

CGIAR System Board  
 18<sup>th</sup> meeting, Virtual  
 Monday 23 November, 15:00-18:00 Paris time

CGIAR Performance and Results Management Framework 2022-2030

<b>Distribution Notice:</b>	May be shared without restriction
<b>Agenda Item</b>	2: One CGIAR – Matters for decision
<b>Purpose:</b>	To provide an overarching CGIAR Performance and Results Management Framework that describes the processes, systems and measures for management of CGIAR’s performance and results that will support delivery of the CGIAR 2030 Research and Innovation Strategy.
<b>Document pathway:</b>	This document has been developed by the System Management Office with input from subject-matter experts including the Monitoring, Evaluation and Learning Community of Practice (MELCoP) Steering Committee, CGIAR Science Leaders, members of the CGIAR Transition Consultation Forum, System Board members, and public consultation feedback received from 28 commentators including CGIAR funders, partners and staff.
<b>Details of the Board’s last deliberations on this matter:</b>	This is the first time the Board has considered the proposed Performance and Results Management Framework to support delivery of the CGIAR Research and Innovation Strategy.
<b>Requested action:</b>	For endorsement, in advance of submission to the System Council for its approval.
<b>Draft decision point:</b>	Pursuant to Article 8.1 (gg) of the Charter of the CGIAR System Organization, the CGIAR System Board <u>endorses</u> the CGIAR Performance and Results Management Framework for submission to the System Council for approval
<b>CGIAR Risk Management Framework linkages:</b>	<p>Risk Family 1: CGIAR is no longer a front runner</p> <p>Critical Success factors:</p> <ul style="list-style-type: none"> <li>• CGIAR Science is relevant and cutting edge</li> </ul> <p>Risk Family 2: CGIAR loses its central role in Agricultural Research for Development</p> <ul style="list-style-type: none"> <li>• Intellectual assets produced by CGIAR are managed innovatively and leveraged by the scientific and development communities</li> <li>• Research activities are well deployed and coordinated in target countries</li> <li>• CRPs and Platforms deliver on the objectives of the SRF</li> </ul> <p>Risk Family 3: Non adherence to appropriate values</p> <ul style="list-style-type: none"> <li>• Ethical research practices employed to achieve research results</li> </ul>

## CGIAR Performance and Results Management Framework

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Risk Family 4: Unsatisfactory evidence and assurance received

- Impact evidenced by hard data
- Funds used in accordance with approved annual work programs and budgets
- Activities implemented for CRPs, platforms and flagships as agreed with Funders
- Delivery of portfolio adequately evidenced and visible
- Project assessment and lifecycle management are effective

Risk Family 5: Poor execution undermines capability

- Adequate use of intellectual property and licensing tools maximizes accessibility and/or impacts including via the production of International Public Goods.
- CGIAR System adds significant value to outweigh related costs and constraints

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**Issue date:** 19 November 2020

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**Supporting documents for this meeting:** SB18-02ai – Final draft CGIAR 2030 Research and Innovation Strategy

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## Executive Summary

1. CGIAR requires a fit for purpose approach to Performance and Results Management to support delivery of the CGIAR 2030 Research and Innovation Strategy.
2. An effective, proportionate and illuminating performance and results management approach which supports the development, testing and adaptation of theories of change can help drive coherence, focus resources, and assist CGIAR research in navigating complexity and uncertainty to achieve impact.
3. A Performance and Results Management for research and innovation delivers responsible stewardship and assurance for funders, providing transparent, timely and robust evidence of CGIAR's delivery against expectations, value, and return on investment. An effective approach should deliver accountability to beneficiaries and funders, provide the basis for learning, and support external communication of CGIAR impact.
4. The attached Performance and Results Management Framework sets out:
  - A new, streamlined CGIAR results architecture aligned to the Sustainable Development Goals,
  - The basis for Initiatives to quantify their projected impacts and adaptively manage progress towards delivery through strengthened use of theory of change, projected benefits and stage-gates,
  - An improved approach to innovation management and scaling based on the principles of *Scaling Readiness*,
  - Entry points for putting the Independent Science and Development Council's *Quality of Research for Development* principles into practice, and making better use of independent evaluations and impact assessments,
  - Key features of a common Performance and Results Management System housing plan of work and budget, theory of change management, stage-gate decision points, and annual reporting processes.
5. Building on existing strengths, the Performance and Results Management Framework has been designed to respond to:
  - Features of CGIAR Initiatives, and recommendations on prioritization of CGIAR Initiatives (from System Reference Group Recommendations, approved by System Council, November 2019),
  - Criteria for CGIAR Initiatives (adapted by Transition Consultation Forum TAG2 from the Eschborn Principles, April 2020),
  - The 2019 Multilateral Organisation Performance Assessment Network (MOPAN) CGIAR assessment, and the 2020 management response to that assessment,
  - Lessons from the pilot Program Performance Management Standards assessment concluded in 2019, and emerging findings from the ongoing Advisory Services-managed independent evaluative reviews of the current CGIAR portfolio.

6. The Framework has been developed collaboratively. It incorporates input from subject-matter experts including the Monitoring, Evaluation and Learning Community of Practice (MELCoP) Steering Committee, CGIAR Science Leaders, members of the CGIAR Transition Consultation Forum, and public consultation feedback received from 28 commentators including CGIAR funders, partners and staff.
7. Pending System Board and System Council approval, the Framework will now be put into practice to align with CGIAR Investment Plan and CGIAR Initiative process needs and deadlines. Ongoing and future technical work will flesh out key details, provide user guidance, test and refine solutions, and build practical tools. This will be led by a Task Team, who will further engage across CGIAR to ensure user requirements, including capacity needs, are met.



# CGIAR Performance and Results Management Framework 2022-2030

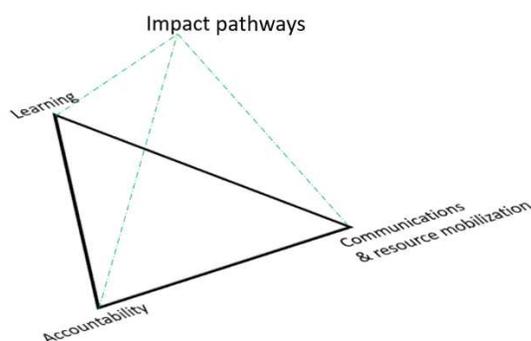
Companion document to the CGIAR 2030 Research & Innovation Strategy

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## 1. Introduction

1. This Performance and Results Management Framework (PRMF) describes the processes, systems and measures for managing CGIAR's performance and results. This will support delivery of the CGIAR 2030 Research and Innovation Strategy. It provides the basis for CGIAR's:
  - **Accountability:**
    - Provide transparent, timely, robust evidence of CGIAR's outputs, outcomes and impacts, and return on investment,
  - **Learning:**
    - Improve performance over time, based on experience,
    - Adaptive management,
    - Treating success and failure with the same spirit of enquiry and openness,
  - **Communications and resource mobilization:**
    - Provide evidence and content to help align, elevate and diversify the way that CGIAR approaches communications, advocacy and resource mobilization.
  
2. The PRMF supports CGIAR's impact pathways through:
  - Providing accurate and ready access to CGIAR results to enable uptake by partners and research users,
  - Generating knowledge on CGIAR's contributions to development, allowing partners and CGIAR to co-define clear roles for CGIAR within specific innovation systems and strategic partnerships,
  - Providing evidence to inform decisions on impact-oriented investment in research and innovation,
  - Building capacity to effectively manage performance (Figure 1).



*Figure 1 The Performance and Results Management Framework enables CGIAR to meet learning, accountability and communications & resource mobilization objectives – and supports CGIAR's impact pathways*

3. The PRMF provides a mechanism through which Initiatives will quantify their projected impact based on a robust and evidence-based theory of change, and track progress and contribution towards that impact over time. This line of sight from CGIAR Initiative investment to Sustainable Development Goal (SDG) contribution will facilitate delivery of

outcomes and impact from CGIAR's work through systematic and transparent planning, monitoring and learning about performance, return on investment, and CGIAR's contributions to impact at scale.

4. Stop-go decision points (stage-gates) will apply to all CGIAR Initiatives and be used to manage all Initiative sub-components. Using this approach, CGIAR Initiatives will be assessed at decision points known as stage-gates. Stage-gates will inform progression of Initiatives and resource allocation within Initiatives to the most promising and potentially impactful components, as well as frame adaptive management and learning. Building on investments made in the 2011-2021 portfolio, a fit-for-purpose Performance and Results Management System that encompasses planning, monitoring and reporting will support PRMF delivery.

## 2. Impact pathways through innovation systems

5. CGIAR adopts an **innovation systems** approach to frame its role and contribution towards positive impact on people and their environments across the five impact areas. Innovation systems are the interlinked set of people, processes, assets and social institutions that enable the introduction and scaling of new ideas, products, services and solutions to deliver impact. This will involve multiple partners and enablers.
6. Using an overall framing of innovation systems, CGIAR measures its effective contributions from research to impact along **impact pathways**. These trace the potential routes for innovations to move from co-creation to impact at scale. **Innovations** are new ideas, products, services and solutions capable of facilitating impact through innovation systems involving multiple partners and enablers. Explicit impact pathways, which chart clear courses through innovation systems, will be articulated through testable Initiative **theories of change** (ToCs). ToCs locate activity within broader innovation, economic and social systems, and set out our understanding and assumptions around how CGIAR and other partners can deliver change along impact pathways.
7. Theories of change will include combinations of targeted capacity development, specific changes to policy and enabling environment, and the introduction of new technology required to deliver impact at scale. Innovation may be required in some or all these three areas and will likely need to be accompanied by tried-and-tested activities to achieve scale or systemic change. CGIAR refers to this combination of complementary and interdependent innovation activities<sup>1</sup> as an **innovation package**.
8. CGIAR's **Performance and Results Management** approach will inform stage-gating, and support the evidence-based validation or adaptation of theories of change. This in turn

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<sup>1</sup> Following the [Eurostat/OECD Oslo Manual](#) (2005), *innovation activities* are all scientific, technological, organizational, financial and commercial steps which actually, or are intended to, lead to the implementation of innovations. Innovation activities also include R&D that is not directly related to the development of a specific innovation.

will help the innovation package to navigate complex, context-dependent systems which will themselves continue to change over time, and so increase the likelihood of achieving scale and impact.

9. Examples of CGIAR innovation activities that may form interrelated components of an innovation package include:
- **Capacity development:** the knowhow and capacities of individuals, firms, organizations and networks to design, test, validate and use innovations. Alternatively, new ideas or solutions in capacity development can in themselves represent innovations which can lead to impact. These include training-of-trainers at the farmer level, training programs with public and private sector partners, connecting public-private networks, PhD and MSc training with universities, ongoing institutional support to national partners, particularly NARES, and decision support for policymakers.
  - **Policies:** the public policy, legislation, public and private delivery and business strategies that create an enabling environment in which innovations can move to scale, or which in themselves represent innovations which can lead to impact. These include support of effective public-private-partnership models, support to the design and testing of (novel) policy arrangements and instruments (e.g. seed systems, certification, subsidy programs, market, finance and regulatory mechanisms), engagement in policy dialogue at all levels, as well as policy analysis, foresight and providing global architecture for collaborative international agricultural research.
  - **Technologies:** the varieties, machines, management practices, products and tools – including big data and information tools – whose use can lead to benefits, gains or efficiencies, and whose deployment at scale can lead to impact. Activities include breeding, agronomy, participatory design, testing and validation of crop and animal management practices.

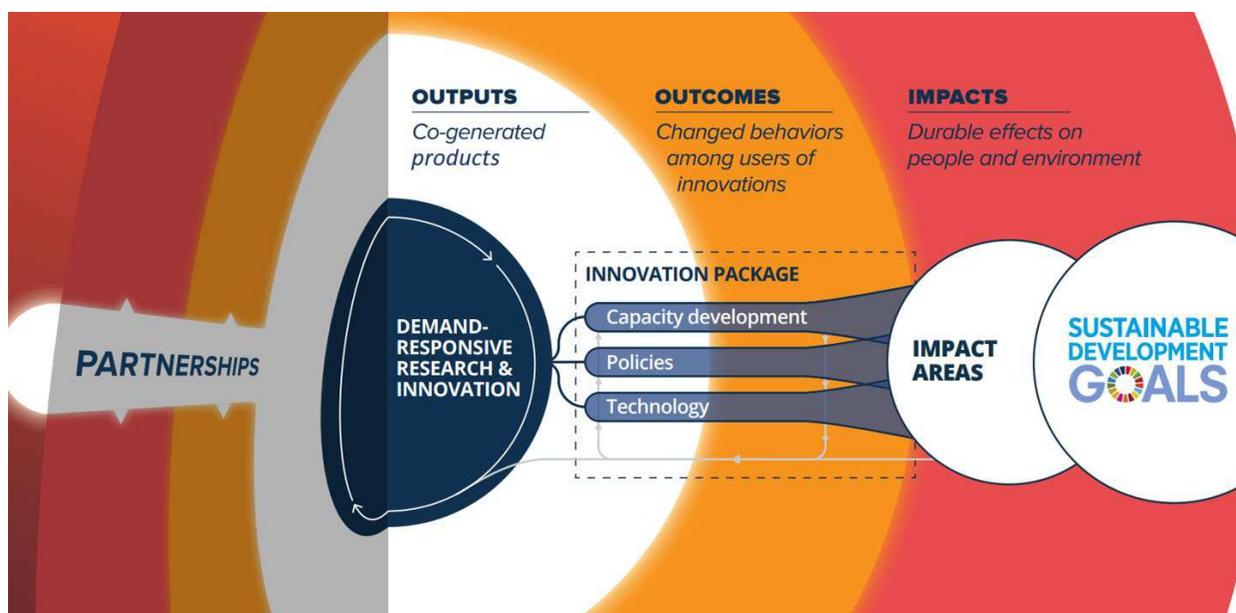


Figure 2: Impact pathways through innovation systems, with innovation packages of capacity development, policies and technologies at the heart of transitions towards CGIAR Impact Areas and SDGs.

### 3. Results framework

10. CGIAR’s results framework is directly aligned to the five impact areas and Sustainable Development Goals. Three distinct result types: outputs, outcomes and impacts are mapped to the spheres of Control, Influence and Interest, respectively.
- **Output:** Knowledge, technical or institutional advancement produced by CGIAR research, engagement and/or capacity development activities. Examples of outputs include new research methods, policy analyses, gene maps, new crop varieties and breeds, or other products of research work.
  - **Outcome:** A change in knowledge, skills, attitudes and/or relationships, which manifests as a change in behavior of users of outputs, to which a combination of research outputs and related activities have contributed.
  - **Impact:** A durable change in the condition of people and their environment brought about by a chain of events or change in how a system functions to which research, innovations and related activities have contributed.

#### Indicators – Spheres of control and influence (outputs and outcomes)

11. A small set of output and outcome indicators span the spheres of control and influence and are largely drawn from the 2017-21 CGIAR portfolio, optimized based on experience to suit CGIAR 2022-2030 needs. An illustrative list provided below, and will likely evolve to suit needs over time.

- I. **Capacity development:**
    - Number of people trained (including Masters and PhDs) disaggregated by gender.
    - Change in the science & knowledge capacity of key (i) Individuals, (ii) Organizations (government, civil society and private sector), and (iii) Networks (e.g. multi-stakeholder platforms).
  - II. **Policies:**
    - Number of policies/ strategies/ laws/ regulations/ budgets/ investments/ curricula modified in design or implementation, informed by CGIAR research.
    - Three levels of maturity: (i) research taken up by next user, (ii) policy enacted, and (iii) evidence of impact on people and/or environment of the policy.
  - III. **Products:**
    - Number and type of products/ ideas/ services/ solutions delivered.
    - Product types: (i) Genetic varieties and breeds, (ii) Production systems and management practices, (iii) Social science research, (iv) Biophysical research, (v) Research and communication methodologies and tools, (vi) Knowledge products.
    - For knowledge products:
      - i. Number of peer-reviewed journal papers and their uptake: CGIAR research papers published in peer-reviewed journals (Open Access, ISI, citation indices, Altmetric attention score).
      - ii. Number of other knowledge products and their uptake, including: Book chapters, maps and geospatial data, databases, grey literature, policy briefs, conference papers and posters, training materials (Altmetric attention score, adherence to FAIR Principles – Findable, Accessible, Interoperable, Reusable).
  - IV. **Partners:**
    - Number, type and role of partners along impact pathways.
    - Partner typology will align with an international standard, e.g. the International Aid Transparency Initiative (IATI).
  - V. **Additional, Initiative-specific indicators:**
    - Additional Initiative-specific indicators required and/or beneficial to understanding progress and contribution to impact that do not fit easily within other standard categories
12. Successfully delivering the outputs and outcomes detailed above are necessary, but not in themselves sufficient for achieving the impacts detailed in the next section. This will depend not just on CGIAR success, but also on developments outside of the direct control and influence of CGIAR.
  13. **Innovation packages:** A combination of carefully selected, measurable milestone, output and outcome indicators drawn from the list above, embedded within testable theories of change which map clear paths for innovation packages to achieve impact, and tracked

through appropriately timed results reporting, will allow adaptive management during delivery, such that their potential for achieving different impacts is increased. The collective progress of an innovation package along an impact pathway can be assessed using the following framework, with lower levels indicating output-level activity, and higher levels seeing success through outcomes towards impact:

1. Readiness (design, testing and validation of innovation) Level I: Discovery – Low Innovation Readiness, Level II: Successful piloting – Medium Innovation Readiness, Level III: Available or ready for uptake - High Innovation Readiness.
  2. Use (scaling of innovation) Level I: Uptake by project and partners – Low Innovation Use, Level II: Uptake by next user – Medium Innovation Use, Level III: Uptake by end user – High Innovation Use.
14. Across all innovation packages, we will estimate the number of people using CGIAR innovations over time, as a critical outcome-level indicator which provides a clear stepping stone towards the impacts we seek to achieve.

#### Indicators: sphere of interest (impact)

15. CGIAR will deliver relevant results into shared impact pathways, contributing science to inform system transformation in ways that achieve the sustainable development goals. CGIAR is targeting multiple benefits across five impact areas, aiming for net positive impact on: (i) Nutrition, health & food security; (ii) Poverty reduction, livelihoods & jobs; (iii) Gender equality, youth & social inclusion; (iv) Climate adaptation & mitigation; and (v) Environmental health & biodiversity. These benefits are closely linked to the SDGs, particularly SDG2 on Zero Hunger, but also SDG1: No poverty, SDG 3: Good health and wellbeing, SDG 4: Quality education, SDG 5: Gender equality, SDG 6: Clean water and sanitation, SDG 7: Affordable and clean energy, SDG 8: Decent work and economic growth, SDG 9: Industry, innovation and infrastructure, SDG 10: Reduced inequality, SDG 11: Sustainable cities and communities, SDG 12: Responsible consumption and production, SDG 13: Climate action, SDG 14: Life below water, SDG15: Life on land, SDG 16: Peace and justice strong institutions and SDG 17: Partnership to achieve the goals.
16. For each of the five impact areas, CGIAR will contribute to collective global 2030 targets for transformation of food, land and water systems across local, regional and global levels. In support of these collective global targets, all CGIAR Initiatives will use common impact indicators to link their results in the spheres of control and influence to the five impact areas and SDGs (see Annex 1 for target details):

CGIAR Performance and Results Management Framework 2022-2030

Impact area	Collective global 2030 targets	Proposed common impact indicators attributable to CGIAR
Nutrition, health & food security	<p>End hunger for all and enable affordable healthy diets for the 3 billion people who do not currently have access to safe and nutritious food.</p> <p>Reduce cases of foodborne illness (600 million annually) and zoonotic disease (1 billion annually) by one third.</p>	<p>#people benefiting from relevant CGIAR innovations</p> <p>#people meeting minimum dietary energy requirements</p> <p>#people meeting minimum micronutrient requirements</p> <p>#cases communicable and non-communicable diseases</p>
Poverty reduction, livelihoods & jobs	<p>Lift at least 500 million people living in rural areas above the extreme poverty line of US \$1.90 per day (2011 PPP).</p> <p>Reduce by at least half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.</p>	<p>#people benefiting from relevant CGIAR innovations</p> <p>#people assisted to exit poverty</p>
Gender equality, youth & social inclusion	<p>Close the gender gap in rights to economic resources, access to ownership and control over land and natural resources for over 500 million women who work in food, land &amp; water systems.</p> <p>Offer rewardable opportunities to 267 million young people who are not in employment, education or training.</p>	<p>women's empowerment and inclusion in the agricultural sector</p> <p>#women benefiting from relevant CGIAR innovations</p> <p>#youth benefiting from relevant CGIAR innovations</p> <p>#women assisted to exit poverty</p>
Climate adaptation & mitigation	<p>Implement all National adaptation Plans (NAP) and Nationally Determined Contributions (NDC) to the Paris Agreement.</p> <p>Equip 500 million small-scale producers to be more resilient to climate shocks, with climate adaptation solutions available through national innovation systems.</p> <p>Turn agriculture and forest systems into a net sink for carbon by 2050, with emissions from agriculture decreasing by 1 Gt per year by 2030 and reaching a floor of 5 Gt per year by 2050.</p>	<p>#tonnes CO<sub>2</sub> equivalent emissions</p> <p>#plans with evidence of implementation</p> <p>#\$ climate adaptation investments</p> <p>#people benefiting from climate-adapted innovations</p>
Environmental health & biodiversity	<p>Stay within planetary and regional environmental boundaries: consumptive water use in agriculture of under 2500 km<sup>3</sup> per year (with a focus on the most stressed basins), zero net deforestation, nitrogen application of 90 Tg per year (with a redistribution towards low-input farming system) and increased use efficiency; and phosphorus application of 10 Tg per year.</p>	<p>#ha under improved management</p> <p>#km<sup>3</sup> consumptive water use</p> <p>#ha deforestation</p>

Impact area	Collective global 2030 targets	Proposed common impact indicators attributable to CGIAR
	Maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed genebanks at the national, regional and international levels.	#Tg nitrogen application  #plant genetic accessions available and safely duplicated

17. In support of these global targets, specific impact pathways and indicators will be identified for each CGIAR Investment Plan. All CGIAR Initiatives within these Investment Plans will develop an accountability framework of the outputs, outcomes and impacts that CGIAR intends to deliver. All CGIAR Initiatives will at a minimum map their outputs and outcomes to the common set of impact indicators. SDG Target indicators and/or Initiative-specific impact indicators will complement the common impact indicators where applicable. Initiatives will systematically measure and be accountable for Initiative outcomes and associated outputs and will use the theory of change to demonstrate progress along impact pathways towards the ultimate collective global targets. CGIAR will invest in obtaining causal evidence of impact on specific targets that can be jointly attributed to CGIAR and its partners acknowledging that such impacts are not obtained by CGIAR alone. The research strategy envisioned to obtain such causal evidence will be integrated in the research design of each Initiative.

Planning, monitoring, reporting, evaluation, impact assessment

18. An interlinked set of planning, monitoring, reporting, evaluation and impact assessment processes is required to effectively plan, manage and learn from CGIAR contribution to impact.
- CGIAR Initiatives will:
    - Project the benefits of their intervention against the CGIAR result framework, specifically to the common impact indicators and SDG Targets, at design and implementation stages,
    - Plan and report progress against a theory of change (ToC) that incorporates results and indicators across the spheres of control, influence and interest as detailed above,
    - Develop annual plans of work and budget, track progress and provide an annual report against their stated objectives and results achieved,
    - Be divided into distinct stages, separated by assessment and decision points known as stage-gates. The stage-gates will inform resource allocation within Initiatives to the most promising and impactful components, as well as frame adaptive management and learning,
    - Implement and/or commission evaluations and impact assessment studies, designed from the start as integral part of the research process to causally test

the assumptions underlying the ToC in order to contribute to their improvement and increased impact.

- CGIAR will:
  - Compile and communicate a system-level annual plan of work and budget, and a CGIAR-level annual report comprised of Initiative-level results,
  - Invest in large scale data collection, through partnerships, to measure the reach and impacts of CGIAR innovations,
  - Invest in independent evaluations and impact assessment studies, designed as an integral part of the research process to causally test impacts on SDG targets and other indicators relevant for the impact areas,
  - Ensure that independent evaluations and impact assessments by CGIAR Advisory Services are used for both learning and accountability purposes.

## 4. Theory of change

19. A theory of change (ToC) is an explicit, testable model of how and why change is expected to happen along an impact pathway in a particular context. A basic research-for-development ToC identifies the context and key actors in a system and specifies the causal pathways and mechanisms by which research outputs will contribute to outcomes and impacts, and the risks to those pathways. The boundary of a ToC will stretch beyond the CGIAR sphere of control, into spheres of influence and ultimately impact. For a ToC to be a successful tool which helps CGIAR and partners navigate complex systems and so increase prospects for impact and scale, key ToC assumptions and causal links must be monitored and tested during delivery.

### Use of Theory of Change

20. CGIAR will strengthen design and use of ToC at CGIAR, Action Area, Initiative and component levels. ToCs will contain increasing detail and management-focused content from CGIAR down to Initiative and component scales. Lower-level component ToCs will nest within Initiative, Action Area and CGIAR ToCs respectively. At all levels, ToCs will contain robust and evidence-based assumptions and risks underlying the causal chain. Initiatives will causally test key assumptions along the ToC, and where relevant, work with scaling partners to provide causal evidence of impacts, and of appropriate ways to address current barriers to uptake in the targeted impact areas.
- At the CGIAR and Action Area levels, ToCs will guide and communicate the major impact pathways of agricultural research for development and position CGIAR Initiatives within the overall CGIAR Research and Innovation Strategy.
  - Initiative ToCs will support projection of benefits; model and manage for multiple impact pathways, including capacity development, policy, and technological innovations; identify partners and their role in improving innovation readiness and

innovation use; identify milestones for monitoring progress; and frame end-of-Initiative evaluations.

- ToCs at the component (sub-Initiative) scale will be specified in detail for particular social, economic, political, and environmental contexts, focusing on how innovation and scaling partnerships will contribute to impact.
21. To inform the design of interventions, a ToC should in principle: incorporate a good understanding of innovation and scaling context; inventory existing innovation packages for different locations and outcomes; include a risk management strategy; address stakeholder demands and needs; align with context-specific agricultural strategies and policies; identify Initiative activities and outputs; identify key system actors and gender-responsible outcomes; state theoretical and contextual assumptions; identify feasible end-of-Initiative outcomes and longer-term outcomes/impacts. To inform implementation, a ToC should guide Initiative activities, be used to monitor progress, test assumptions, identify bottlenecks, and adapt investment and partnership strategy and management (including revising the ToC as needed).
  22. In stage-gating, ToCs will also serve as a framework for assessment: the ToC will be used to assess the feasibility of an Initiative or component at the design stage, identify and assess progress indicators for mid-term evaluation, and specify appropriate outcomes to be evaluated at end-of-Initiative.

#### Quality of Research for Development

23. The Quality of Research for Development (QoR4D) Framework aims to guide and enhance the quality of R4D at all levels, from strategy to research activities. It goes beyond disciplinary criteria of science quality to also consider how an overall research project (or program) is designed and implemented to increase the likelihood and the magnitude of positive outcomes and impacts. It starts with the premise that, for research to be useful and used, it must be perceived to be relevant, credible and legitimate by intended research users, and it must be positioned for use. QoR4D design principles and assessment criteria consider (for example):
  - How research strategies and specific research questions are developed, defined and researched to be both socially and scientifically salient;
  - How projects and teams are organized; how research activities are expected to contribute to the change process envisioned by the project and contributing to intended outcomes and impacts; and
  - Whether and how the necessary support and facilitation functions are incorporated to contribute effectively to positive outcomes.
24. In stage-gating, QoR4D will serve as a framework for assessment, with criteria adapted per stage-gate. We will assess whether the design and Initiative progress satisfy criteria relating to Relevance, Credibility, Legitimacy, and Effectiveness.

## 5. Stage-gating within CGIAR Initiatives

25. Stage-gating is a recognized performance management approach used to manage the process of design, testing, validation and scaling of both technological and non-technological innovations while acknowledging that such processes are characterized by limited predictability and controllability, and that not all innovations will lead to (positive) outcomes at scale. Stage-gates create space for discovery, failure and learning, while also nurturing and scaling those innovations with the highest impact potential. Stage-gating will ensure a steady flow of continuous innovation, as well as continuous investment in the different stages of innovation design, testing, validation and scaling.
26. Stage-gating is based on the belief that innovations go through a value creation pathway, that such pathways can take considerable amount of time, and that along those pathways, focus, expertise and partnerships are likely to change. Stage-gating seeks to support critical reflection and decision-making on which innovations or combinations of innovations (i.e. innovation package) and investments have the highest likelihood of leading to societal outcomes and impact at scale. Stage-gating supports evidence-based reflection, learning and decision-making to optimize resource-use efficiencies and performance across different organizational levels.
27. Stage-gates will be applied to all CGIAR Initiatives and components and will feature assessment of Initiative design and implementation. Stage-gate assessment principles and criteria will guide and encourage strategic focus, careful Initiative design, and learning through implementation. Stage-gate decisions will determine resource allocation within Initiatives to the most promising and impactful components, as well as frame adaptive management and learning.

### Stage-gating principles

28. CGIAR's stage-gating will be based on four principles to deliver an approach that is embraced by CGIAR funders, partners and staff, drive transparent and evidence-based decision making and resource allocation, and improve CGIAR's performance and impact delivery:
  - 1) Enable transparent, evidence-based allocation of resources
    - Increase effectiveness (speed, scope, prioritization) of innovation design, testing, validation and use,
    - Monitoring, reporting and communicating against a clear plan for impact,
  - 2) Support reflection, learning and adaptive management of CGIAR Initiatives
    - Develop and monitor investments along nested ToCs that embed short-term interventions in long-term trajectories of transformation and change,
    - Clarify timing and modalities of collaboration with partners along phases of innovation design, testing, validation and use,

- 3) Facilitate performance management using specific indicators and metrics
  - Supported by clear criteria, data collection and analysis protocols,
  - Applicable to both technological and non-technological CGIAR innovations, and aggregable across different CGIAR levels,
- 4) Encourage innovation, creativity and action
  - Stimulate learning, reflection and adaptive management, including reorientation of research and reallocation of resources,
  - Universal at portfolio level, flexible at Initiative and component levels.

#### Stage-gate parameters

- Gate decisions: Proceed, Adapt/Modify, and Cancel.
- Gate types: Initiative Pre-Concept Stage, Initiative Concept Stage, Initiative Full Proposal Stage, Initiative Implementation Stage (recurring, as required), End-of-Initiative Stage.
- Gate frequency: As required by the types of Initiative (e.g. an opportunity for course correction within a 3-year funding cycle); timing should be based on level of attainment of the research area.
- Gate keepers: Will be specified in process documentation related to CGIAR operational structure and management of CGIAR Initiatives.
- Gate criteria: Based on past results plus projected costs and development impact (considerations could include ToC, QoR4D, Scaling Readiness, risk assessment, Gender in research & Gender, Diversity and Inclusion).

#### Stage-gate delivery and use

29. A Performance and Results Management System (PRMS) will be used to collect relevant data and make it available for use in CGIAR, Action Area, Initiative and component management, including stage-gate decisions.

### 6. Performance and results management system

30. Building on investments made in the current phase of CGIAR research programming, a comprehensive, mature and accessible Performance & Results Management System (PRMS) that encompasses planning, monitoring, and reporting will provide robust information upon which to take informed decisions. It will provide:
  - Practical services aligned to meet learning, accountability and resource mobilization objectives,
  - Dashboards open to Funders and partners, with access to the full set of underlying quality-checked data,
  - Alignment with international standards such as IATI (International Aid Transparency Initiative).

## Key PRMS features

31. The CGIAR PRMS will feature:
- A common system housing plan of work and budget, theory of change management, stage-gate decision points, and annual reporting processes. It will allow real-time data collection and day-to-day portfolio and Initiative management.
  - Key data sets (results, plan of work and budget, grant, finance, stage-gate specific e.g. Scaling Readiness) will be increasingly linked, for example through [CLARISA](#): CGIAR Level Agricultural Results Interoperable System Architecture, a web service that harmonizes data from across the CGIAR).
  - Interface and exchange with big data and partner data sets (e.g. [WIPO Green](#) and the [International Treaty on Plant Genetic Resources for Food and Agriculture](#)) will increase. CGIAR will publish relevant data through IATI.
  - CGIAR's digital knowledge base will make better use of linked data through Knowledge Graphs, and will use the SDG Interface Ontology to better link its contribution to impact with that of partners.
  - An integrated dashboard will draw from relevant data sets to provide transparent data and insights on CGIAR geographic and thematic presence, contribution to change, spend and partner network.

## Users

32. Target users of the PRMS include CGIAR staff for day-to-day Initiative management and reporting, portfolio management and resource mobilization, and Funders and partners to access evidence of CGIAR thematic and geographic presence and progress against stated objectives such as the SDGs.

## Security, hosting, maintenance and support

33. The PRMS will incorporate:
- Secured infrastructure,
  - Cloud hosting,
  - CGIAR Active Directory integration for user provisioning and account management,
  - Access control through Multi-Factor Authentication,
  - Single Sign On,
  - Tiered support and maintenance approach aligned with CGIAR's IT support model.

## Annex 1: Collective global 2030 targets for transformation of food, land and water systems

Impact	Targets	Sources for figures used	Related SDG targets
Nutrition, health & food security	End hunger for all and enable affordable healthy diets for the 3 billion people who do not currently have access to safe and nutritious food.	<a href="#">FAO SDG indicators</a>	Target 2.1: By 2030, end hunger and ensure access by all people to safe, nutritious and sufficient food all year round
		<a href="#">The State of Food Security and Nutrition in the World 2020</a>	Target 2.2: By 2030, end all forms of malnutrition
	Reduce cases of foodborne illness (600 million annually) and zoonotic disease (1 billion annually) by one third.	<a href="#">WHO estimates of the global burden of foodborne diseases</a>	Target 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
		<a href="#">Jones, K. et al. Global trends in emerging infectious diseases. Nature 451, 990–993 (2008).</a>	
Poverty reduction, livelihoods & jobs	Lift at least 500 million people living in rural areas above the extreme poverty line of US \$1.90 per day (2011 PPP).	<a href="#">Castaneda et al Global Poverty Monitoring Technical Note 14: Sept 2020 PovcalNet Update</a> <a href="#">UN Statistics Division</a>	Target 1.1: Eradicate extreme poverty for all people everywhere
	Reduce by at least half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.	<a href="#">SDG indicators metadata repository</a>	Target 1.2: Reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
Gender equality, youth & social	Close the gender gap in rights to economic resources, access to ownership and control over land and natural resources for over 500 million women who work in food, land & water systems.	<a href="#">World Development Indicators</a>	Target 2.3: Double the agricultural productivity and incomes of small-scale food producers (equity between men and women)  Target 5.a: Give women equal rights to economic resources, access to ownership and control over land and natural resources

Impact	Targets	Sources for figures used	Related SDG targets
	Offer rewarding opportunities to 267 million young people who are not in employment, education or training.	<a href="#">Global Employment Trends for Youth 2020: Technology and the future of jobs International Labour Office – Geneva: ILO, 2020</a>	Target 8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
Climate adaptation & mitigation	Implement all National adaptation Plans (NAP) and Nationally Determined Contributions (NDC) to the Paris Agreement.	<a href="#">National Adaptation Plans (NAP)</a> <a href="#">Nationally Determined Contributions (NDC)</a>	Target 13.2: Integrate climate change measures into national policies, strategies and planning
	Equip 500 million small-scale producers to be more resilient to climate shocks, with climate adaptation solutions available through national innovation systems.	<a href="#">Lowder et al The Number, Size, and Distribution of Farms, Smallholder Farms, and Family Farms Worldwide, World Development 87, 2016</a>	Target 1.5: Build resilience of the poor and vulnerable Target 2.4: Ensure sustainable food production systems Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards
	Turn agriculture and forest systems into a net sink for carbon by 2050, with emissions from agriculture decreasing by 1 Gt per year by 2030 and reaching a floor of 5 Gt per year by 2050.	<a href="#">Rockström, J. et al. A roadmap for rapid decarbonization. Science 355, 1269–1271 (2017).</a> <a href="#">Wollenberg et al. “Reducing emissions from agriculture to meet the 2 °C target.” Global change biology vol. 22,12 (2016): 3859-3864</a> Willett et al. “Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems.” Lancet vol. 393,10170 (2019): 447-492	Target 15.2: Promote implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and increase afforestation and reforestation

Impact	Targets	Sources for figures used	Related SDG targets
Environmental health & biodiversity	Stay within planetary and regional environmental boundaries: consumptive water use in food production of less than 2500 km <sup>3</sup> per year (with a focus on the most stressed basins), zero net deforestation, nitrogen application of 90 Tg per year (with a redistribution towards low-input farming systems) and increased use efficiency, and phosphorus application of 10 Tg per year.	Willett et al. "Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems." Lancet vol. 393,10170 (2019): 447-492	Target 2.4: Ensure sustainable food production systems Target 6.4: Increase water-use efficiency Target 15.1: Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services Target 15.3: Combat desertification, restore degraded land and soil, and strive to achieve a land degradation-neutral world
	Maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed genebanks at the national, regional and international levels	<a href="#">FAO Panel of eminent experts on ethics in food and agriculture on "The loss of crop biodiversity in the changing world"</a>	Target 2.5: maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species