor/adapt innovations to specific contexts. That is a combination that CGIAR has in a way no other organization does.
 - b. In order to generate gender, youth, and poverty reduction impacts, greater attention must be paid to promoting fair, ethical and sustainable employment conditions throughout all agrifood value chains. Little, or nothing, in this document currently suggests CGIAR has any vision for how its assets can distinctively contribute to poverty reduction goals. It seems to assume that providing farmers

with better germplasm and agronomic practices will generate big poverty gains, although IFPRI's (and other's) research shows that non-farm AFS system employment has overtaken farming as the main rural livelihood source in most of the world.

Strategic Directions Feedback

Strategic Direction 1

The framing assumes that the status quo of agricultural production is still dominated by smallholder farmers. An option to frame this strategic direction better is to consider how food systems will need to or are likely to transform in line with demographic and social changes. As the world continues to urbanize and age, as competition for land and water grows, as private sector involvement in developing country agriculture and food systems evolves, the very nature of smallholder farming systems and smallholder households will change. These realities should be part of the drivers presented in Figure 1.

Strategic Direction 2

Although ISDC supports the intent of demand-responsive and partnership-based research design and implementation, this strategic direction needs a stronger position on adoption and impact as highlighted in the final sentence, "We are not a traditional development agency occupied with direct at-scale project delivery directly to end users; instead we work with development partners, NARES and the private sector to have impact at scale." In Figure 2, an assumption is that research, delivery, and impact are seamlessly connected processes, yet the greatest impediment to impact is adoption or uptake. How to get technologies and innovations better adopted is within scope for a CGIAR Research Strategy with most of this research needed in the social, policy, and economic domains rather than the biophysical. There is little chance of achieving the desired impacts without explicitly addressing the woeful levels of adoption and uptake of many existing, useful technologies and innovations. One CGIAR must be able to effectively challenge entrenched paradigms that are largely within the social and political realm in order to overcome barriers to adoption.

Strategic Direction 3

In the headline statement, COVID-19 is raised as an example of a shock in addition to climate change, but the strategic direction description focuses only on climate change. Lessons in the climate change area should be transferrable to other non-climate system shocks and pathways to build resilience and establish more robust systems.

Strategic Direction 4

It is not clear why only food safety and AMR were highlighted among many threats posed to One Health. While biological and chemical food safety concerns have become important aspects for local and global food systems and should be part of the new research portfolio, improvements in food safety and tackling AMR may not increase the nutritional value of foods. Food safety is not equal to nutritional value and the two issues should be explicitly distinguished as separate objectives.

Micronutrient deficiencies are not mentioned in this strategic direction, which can overlap with under- and overnutrition or stand alone and have grave effects on health. The term "overnutrition" also should be reconsidered and replaced by "nutrition related chronic conditions" or "overweight and obesity" in order to bring it into line with contemporary nomenclature. Zoonoses, and

agriculture's relationship to infectious disease ecology more broadly, is notably absent. This is a field where CGIAR has considerable capacity and capability to offer impactful contributions, especially in partnership with other organizations with greater biomedical expertise.

Strategic Direction 5

The focus on regions, countries, and landscapes is appropriate, especially in the context of partnerships at the right scale and in attracting funders that are increasingly wanting to achieve tangible, on-ground outcomes. However, broadening the research scope to include cross-regional systems analysis can provide valuable insights that can feed back and help adapt and re-orient research approaches at regional and country scales. This is particularly important in order to make informed trade-off choices that go beyond catchment or regional scale.

Strategic Direction 6

Increasing private sector engagement is important. As mentioned earlier, key elements are missing, such as the role of the private sector in research. The proposed focus is on scaling, market research, and use of approaches such as stage-gating. The central place of intellectual property needs explicit attention. Also, the role of the private sector in creating global public goods should be addressed.

Strategic Direction 7

The intent covers some of our earlier feedback about including agro-ecological aspects into sustainable intensification. Some clearer language would be beneficial as those outside CGIAR may not understand the language (e.g., agro-ecological pathways). For example, include production-environment in this sentence to read, "As there is 'no one size fits all,' the challenge is to design transformation pathways to help stakeholders make decisions and manage production-environment trade-offs best adapted to their situation."

Strategic Direction 8

The real challenge in this space is turning lots of data and information generated by devices, apps, sensors, machine learning, etc., into useable knowledge. Access is only part of the story, contextualizing that information for real decision making is an aspect that should be part of the Research Strategy. This sits at the heart of what is often referred to as 'systems thinking,' a paradigm that sits at the core of the strategy and that could be highlighted more.

Strategic Directions 9 and 10

These are internally CGIAR focused implementation/operational issues, not "strategic directions." It might be useful to structurally separate and identify them from the other eight strategic directions. This would also reduce the overall number of strategic directions to something more appropriate for a powerful research strategy; 10 directions are too much.

Page Specific Comments

1. P1: An outline of the big picture is missing from the Research Strategy. This should speak to the way CGIAR brings together and leverages the global integrating approach (think CCAFS) with the breeding programs. That is, or can be, at the root of the value addition of CGIAR. More needs to be said about the whole being greater than the sum of its parts; ultimately the balance of the entire portfolio is (or should be) designed to deliver this. This would be an

opportunity to clearly outline One CGIAR's approach to deliver solutions by having a focus on the entire agriculture and food systems in terms of its new structure and the way it will conduct research.

2. P14, CGIAR's Track Record: The box is appreciated but could be stronger and move beyond germplasm.
3. P15, Figure 1: The focus areas are listed verbatim as outcomes in the figure, yet one health is included in nutrition and food security. Is its inclusion an error?
4. P16, #2: Partners are not defined early enough. "Partners" seems to be used in this sentence as a proxy for clients/beneficiaries. The Research Strategy may want to speak more to matching core One CGIAR skills and common mission, rather than responding to partners' needs. This may be inferred as quite paternalistic on the one hand and not mission driven enough on the other.
5. P16, #3: Risk management and resilience are potentially huge for CGIAR. But the text is largely empty rhetoric, and seemingly only about climate-related risk, not about risk management per se. Especially at a time when anthropogenic land conversion for agricultural uses is increasingly recognized as a leading source of new infectious diseases (mainly zoonoses; see Rohr et al. 2019 Nature Sustainability, Gibb et al. 2020 Nature). There is a missed opportunity here to tie land and forest management expertise within CGIAR to human health risks. Especially at this moment, this seems to be a major missed opportunity. Market risks arising due to poorly conceived and coordinated policies (e.g., export bans in 2008-11 or the early months of the pandemic) are likewise increasingly salient and CGIAR (at least IFPRI) has a lot to contribute. Play up the multiple peril risk exposure more.
6. P16, #4: This bullet points fail to acknowledge trade-offs at all (although it does come in on p. 36) and does not provide details. The bullet also seems to contradict point 9 on greater focus.
7. P16, #5: Which regions and landscapes? Or, which ones is CGIAR not tackling? Small island states? Mountain ecosystems? High and upper-middle income countries? This is an opportunity to define where CGIAR has strengths and where it will set boundaries so as not to dilute its attention/resources. Again, seems to contradict point 9, on greater focus. Later, pp. 28-31, it identifies regions, which is better but still insufficient.
8. P17, #8: ... and the best data available. The tools alone are not enough without quality data behind them. Regarding impact at scale, emerging evidence in the current CGIAR Research Program Evaluative Reviews points to the importance of ARI type of partner in achieving quality research outputs.
9. P19, #3, second bullet: It may be useful to review the findings and recommendations of the CAPDEV evaluation (2017) organized by IEA, which cautions against direct service to the farmer level.
10. P20: What was the process to establish the targets and do/will One CGIAR have the tools in place to measure them (or are they like the current strategy and be treated as aspirational)? This is a general comment on impact and results. The Research Strategy does not differentiate between outputs and outcomes that can be systematically and rigorously tracked.

11. P21: Reducing GHG emissions from food and forest systems by 15 percent is a pretty anemic goal. While it might not be feasible by 2030, helping turn food and forest systems into carbon and nitrogen sinks rather than sources seems an aspirational goal. Likewise, the goal of 10 million young people and 15-20 million women (presumably with overlap between them) is a fraction of 1 percent of the increase in women and young people in the developing world over the coming decade.
12. P22: The section generally is not written as comparative advantage but what CGIAR will do. Some of the areas mentioned are arguable of strong interest but CGIAR may not yet—indeed, may never—have comparative advantage in the area (e.g., digital agriculture). Generally, the entire section needs to be reframed to reflect on the assets/capital that the CGIAR already possesses. The first section on genetic diversity is the best, in this regard. Past evaluations have spoken to gender and the convening power of CGIAR as comparative advantage (i.e., the role of trusted broker).
13. P22, first paragraph: May want to phrase as “performance management and evaluation processes” instead of “performance management processes”—the external evaluation function (through on-demand evaluation and the revised evaluation policy for CGIAR) will continue to include among core criteria for evaluation/review the Quality of R4D (QOS criterion).
14. P22, first paragraph related to research ethics policy: CGIAR research ethics continues to lag research universities globally. Acknowledge that the CGIAR needs to up its game in this space. This issue has been raised repeatedly for ~15 years and still multiple Centers have no IRB. This is unacceptable and will increasingly inhibit real collaboration with potentially important partners.
15. P22 and 27: The use of the term “comparative advantage” suggests that CGIAR doesn’t understand the true meaning of the term. Until CGIAR generates some credible evidence on its comparative advantage today (much less in the future), it would be wise to use other terminology. CGIAR has history, (fixed, intellectual, and financial) assets, personnel, etc. that suggest potential strengths. Whether these translate into comparative advantage remains an open, empirical question.

Given the contention around use of comparative advantage, except for gene banks and some areas of crop improvement, perhaps it would be good to alter the language to identify where CGIAR has strengths. Page 22: there is a lot of overlap between Areas 2 and 3. It would be better to focus Area 2 on climate and Area 3 on landscapes, production-environment-land use trade-offs.

16. P23: Sections 4 & 5 reads as if written to preserve IFPRI and ILRI’s current portfolio, rather than presenting a vision on how this expertise and portfolio of work could be adapted to the new paradigm. IFPRI does work in the nutrition-specific space and on social protection programs, which are not AFS focused (of course IFPRI does a lot on nutrition-sensitive food systems as well). Do “social inclusion programs” include this portfolio of work as well?
17. Pages 26-33, Global and Regional Challenges: More substance is needed, and this could be solved by providing explicit challenges and priorities at global and regional levels.

18. P26: The global challenges page is confusing. To maintain coherence and continuity, examples could be in the box under the headings of the five global challenges described earlier. In doing so separate the currently conflated example of climate policy and food, land, and water systems into two more specific examples. It is important to show a stand-alone example for the environment global challenge as it appears in the priorities of nearly every regional strategic opportunity in Table 2 (i.e., it is a global priority).
19. P26, Global Crop Improvement Strategies: This resonates with findings coming out of the initial, completed CRP 2020 reviews (global rather than fragmented crop improvement strategies).
20. P26, Climate Change: Policy processes related to food, land, and water?
21. P27, part 2: It is stated that most research and innovation will be realized at the regional level. It is also stated that some challenges are addressed at the global level. If there are enough resources this is not a problem but when there are resource constraints, which projects will the CGIAR prioritize?
22. P28, WSA, 2nd bullet: More quantification of the challenges per region could be introduced to make an even more compelling case.
23. P28, ESA: It might be easier for the reader to process the lists if everything is alike (so frame all as challenges or all opportunities, make it as much 'like for like' as feasible).
24. P32, table 2: It is unclear how these tables associate with the lists of challenges and opportunities listed above. Were some of the earlier items made priority to be listed in these tables, in terms of the CGIAR offering (solutions)? Consider making the lists in pages above all challenges, and the tables opportunities.
25. P36, #2, last bullet: From the point of the view of the advisory services evaluation function, we will take note of the various mentions on evaluation, to reflect how these can be addressed in forthcoming multiyear workplans and in revisions to evaluation policy.
26. P37, #6: First bullet, replace "the" gap, with "one" gap. Last bullet, this is a revision to Ways of Working, which isn't about private sector engagement per se. It's about doing things differently, not contingent on private sector partnership but harvesting the best tools in any sector to reach our goals.
27. P37, #8, second bullet: Partners in academia and elsewhere who use sophisticated approaches to design thinking and user-centric design are missing.
28. P38: "Choice of partnerships will be based on theories of change at sub-national, national, regional and global levels, depending on the context-specific transformation pathway. These pathways and partnerships may involve different routes to impact: via technical and institutional innovations, policy change, or capacity development, for example."
 - TOCs are constructed with partners. The inference in current wording is CGIAR create TOC and then engage partners afterwards. And when TOCs are created with partners, they are context specific. It also means that TOCs are regularly reviewed and if the facts change, so do the TOCs. Suggest reframing the thinking and rewrite the section, based on co-design partnership practices.

29. P39, CGIAR Investment Plan: Designing projects for three years necessarily focuses on investments that deliver in the short-run, which are typically lower-return at medium- to longer-horizons, and which also increase CGIAR's direct competition with NGO and for-profit providers of some of these services, which makes partnership more difficult. This is more about operational detail and implementation than strategy.
30. P40, second paragraph: Recommend to consider and address in these bullets the agility of the stage-gate mechanisms, adaptive management approaches, and generally the need to be able to make rapid decisions to not lose the momentum or the capacity of a Project as it advances through the stages. This includes collecting the right data from the start of project and building evaluative and impact assessment considerations in from the design stage.