



**24<sup>th</sup> CGIAR System Council Meeting**  
**10–11 June 2026, Antalya, Türkiye**

Agenda Item 12	Update from the Independent Science for Development Council (ISDC)
Distribution notice:	<input checked="" type="checkbox"/> May be distributed without restriction <input type="checkbox"/> Restricted to Members and Active Observers <input type="checkbox"/> Restricted to Voting Members only
Issue date:	27 May 2026
Purpose:	<input type="checkbox"/> For consent agenda/information <input checked="" type="checkbox"/> For discussion <input type="checkbox"/> For discussion and decision <input type="checkbox"/> Other (specify)
Requested action:	Discussion
Executive summary:	<p>The Independent Science for Development Council (ISDC) presents the following documents as pre-reading material for the 24th Meeting of the System Council:</p> <ol style="list-style-type: none"> <li>1. The <b><u>Independent Science for Development Council's (ISDC's) 2026 progress update</u></b> which describes the activities, outputs, and Chair interactions since 01 January 2026.</li> <li>2. The <b><u>Closing the Advisory Loop: ISDC Reflections on the CGIAR 2025–2030 Portfolio Inception and Implementation</u></b> which closes the advisory feedback loop for CGIAR's 2025–2030 Research Portfolio by assessing how recommendations from ISDC were adopted during the Portfolio's inception and early implementation phase.</li> <li>3. The <b><u>Concept Note, Enhancing ISDC Advice: Assessing Awareness, Perceptions, and Use of ISDC Advice Across</u></b> which proposes an assessment of how ISDC delivers and supports the use of scientific advice across CGIAR.</li> <li>4. The <b><u>Concept Note, AI for Independent Science Advice: Assessing the Role of Large Language Models</u></b> which outlines a workstream to assess how Artificial Intelligence (AI) Large Language Models (LLMs) can support independent scientific advisory processes without compromising rigor, credibility, or expert judgment.</li> </ol> <p>Annex 1 provides further details on the materials.</p>
Draft decision point:	N/A
Supporting materials:	<p>Pre-read materials</p> <ul style="list-style-type: none"> <li>• Pre-read 1: <b>ISDC June 2026 Progress Update</b></li> <li>• Pre-read 2: <b>Closing the Advisory Loop</b></li> <li>• Pre-read 3: <b>Concept Note_Enhancing ISDC Advice</b></li> <li>• Pre-read 4: <b>Concept Note_AI for Independent Science Advice</b></li> </ul>
Prepared by:	Independent Science for Development Council (ISDC) and its Secretariat.



## ANNEX 1 Further details on the pre-reading materials presented by ISDC

The System Council is requested to read the following documents in advance of SC24 and ask questions during the ISDC Chair intervention. For pre-reads 3 and 4, the System Council is invited to provide any additional feedback directly to ISDC Secretariat at [isdc@cgiar.org](mailto:isdc@cgiar.org) by 22 June 2026.

1. The **Independent Science for Development Council's (ISDC's) 2026 progress update** describes the activities, outputs, and Chair interactions since 01 January 2026.
2. The **Closing the Advisory Loop: ISDC Reflections on the CGIAR 2025–2030 Portfolio Inception and Implementation** closes the advisory feedback loop for CGIAR's 2025–2030 Research Portfolio by assessing how recommendations from ISDC were adopted during the Portfolio's inception and early implementation phase. It supports ongoing governance oversight and informs future strategic planning discussions between the System Council and CGIAR management.

The analysis identifies five major themes using the lens of the Quality of Research for Development (QoR4D) framework: adaptive management and prioritization, scientific articulation, comparative advantage, end-user inclusion, and impact pathways. Overall, the Portfolio demonstrates increasing operational maturity, particularly in relevance and effectiveness, but could be strengthened further by a clearer articulation of trade-offs, stronger scientific framing, deeper inclusion of end users, and more rigorous evidence showing how prioritized research delivers measurable impact under real-world constraints.

At the request of the Chief Scientist's Office, ISDC will present this pre-read to the Global Science Team for discussion on 29 May. To support advance review and preparation, the pre-read was shared on 18 May ahead of the meeting

3. The **Concept Note, Enhancing ISDC Advice: Assessing Awareness, Perceptions, and Use of ISDC Advice Across** proposes an assessment of how ISDC delivers and supports the use of scientific advice across CGIAR, with the aim of strengthening its relevance, influence, and responsiveness to evolving governance and research needs.

Developed in response to recommendations from the Strategic Impact, Monitoring and Evaluation Committee (SIMEC), the quasi-independent, self-commissioned study will examine how ISDC advisory products inform governance, Portfolio prioritization, and research planning; assess awareness, uptake, and application of frameworks such as QoR4D; identify barriers to implementation and communication gaps; and explore emerging scientific advisory needs to inform ISDC strategic planning beyond 2027.

Using a mixed-methods approach that combines interviews, survey, and document review across a broad range of CGIAR stakeholders, the assessment will triangulate findings to provide a comprehensive and evidence-based analysis of ISDC. The study will culminate in a findings report and future action plan with recommendations aimed at ensuring ISDC continues to provide timely, rigorous, and actionable scientific advice.

4. The **Concept Note, AI for Independent Science Advice: Assessing the Role of Large Language Models** which outlines a workstream to assess how Artificial Intelligence (AI) Large Language Models (LLMs) can support independent scientific advisory processes without compromising rigor, credibility, or expert judgment. The workstream adopts a case study approach across two core functions - strategic advice and proposal reviews testing - where LLMs can enhance efficiency and effectiveness with the oversight and judgement of scholarly expertise.

The work focuses on identifying appropriate use cases, risks, and governance requirements, with all assessments anchored in the Quality of Research for Development framework. Outputs will provide evidence-based recommendations on where LLMs add value, where they should not be used, and how ISDC processes may need to adapt for responsible integration.



## ISDC June 2026 Progress Update

This Progress Update documents key outcomes, outputs, and activities of the Independent Science for Development Council (ISDC) from January through June 2026.

### Workstreams of ISDC Workplan 2026

The ISDC 2026 workplan is grounded in the [System Council Advisory Bodies' Consolidated 2026 Workplan and 2026-2027 Budget Summary](#) and informed by the [SIMEC Review of CGIAR's Advisory Bodies](#), both approved during the 23<sup>rd</sup> meeting of the System Council (SC23) in December 2025. Consequently, ISDC is working along three main workstreams this year: i) an advisory commentary to close the feedback loop on CGIAR 2025-2030 Research and Innovation Portfolio; ii) a stakeholder study to enhance future ISDC advice and iii) a project on the role of Artificial Intelligence (AI) in ISDC processes. ISDC is also supporting the external reviews of CGIAR centers focusing on scientific and technical aspects.

#### *(i) Closing the Advisory Loop: ISDC Reflections on the CGIAR 2025–2030 Portfolio Inception and Implementation*

This workstream responds to the recommendation of the [SIMEC Review](#) to focus on strategic assessments and prioritize periodic assessment of research Portfolio. In response, ISDC developed a Commentary for the 24<sup>th</sup> meeting of the System Council (SC24), aiming to close the advisory feedback loop for CGIAR's 2025–2030 Research Portfolio. The Commentary is a high-level strategic reflection looking at the inception and implementation phases of Programs and Accelerators, using the lens of the Quality of Research for Development (QoR4D) framework.

#### *(ii) Enhancing ISDC Advice: A CGIAR Stakeholder Awareness and Use Assessment Summary*

This workstream focuses on the recommendation of the [SIMEC Review](#) to enhance feedback and engagement; both in terms of feedback mechanisms from SC assisting ISDC in providing the most impactful recommendations, as well as improving interaction with CGIAR entities, management, research programs, and other governance bodies.

To that end, ISDC has designed a study to explore how its advice is used in governance and research planning, which advisory products most influence decisions, how consistently the QoR4D framework is applied across CGIAR, what barriers limit uptake, how effectively advice informs prioritization, what future scientific issues ISDC should address, and how feedback loops between advice and implementation can be improved. The concept note is a pre-read for SC24.

#### *(iii) AI for Independent Science Advice: Assessing the role of Large Language Models in ISDC Processes*

In line with the SC23 [Chair Summary](#), advances in AI present potential opportunities to enhance elements of advisor processes, however, their use must be carefully evaluated and governed alongside the use of expert insight. To explore technology advancements in the realm of ISDC, the Council adopted an exploratory, case study-based approach to assess the role of LLMs across two of its core functions:

- Strategic document reflection (Q1-Q2 2026; see section (i) *Closing the Advisory Loop*)
- Scientific proposal reviews (Q3-Q4 2026)

Each case study will test structured workflows combining LLM-supported tasks with independent expert assessment. Activities will include task mapping, standardized prompting, evidence synthesis, expert validation, comparative analysis against current human-led practice, and consensus development. A concept note for the study is submitted for information as a SC24 pre-read. The results of the two case studies will be available for the 25<sup>th</sup> System Council meeting in December 2026. Case studies will culminate in a final technical note synthesizing learning with recommendations for future ISDC use (Q1, 2027)

### ISDC Membership update

ISDC welcomed Bhavani Shankar, Professor and Co-Director at the Institute for Sustainable Food, University of Sheffield, and Glenn Fitzgerald, Honorary Principal Fellow, The University of Melbourne on 01 January.

- [Bhavani Shankar](#) holds a PhD in Agricultural Economics from the University of Illinois at Urbana-Champaign (USA), and Master's and Bachelor's degrees in economics from Jawaharlal Nehru University (India) and University of Madras (India), respectively. He has led several large interdisciplinary projects, and much of his research involves collaborations with agricultural, health and environmental scientists. Among others, Bhavani was team leader for the High-Level Panel of Experts (HLPE) report on 'Reducing Inequalities for Food Security and Nutrition'.
- [Glenn Fitzgerald](#) has more than 30 years' experience applying digital agriculture/big data tools to crop agronomy and to adapting agricultural systems to climate change. He is interested in delivering evidence-based innovative science to improve food security under challenging environments. He provides guidance and expert advice on digital agriculture project development to academia, government, and commercial sectors. Furthermore, he has led and been a member of projects that incorporate complex management, strategic thinking, and governance for innovative cropping, climate change and big data.

In addition: (i) [David Just](#) started serving his 2<sup>nd</sup> term on ISDC as of 01 January 2026; and (ii) [Nompumelelo Obokoh](#) concluded her service as a Member and Vice Chair of the ISDC, stepping down in February 2026 to take up new responsibilities with an international organization. The Strategic Impact, Monitoring and Evaluation Committee (SIMEC) secretariat will manage the recruitment of ISDC members.

### Coordinating Across CGIAR Stakeholders: Meetings and Communication

ISDC held five regular monthly virtual meetings during the reporting period. Two of those meetings included invited speakers:

- The newly appointed [SIMEC Chair](#) joined the February meeting, for an introductory session with the Council members and an open discussion on ISDC work following the [SIMEC Review](#);
- The [Leader, Portfolio Performance and Results](#) from the Chief Scientist Office joined the March meeting, providing an overview of CGIAR's new AI-assisted reporting tool.

In addition, as per the ISDC workplan, the Council's first 2026 face-to-face meeting was held at the International Potato Center (CIP) in Lima, Peru, from 20<sup>th</sup> to 25<sup>th</sup> of May 2026, combining workstream tasks (closed meeting) with CGIAR research engagement (engagement with CIP researchers and management and Global Science Leadership members based in Lima).

In late May, at request of the Chief Scientist, ISDC held a meeting with the Global Science Leadership team, serving introductory purposes and focusing on discussions around the Portfolio.

ISDC Chair, Lesley Torrance, attended the following meetings from January through June.

- Meeting with SIMEC chair (February)
- SIMEC 35 meeting (February); SIMEC 37 meeting (June)
- IPB 08 meeting (February); IPB 09 meeting (May)
- Quarterly meeting with Chief Scientist (April)
- Quarterly EMD, ISDC and SPIA Chair, and IAES Director meeting (April)
- Center External Review: Consultative Group Meeting (April)

Finally, to foster induction in her ISDC role and to gather opinions on ISDC outputs and its future advice, the Chair held a series of "Meet & Greet" sessions with System Council Members (March-May):

- Australia
- Belgium
- Canada
- Denmark
- East Asia and Pacific (China, Indonesia, Malaysia, Philippines and Thailand)
- France
- Gates Foundation
- Ireland
- Latin America and Caribbean
- Norway
- South Asia (Bangladesh and Sri Lanka)
- Sweden
- Switzerland
- United Arab Emirates
- United Kingdom of Great Britain and Northern Ireland
- West Asia & North Africa (Türkiye and Iran)
- The World Bank



CGIAR

INDEPENDENT SCIENCE FOR  
DEVELOPMENT COUNCIL

# Closing the Advisory Loop: ISDC Reflections on the CGIAR 2025–2030 Portfolio Inception and Implementation

MAY 2026



Credits: Augustus Addo/IWMI

# Closing the Advisory Loop: ISDC Reflections on the CGIAR 2025–2030 Portfolio Inception and Implementation

## Executive Summary

This Commentary aims to close the advisory feedback loop for CGIAR’s 2025–2030 Research Portfolio, reflecting on the adoption of scientific advice provided by the Independent Science for Development Council (ISDC) during the Portfolio’s Inception and Implementation phase starting in 2025, and how the science Programs and Accelerators as currently implemented adhere to the elements of Quality of Research for Development (QoR4D). The Commentary serves three purposes:

- As the final step in the advisory cycle for the current Programs/Accelerators that responds to the Strategic Impact, Monitoring and Evaluation Committee’s (SIMEC) advisory body 2025 review recommendation supporting ISDC periodic assessments and tracking uptake of recommendations.
- To provide observations for System Council to discuss with CGIAR management in future strategic planning and prioritization discussions for the current Portfolio.
- To provide a case study in using large language models (LLM) in reviewing CGIAR Portfolio documents that will be useful for ISDC’s parallel workstream *Artificial Intelligence for Independent Science Advice: Assessing the Role of Large Language Models in ISDC Processes*. The case study will be published later in 2026.

The analysis is selective and strategic, focusing on five themes most relevant for System Council and CGIAR leadership to guide future planning and adaptive management. While presenting high-level insights that are partial and triangulated, it is grounded in a systematic and structured assessment using a consistent QoR4D-aligned template applied across all Programs/Accelerators, supported by ISDC expert review and LLM-assisted review and syntheses of evidence across documents.

### ***Cross-cutting Reflections***

A consistent theme across the Portfolio is the use of adaptive management and prioritization alongside tighter operational discipline. Many Programs/Accelerators have narrowed geographic scope, streamlined Areas of Work, and protected core capabilities to better align ambitions with resources. Prioritization is increasingly evidence-based, but trade-offs remain implicit: documents show what research activity was retained more clearly than what was cut or why. This limits transparency and leaves no clearly articulated “minimum viable package.”

A second theme is that operational planning has strengthened relative to scientific articulation. Programs/Accelerators show clear KPI frameworks, budgeting links, and MELIA systems, but are less precise about the research questions, hypotheses, and knowledge gaps guiding their work. Delivery systems are well defined, but the Portfolio is less clear on what it aims to test, learn, or disprove scientifically. Indicators also continue to favor economic growth and delivery metrics over resilience and risk reduction.

A third theme is that CGIAR’s comparative advantage increasingly lies in enabling, brokering, and systems integration rather than direct delivery. Many Programs/Accelerators are most credible as platforms providing shared methods, data systems, standards, and coordination infrastructure that support uptake by partners. This strengthens relevance and effectiveness but also means success should be assessed through system-level contributions in addition to standalone outputs.

A fourth theme is end-user inclusion. Engagement with governments, research institutions, and international organizations is well established, while evidence of meaningful participation by farmers, marginalized groups, and vulnerable populations is more limited. Indicators often aggregate beneficiaries into broad categories, reducing visibility of who benefits and how inclusion is achieved.

The fifth theme is that impact pathways are most credible where research, uptake, and adaptive learning are integrated, but evidence remains inconsistent. Reporting emphasizes outputs and actors reached more than the quality of adoption, realized outcomes, trade-offs, or avoided losses such as resilience gains. Indicator systems continue to underrepresent risk reduction and vulnerability outcomes.

The reflections are broadly consistent with the *CGIAR Evaluability Assessment Synthesis (2026)*, which identified recurring cross-Portfolio patterns linking intervention logic, MELIA systems, inclusion, learning, and value-for-investment. Those findings suggested that many Portfolio challenges reflect broader system-level issues including fragmented evidence systems, uneven theories of change, weak finance-performance integration, and limited adaptive learning.

Overall, the Portfolio shows increasing maturity in structure and delivery. Further progress depends on making trade-offs explicit, strengthening scientific clarity, improving inclusion of end users, and more rigorously demonstrating how prioritized work translates into measurable impact under real-world constraints. The Portfolio is strongest in QoR4D elements of relevance and effectiveness, while scientific credibility and legitimacy remain uneven.

This Commentary *does not reopen* earlier reviews and ISDC *does not expect or recommend a Management Response*. The aim is to provide System Council, the CGIAR Board, and leadership with a consolidated reflection on key cross-cutting issues.

# Background

The process began with the initial ISDC [Proposal](#) and [Portfolio Narrative](#) reviews in late 2024, where ISDC provided guidance to ensure that the emerging Programs/Accelerators met the standards of [Quality of Research for Development in the CGIAR Context](#) (QoR4D) and strategic goals. This was followed by the [review](#) of the Inception Reports in 2025, requested by the System Council (SC) to verify whether the issues raised in the proposal review stage had been addressed before implementation of the Portfolio. The last input from ISDC in 2025 was [Brief Analysis of ISDC Inception Report Recommendations Uptake](#) prepared for the 23<sup>rd</sup> meeting of System Council (SC23).

The Inception Phase demonstrated notable progress across the Portfolio. Programs/Accelerators refined their theories of change, clarified resource allocations across funding windows, and responded to earlier scientific and governance feedback. However, the context in which the Portfolio moved from design toward implementation changed significantly during 2025. Substantial and unexpected reductions in pooled funding created a new operational reality for CGIAR, forcing Programs/Accelerators to adopt additional prioritization and adaptive management approaches. Under these conditions, many budgets remained aspirational, and implementation increasingly required modular planning and strategic trade-offs across research areas.

Against this evolving backdrop, ISDC considered it prudent to provide a final Commentary that included the [2026 Plans of Results and Budgets](#) (PoRBs). For an inclusive reflection of publicly available documents, the PoRBs were triangulated with a broader set of documents (Figure 1). This Commentary therefore considers not only the PoRBs as standalone planning documents, but also their positioning within the evolving Portfolio evidence base during the Inception Phase. As a final step ISDC cross-checked the themes presented later in this Commentary against the SC23 [pre-read Update on CGIAR's 2025–30 Science and Innovation Portfolio](#) and the [CGIAR Evaluability Assessment Synthesis](#) (Jersild et al., 2026 [EA Synthesis]).

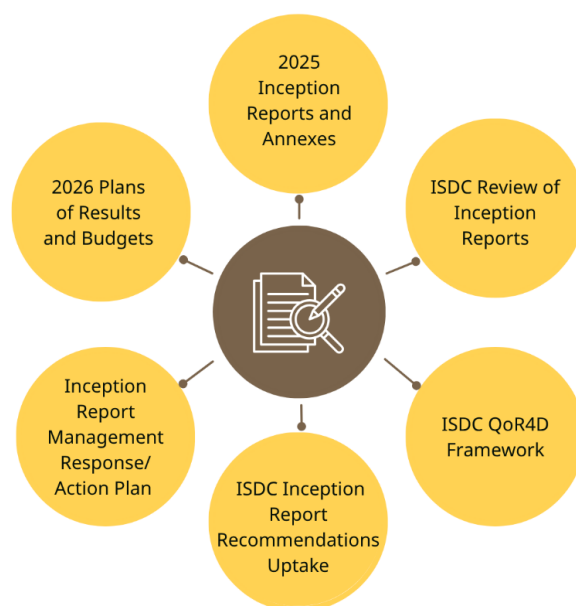


Figure 1 Supporting Documents Used for Triangulation Analysis

This Commentary serves three purposes:

- As the final step in the advisory cycle for the current Programs/Accelerators that responds to the Strategic Impact, Monitoring and Evaluation Committee's (SIMEC) advisory body 2025 review recommendation supporting periodic assessments,<sup>1</sup> and tracking uptake of recommendations.
- To provide observations for System Council to discuss with CGIAR management in future strategic planning discussions for the current Portfolio.
- To provide a case study in using large language models (LLM) in reviewing CGIAR Portfolio documents that will be useful for ISDC's parallel workstream *Artificial Intelligence for Independent Science Advice: Assessing the Role of Large Language Models in ISDC Processes*. The case study will be published later in 2026.

<sup>1</sup> "SIMEC considers the periodic assessment of research programs and accelerators by ISDC at strategic moments in the business cycle as the main priority for SC. SIMEC suggests a new mechanism for tracking uptake of the main ISDC recommendations of portfolio reviews. This element should be further elaborated by ISDC and SIMEC in 2026" (p.11, 3.8).

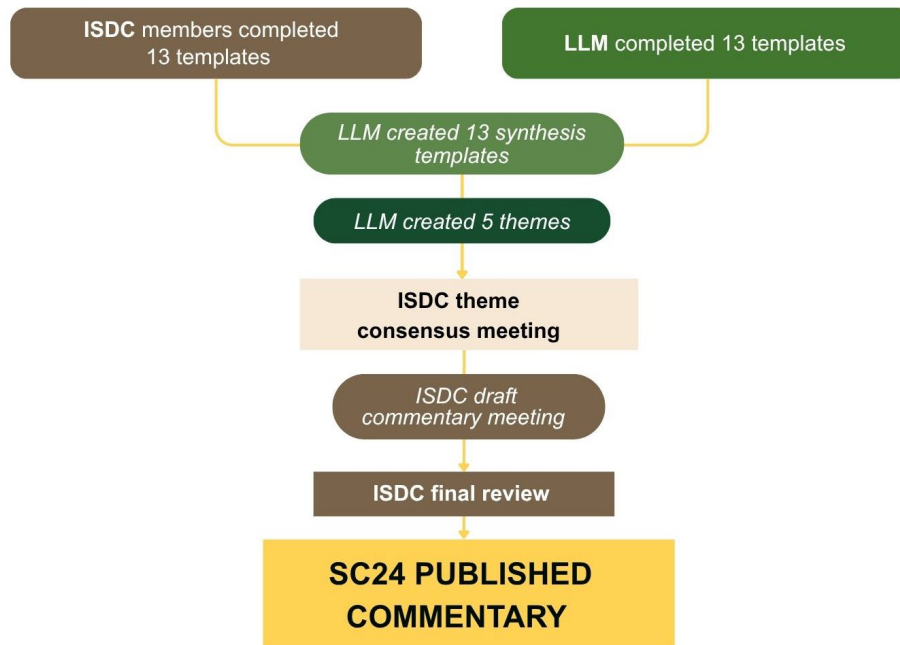
The 2026 PoRBs are important for ISDC in closing the feedback loop because they reveal how Programs/Accelerators have adjusted their Areas of Work, budgets, and performance indicators to reflect tighter funding and sharper prioritization of core activities. For example, several Programs/Accelerators explicitly concentrated pooled funding on a smaller set of high-priority activities or countries, while maintaining the possibility of expanded delivery under future “surge” funding scenarios. This reflects a broader shift toward adaptive, scenario-based planning under funding uncertainty.

ISDC acknowledges that other Portfolio progression/implementation resources such as the Touch Point webinars, 2026 annual reports and Portfolio Narrative will or have become available during the first half of 2026 and may address some of the findings in this Commentary. However, the core set of documents that were reviewed enables a forward-looking analysis grounded in materials that were formally submitted that allow comparisons across the Portfolio.

This Commentary *does not reopen* earlier reviews and ISDC *does not expect or recommend a Management Response*. The aim is to provide SC, the CGIAR Board, and leadership with a consolidated reflection on key cross-cutting issues.

# Method

ISDC used a mixed-method approach<sup>2</sup> with ISDC expert<sup>3</sup> scientific judgment and supporting AI LLM. The purpose of this method was not to replace expert review but to support a structured synthesis of large volumes of Portfolio documentation and enable more consistent identification of themes as they relate to the Inception Reports. Despite the advantages of LLMs, scientific review still requires human expert oversight and scholarly judgment (Clark, et al., 2024). Figure 2 shows the workflow described in this section.



\* Chair & ISDC and/or Secretariat reviewed each step developed by LLM, with detailed & recorded prompts.

*Figure 2 Process Map of Reflection*

Each member was matched with a Program and/or Accelerator based on their expertise to serve as the lead. The Program/Accelerator ISDC lead completed a template without the use of LLM.<sup>4</sup> Concurrently, ChatGPT (OpenAI, 2025a) completed the template. Both ISDC and LLM were instructed to only use the documents in Figure 1.

After ISDC and LLM independently completed the templates, the secretariat then developed a synthesis template using LLM for each Program/Accelerator that was cross-checked. Using the 13 ISDC and LLM completed templates, the LLM was instructed to identify five high-level themes. Five themes is often a defensible number for clarity and coverage (Braun & Clarke, 2006). The LLM development of themes enabled rapid scanning to help identify recurring themes in the QoR4D context that might not be immediately visible through manual review alone. ISDC then held consensus-building meetings to discuss and agree on the high-level themes.

The completed templates are not included as they negate the Commentary's original intent of presenting at a high level. The use of standard templates supported the joint analysis of experts and supported LLM to facilitate a consistent, transparent, and methodical approach. The template will be presented in the forthcoming document review case study.

<sup>2</sup> The case study will focus on process, methods, and learnings from incorporating LLM in the document review.

<sup>3</sup> Because of gaps in ISDC member expertise and only seven members (full ISDC membership is eight), two subject matter experts from the IAES roster were included in the expert review.

<sup>4</sup> An LLM was used for two ISDC templates to ensure accurate translation from a non-native English speaker.

# Strategic Insights and Cross-cutting Themes

Building on the structured review and synthesis process described above, this section presents a high-level reflection on cross-cutting issues emerging across the Portfolio. Although not included in the review triangulation documents, ISDC cross-checked and compared the themes presented below against the SC23 pre-read *Update on CGIAR's 2025–30 Science and Innovation Portfolio* and *EA Synthesis*. Rather than revisiting individual Program/Accelerator assessments, the focus is on common themes that have implications for the overall direction, coherence, and effectiveness of the CGIAR Portfolio.

*This section is intentionally selective and strategic.* It does not aim to provide an exhaustive account of all findings but instead highlights five priority themes that are most relevant for SC and CGIAR leadership in guiding implementation and future strategic planning. The QoR4D elements (Figure 3) provide a structured basis for identifying where progress has been made since early 2025 and where critical gaps remain that may affect the Portfolio's ability to deliver high-quality research for development outcomes.

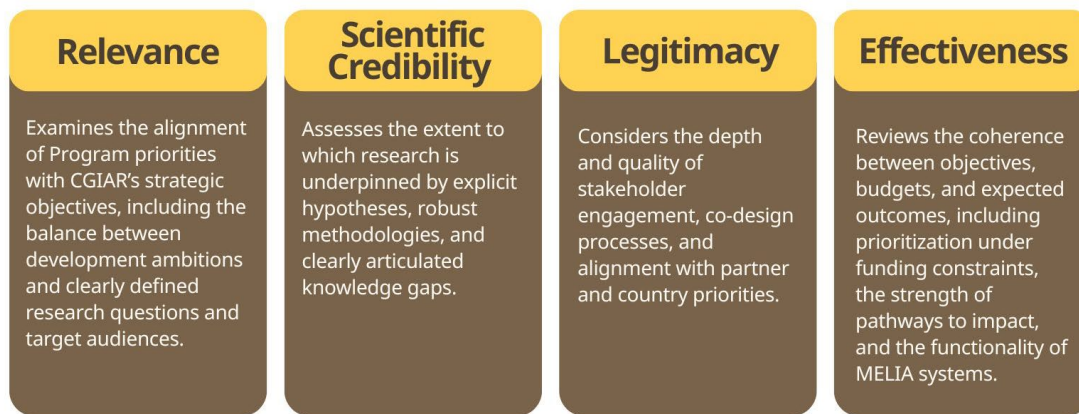


Figure 3 QoR4D Element Considerations

The reflections presented below are consistent with the findings of the EA Synthesis (pp. 9–10, 15–16), which identified recurring cross-Portfolio patterns linking intervention logic, MELIA systems, inclusion, learning, and value-for-investment. The EA Synthesis concluded that many evaluability constraints are not isolated technical gaps, but reflect broader organizational dynamics, including fragmented evidence systems, uneven operationalization of theories of change, weak integration between finance and performance evidence, and limited institutionalization of adaptive learning. Together, these findings reinforce the importance of treating Portfolio coherence, scientific articulation, inclusion, and evidence use as interconnected system-level functions rather than stand-alone Program/Accelerator issues.

The subsequent Management Response to the EA Synthesis demonstrated that CGIAR management broadly recognizes these same systemic challenges, particularly through proposed reforms to Theory of Change architecture, MELIA-finance integration, adaptive management guidance, persistent performance and results management data systems, and establishment of a Performance and Results Management Steering Group intended to coordinate evaluability functions across the Portfolio ([Management Response](#), Recommendations 1–4).

The themes below are not presented in any priority order but are recurrent patterns that emerged across the 13 Programs/Accelerators.

## **Theme: Adaptive Management and Prioritization**

A clear pattern across the Portfolio is prioritization in response to reduced and uncertain pooled funding. The Portfolio highlights an overall decline in Windows 1/2 resources, alongside a shift toward structured, evidence-based prioritization to maximize impact within tighter envelopes. In practice, Programs/Accelerators have narrowed geographic focus, reduced or restructured Areas of Work, and concentrated resources on higher-priority deliverables and impact pathways.

At the same time, management protected core and enabling functions. These adjustments reflect efforts to balance continuity of the most promising innovation pipelines with the need to phase out lower-priority or less aligned work. This is especially visible in Scaling for Impact's reduction from 32 to 18 countries, Better Diets and Nutrition's geographic concentration and pausing of Area of Work 5, Breeding for Tomorrow's protection of

Accelerated Breeding pipelines, Climate Action's narrower geographic focus, and Genebanks' explicit ringfencing of legally mandated conservation and phytosanitary functions.

An overall observation is that prioritization is now more explicitly articulated through structured, evidence-based processes at both Portfolio and Program/Accelerator levels, including impact-driven allocation logic and defined prioritization steps. However, prioritization continues to be communicated primarily through retained priorities, impact pathways, and forward-looking deliverables, rather than through a fully transparent articulation of trade-offs across scientific ambition, geography, partner engagement, and expected impact. While Portfolio progression and PoRBs provide clearer evidence of what has been stopped, added, or prioritized, they remain less explicit about how decisions compare across Programs/Accelerators or what would constitute further reductions under deeper funding constraints. As a result, the Portfolio appears more focused and methodologically grounded than earlier designs, but the definition of a clearly bounded "minimum viable" set of activities at the Portfolio level remains only partially articulated.

From a QoR4D perspective, this theme relates primarily to relevance, legitimacy, and effectiveness. Prioritization strengthens relevance by aligning resources more tightly with projected impact contributions and comparative advantage. However, legitimacy may be constrained where the basis for trade-offs and stakeholder influence on prioritization decisions is not fully transparent. This is especially true when engaging with end users, NARES, NGOs, and funding partners. Effectiveness is also implicated, as it remains difficult to assess whether the retained set of activities is sufficient, in aggregate, to sustain credible pathways to use and impact under continued resource pressure.

### ***Theme: Scientific Articulation***

A second theme is that the Portfolio is generally stronger in operational planning than in explaining how the underlying scientific rationale, hypotheses, or mechanisms support those delivery-oriented metrics and outputs. Programs/Accelerators demonstrate improved KPI frameworks, clearer links between budgets and outputs, and more structured MELIA systems. The Portfolio progression reinforces this shift through the introduction of more granular PoRBs, SMART KPIs, and deliverable-based planning.

However, this operational strengthening is not matched by equivalent clarity on research questions, hypotheses, or knowledge gaps. Across Programs/Accelerators, identifying what is being tested, learned, or potentially disproven remains difficult. Yet, there are good examples where the underlying science base is credible.

- Multifunctional Landscapes references geospatial analysis, scenario modelling, digital twins, and counterfactual assessment;
- Policy Innovations combines modelling, political economy, and Water-Energy-Food-Environment analysis;
- Better Diets and Nutrition retains randomized control trials and evaluative methods; and,
- Breeding for Tomorrow has a comparatively mature breeding-specific MELIA architecture.

The Portfolio is better at describing activities and outputs than at specifying what knowledge they are trying to produce or test; hypotheses, research questions/objectives, or knowledge gaps remain under-defined, regardless of how they are labeled or where they appear in documents (mostly in theories of change), while performance metrics focus on counting outputs such as products, trainings, or engagements. In practical terms, the Portfolio often describes how it will work but lacks clarity on exactly what it is trying to learn, test, disprove, or compare scientifically.

Across the Portfolio, indicators provide only partial coverage of growth and economic development outcomes and are less effective at capturing avoided losses, including gains in resilience, reduced climate risk, and lower vulnerability. Most Programs/Accelerators include elements of both, but in practice KPIs skew toward growth, delivery, and economic proxies, while avoided losses are under-specified, indirect, or weakly measured. The Portfolio recognizes the importance of balancing economic growth and avoided losses, but indicator systems lag behind this ambition. Plainly put, growth is measured while resilience is mostly assumed. The Portfolio risks being evaluated more on delivery performance than on knowledge generation and system transformation.

The EA Synthesis reached similar conclusions regarding MELIA and evidence systems, observing that many interventions are stronger in compliance-oriented monitoring than in evaluative learning, contribution analysis, or long-term evidence generation. The EA Synthesis specifically highlighted that indicators frequently emphasize outputs and delivery metrics, while qualitative, behavioral, resilience, and systems-change dimensions remain underdeveloped (pp. 11–12, under theme "Ambitious but Weakly-Operationalized Theories of Change").

This theme is anchored primarily in scientific credibility, with important implications for effectiveness. Under the QoR4D framework, research quality depends not only on sound methods but on clear research questions, robust

evidence logic, and dependable interpretation of findings and scientific credibility should be strengthened. Where Programs/Accelerators emphasize output-oriented KPI over learning this obscures the distinction between research progress and development activity, making it difficult to assess knowledge generation. Furthermore, limiting cumulative learning and the ability to demonstrate that research is positioned for use within a dynamic theory of change.

### **Theme: Comparative Advantage**

A third Portfolio-wide theme is that many of the Programs/Accelerators are less oriented as downstream delivery, but rather act as platforms, brokers, standards setters, and system enablers. This is explicit in:

- Digital Transformation's role in FAIR data, governance, interoperability, and shared digital public goods;
- Capacity Sharing's niche in toolbox, marketplace, South-South and Triangular Cooperation brokerage, and community-of-practice functions;
- Scaling for Impact's role in demand signaling, enabling environments, finance embedding, and adaptive management;
- Policy Innovations' strength in combining technical analysis with embedded country engagement;
- Climate Action's strongest case where CGIAR acts as a science, analytics, and coordination platform; and,
- Genebanks is framed less as a conventional development program than as a global service and stewardship platform with legal and institutional obligations.

Comparative advantage remains a critical theme as it clarifies where CGIAR adds distinctive value. The documents repeatedly suggest that the Portfolio is most credible when it provides shared methods, metrics, evidence architectures, public goods, coordination infrastructure, and country-facing integrative packages rather than claiming sole attribution for large-scale adoption or welfare change.

Instead of primarily delivering standalone research outputs (e.g., technologies, varieties, practices), the Portfolio is increasingly focused on strengthening the broader system that allows those outputs to be used.

- GEI is strongest as a system-wide source of methods and evidence on gender and inclusion.
- Multifunctional Landscapes is strongest when it turns dispersed field activity into comparable performance assessment.
- Breeding for Tomorrow is strongest as an end-to-end breeding architecture linked to NARES.
- Food Frontiers is strongest where it brokers resilience-oriented work in FCAS and islands through established partnerships.

In QoR4D terms, this reinforces relevance and effectiveness by clarifying CGIAR's comparative advantage and the pathways through which research can contribute to development outcomes. It also raises a legitimacy question: enabling portfolios need clearer accountability about who uses their outputs, under what conditions, and with what benefit to intended users. Their performance should therefore be judged less by direct attribution and more by whether they strengthen the wider research-for-development system.

### **Theme: End-User Inclusion**

Portfolio progression primarily frames impact in terms of countries and aggregate indicators, with limited detail on how different user groups shape priorities or benefit from interventions. A fourth major theme is that substantial partnership architecture and a codesign narrative exists, but less prominent is the evidence on who ultimately benefits, who has shaped priorities, and how inclusion is operationalized. Many Programs/Accelerators have engagement with government Ministries, NARES, UN agencies, think tanks, regional bodies, civil society organizations, and implementation partners, but often codesign is insufficiently detailed and it is unclear how partnerships contribute to outcomes.

A recurring issue is that *institutional* legitimacy is stronger than *social* legitimacy. Across the set, gender is usually more visible than youth, indigenous peoples, the extreme poor, or other marginalized groups. Farmer- and community-level codesign is often weaker than government or research-partner engagement. End-user hierarchies are rarely described enough to show who is the primary versus secondary target. Moreover, indicators often aggregate beneficiaries into broad categories limiting visibility of who benefits and how inclusion is achieved.

Many Programs/Accelerators can show that they consulted partners and that country demand exists, but fewer can show that vulnerable users materially shaped design choices, resource allocation, indicators, or accountability mechanisms.

This theme links most directly to legitimacy, but it also affects relevance. The QoR4D framework emphasizes fairness, ethical engagement, genuine partner involvement, and recognition of intended users' perspectives. When codesign is stronger at the institutional level than at the end-user level, it can undermine both the perceived fairness of the research process and the accuracy of how well the research addresses the needs of those most affected.

### ***Theme: Impact Pathways***

The fifth theme is that the Portfolio's most compelling Programs/Accelerators are those that connect research, partner uptake, and adaptive learning in a single pathway, rather than treating impact as an assumption. Impact pathways are increasingly well-defined through theories of change, outcome targets, and a structured modeling framework projecting contributions to 2030 and 2040. However, these pathways are more strongly articulated than empirically evidenced. Documentation continues to emphasize outputs (e.g., deliverables produced, stakeholders reached, tools launched, and trainings delivered, etc.) while evidence on realized outcomes, uptake quality, trade-offs, and end results remains limited or primarily modeled rather than observed.

Although quantified projections of long-term impact are now a central feature of the Portfolio, the underlying modeling framework has acknowledged limitations, including incomplete coverage of impact pathways and key system dynamics. As a result, insight into whether adoption is meaningful, whether resilience improves in practice, or how Programs/Accelerators adapt under changing conditions remains uneven.

ISDC acknowledges that the Portfolio is still at an early stage of implementation, but the groundwork for credible long-term outcomes must now be strengthened. Portfolio maturity will depend less on expanding outputs and more on demonstrating how prioritized work influences decisions, improves uptake quality, and produces measurable effects under real resource constraints.

This finding strongly aligns with the EA Synthesis conclusion that CGIAR's learning and evaluability systems remain fragmented across intervention logic, MELIA, and financial architectures. The EA Synthesis noted that Programs/Accelerators often articulated plausible impact pathways but lack sufficiently integrated mechanisms for tracing uptake quality, adaptation, long-term outcomes, and value-for-investment over time (pp. 15-16).

This theme sits at the core of effectiveness within the QoR4D framework. Effectiveness requires not only the production of knowledge, products, and services, but a clear and evidenced pathway for use within a credible theory of change, supported by partnerships, capacity, and enabling conditions. The strongest Programs/Accelerators are therefore those that integrate learning, uptake, and translation into research design, rather than assuming these will materialize downstream.

## In Summary

The Portfolio is more financially realistic, structured, and explicit about comparative advantage than earlier designs. Country demand and prioritization are emphasized but the Portfolio is still constrained by recurring limitations: partial visibility of trade-offs, weak research articulation, uneven end-user specificity, and overreliance on output metrics as evidence of progress de-emphasizing scientific advancement, causal inference, and learning.

Viewed through the QoR4D lens, the Portfolio is improving in relevance and effectiveness, while evidence of scientific credibility and legitimacy remains uneven across Programs/Accelerators and these should be embedded in the research culture. The most durable cross-cutting strength is the emergence of CGIAR as a provider of integrated public goods, scientific platforms, and brokerage functions across a stressed development landscape.

The subsequent Management Response to the EA Synthesis suggested that CGIAR management broadly accepts the need for stronger evaluability integration, more consistent theory of change architecture, enhanced adaptive management, improved MELIA-finance connectivity, and clearer institutional accountability for learning and evidence use. Whether these reforms materially strengthen scientific credibility, legitimacy, and long-term evaluability will depend less on framework development alone and more on sustained implementation across Programs/Accelerators and Portfolio governance processes.

Learnings from the integration of LLM into this Commentary will be shared in a forthcoming case study.

# References

- Braun, V., & Clarke, V. (2006). *Using thematic analysis in psychology*. *Qualitative Research in Psychology*, 3(2), 77–101.
- Brown, T.B., Mann, B., Ryder, N., et al. (2020). *Language models are few-shot learners*. *Advances in Neural Information Processing Systems*, 33, 1877–1901. <https://arxiv.org/pdf/2005.14165>
- Clark, W. C., et al. (2024). *Expert evaluation of LLM world models: A high-Tc superconductivity case study*. *Proceedings of the National Academy of Sciences*, 121, e2533676123. <https://doi.org/10.1073/pnas.2533676123>.
- Jersild, A., Lenne, J., Gullotta, G., et al. 2026. *Evaluability assessments of CGIAR's Portfolio 2025-2030: synthesis report*. Rome: CGIAR Independent Advisory and Evaluation Service (IAES), Evaluation Function. <https://iaes.cgiar.org/evaluation>.
- OpenAI. (2025). ChatGPT (GPT-5.3) [Large language model]. <https://chat.openai.com/>.
- OpenAI. (2025). *GPT-4.5 technical report*. OpenAI. <https://arxiv.org/pdf/2303.08774>.



Independent Science for Development Council

Alliance of Bioversity International and CIAT

Via di San Domenico 1, 00153 Rome, Italy

[isd@cgiar.org](mailto:isd@cgiar.org)

<https://iaes.cgiar.org/isd>



**CGIAR**

INDEPENDENT SCIENCE FOR  
DEVELOPMENT COUNCIL



## Enhancing ISDC Advice: Assessing Awareness, Perceptions, and Use of ISDC Advice Across CGIAR

### Executive Summary

The concept note (appendix A) proposes an assessment titled *Enhancing ISDC Advice: A CGIAR Stakeholder Awareness and Use Assessment*. Its purpose is to examine how the Independent Science for Development Council (ISDC) delivers scientific advice and how that advice can be strengthened to better support CGIAR's evolving governance, research, and strategic needs. This assessment responds to the ISDC review recommendation from the Strategic Impact, Monitoring and Evaluation Committee (SIMEC) to establish more formal feedback mechanisms with System Council (SC) and CGIAR Management ([2025](#)).

#### Objectives and Key Questions

The quasi-independent and self-commissioned study that includes bias precautions is designed to:

- assess the relevance and influence of ISDC advisory products;
- analyze how governance bodies and Portfolio management use ISDC advice in decision making and governance;
- identify barriers to applying ISDC frameworks and recommendations;
- explore communication effectiveness and gaps;
- identify emerging advisory needs and priorities; and
- inform ISDC strategic planning beyond 2027.

The study will be guided by questions examining how ISDC advice is used in governance and research planning across CGIAR. It will explore which advisory products have the greatest influence on decision-making, how consistently the QoR4D framework is applied and understood, and what barriers limit the uptake of ISDC recommendations. The study also will investigate how effectively ISDC advice informs Portfolio prioritization, what emerging scientific issues should receive greater attention, and how feedback loops between advisory input and implementation can be strengthened.

#### Stakeholders and Methods

The assessment will engage a broad cross-section of CGIAR stakeholders, including System Council members, the CGIAR Board, Global Leadership and Global Science Teams, and Program/Accelerator leads. A mixed-methods approach will be used, combining semi-structured interviews, an online survey, and a structured document review.

#### Data Analysis and Triangulation

Interview data will be analyzed using thematic analysis, survey data will be summarized using descriptive and inferential statistics, and document review findings will combine frequency analysis with content analysis. Results from all methods will be triangulated to validate findings, reduce bias, and produce a comprehensive assessment of ISDC's effectiveness.

#### Expected Outputs and Value

The assessment will produce a findings report and future action plan with key recommendations. The overall aim is to ensure ISDC continues to deliver timely, rigorous, and actionable scientific advice.

## Enhancing ISDC Advice: A CGIAR Stakeholder Awareness and Use Assessment Concept Note

The Independent Science for Development Council (ISDC) provides independent scientific advice to the CGIAR System Council and broader CGIAR leadership including the Integrated Partnership Board, Global Leadership Team, and Global Science Team to provide rigorous, independent strategic advice to the System Council. This ensures CGIAR research remains scientifically credible, relevant, legitimate, and effective.

ISDC's [Terms of Reference](#), together with the 2025 Strategic Impact, Monitoring and Evaluation Committee (SIMEC) 2025 external [review](#) of CGIAR's independent bodies, emphasized the Council's role in providing independent scientific advice on the research strategy and portfolio development. This advice is delivered through activities such as futures<sup>1</sup> and horizon scanning analyses and external reviews of research proposals supported through Window 1 and Window 2 (pooled) funding and related strategic documents. Central to ISDC's advisory work is the *Quality of Research for Development in the CGIAR Context (QoR4D)* framework, which is a framework to assess research quality across four elements: relevance, scientific credibility, legitimacy, and effectiveness.

Products that have framed ISDC advice on CGIAR portfolio development for the [2030 Research and Innovation Research Strategy](#) since 2020 included the following core publications.

- *Quality of Research for Development in the CGIAR Context* ([2020](#))
- *Identifying and Using CGIAR's Comparative Advantage and Appendices* ([2022](#))
- *Transformation through Inclusive Innovation: Literature Review and Commentary* ([2022](#)) with complementary *Agricultural Systems Special Issue "Enabling Inclusive Innovation in Agriculture and Food Systems"* ([2024](#))
- Futures and horizon scanning reports
  - *Foresight and Trade-off Implications for One CGIAR* ([2020](#)); synthesis of the following reports:
    - *Food and Agriculture Systems Foresight Study—Implications for Climate Change and the Environment* ([2020](#))
    - *Food and Agriculture Systems Foresight Study: Implications for Gender, Poverty, and Nutrition* ([2020](#))
    - *Tradeoff Analysis of Agri-Food Systems for One CGIAR* ([2020](#))
  - *Responding to Emerging Megatrends* ([2023](#))
- *Brief Primer on Tools to Prioritize a Research and Innovation Portfolio in a Complex System Involving Multiple Decision Makers* ([2025](#))

To address future needs of CGIAR, ISDC proposes to conduct a CGIAR-wide stakeholder exploration. The assessment will identify how ISDC advice (from the products above) is currently used, what advisory gaps exist, and how ISDC's products and processes can be strengthened. The findings will inform future ISDC workplans and help ensure that ISDC advisory activities remain relevant, effective, and cost efficient.

---

<sup>1</sup> Futures work refers to systematic analytical approaches used to explore potential long-term developments, emerging risks, and opportunities that may shape research priorities and CGIAR strategy.

## Purpose, Objectives, Key Questions, and Stakeholders

The purpose of this assessment is to explore how ISDC's advisory products can best support CGIAR's evolving scientific, governance, and strategic needs and to identify opportunities to enhance the effectiveness of ISDC advice across the System. A detailed methods section is available in Appendix A.

### Objectives

1. Assess the relevance of ISDC advice.
2. Evaluate how CGIAR stakeholders currently use ISDC advice and which ISDC products from those provided above most influence decision making.
3. Assess how ISDC products are used across decision making and governance processes.
4. Identify challenges and barriers to implementation of ISDC advice.
5. Identify emerging ISDC advisory needs, including horizon scanning.
6. Examine communication efficiency and evaluate gaps and usefulness.
7. Inform future ISDC strategic planning beyond 2027.

### Key Questions

- How do CGIAR stakeholders currently use ISDC advice in governance and research planning?
- Which advisory products are most useful for decision making?
- How consistently is the QoR4D framework applied across CGIAR's research portfolio? Who is applying it and at which level (e.g., related to pooled or bilateral funding, use in CGIAR Programs/Accelerators or at Centers, use for strategic or detailed planning and implementation of research)? What factors enable or hinder the consistent application of the QoR4D framework across different groups?
- What barriers/challenges limit the application of ISDC products (e.g., comparative advantage analysis)? What is the learned experience in their application?
- How effectively does ISDC advice inform Portfolio prioritization and investment decisions?
- What emerging scientific or development issues should ISDC address through futures work (e.g., urgent issues to address in the next five to 10 years)?
- How can feedback loops between ISDC advice and Portfolio implementation be strengthened? How can those feedback loops best be monitored and measured?
- Are complementary communication materials of the products useful and timely for the uptake, use and application of the products by the relevant stakeholders?

### Stakeholders

The assessment will engage stakeholders across CGIAR governance bodies, research leadership, and the scientific community. Engaging a broad set of stakeholders will ensure that ISDC advice reflects diverse perspectives. Stakeholder groups include:

- System Council
- CGIAR Board
- Global Leadership Team
- Global Science Team
- Science Program and Accelerator leaders

### **Expected Output and Value for CGIAR**

Findings will be used to prepare an action plan in early 2027 containing recommendations for implementation. The *Enhancing ISDC Advice* study report findings and action plan will strengthen CGIAR governance and scientific decision making by identifying opportunities to better align the production of independent science advice with future stakeholder needs, improving application of ISDC advisory products, and strengthening learning across the CGIAR system. Ultimately, the study will help ensure that ISDC continues to deliver timely, rigorous, and actionable scientific advice that supports CGIAR's mission.

## Appendix A: Methods

The assessment will use a mixed-methods approach combining qualitative and quantitative data collection. The modes will be one-on-one interviews, online surveys, and document analysis. Data collection and analysis are expected to be completed within three months. ISDC acknowledges the tight timeframe (figure 1) but believes it is feasible with the action plan with recommendations to be developed in early 2027.

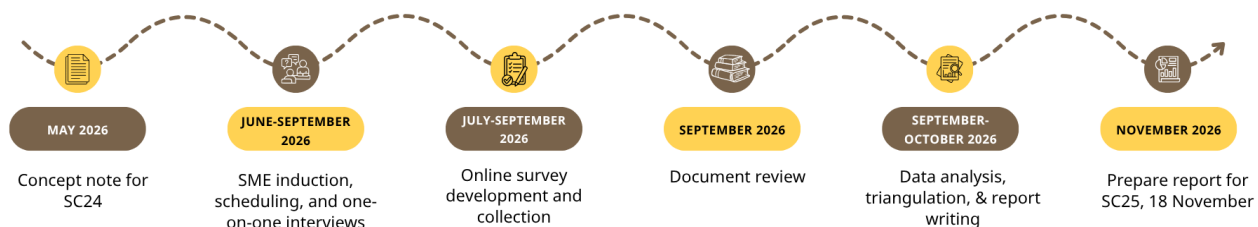


Figure 1: Study timeline

### Stakeholder Interview Strata

Semi-structured interviews will be conducted with key stakeholders (table 1). Prior to data collection, the interview guides will be reviewed by the five-member ISDC workstream. Identification of interviewees will be determined by ISDC and secretariat. The sampling strategy will target specific roles and geographies. Gender and other demographics will be balanced to ensure broad representation in the sample. Factors such as multiple CGIAR centers, P/As, different geographic regions, length of service, and both governance and operational perspectives will be considered. Interviews will be conducted and analyzed by two subject matter experts from the Independent Advisory and Evaluation Service roster to avoid bias and social desirability during data collection. Each SME will interview specific populations to maintain consistency and will deliver interview findings anonymously to encourage frank discussions. Names will not be linked and be confidential.

Table 1: Targeted Stakeholder Strata

Stakeholder Group	Rationale	Approximate Sample Size <sup>2</sup>
System Council members (funders)*	Primary recipients of ISDC advice	6
System Council members (country representatives)	Primary recipients of ISDC advice	3
CGIAR Board**	Governance leadership	4
Global Leadership Team (EMD, Center DGs)	Strategic users of advice	6
Global Science Team Chief Scientist Office	Implement research portfolio	4
Global Science Team DDG	Implement research portfolio	7
Global Science Team P/A directors***	Implement research portfolio	7
CGIAR Portfolio Areas of Work Leads	Operational users of frameworks like QoR4D	7

\* Including 1 member from SIMEC. \*\* New Board (June 2026) is comprised of Center Board Chairs \*\*\* Minimum of two Accelerators included.

<sup>2</sup> Or until data saturation is met for interviews.

### *Online Survey*

The survey will complement interviews by providing broader input on stakeholder experiences with ISDC advisory products. The questionnaire will be administered as a census of all members of the key stakeholder groups identified for interviews, rather than a sample.<sup>3</sup> Conducting a census ensures that the perspectives of all relevant stakeholders who interact with ISDC advisory products are provided with an opportunity for input.

### *Questionnaire*

The ISDC secretariat, along with ISDC members, will develop an online questionnaire that will be reviewed by the SMEs conducting the interviews and pilot tested by five CGIAR researchers to ensure reliability and validity. Responses from the pilot will not be included in data collection.

Questionnaire items will include the following.

- Likert-scale statements
- Multiple-choice questions
- Open-ended questions
- Demographics

Key thematic areas covered in the survey will include:

- Awareness, use, and areas of improvements of ISDC advisory products
  - Application and understanding of the QoR4D framework
  - Use of comparative advantage analyses and futures work in research planning
  - Relevance of ISDC advice for portfolio prioritization and strategic decision-making
  - Benefit of futures advice
- Beyond 2027 advisory needs related to futures work, horizon scanning, and emerging research priorities.

### *Survey Administration*

The survey will be administered electronically using a secure online survey platform. Invitations will be distributed via email to all individuals in the identified stakeholder groups. Participation will be voluntary, and responses will be collected anonymously to encourage candid feedback. All responses will be kept confidential.

The online survey will be administered following the Dillman Tailored Design Method, a widely used approach designed to improve response rates and data quality in survey research. Invitations will be sent via email to all individuals in the identified stakeholder populations. The survey process will include multiple carefully timed contacts: an initial invitation explaining the purpose of the assessment and encouraging participation with survey link, followed by two reminder messages to non-respondents approximately spaced one week later, and a final reminder prior to survey closure. The survey will remain open for approximately four weeks and will include mechanisms to boost participation.

Consistent with the Dillman approach, communications will emphasize the importance of stakeholder input for improving ISDC advisory functions, assure confidentiality of responses, and provide a clear and user-friendly survey format to facilitate participation. The questionnaire will

---

<sup>3</sup> Dependent on email list accessibility.

include a brief description of the purpose of the project and how findings will contribute to CGIAR's long-term success.

#### *Document Review*

To complement interview and survey findings, the study will include a structured document review of CGIAR records to assess the visibility and uptake of ISDC advice over the past six years. First, a *targeted and defined* document scan will be conducted using a predefined set of key CGIAR publications in the public domain selected for their relevance to strategy, Portfolio design, governance, and research planning. This document set may include, for example, the Portfolio Narrative, System Council meeting summaries, Inception Reports, management responses, and other formal institutional documents in which references to ISDC advice.

The review will use manifest content analysis, focusing on explicit mentions of ISDC, specific ISDC products, or identifiable recommendations. For each document, the analysis will record whether ISDC advice is mentioned, how often it appears, which advice product is referenced, and the context in which it is used (for example, citation, response, incorporation into design, or general acknowledgement). The role of Large Language Models (LLMs) to serve as a research assistant will be explored for efficiency.

This method may reduce reliance on interviewee and survey responder recall, and better account for leadership and staff turnover by identifying references made by individuals who may no longer be available for interview or survey participation. Taken together, the document review and text mining will provide an independent source of evidence that can be triangulated against interview and survey findings to assess the extent to which ISDC advice is referenced, recognized, and potentially used in CGIAR processes.

#### *Data Analysis*

##### Interview Analysis

Interview data will be analyzed using a structured thematic analysis approach. Interview notes and transcripts will be reviewed to identify recurring themes, patterns, and perspectives related to the use and relevance. Initial themes will be identified through careful reading of interview responses and organized into thematic categories aligned with the study's questions. These themes will then be summarized and compared across stakeholder groups to identify areas of convergence and divergence in perspectives. Microsoft Excel and LLMs will be used to organize interview data, track emerging themes, and support systematic comparison of responses across interviews.

##### Survey Analysis

Survey responses will be analyzed using descriptive statistical and qualitative methods. Closed-ended questions will be summarized using basic descriptive statistics, such as frequencies and percentages, to identify patterns in stakeholder perceptions. Open-ended responses will be reviewed and categorized to identify common themes, suggestions, and areas of concern raised by respondents. Inferential statistics will be used to assess whether responses differ significantly across demographic groups. Microsoft Excel will be used to compile responses, generate summary tables, and organize qualitative comments into thematic categories.

##### Document Review

Data from the document review will be analyzed using a combination of descriptive statistics and qualitative content analysis. For the targeted document set, results will first be summarized

quantitatively, including the frequency and distribution of ISDC references across document types, time periods, and governance or research processes (e.g., strategy development, proposal design, portfolio reporting). Mentions will be categorized by type of reference, such as direct citation of ISDC products, incorporation of specific recommendations, or general acknowledgement. This will allow for identification of patterns in where ISDC advice is most and least visible within CGIAR documentation.

#### Data Triangulation

Findings from interviews (developed by SMEs who conducted interviews), survey responses, and document review will be triangulated to strengthen the robustness of the analysis. This process will involve comparing and integrating evidence from the different data sources to identify consistent themes, complementary insights, and areas where perspectives differ across stakeholder groups. Triangulation will help validate key findings, reduce the influence of individual biases, and provide a more comprehensive understanding of stakeholder needs related to ISDC advice.

#### Limitations

Limitations will be identified and documented continuously throughout the study period using a structured format. In the final report, these limitations will be synthesized into a dedicated section.



## **AI for Independent Science Advice: Assessing the Role of Large Language Models in ISDC Advisory Processes Concept Note Summary**

### **Background**

The Independent Science for Development Council (ISDC) provides independent, rigorous, and strategic scientific advice to CGIAR across its research and innovation portfolio. This includes proposal reviews and strategic document assessments.

Increasing expectations for coherence, transparency, and timeliness—combined with constrained resources—are placing pressure on existing advisory processes. At the same time, advances in artificial intelligence (AI), particularly Large Language Models (LLMs), present potential opportunities to enhance elements of these processes; however, their use must be carefully evaluated and governed alongside the use of expert insight.

### **Problem**

ISDC processes are resource-intensive and must operate within tight timelines while maintaining high standards of scientific rigor and independence. At the same time, expectations for sharper focus, increasing efficiencies, stronger coherence, and more responsive synthesis are rising. The advent of LLMs offers the potential to relieve some of the workload and respond effectively within demanding timelines.

Although LLMs advances offer potential support for document-heavy tasks, their reliability, risks, and appropriate application within scientific advisory contexts remain uncertain. Despite these unknowns, recent research finds that 58 percent of researchers now use AI tools in their work, an increase from 37 percent in 2024 (Elsevier, 2026). A statistic likely outdated already.

Not using LLMs is unrealistic as their use is widespread and growing in research and review processes. The question is not whether to engage with LLMs, but how and where they should be used—particularly in decision-making contexts that require judgment, accountability, and trust. Although LLM capabilities are advancing rapidly, the governance decisions surrounding their use should not follow the same pace. Deliberate, evidence-based adoption is necessary to ensure that speed does not come at the expense of rigor, transparency, or institutional credibility.

*The question for ISDC is not simply whether LLMs would help, but how—and under what conditions—they can be used in a way that strengthens independent scientific advice. Although LLMs may offer advantages, human thought leadership still requires scholarly oversight, interpretation, and judgment.*

## Method and Timeline

This workstream adopts an exploratory, case study-based approach to assess the role of LLMs across two core ISDC advisory functions:

- Strategic document advice/reflection (Quarters 1/2; SC24 pre-read)
  - Note that the output will be *Closing the Advisory Loop: ISDC Reflections on the CGIAR 2025–2030 Portfolio Inception and Implementation* that used an LLM. A separate case study focused on detailed methods and learnings of incorporating an LLM into the process will follow (Quarters 3/4; SC25 pre-read)
- Scientific proposal reviews (Quarters 3/4; SC25 pre-read)
- Case studies will culminate in a final technical note synthesizing learning with recommendations for future ISDC use (2027)

Each case study will test structured workflows combining LLM-supported tasks with independent expert assessment. Activities will include task mapping, standardized prompting, evidence synthesis, expert validation, comparative analysis against current human-led practice, and consensus development. All assessments will be anchored in ISDC's Quality of Research for Development framework ensuring that LLM use does not replace expert judgment. The methods will specify which models are tested and versions used and how prompts are recorded, outputs are checked, and reliability and usefulness are assessed.

## Intended Outputs

Future outputs will incorporate input from SIMEC and SC. Given the rapid advancement of LLM technologies final recommendations will also reflect any significant developments in technology. The workstream will generate:

- Two-System Council pre-reads (SC25) presenting findings from each case study
- Evidence-based conclusions on where and how LLMs can appropriately support ISDC advisory functions with recommendations on governance, safeguards, and process adaptations required for responsible use in advisory functions (SC26)

The workstream will not provide general AI policy guidance for CGIAR, nor will it replace expert-led scientific review processes.

Collectively, the outputs will provide an evidence-based foundation for future decisions on the role of LLMs in strengthening the effectiveness, efficiency, and coherence of ISDC's independent scientific advice.

## Appendix A: Workstream Concept Note

The Independent Science for Development Council (ISDC) is mandated to provide independent, rigorous, and strategic scientific advice to CGIAR across the research and innovation Portfolio, particularly in relation to investments supported through Windows 1 and 2 funding. While the assessment of research proposals remains an important component of this role, ISDC's [Terms of Reference](#) extends more broadly to include futures work<sup>1</sup> and horizon scanning, priority setting, and guidance on Portfolio coherence, scientific quality, and potential for development impact.

In this capacity, ISDC provides advice to the CGIAR System Council (SC) and the wider System by informing strategic direction and strengthening alignment with CGIAR's Strategy and Results Framework and successive Business Plans. Its advisory role also encompasses the independent review of key strategic documents—such as the *2030 Research and Innovation Strategy*—to ensure their scientific robustness, relevance, and consistency with emerging global challenges and opportunities.

Periodic and Portfolio-level proposal and document assessments are central to this broader mandate. Further, the 2025 Strategic Impact, Monitoring and Evaluation Committee (SIMEC) external [review](#) of CGIAR independent bodies<sup>2</sup> endorsed future ISDC periodic assessments. These assessments provide independent validation of scientific quality, Portfolio coherence, and progress toward impact, while identifying areas for course correction, reprioritization, and improved integration across Programs and Accelerators. In that context, this workstream is intended to respond to the practical need for sharper focus, stronger synthesis, and increasing efficiencies in ISDC processes, while remaining aligned with the Quality of Research for Development in the CGIAR Context ([QoR4D], 2020).

At the same time, budgets and resources are tightening yet expectations for rigor, coherence, transparency, and efficiency in scientific advice remain high, always within tight deadlines. For example, the ISDC proposal review process was carefully structured and evaluated (ISDC, 2022), supporting that it is a time-intensive and costly undertaking (ISDC, 2024).

Across research funding systems globally, artificial intelligence (AI) tools, including Large Language Models (LLMs), are being explored to support research-related tasks and enhance business processes. However, these technologies are evolving rapidly, performance can vary materially by platform and version, task, and prompt, and outputs can be inconsistent or plainly wrong. For these reasons, their use cannot be assumed to be appropriate or reliable in science advice without explicit testing, documentation, and validation.

LLMs use must be tested and systematically assessed in science advice processes to determine where these tools can strengthen efficiency, accessibility to large amounts of information, consistency, coherence, and synthesis; where they should assist but not shape human judgment; and where they should not be used. Because technology is changing quickly, the assessment also requires a versioning protocol and documentation that allows findings to be tracked.

This workstream will explore how and under what conditions LLMs could strengthen ISDC's independent advice in 1) strategic document advice and 2) scientific proposal reviews. Given the

---

<sup>1</sup> Futures work is the structured practice of anticipating and analyzing alternative future scenarios to guide strategy and action today.

<sup>2</sup> "SIMEC considers the periodic assessment of research programs and accelerators by ISDC at strategic moments in the business cycle as the main priority for SC. SIMEC suggests a new mechanism for tracking uptake of the main ISDC recommendations of portfolio reviews. This element should be further elaborated by ISDC and SIMEC in 2026" (p.11, 3.8).

rapid advancement of LLM technologies, and the fact that case study outputs will be delivered throughout 2026, the final recommendations will take account of significant changes in technology while keeping the evidence base tied to the platforms and versions tested. Because of the inherent limitations and risks associated with LLMs, ISDC's case studies will adopt two approaches. The document review case study will be live (learn by doing) while the proposal review case study will be retrospective.

The workstream is exploratory and evaluative. Findings do not assume adoption or replacement of subject matter expert (SME) or ISDC member judgments. Instead, the case studies will test two workflows to determine whether LLMs can responsibly, safely, and securely augment selected functions in ways that improve efficiency, coherence, synthesis, and responsiveness, while preserving scientific rigor, contextual judgment, and integrity.

*The question for ISDC is not simply whether LLMs would help, but how—and under what conditions—they can be used in a way that strengthens independent scientific advice. Although LLMs may offer advantages, human thought leadership still requires scholarly oversight, interpretation, and judgment.*

### Key Questions

The workstream will assess:

- Which elements of ISDC advisory activities are appropriate, conditionally appropriate, or inappropriate for LLM support.
- Whether LLMs can improve efficiency, information accessibility, synthesis, cross-comparison, and handling of large appendices without degrading review quality.
- Whether LLMs work better on checklist-style QoR4D components or on interpretive, judgment-heavy components.
- What risks emerge, including bias, inconsistency, false coherence, automation bias, and overconfidence, and how those risks can be mitigated.
- What governance principles and safeguards would be required for future use.
- How privacy, confidentiality, and data security will be protected, including whether materials are processed in external Application Programming Interfaces<sup>3</sup> (APIs) or closed environments.
- How prompts should be designed, standardized, documented, and validated so that testing is robust, reproducible, and reviewable.
- Which specific LLMs are most suitable for which advisory tasks, including strengths, weaknesses, and cross-model differences.

### Analytical Framework

ISDC will develop and test two case studies with the use of LLM and experts. All testing will be explicitly anchored in the four QoR4D elements of relevance, scientific credibility, legitimacy, and effectiveness. LLM-supported functions will be assessed against three core principles:

1. LLM must not weaken attention to relevance, legitimacy, credibility, or effectiveness.
2. LLM must not replace human judgment about context, values, or what is appropriate.
3. LLM must enhance synthesis and coherence without diminishing disagreement, nuance, or diversity of individual expert and consensus interpretations.

---

<sup>3</sup> An API is a structured interface that lets one program request data or functionality from another program.

## Methods and Platform Specification

For each case study, ISDC will document the methods used for testing. At minimum, each report will record the platform name, provider, model version or release date, access mode, and whether a single platform or multiple platforms are being tested. When more than one platform is tested in the proposal review case study, the same task and prompt set will be used to enable direct comparison across platforms.

Prompting procedures will be standardized and recorded. The documentation will state who drafted prompts, whether prompts were revised during testing, and how prompt variants affected outputs. This will help assess both performance and sensitivity to prompt design.

Validation will combine expert cross-checking, comparison with current human-led practice, and repeat testing on the same task to assess consistency. The assessment will examine whether LLM-assisted workflows improve usefulness, timeliness, coherence, or coverage without weakening rigor or judgment.

Data-handling protocols will be documented for each case study, including what materials are processed, whether any content is sent to external APIs, what confidentiality safeguards apply, and whether any retrieval augmentation or fine-tuning is involved. This is necessary to ensure that testing is transparent, reproducible, and compatible with ISDC confidentiality requirements.

## Approach to Case Studies

The current standard practice for ISDC advice generation varies depending on the task. Examples of previous work without the use of LLMs include the following.

- Strategic document advice
  - Previous example includes: [ISDC Feedback for One CGIAR Research and Innovation Strategy Scientific Proposal Reviews](#)
- Scientific proposal reviews
  - Previous example includes: [ISDC Review of 2025-2030 Research & Innovation Portfolio Proposals](#)

### Case Study Task Mapping

For each case study, process steps will be examined to assess its complexity, how much personal judgment it requires, and how risky it would be to automate. Based on ISDC prioritizations, the steps will determine:

- Tasks where LLMs could reasonably help.
- Tasks where LLMs could assist but humans must stay in control.
- Tasks that should remain entirely human-led.

### Strategic Document Advice

The case study for Strategic Document Advice, was live tested (Quarter 1/2 2026) and one output will be a SC24 pre-read entitled *Closing the Advisory Loop: ISDC Reflections on the CGIAR 2025–2030 Portfolio Inception and Implementation*. The case study focused on LLM use will follow. This study pilots one LLM (ChatGPT, OpenAI, 2025a), alongside ISDC expert review, to synthesize large document sets and identify cross-Portfolio patterns. ISDC methods for this case study (figure 1) included independent template reviews (expert and LLM), synthesis and expert validation, theme analyses, and advisory output. The case study analysis will include detailed methods.

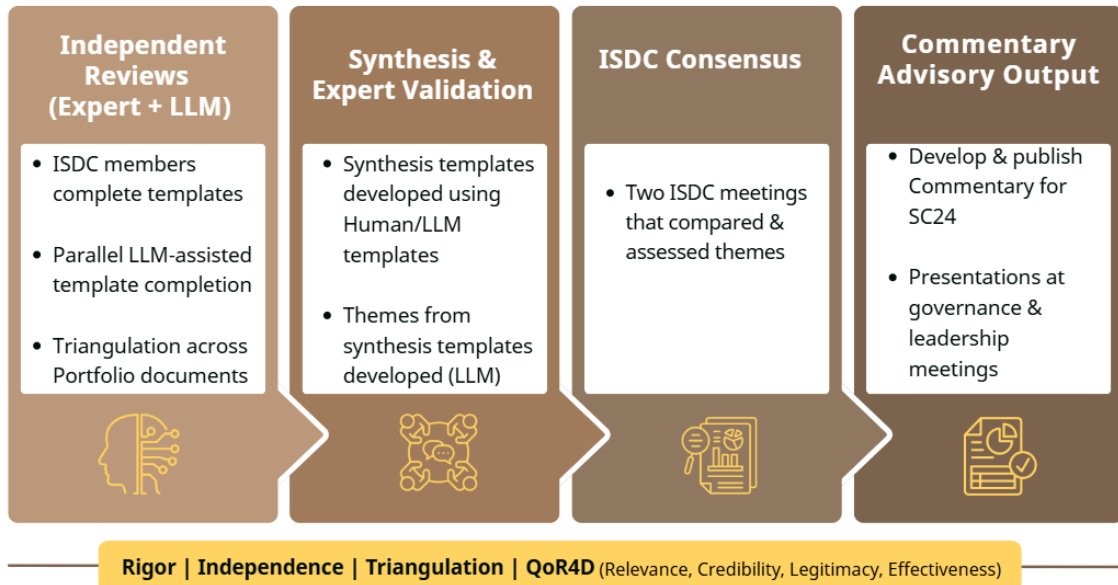


Figure 1: Closing the Advisory Loop: ISDC Reflections on the CGIAR 2025–2030 Portfolio Inception and Implementation Workflow (Strategic Document Advice)

Proposal Reviews

The case study for Proposal Reviews will occur in the latter half of 2026 and the output will be a SC25 pre-read entitled *Exploring the Use of AI Large Language Models in Independent Proposal Reviews*. ISDC current (human only) review process (figure 2) will be assessed to identify where LLMs could play a beneficial role. The case study will use pre-existing materials from previous ISDC proposal reviews to avoid unnecessary reputational risks associated with an independent external proposal review for funding with a tight timeline.

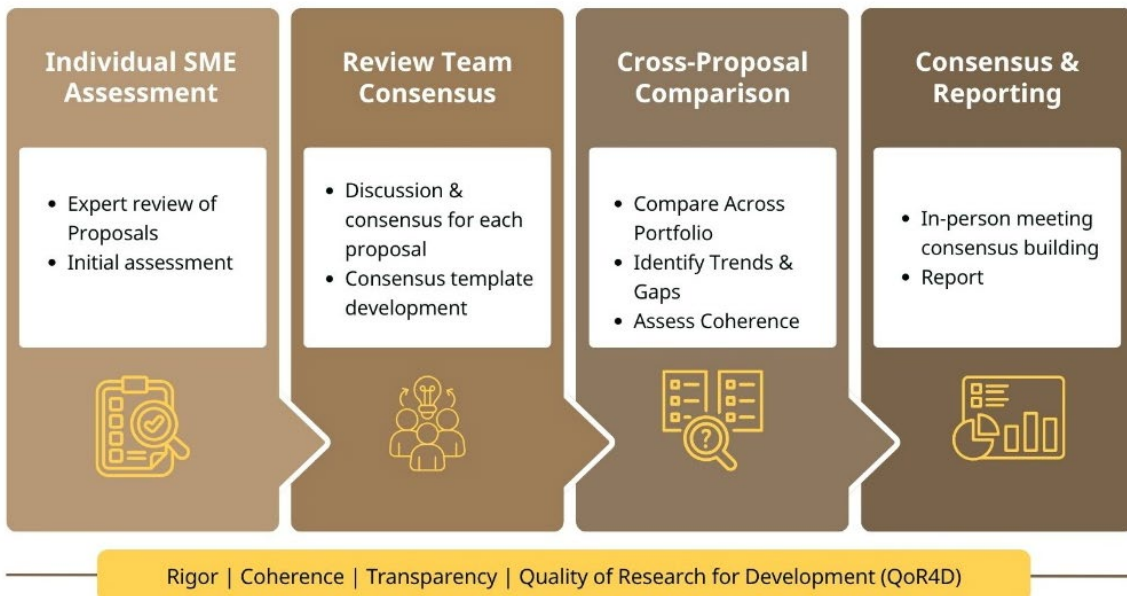


Figure 2: Current Independent Scientific Proposal Review Workflow without the Use of LLM.

## A Comment on Ethics, Governance, and Safeguards

Governance considerations will be treated as core analytical dimensions. The case studies will explicitly examine:

- Transparency and explainability
- Contestability
- Bias risks
- Confidentiality and data protection (and IP)
- Accountability for final judgments
- Safeguards against automation bias

## Intended Outputs Aligned with Key Questions Per Case Study

The workstream will generate a structured set of outputs explicitly designed to address the key analytical questions guiding the case studies. However, based on the rapidly evolving landscape of LLMs, adaptations to the case studies may occur.

The case studies will produce SC pre-reads and accompanying technical analysis that provides:

- Task-level assessment of LLM suitability, identifying which elements of ISDC advisory activities are appropriate, conditionally appropriate, or inappropriate for LLM support.
- Evidence on efficiency gains, including the extent to which LLMs improve synthesis, cross-comparison, and handling of large annexes, without compromising review quality.
- Comparative analysis of task types, assessing whether LLMs perform more effectively in structured, checklist-based QoR4D components versus interpretive, judgment-intensive elements.
- Risk identification and mitigation strategies, including bias, false coherence, automation bias, and complexity risks.
- Assessment of model performance, including strengths and limitations of different LLMs for specific advisory tasks.
- Evaluation of prompt design considerations, including how prompt structure influences reliability and output quality.
- Analysis of data security considerations, including implications of open versus closed systems for confidentiality and integrity.

## 2027 Synthesis Output

A consolidated report (2027) will synthesize findings across both case studies and provide:

- Clear guidance on where and how LLMs can add value within ISDC advisory workflows.
- Defined boundaries for use, identifying functions that must remain fully human-led.
- Recommended governance framework, including principles for transparency, accountability, bias mitigation, and appropriate use.
- Operational safeguards, including approaches to ensure data protection, prompt integrity, and responsible deployment.
- Implications for process adaptation, including how ISDC workflows may need to evolve if LLM use is endorsed.

## Supplementary Outputs

Where appropriate, the workstream will also produce:

- Peer-reviewed publications on individual case studies or cross-cutting findings.
- Methodological contributions relevant to the use of LLMs in scientific advisory processes within multilateral research systems.

**The case studies will NOT deliver the following:**

- A comprehensive assessment of the broader ethical implications of LLMs, such as societal bias, labor impacts, or general-purpose AI governance. Ethical considerations are addressed only insofar as they directly affect the integrity of the ISDC proposal review process, specifically in relation to transparency, bias in outputs, confidentiality, and accountability for judgments.
- Guidance to CGIAR on how LLMs should be used in other CGIAR workflows.

**Future Impact**

This work provides ISDC with an evidence-based foundation for decision making on use of LLMs in independent scientific advice. The outputs are not technological recommendations but rather evidence on:

- Where and how LLMs can add value.
- Where and how LLM should not be used as a complementary tool in proposals reviews.
- What review processes will need updating if SC supports adoption of LLMs in ISDC advice workflows
- Provide workflows for human and LLM integrated activities.

## References

- Clark, W. C., et al. (2024). *Title of the article. Proceedings of the National Academy of Sciences*, 121(xx), e2533676123. <https://doi.org/10.1073/pnas.2533676123>.
- Elsevier. (2026). *Researcher of the Future: A Confidence in Research Report*. <https://assets.ctfassets.net/o78em1y1w4i4/1375mnpRSP2mSuhDxtFdls/72a1777e8a72f3c60748956037f76433/Researcher-Of-The-Future.pdf>.
- ISDC. (2022). *Application of the Quality of Research for Development framework to Initiative reviews: Lessons learned*. Rome: Independent Advisory and Evaluation Service. <https://iaes.cgiar.org/isdc/publications/application-quality-research-development-framework-cgiar-initiative-reviews>.
- ISDC. (2024). *ISDC Review of 2025-2030 Research & Innovation Portfolio Proposals*. Rome: CGIAR Independent Advisory and Evaluation Service. <https://iaes.cgiar.org/isdc/publications/isdc-review-2025-2030-research-innovation-portfolio-proposals>.
- OpenAI. (2025). ChatGPT (GPT-5.3) [Large language model]. <https://chat.openai.com/>.