CGIAR Portfolio Narrative
2025–2030

With science we can

CGIAR

November 15, 2024

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Plant samples in the gene bank, part of CIAT's Genetic Resources program, at the institution's headquarters in Colombia.

Credit: N. Palmer / CIAT

Executive Summary

This Portfolio Narrative provides an overview of CGIAR's proposed 2025-30 science and innovation Portfolio as a companion document to the individual Program and Accelerator proposals submitted to the Independent Science for Development Council (ISDC), Integrated Partnership Board (IPB), and System Council (SC).

The proposed 2025-30 Portfolio is intended to accelerate and strengthen the implementation of CGIAR's 2030 Strategy. It aims to raise the ambition for CGIAR science and innovation by bringing together and leveraging CGIAR's collective capabilities across all Centers and all types of funding.

The Portfolio addresses the most significant global challenges, across climate change; gender and social inequalities; poor-quality diets; rural poverty; environmental degradation; as well as fragility, conflict, and violence. In doing so, it considers the ways in which those challenges are affected by megatrends, such as demographic change, shifting consumption patterns, geopolitical instability, and emerging technologies.

Through targeted 'Listening Sessions' and other forms of engagement with partners, and in accordance with broader elements of CGIAR's revised Engagement Framework for Partnerships and Advocacy, the process for developing the Portfolio was designed to ensure that CGIAR's offer is firmly grounded in stakeholder priorities and interests at the national, regional, and global levels.

In addition to global challenges, megatrends, and partner demand, the ongoing development of the Portfolio builds on an analysis of CGIAR's comparative advantage in relation to potential alternative providers, and is informed by a structured priority-setting process.

The Portfolio structure aligns with the recommendations of several System Council-commissioned Independent Advisory and Evaluation Service (IAES) evaluations (Science Group Evaluations; CRP Evaluation Synthesis; GENDER Platform Evaluation). The Portfolio is set up around eight Science Programs, a Scaling for Impact Program, and three Accelerators, which aggregate expertise and partnerships around critical areas and collectively deliver against CGIAR's theory of change. With a reduced number of entry points compared to the 2022-24 Portfolio, CGIAR's offer becomes easier to understand, communicate, and fund. Continued emphasis on gender and social inclusion research is embedded throughout the Portfolio.

The Portfolio builds on a solid foundation of ongoing work while also expanding into emerging areas of science for impact. The continuing science from CGIAR's 2022-24 Portfolio and main functions of the former Impact Area Platforms will transition to relevant Programs/Accelerators.

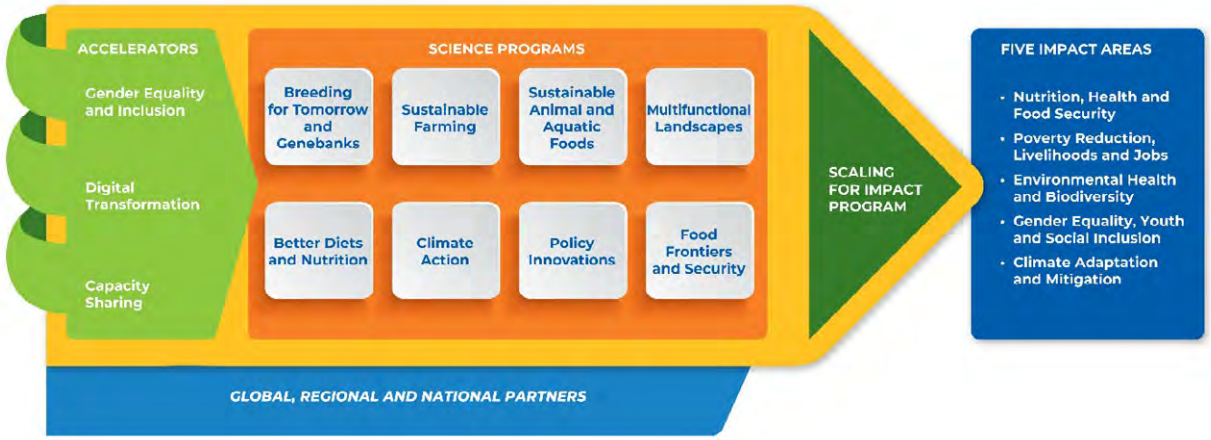
The Programs and Accelerators aim to provide frameworks for greater complementarity and synergy across different sources and types of funding (CGIAR Trust Fund Windows 1-2 [W1/2], Window 3 [W3], and bilateral funding), while enhancing transparency

and accountability. An updated performance and results management framework and approach, underpinned by a new Technical Reporting Arrangement, will provide robust, continuous performance and results reporting across all funding sources, as well as adaptive management of the Portfolio.

The management arrangements for the new Portfolio aim to ensure clarity of decision-making and accountability while fostering integration, collaboration, and coordination at all levels. Accountability for the use of W1/2 funding flows from the Executive Management Director to the Chief Scientist, Program/ Accelerator Directors, Area of Work Leads/Co-Leads, and ultimately Centers for the W1/2-funded work they deliver. Partnership-wide structures at different levels ensure that associated decision-making is transparent and inclusive. Centers retain the ability to independently raise, approve, and deploy W3/bilateral funding and hold the associated accountability, while working through CGIAR-wide teams to promote progressive alignment of W3/bilaterally funded work with the ambitions and theories of change of the relevant Programs/Accelerators.

The Programs and Accelerators are designed for six years, from 2025 through 2030, with a mid-term review moment in the first half of 2028 to ensure the Portfolio remains fit for purpose and adequately prioritized.

A comprehensive transition and inception process will ensure an effective closeout of the 2022-24 Portfolio, continuity of priority research delivery and partnerships, and a timely operationalization of the new Programs and Accelerators.



Cañete basin, Peru.

Credit: N. Palmer / CIAT

List of acronyms

ADB	Asian Development Bank
AfDB	African Development Bank
AgMIP	Agricultural Model Intercomparison and Improvement Project
AI	artificial intelligence
AoW	Area of Work
CA	comparative advantage
CapSha	Capacity Sharing
CIAT	International Center for Tropical Agriculture
CIFOR-ICRAF	Center for International Forestry Research and World Agroforestry
CIMMYT	International Maize and Wheat Improvement Center
CIP	International Potato Center
COVID-19	Coronavirus disease of 2019
CRP	CGIAR Research Program (2011-2021)
DDG-R	(CGIAR Center) Deputy Director General for Research
DEMD	(CGIAR) Deputy Executive Managing Director
DG	(CGIAR Center) Director General
EIES	Energy Inclusivity and Equity Score
EMD	(CGIAR) Executive Managing Director
ERS	Economic Research Service of the United States Department of Agriculture
FAO	Food and Agriculture Organization of the United Nations
FLW	food, land, and water (systems)
FMRG	Financial Model Reference Group
GESI	gender equality and social inclusion
GHG	greenhouse gas
GloMIP	Global Market Intelligence Platform
GLT	(CGIAR) Global Leadership Team
GST	(CGIAR) Global Science Team
IAES	Independent Advisory and Evaluation Service
ICARDA	International Center for Agricultural Research in the Dry Areas
ICI	integrated, coordinated, independent (forum)
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IFAD	International Fund for Agricultural Development
IFI	international financial institution
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture

ILRI	International Livestock Research Institute
IMPACT (Model)	International Model for Policy Analysis of Agricultural Commodities and Trade
IPB	(CGIAR) Integrated Partnership Board
IRRI	International Rice Research Institute
IsDB	Islamic Development Bank
ISDC	(CGIAR) Independent Science for Development Council
IWMI	International Water Management Institute
KPI	key performance indicator
MELIA	monitoring, evaluation, learning, and impact assessment
MT	megatrend
NARES	national agricultural research and extension system
NDC	Nationally Determined Contribution
NGO	non-governmental organization
PMU	Program Management Unit
Q1/Q2	first/second quarter of the year
RACI	responsible, accountable, consulted, informed
R&D	research and development
SC	(CGIAR) System Council
SDG	Sustainable Development Goal
SIMEC	System Council Strategic Impact Monitoring and Evaluation Committee
SMEs	small- and medium-sized enterprises
SO	(CGIAR) System Organization
TFP	total factor productivity
ToC	theory of change
TRA	Technical Reporting Arrangement
UN	United Nations
UNFSS	United Nations Food Systems Summit
USDA	United States Department of Agriculture
VACS	Vision for Adapted Crops and Soils
WEEI	Women's Energy Empowerment Index
W1/2	CGIAR Trust Fund Windows 1 and 2
W3	CGIAR Trust Fund Window 3

1. Introduction and background on the Portfolio design

1.1. Purpose of this document

This document provides an overview of CGIAR's proposed 2025-30 science and innovation Portfolio as a companion document to the individual Program and Accelerator proposals submitted to the Independent Science for Development Council (ISDC), Integrated Partnership Board (IPB), and System Council. It describes the process by which the Portfolio was designed, how it responds to the most pressing global megatrends and challenges, and the linkages and complementarity between the various Portfolio components. It also includes a high-level view of the mechanisms and modalities through which the Portfolio will be managed and funded.

As a companion document, this Portfolio Narrative is presented for information only, in support of the IPB's and System Council's consideration of the individual Program and Accelerator proposals submitted for concurrence/approval pursuant to articles 8.2.t of the Charter of the CGIAR System Organization and 6.2.p of the CGIAR System Framework.

This document supersedes the May 2024 Portfolio Narrative, approved by the CGIAR System Board and endorsed by the CGIAR System Council at its 20th meeting in June 2024.

1.2. Portfolio design process

The process to develop the 2025-30 Portfolio was launched in mid-2023. An overview of the first version of this Portfolio (2025-27 Portfolio referred to as "P25") was circulated for stakeholder review on December 15, 2023. Feedback received from the ISDC, the System Board, the System Council, and other stakeholders on this document was carefully analyzed and incorporated into the renewed thinking on the next Portfolio initiated by CGIAR's new leadership in January 2024.

On January 21 and 22, 2024, CGIAR's Executive Managing Director (EMD) convened a Portfolio retreat in Rome, with a view to raising the ambition for CGIAR research and innovation. At the retreat, participants – including Directors General (DGs) and science leadership from all CGIAR Centers – agreed to launch a process to develop a more ambitious 2025-30 Portfolio that would respond to the most important and pressing global challenges and bring together all of CGIAR's work in a coherent way, through a small number of Programs and Accelerators spanning all sources of funding, and building on the progress achieved by the 2022-24 Portfolio.

Following the Portfolio retreat, Writing Teams were formed to design the Programs and Accelerators. The Writing Teams comprised a diverse and representative group of more than 150 scientists from all CGIAR Centers (AfricaRice, Alliance of Bioversity International and CIAT, CIFOR-ICRAF, CIMMYT, CIP, ICARDA, ICRISAT, IFPRI, IITA, ILRI, IRRI, IWMI, and WorldFish) and the World Vegetable Center. To allow the full depth and breadth of CGIAR's capabilities across Centers and partners to be harnessed in an open, transparent, and inclusive co-creation process, the Writing Teams sought inputs from beyond their membership, including CGIAR Science Leaders and key regional and national stakeholders. Each Writing Team was convened by a convenor and co-convenor.

Documenting the impact of improved climbing beans in Rwanda.

Credit: N. Palmer / CIAT

A workshop for convenors and co-convenors took place in Nairobi from March 18-20, 2024, to advance a common understanding of the Programs and Accelerators and outline a process for their development. A small task team was formed to coordinate the Portfolio design process and, importantly, provide templates and guidance to Writing Teams for developing the May and September versions of the proposals.

Also in the first quarter of 2024, CGIAR Listening Sessions were implemented in 27 countries to better understand the demand for CGIAR research and innovations and collect suggestions from in-country stakeholders on improving partnership modalities. In addition, the design of Programs and Accelerators benefited from a structured engagement with stakeholders during virtual consultations held by each Writing Team in July and August 2024, as well as from various consultations carried out by the Initiative teams in relevant geographies over the past three years.

Findings of the 2024 System Council-commissioned Independent Advisory and Evaluation Service (IAES) evaluations of Science Groups, ISDC feedback on the May version of the Portfolio Narrative and two-page summaries of each Program and Accelerator (see Annex 1), and guidance received from the System Council in June were all also taken into consideration.

Notwithstanding the tremendous efforts and dedication of the Writing Teams over the past six months and the robust progress made, much work remains to operationalize the Programs and Accelerators during the intended Portfolio Inception Phase through early to mid-2025.

2. Addressing challenges and seizing opportunities

2.1. Global challenges and megatrends

The new Portfolio directly addresses major global **challenges** threatening the sustainability of food, land, and water (FLW) systems, and their transformation to achieve the Sustainable Development Goals (SDGs):

- **Climate change** affects food security in many ways, including through extreme events, such as acute drought or floods, high temperatures, elevated atmospheric CO_2 levels, water scarcity, coastal inundation, marginalization of vulnerable people, and deep uncertainty about future risks. It is a risk multiplier, exacerbating existing challenges by reducing the productivity of agriculture and increasing the variability of agricultural production, aggravating water insecurity, inducing ecosystem breakdown and loss of ecosystem services, and reinforcing inequalities, all of which increase vulnerability and poverty.
- **Gender and social inequalities** are deeply entrenched within global and local agrifood systems. Women often have less control of and access to land, water, and other resources than men, and are less likely to claim and derive benefits from agriculture. Youth often find livelihood opportunities in food systems and agriculture to be unremunerative and unappealing. This situation is likely to worsen due to climate change. Moreover, the loss of local knowledge and agricultural biodiversity erodes the opportunity to find local solutions to challenges such as climate change, malnutrition, inequities, and low incomes.
- **Poor quality diets** are a leading cause of all forms of malnutrition, along with poverty, gender and social inequalities, and inadequate water quality and sanitation. Malnutrition contributes to premature death and illnesses, with consequences for individuals, societies, and nations. For three billion people, mostly in low- and middle- income countries (LMICs), healthy diets are unaffordable and therefore inaccessible. Moreover, after years of global progress, food insecurity has risen in recent years, with rates in 2022 higher than in pre-COVID-19 years.
- **Rural poverty rates in LMICs remain high** due to low productivity, income inequality, and high vulnerability that often accompany smallholder farming; the failure of food systems to provide decent livelihoods; and the lag in skills development in many countries. Uneven economic growth in LMICs hampers improvements in the incomes of rapidly growing populations.
- **Agriculture's environmental footprint remains large**, caused by unsustainable crop and livestock management, natural resource management practices and food loss and waste, among others. The negative environmental impacts of agriculture include land degradation, biodiversity loss, water resource depletion and pollution, aquifer overexploitation, off-site pollution, fish stock depletion, and greenhouse gas (GHG) emissions.

Each of these challenges is **most acute in fragile areas and areas beset by conflict and/or violence,** where up to two-thirds of the world's extreme poor live. Violent conflict has spiked since 2010 and efforts to transform food, land, and water systems for the poorest and most vulnerable people require more research on and in these areas.

As noted in CGIAR's 2030 Research and Innovation Strategy, "under resource scarcity and global connectivity, the challenges of food and nutrition insecurity, poverty, gender inequality and social exclusion, climate change, and environmental degradation are simply not separable." These challenges intersect in complex ways, which vary by country and region. The ISDC study on megatrends sheds light on how specific trends will affect these challenges and on how CGIAR should respond to them (see Table 1). Systems approaches are required to understand trade-offs and synergies between challenges/megatrends and design science- and evidence-based responses. The proposals include details of how each Program/ Accelerator is strategically placed to apply systems research and offer vital contributions to address multiple challenges and trends.

The ISDC study on megatrends further recommends the following strategic shifts and areas for enhanced focus to be reflected in CGIAR's Portfolio:

- increasing food diversity and quality;
- strengthening governance of agrifood value chains;
- building resilience and fostering inclusion among farmers;
- inclusion of youth;
- technology and education in agrifood system adaptation efforts;
- climate learning from other sectors;
- frontier technologies to accelerate the development of solutions; and
- managing competing demands for water across all sectors of our economies.

This study also recommends the following process adjustments:

- adopting and using megatrends, foresight, and trade-off frameworks; and
- ensuring specific, measurable, achievable, relevant, and time-bound collective global targets.

Fortunately, there are **emerging opportunities** for the global community to tackle these challenges and for CGIAR and partners to contribute to these efforts. Climate change policies and investments increasingly recognize the importance of addressing agriculture and food systems, land degradation and water management. The momentum spurred by the United Nations Food Systems Summit (UNFSS) continues at country level, with more and more countries setting gender equality targets. CGIAR has influenced these processes and many others, including those around biodiversity, water, and poverty, and is increasingly involved in their implementation. Regional opportunities such as the African Fertilizer and Soil Health Summit also abound. In addition, CGIAR's science and use of new technology, including digital tools and methods, have shortened innovation cycles (e.g. for crop varieties) and learning cycles (e.g. real time monitoring of natural resources and markets), thereby contributing more timely evidence to FLW system decision-makers.

Local market, Mongu, Zambia.
Credit: Clayton Smith / WorldFish

Table 1. ISDC's changing megatrends (MTs) affecting agrifood systems (ISDC, Responding to Emerging Megatrends, 2023).

MT 1. Demographic trends	The four key demographic megatrends, including population growth, aging, migration, and urbanization, present interconnected social and economic challenges for agrifood systems globally, with rapid population growth in the Global South raising concerns about employment opportunities. This is a particular concern for youth, while urbanization poses additional challenges, including unclear gender dynamics in migration and urbanization's significant contribution to climate change.
MT 2. Changing consumption patterns	The affordability of healthy diets is hindered by the proliferation of cheaper unhealthy foods, particularly ultra-processed options, contributing to malnutrition and an obesity epidemic. Healthy diets are unattainable for over 3.1 billion people globally and disproportionately affect Indigenous Peoples.
MT 3. Market concentration in the agri-food system	Increased concentration and consolidation along the agrifood value chain raise concerns about the implications for various actors, including marginalized workers. Research is needed to fully understand the complex effects of concentration on food security, nutrition, and health, particularly among vulnerable populations.
MT 4. Climate change	Climate change presents one of the greatest global challenges of the century, intensifying extreme weather events and posing significant risks to agriculture, ecosystems, human livelihoods, and biodiversity, with disproportionate impacts on women, children, and marginalized and Indigenous Peoples.
MT 5. Environmental degradation	The main driver of environmental degradation stems from land conversion for agriculture and resource extraction, agrobiodiversity loss remains a pressing concern, and a comprehensive understanding of the effects of market concentration on key agricultural resources is lacking, alongside increasing pressures on freshwater ecosystems due to anthropological activities and climate change.
MT 6. Shifting global health challenges	Infectious and noncommunicable diseases are driven by changing demographic trends, environmental degradation, land-use change, increased global connectivity, conflicts, climate change, pollution, technological advances, and repeated pathogen emergence from animal reservoirs. With the COVID-19 pandemic accentuating multidimensional inequalities and triggering a global economic crisis, disadvantaged groups have been disproportionally affected, especially in low- and middle-income countries.
MT 7. Geopolitical instability	The world faces a surge in violent conflicts, with around 70% of the chronically food-insecure residing in 5 conflict-affected countries in 2022. This exacerbates food insecurity and malnutrition, while the interconnection between climate change, ecological threats, migration, and conflict amplifies geopolitical tensions and inequalities, posing risks to food security and escalating gendered vulnerabilities. These include violence against women and children and displacement of Indigenous Peoples due to discriminatory policies and armed conflict.
MT 8. Growing inequalities	Persistent and expansive multidimensional inequalities, particularly affecting women, may deepen further due to the slow and unequal recovery from the COVID-19 pandemic. Inequality is compounded by climate change, heightened conflict levels, and increased food prices, posing significant challenges for low- and middle-income countries with limited financial resources. These countries and their citizens experience compounded vulnerability despite their minimal contribution to climate change.
MT 9. Frontier technology and innovation	New technologies and innovations, including but not limited to digital technologies, artificial intelligence, solar photovoltaics, genome editing, and nanotechnology, hold transformative potential for agrifood systems. However, ensuring inclusive access to and investment in these opportunities in low- and middle-income countries is crucial to prevent exacerbating inequalities, particularly among marginalized groups such as women, youth, and ethnic minorities. Challenges include low digital literacy, gender gaps, limited access to digital connectivity, and high costs of devices and services.

2.2. Food production trends and regional implications

2.2.1 Looking back: 1990 to 2020

In 1990, almost 40% of the world's population was characterized as absolutely poor (i.e. severely deprived of basic human needs). Among the multiple factors that have enabled a dramatic reduction of poverty since then, to about 8%, the production, processing, and distribution of significantly greater volumes of food has been essential (see Table 2). At the global level, production increased by around two thirds between 1990 and 2020, with consumption growing substantially in all regions of the world.

These large increases in global food production can be attributed to two sources: (1) greater use of aggregate inputs (land, labor, intermediate inputs, machines, etc.) and (2) process improvements (greater efficiency, i.e. producing more with the same volume of aggregate inputs), also called total factor productivity (TFP). The relative importance of these two factors depends on countries' income levels. In low-income countries, about two thirds of production growth is attributable to growth in the use of aggregate inputs, while about one third of production growth is attributable to TFP. In lower middle-income countries, these proportions are reversed. In upper middle-income countries, nearly all production growth is attributable to TFP. In high-income countries, TFP growth outweighed the decline in aggregate input use.

Table 2. Growth rates (%) in food consumption and demand as proxied by dietary energy.

	IFPRI IMPACT Model		USDA/ERS FARMS Model	
Region	**1990-2020**	**2020-2050**	**1990-2020**	**2020-2050**
China	48.8	2.7		-2.8
East and Southeast Asia excluding China	39.3	25.7		11.3
Latin America and Caribbean	53.1	23.9		23.0
Middle East and North Africa	72.4	46.8		38.0
OECD (1990)	50.5	15.0		8.0
South Asia	80.2	48.5		34.7
Sub-Saharan Africa	137.6	90.1		105.1
World	**70.7**	**31.7**	**62.0**	**26.6**

Sources: IFPRI calculations 2023; USDA estimates from Sands et al. 2023

As part of the Farms of the Future project, CCAFS together with researchers at Oxford University, have been working to identify areas of western Nepal that are currently experiencing the expected future climate of Beora, a small farming community in Rupandehi District.

Credit: NeilPalmer / CIAT

Cassava experimental station, near Luang Prabang, Laos.

Credit: NeilPalmer / CIAT

Overall, TFP has been important in all contexts. In most instances, more than one third of TFP growth results from research and development (R&D). The role of public research stands out, particularly in lower-income contexts. As highlighted by several rigorous independent studies, CGIAR – with a budget roughly comparable to that of a single research university in a high-income country – has significantly contributed to the systemic improvements that underlie the reductions in global poverty from 1990 to 2020 through its research on genetics, agronomy, policies, and institutions, among others.

2.2.2 Looking forward: 2020 to 2050

Table 2 reveals two important differences between the past 30 years and the next 30. First, at a global level, the incremental food production task for the next 30 years is markedly smaller than in the previous 30. Second, this task is more geographically concentrated.

The global growth in food demand/supply from 2020 to 2050 projected by the two methods shown in Table 2 (32% for IFPRI's IMPACT model and 26% for FARMS) is less than half of the corresponding growth figures for the period 1990 to 2020. This much smaller global production task is explained by much slower (and in some cases, negative) rates of population growth in most regions and a slowdown in the growth rate of food consumption per person. For example, in China, the average of the two projections shown in Table 2 equates to zero production growth from 2020 to 2050.

There are three regions where the production task remains salient: sub-Saharan Africa, the Middle East and North Africa, and South Asia. In terms of meeting the 'great expectations' of food, land, and water systems, it is highly desirable for sub-Saharan Africa and South Asia (given their larger sizes and production potentials) to meet their incremental food demands mostly through domestic production, for three reasons.

- First, sub-Saharan Africa and South Asia are home to most of the world's poor, the majority residing in rural areas and depending on the food sector for their livelihoods. Today, FLW systems remain powerful levers for reducing poverty, improving livelihoods, and addressing inequalities.
- Second, supplying healthy diets, a key 21st century objective, will require rapid growth in production of vegetables, fruits, and animal- and aquatic-source foods. Compared with staple grain crops (e.g., rice, wheat, and maize), these healthy diet components are typically more difficult to transport over long distances, implying a greater reliance on local production.
- Third, because global FLW systems are interlinked via trade, aggregate domestic production growth that is roughly sufficient to cover demand in sub-Saharan Africa and South Asia will lighten the incremental production push required in other parts of the world (which can lead to negative environmental consequences).

In summary, in most regions, the significant achievements in meeting food production requirements and the favorable outlook on this front have shifted the focus to addressing other urgent challenges, such as quality of diets, inclusivity, sustainability, biodiversity, and climate change mitigation. On the other hand, in sub-Saharan Africa, the Middle East and North Africa, and South Asia, there is continued critical need to raise production efficiency and close production gaps, in addition to addressing other challenges. The results of the geographical prioritization exercises

Credit: International Rice Research Institute

at Program level (see Section 3.3) show a continued high level of attention from CGIAR to these three regions. In other regions, the Portfolio will further sharpen CGIAR's focus and contributions beyond incremental production increases while leveraging its networks to accelerate South-South learning and exchange.

2.3. CGIAR's Strategy to 2030

CGIAR's 2030 Research and Innovation Strategy sets out a 10-year vision of "a world with sustainable and resilient food, land, and water systems that deliver diverse, healthy, safe, sufficient, and affordable diets, and ensure improved livelihoods and greater social equality, within planetary and regional environmental boundaries." The Strategy defines CGIAR's mission as: "to deliver science and innovation that advances the positive transformation of food, land, and water systems in a climate crisis."

The transformations CGIAR aims to contribute to alongside partners are captured in CGIAR's five Impact Areas and eleven Impact Area targets. The Impact Areas – climate change adaptation and mitigation; environmental health and biodiversity; nutrition, food security, and health; gender equality, youth, and social inclusion; and poverty reduction, livelihoods, and jobs– and their targets (see CGIAR's 2030 Research and Innovation Strategy, Table 1, p. 18) closely align with the SDGs. They reflect areas in which CGIAR has demonstrated a strong capability to deliver through integrated systems approaches. CGIAR's key impact pathways outlined in the 2030 Strategy remain relevant and include the development and scaling of science- and evidence-based innovations; targeted capacity development; and advice on policy and investments in FLW systems. Following the Quality of Research for Development Principles, outlined in this ISDC publication, ensures CGIAR's work is not only cutting-edge and rigorous, but also designed to optimize resources and enhance impact on the ground.

CGIAR's emphasis on **nexus and systems research** enables a comprehensive understanding of the complex interdependencies, complementarities, and trade-offs inherent in policy and innovation across diverse contexts. This approach ensures that the Programs and Accelerators within CGIAR's 2025-30 Portfolio are not isolated efforts, but instead are deeply interconnected, allowing for more efficient use of resources, shared learning, and synergies across interventions. By integrating *ex ante* and *ex post* insights, CGIAR's systems research enables more informed and robust recommendations tailored to the specific needs of FLW system actors at multiple levels, ensuring that innovation is globally relevant and locally impactful. This systems-based approach strengthens CGIAR's ability to drive sustainable change, fostering collaboration between stakeholders, from communities to governments, and enhancing the potential for long-term, resilient development outcomes.

Overall, the 2030 Strategy continues to be salient, and the proposed 2025-30 Portfolio is intended to **accelerate and strengthen the implementation of this Strategy**. Through the 2022-24 Portfolio of Research Initiatives and Impact Area Platforms, the first years of implementation of the 2030 Strategy have seen unprecedented collaboration and integration across Centers and disciplines; a consistent focus on multiple benefits across the five Impact Areas; and a renewed emphasis on research-into-use. Areas that remain to be strengthened via the 2025-30 Portfolio include, *inter alia*, even greater stakeholder engagement in Portfolio design, reducing the number of Portfolio entry points and the resulting complexity and transaction costs, and facilitating greater integration and complementarity across pooled and bilateral funding.

Over the next six years, in line with the 2030 Strategy's "ways of working" (see p. 6), and to raise CGIAR's ambition and become even more relevant in addressing critical global challenges and megatrends, the new 2025-30 Portfolio will strengthen efforts to (1) embrace a systems transformation approach to deliver multiple benefits; (2) forge ambitious alliances for change; (3) position regions, countries, and landscapes as foci for partnerships and impacts; (4) consider multiple transformation pathways to respond to different contexts; (5) put greater emphasis on risk management and resilience; (6) harness innovative finance to spur investment in scaling innovations; and (7) integrate digital methods and tools to support decision-making.

3. A restructured Portfolio

3.1. Moving to a new structure of Programs and Accelerators

3.1.1 The new Portfolio at a glance

The proposed 2025-30 Portfolio defragments the former agenda of 32 Initiatives and five Impact Area Platforms into **eight Science Programs, a Scaling for Impact Program, and three Accelerators** (Figure 1), which aggregate expertise and partnerships around critical areas and include both pooled- and bilaterally-funded components. **Close collaboration and co-location between and among Programs and Accelerators** will help address the different dimensions of food, land, and water systems.

The **Scaling Program** aims to strengthen CGIAR's responsiveness to demand and support the Science Programs in testing, adapting, and scaling innovations.

A core responsibility of CGIAR is to preserve and advance the key assets it has developed or been entrusted with for more than 50 years. These assets include data, information, knowledge, models, methodologies, genetic resources, experimental stations, laboratories, and long-term trials/ experiments. CGIAR's **Genebanks** are housed under the Breeding for Tomorrow and Genebanks Science Program. The other strategic assets that underpin the delivery of the 2025-30 Portfolio will be embedded into the relevant Programs and Accelerators (See Section 3.1.4).

Seaweed farm, Mombasa coast region, Kenya

Credit: Jerome Delamare-Debouteville / WorldFish

Figure 1. Structure of the Portfolio

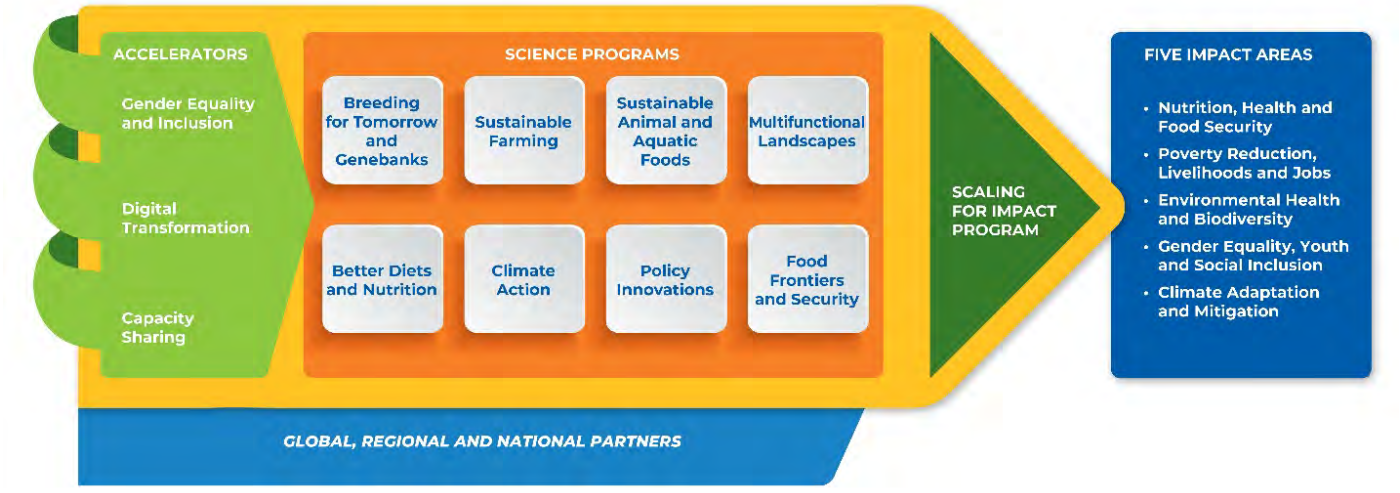
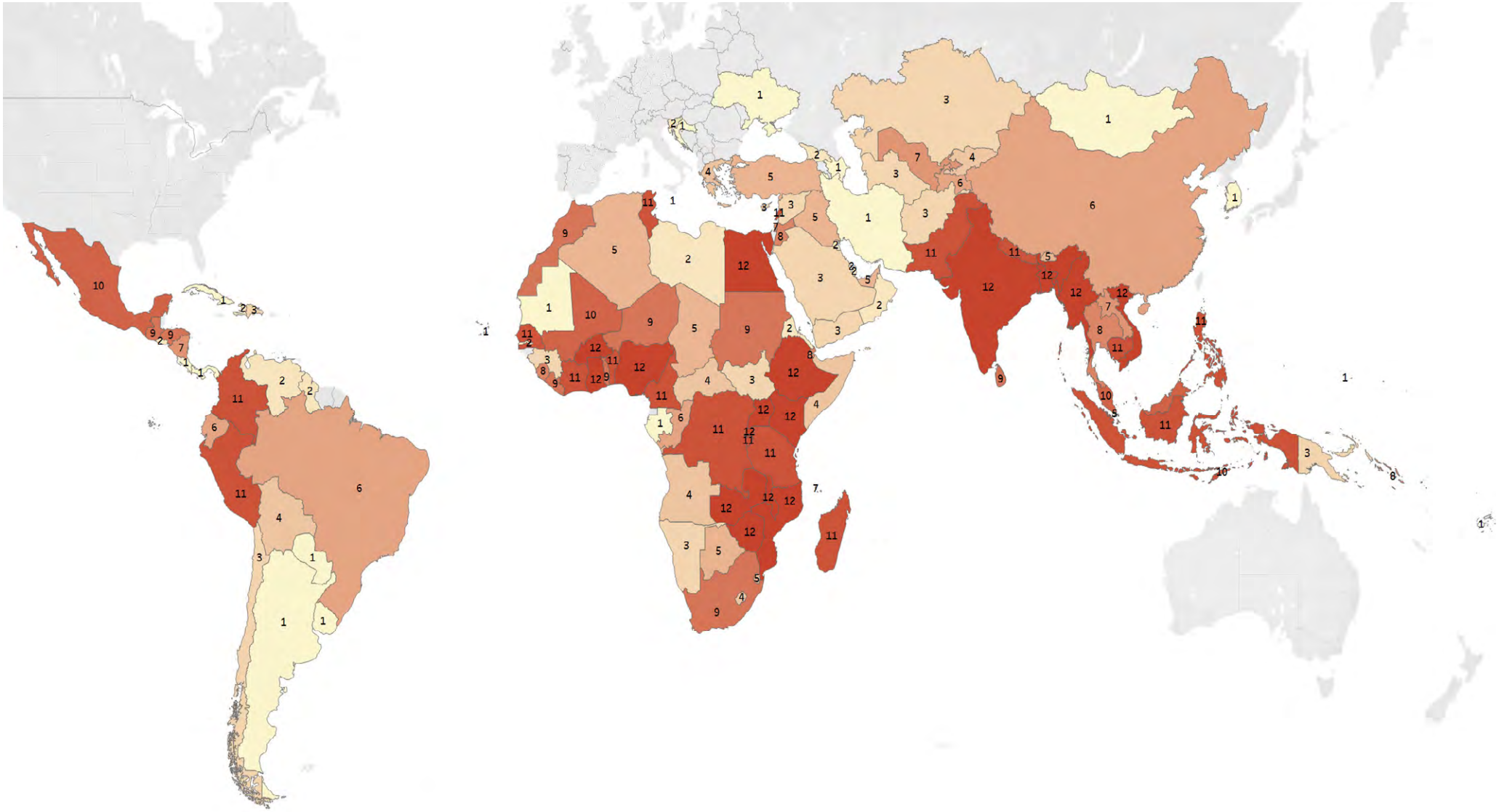


Figure 2 shows the geographic coverage of the Portfolio. This map is relatively similar to the 2022-24 Portfolio map, reflecting the strong continuity between the two Portfolios. Countries with the highest number of active proposed Programs/Accelerators are in Africa and Asia, which continue to be priorities for CGIAR. There are 13 African countries (Burkina Faso, Egypt, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Nigeria, Rwanda, Tanzania, Uganda, Zambia and Zimbabwe) and four Asian countries (Bangladesh, India, Myanmar and Vietnam) where all Programs and Accelerators plan to work. In addition, a number of other countries across all regions show strong convergence between several Programs/Accelerators.

Figure 2. Heat map showing geographic coverage of the 2025-30 Portfolio



Note: Numbers/colors reflect the number of Programs/Accelerators planning to be active in a country through pooled and/or bilateral/W3 funding. All bilateral/W3 projects mapped to Programs/Accelerators as of September 2024, with available data on geographic coverage at country level, and active after January 1, 2025, with an end date after January 31, 2025, were included.

3.1.2 Incorporating Initiatives' and Platforms' work

The 2025-30 Portfolio builds upon the solid foundation of ongoing work, embracing continuity while expanding into emerging areas of science for impact. The continuing science from CGIAR's 2022-24 Portfolio will be transitioned into the relevant Programs and Accelerators (see Figure 3).

In order to ensure that the Portfolio and constituent Programs and Accelerators are oriented toward Impact Area targets, the new Portfolio will provide a home for the main functions of the Impact Area Platforms: (1) fostering global critical thinking, use of evidence, and impact tracking at Impact Area level; (2) increasing internal capacity across CGIAR through strengthening and sharing common tools, standards, data sets, cutting-edge science, and knowledge management; and (3) amplifying CGIAR's external profile and voice by engaging in and shaping global policy discourse. The mapping of the current Impact Area Platforms into the new Portfolio structure is included in Figure 3.

3.1.3 Why the new structure?

Moving from the current Initiatives and Impact Area Platforms to Programs and Accelerators reflects two fundamental changes in CGIAR's approach: (1) organizing the CGIAR Portfolio around the most significant existing and emerging global challenges and addressing these through cutting-edge science; and (2) aligning pooled and bilateral funding to provide a "whole-of-CGIAR" integrated science offer and contribution to shared goals and delivery of impact.

The new structure enables CGIAR's recommendations and findings to be more easily drawn and communicated from the entire Portfolio, across all funding sources. The reduced number of entry points for partners and funders makes the Portfolio easier to understand, navigate, and promote. Programs serve as entry points to describe CGIAR's offer on a key topic, elevating CGIAR's visibility in global agendas and facilitating the continuation and formation of inclusive alliances and partnerships. Accelerators and the Scaling for Impact Program will undertake strategic research in their topical areas and, through working with all other Programs, bolster CGIAR's ability to reach and support targeted end-users while furthering collaboration, coherence, and integration across the entire Portfolio.

More broadly, Programs and Accelerators are intended to further strengthen programmatic integration across Centers and facilitate concerted CGIAR responses to emerging demands at greater scale and with wider reach.

The new Portfolio structure aligns with the **recommendations of several recent System Council-commissioned IAES-implemented evaluations**:

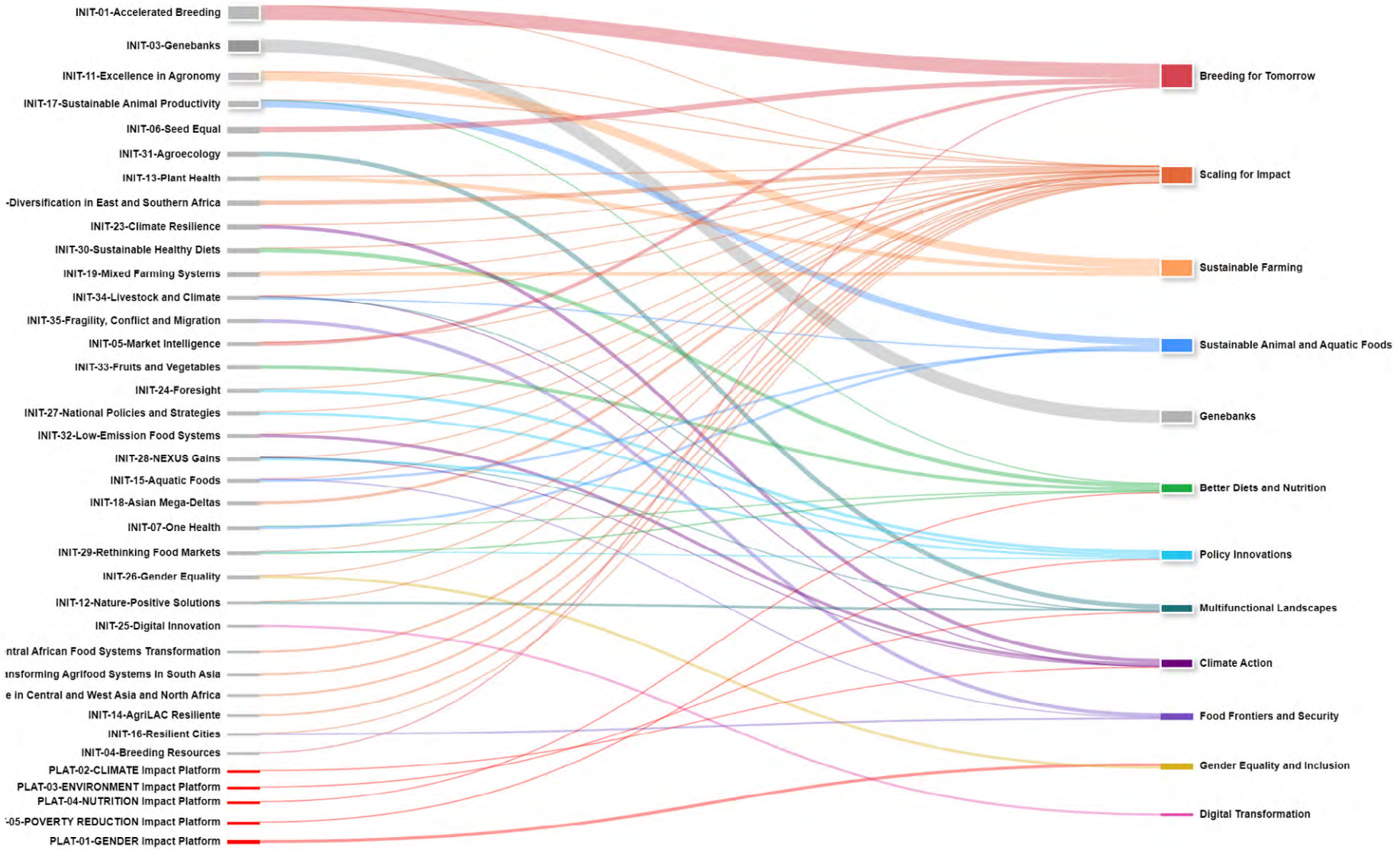
- Three recommendations from the CGIAR Research Program (CRP) Evaluation Synthesis are reflected explicitly in the new structure: (1) the recommendation to *"focus much more on institutional capacity development, especially of national 'boundary' partners,"* is reflected in the creation of the Capacity Sharing Accelerator and in the theories of change of all Programs and Accelerators; (2) the recommendation to *"foster adoption of technical and social innovations at scale, as required to achieve system transformation, and give greater emphasis to research on scaling science and implementation science,"* is taken up as a core objective of the Scaling for Impact Program; and (3) the *"wholesale review of CGIAR capacities and opportunities around big data and practical field applications for pro-poor sustainable development"* will be coordinated by the Digital Transformation Accelerator.
- The creation of the Gender Equality and Inclusion Accelerator underscores the need to raise the ambition of CGIAR's gender research, in alignment with the GENDER Platform Evaluation.
- Inputs from the Science Group Evaluations were also taken into account in designing the new structure, especially the recommendation on coordinating scaling efforts through a single Program. These evaluations identified several constraints to integration in the 2022-24 Portfolio. First, geographical concentration of research is one of the necessary conditions for improved integration. Second, in countries with a concentration of research (e.g. Bangladesh, Ethiopia, India, or Kenya), meaningful integration requires proper investment in time and resources. The more consolidated 2025-30 Portfolio positions CGIAR to take these learnings on board and seize opportunities for better integration. From a thematic perspective, the boundaries between the various Programs and Accelerators are intentionally not rigid, creating space for collaborations and complementarities. The Program and Accelerator proposals highlight the most important of these that have already been identified, recognizing that deeper discussions will be needed during the Inception Phase.

3.1.4 Strategic assets

Building on a first phase carried out between March and May 2024, and on feedback received from the System Council at its 20th meeting, a second phase of CGIAR's strategic assets study was launched in June 2024. The second phase aims to (1) refine a comprehensive inventory of CGIAR's portfolio of assets and capabilities, building on past work; (2) determine, based on an agreed methodology, which assets are essential for the delivery of the 2025-30 science and innovation Portfolio; (3) assist Centers in assessing the true life-cycle costs of these essential assets to inform Program/Accelerator budgeting, supported by harmonized definitions and guidance; and, in addition to the above priorities; (4) develop investment case concept notes to highlight outstanding funding gaps for maintenance and investments in upgrades and/or new assets.

Outputs from this second phase will be presented to the IPB and System Council in November and December 2024, together with the Program and Accelerator Portfolio documents and proposed W1/2 budget for 2025.

Figure 3. Mapping of the 2022-24 Initiatives and Platforms to the 2025-30 Programs and Accelerators



Note: This mapping was done at Work Package-level. The width of the lines is proportional to 2022-24 budgets.

Women transplant Aman rice seedlings in the field, maintaining the lines at Dinajpur Sadar Upazila, Bangladesh. They contribute greatly to the growth of agriculture in Bangladesh.

Credit: A S M Alanuzzaman Kurishi / CIMMYT

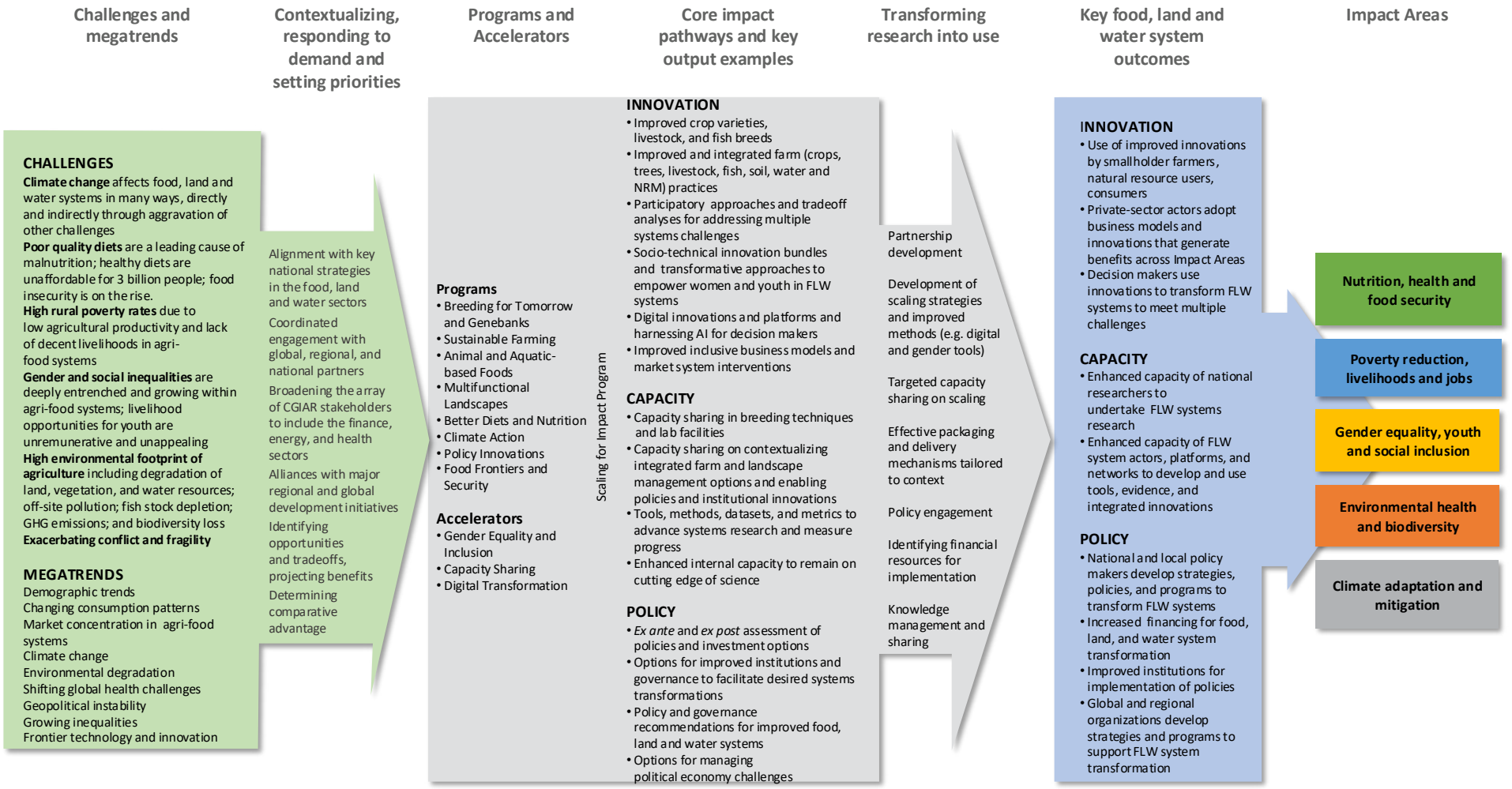
3.2. Improved Portfolio coherence to support CGIAR's theory of change

3.2.1 CGIAR's theory of change

Building on the strengths and learnings from 2022 to 2024, CGIAR's focus on an action- and user-oriented, holistic, and integrated research agenda is enhanced in the new Portfolio. In collaboration with local researchers, public and private sector service providers, governments, and development programs, CGIAR's Portfolio seeks to elevate the performance of food, land, and water systems through interventions at the level of food producers (farmers, pastoralists, fishers), other resource managers (e.g. forest and water management agencies), market actors, consumers, and policymakers.

A simplified theory of change (ToC) representing CGIAR's work with partners and reflecting consultations with stakeholders is depicted in Figure 4.

Figure 4. CGIAR's theory of change



Note: Figure 4 does not include the feedback and learning loops that span across the different stages of the ToC and are fundamental to adaptive management. It also does not show the specific roles of partners and stakeholders in shaping CGIAR activities and outputs.

The CGIAR ToC begins with the grand challenges which CGIAR aims to address, coupled with the ISDC megatrends (see Column 1 in Figure 4, and Section 2.1 of this document). Challenges and megatrends intersect to create specific dynamics which play out in various ways in different LMICs. This is why a critical element of the ToC is the understanding of and responsiveness to local context and demand (Column 2 in Figure 4); this is done by aligning with national priorities (see Section 3.3.1), analyzing comparative advantage (Section 3.4), and forming alliances with local partners – a key step for shaping CGIAR priorities. The assessment of challenges, megatrends, and other prioritization activities requires periodic refreshing to ensure CGIAR's research is positioned to be as impactful as possible (Section 3.3).

The third column in Figure 4 corresponds to the CGIAR offer of eight Science Programs, one Scaling Program, and three Accelerators, which will work in a collaborative manner to deliver integrated evidence, solutions, and innovations.

The outputs generated by all Portfolio components align with the core CGIAR innovation, capacity, and policy impact pathways. They are informed by challenges and megatrends, partner engagement, comparative advantage analysis, and *ex ante* assessments. Some examples of key CGIAR outputs for each of the three impact pathways are listed in Column 4. Innovations range from crop varieties and field, farm, and landscape management practices to institutional and organizational innovations. Capacity strengthening outputs are targeted to both individuals and organizations (including CGIAR itself through the Accelerators). Policy outputs aim to inform decision-makers at different levels and stages of policy processes.

As a research-for-development organization, CGIAR implements actions to promote and facilitate the use of outputs by external organizations. Such actions, outlined in Column 5, include developing scaling strategies, identifying effective dissemination methods, and engaging with policymakers.

By generating high-quality research, co-creating innovations, and undertaking actions to transform research and innovation into use, CGIAR and its partners increase the likelihood of achieving outcomes. Examples of key high-level outcomes planned in the new Portfolio are listed in Column 6. These include the use of innovations by various stakeholders in FLW systems, capacity change, and enactment of strategies and policies at different levels. CGIAR's contributions to new business models driven by private sector agents are also needed to achieve food, land, and water system transformation. The more specific outcomes CGIAR will strive to deliver through the 2025-30 Portfolio will be defined through consultative processes with stakeholders.

Finally, provided that outcomes are significant and integrated in specific geographies to support transformation, the ToC posits they will contribute to impacts on FLW system transformation, which will be reflected through positive changes in CGIAR Impact Area indicators. Assumptions, indicators, and targets will be added in the Inception Phase alongside further development of the Program and Accelerator ToCs.

3.2.2 How the Programs and Accelerators contribute to CGIAR's theory of change

Every Program and Accelerator has its own impact trajectory, yet, when countries and the wider range of development partners scale and combine successful interventions from across the Portfolio, synergies between these interventions unleash greater impacts. The Portfolio components interact to coherently address key challenges and contribute to outcomes and impact in the following ways:

- All Programs and Accelerators contribute to more than one Impact Area. However, the Climate Action Program, Multifunctional Landscapes Program, Better Diets and Nutrition Program, Policy Innovations Program, and Gender Equality and Inclusion Accelerator each have a stronger alignment with one Impact Area (climate change adaptation and mitigation; environmental health and biodiversity; nutrition, food security and health; poverty reduction, jobs and livelihoods; and gender equality, youth and social inclusion; respectively), serve as anchors to drive cohesion and learning on this Impact Area, and house functions formerly led by Impact Area Platforms.
- Each Program/Accelerator pursues all three CGIAR impact pathways (innovation, policy, and capacity). Some Programs and Accelerators develop and reinforce good practices and support others on a specific impact pathway. This is the case for the Scaling for Impact Program, which serves key functions for the innovation impact pathway by both signaling demand to prioritize research and innovations, and supporting other Programs in testing, adapting, and scaling innovation bundles the Policy Innovations Program, which convenes a community of practice in support of the policy pathway, in turn supporting the Scaling for Impact Program's work to build enabling environments for scaling; and for the Capacity Sharing Accelerator, which co-invests in capacity strengthening with other Programs.
- Each Program and Accelerator works across scales. In addition, several Programs play an integrative role at key scales. For example, the Sustainable Farming Program is a focal Program for integrating CGIAR's work at field and farm levels. The Multifunctional Landscapes Program plays a pivotal role in understanding the intersection of land (including agriculture, soils, forests, and wetlands), water, and biodiversity with livelihoods, policies, and institutions at the landscape scale. While the Policy Innovations Program's research spans from global to local levels, its work on policy responses to meet multiple objectives happens mostly at the national or sub-national level, where global and regional policies are implemented, and policy and investment decisions are most critical.
- The Scaling for Impact Program advances the science and practice of scaling. It coordinates efforts to quantify and communicate to other Programs the demand for research and scaling at country and regional levels, helping to iteratively prioritize research.

[1] A list of key indicators with data for each was already available based on work carried out during 2022-24.

- The goal of Accelerators is to spur impact across the Portfolio on three topics: gender equality and inclusion, digital transformation, and capacity sharing. In addition to externally facing activities (e.g. amplifying CGIAR's profile), Accelerators carry out the following internally-facing functions: (1) guiding the research agenda and the Portfolio's future directions in their respective areas; (2) center of excellence and capacity building to develop and disseminate cutting-edge methods and best practices across the Portfolio; and (3) delivery of scalable, demand-driven solutions responding to Program needs.
- All Programs and Accelerators address emerging issues that are not yet high on development agendas. In addition, the Food Frontiers and Security Program houses research on resilience-building innovations designed to anticipate new challenges in "frontier" food systems that share features of resource-constrained and fragile food systems, rapidly evolving environments, and at-risk societies.

Annex 2 summarizes the major types of outputs (products, services, and evidence) of Programs and Accelerators that are intended to be used directly by key 'end users': food producers (e.g. farmers, pastoralists, fishers) and other resource managers (e.g. water user groups), market actors (e.g. SMEs), consumers, and policymakers. As shown in Annex 2, nearly all Programs and Accelerators plan significant research efforts around generating innovations for use by producers and market actors as well as evidence for uptake by policymakers, while fewer Programs target consumers as direct users of outputs. The outputs of the different Programs and Accelerators complement each other, contributing to meeting multiple objectives of the different FLW system actors. Internal coordination will be key to CGIAR impact, especially vis-a-vis the actors targeted by many Programs and Accelerators. The Scaling for Impact and Policy Innovations Programs aim to strengthen coordination around innovation scaling and policy support, respectively, in focus countries. For example, the Scaling for Impact program will test innovation bundles in specific geographies and work with relevant Programs to identify coordinated approaches for scaling the innovation bundles that are in demand.

3.2.3 Continued strengthening of gender and social inclusion research

The GENDER Platform evaluation and the 2023 CGIAR GENDER Conference highlighted the need to advance CGIAR's gender research agenda to boost gender-transformative outcomes by providing solutions to solve gender inequalities, which are exacerbated by climate change and other shocks and stressors. Meeting this objective requires continued attention to and increased investment in gender research. Making gender equality, youth, and social inclusion the focus of an Accelerator signals CGIAR's enhanced commitment to catalysing transformation towards more inclusive FLW systems that provide benefits for all.

All Programs plan to undertake substantive research to reach, benefit, and empower women and other socially disadvantaged groups in their respective thematic areas. Building on work by the GENDER Platform, the Gender Equality Initiative (HER+), and CGIAR Centers, the Gender Equality and Inclusion Accelerator will focus on identifying and filling evidence gaps, guiding CGIAR's and partners' research agendas, integrating lessons, and tracking results from gender research across CGIAR. The Accelerator will also develop use cases in collaboration with the Programs to promote the integration of GESI-transformative research and use of best research methods in the Portfolio. Collaboration between the Gender Equality and Inclusion Accelerator and other Programs will ensure the solutions developed by CGIAR and partners benefit women and men equitably. In addition, an effort is underway to develop a stronger set of GESI indicators for CGIAR.

3.3. Priority-setting within the Portfolio

With an ambitious mission to contribute to FLW system transformation toward multiple Impact Areas, the potential scope of CGIAR's research Portfolio is larger than in the past. Therefore, attention to priority setting in the 2025-30 Portfolio is paramount, at both the Portfolio and Program/Accelerator levels.

3.3.1 Responding to demand

The System Council, at its 19th meeting, requested that "the Portfolio […] be built through a transparent, inclusive co-creation process, and supported by country and regional engagement and strengthened partnerships." To achieve this, the proposed 2025-30 Portfolio leverages the frameworks, principles, approaches, tools, and efforts developed and carried out in recent years to ensure CGIAR's research and innovation offer is grounded in partner and stakeholder priorities and interests at the local, national, regional, and global levels.

The Portfolio design process draws on lessons from and feedback on the design and implementation of the 2022-24 Portfolio, as well as stakeholder consultations conducted by the Writing Teams and the Research Initiatives and Impact Area Platforms. Stakeholders have specifically requested that CGIAR engage in an inclusive and open listening posture to collaboratively design and implement its Portfolio. In response, starting in 2022, CGIAR introduced Portfolio Dialogues and set up various partnership agreements to help align the 2022-24 Portfolio more closely to country and partner needs.

Beyond programmatic alignment, in its January 2023 report, the High-level Advisory Panel to the CGIAR System Board on improving strategic engagement with partners called for CGIAR to "develop and implement a visible process for inclusive agenda-setting, co-design and co-ownership of all aspects of One CGIAR efforts." CGIAR has since updated its Engagement Framework for Partnership and Advocacy and begun developing a Partnership Strategy, while continuing to strengthen partner and stakeholder engagement through a network of Country Convenors, a partnership intelligence function, and a policy advocacy function that builds on global and regional advocacy platforms for collective action.

Thus, the design of the 2025-30 Portfolio has been a critical opportunity for CGIAR to demonstrate its commitment to deeper engagement, as well as inclusive and demand-driven research and innovation. To achieve this, a series of targeted 'Listening Sessions' was launched in January 2024, to help identify and understand partner needs and thereby shape the evolution of CGIAR's research and innovation offer (see Box 1). During the first half of the year, Listening Sessions were held in 27 priority countries, involving more than 1,000 national stakeholders and 250 CGIAR scientists.

Box 1. Common themes that emerged from Listening Sessions across countries.

- Enhanced collaboration and partnerships between CGIAR and national agricultural research and extension systems (NARES), private sector, and civil society to enhance research impact and avoid duplication of efforts
- Capacity sharing at various levels, including training for farmers, women, young researchers, and government officials to ensure sustainable implementation and scaling of innovations
- Improving communication, data sharing, and information management to support decision-making and policy development
- Demand-driven research to focus on national priorities and key needs of the countries.
- Integration of advanced technologies, such as digital tools, remote sensing, and GIS for better research outcomes and efficient resource management
- Strengthening the contributions of CGIAR to decision-making processes at national levels and sharing advocacy at all levels, ensuring that research informs policy
- Integrating sustainable practices that consider benefits from sustainable development, including water management, conservation agriculture, climate resilience, and ecosystem restoration

Other thematic areas of interest for CGIAR collaboration were mentioned for each of the five Impact Areas. Further information on the objectives and achievements of the Listening Sessions can be found here.

Strategic local partner engagement – going beyond the mere expression of demand — is critical to achieve long-term impact. It allows CGIAR to pursue impact pathways in the context of actual stakeholder and partner constellations, needs, opportunities, and constraints. It strengthens local capacities and builds trust as iterative learning is translated into increasing success and impact. This, in turn, boosts CGIAR's strength in exchanging and accelerating experiences, insights, and learnings across countries and communities. The Writing Teams have engaged with partners throughout the Portfolio design process and these interactions will be deepened during the Inception Phase. The implementation of the Portfolio will be guided by regular and structured interactions with CGIAR's partners and stakeholders at all levels, with results regularly communicated across the Programs and Accelerators to ensure continuous adaptation in response to evolving demands. In addition, the Scaling for Impact Program includes regular regional- and national-level stakeholder engagement as one of its core functions.

3.3.2 Portfolio-level priority-setting

In establishing the new Portfolio of Programs and Accelerators, management took into consideration:

- inputs from stakeholder engagement, especially through the CGIAR-led Listening Sessions (see Section 3.3.1);
- the need for research to respond to challenges in all five Impact Areas;
- the importance of investing in all three impact pathways laid out in the CGIAR 2030 Strategy: innovation, capacity development, and policy;
- the recommendations of the CRP Synthesis Evaluation, especially about tackling challenges simultaneously through more integrated systems research in common geographies; giving more attention to the resource-poor, women, and other disadvantaged people; and fostering adoption of technical and social bundles at scale;
- inputs from the Science Group Evaluations, especially those from the Resilient Agri-Food Systems and Systems Transformation evaluations, which were mainly targeted at Portfolio level, such as the need for key research topics (e.g. food safety, consumer demand, nutrition, food loss and waste, climate change adaptation and mitigation) to not be siloed in single Programs and the need for gender-responsive and gender-transformative research to continue underpinning Science Programs.

Priorities should be refreshed periodically to respond dynamically to changes in challenges, megatrends, strategic opportunities, new technologies, and unforeseen risks. Rigorous Portfolio-level priority setting will be carried out to inform evolutions of the Portfolio during the six-year period.

3.3.3 Program/Accelerator-level priority-setting

At the start of the Portfolio design process, CGIAR had not yet developed or tested a rigorous prioritization methodology for use at the Program level. A cross-CGIAR working group was formed to develop such a methodology and support the Writing Teams in its application. The methodology for Programs can be found in Annex 3. To reflect Accelerators' special roles and high degree of interdependence with the Programs (see Section 3.2.2), the prioritization guidance was modified for the Accelerators.

The Program-level priority-setting methodology includes:

- using common baseline indicators and megatrend effects to identify locations where needs are highest[1];
- using a common approach to assess the potential impacts of alternative high-level outputs in specific geographies;
- applying the results from the comparative advantage analysis; and
- integrating demand from and engagement with partners (see Section 3.3.1).

The tasks of estimating baselines for common indicators and projecting the effects of megatrends on the values of these indicators were centralized. While the first of these tasks was completed, the second (Step 3 in the prioritization methodology, see Annex 3) could not be performed in time for the submission of proposals. In addition, the application of the 11-step methodology in full required much more time than available at this stage of Program design. Therefore, the Writing Teams were instructed to progress as far as possible to prioritize geographies. Each team did so by using a combination of the criteria listed above, with some variation across Programs.

None of the Writing Teams reached the stage where they would have analyzed the potential for high-level outputs to contribute toward various indicators in each geography. This will be done during the Inception Phase with guidance from the prioritization working group in conjunction with a more detailed comparative advantage analysis to inform the Programs/Accelerators' detailed work planning and budgeting.

Among the common indicators, each Writing Team selected the most appropriate ones for their Program in order to evaluate the severity of challenges across potential focus countries. In lieu of "country by output" assessments, some teams assessed the likelihood of outcomes or impacts in selected countries (or overall) by drawing upon experience, partnerships, demand, and potential risks. Priorities expressed by country partners through previous or new engagement (including via CGIAR's Listening Sessions) were also used in this early phase of priority setting.

3.4. Harnessing CGIAR's comparative advantage

3.4.1 Sources of CGIAR's comparative advantage

According to the ISDC framework and methodology, comparative advantage analysis starts by defining the key pieces of work to be delivered. Therefore, this methodology has been applied at the Program/Accelerator level, where outputs are more clearly defined than at Portfolio level (see Section 3.4.2).

However, there are core sources of comparative advantage at CGIAR level that apply to all Programs and Accelerators. The ISDC method includes four main sources of comparative advantage: incentives, human capital, biophysical capital, and social capital. A non-exhaustive list of CGIAR's comparative advantages for each source is provided in Box 2. In delivering impact across the five Impact Areas, the comparative advantage of CGIAR as a whole lies at the intersection of these sources.

As stated in the ISDC report, "within partnerships, CGIAR's comparative advantage will commonly emerge from its ability to function as an integrative platform that facilitates complementary research investments and activities, as well as its capacity to deploy its substantial scientific expertise and in-region facilities toward low-commercial-value/high-social-value, high-risk, long-horizon R&D that contributes to context-specific agricultural innovation."

As noted in ISDC's technical note on inclusive innovation, CGIAR can strengthen its comparative advantage in context-specific, transformative agrifood systems research by building its co-innovation capacity.

Wheat trainees study seedling rust symptoms.

Credit: X. Fonseca / CIMMYT

Box 2. Key sources of CGIAR's comparative advantage.

Incentives:

- Global mandate to deliver global public goods
- Research-for-development objective, with a focus on the use of research
- Strong demand for research, capacity sharing, and scaling support from national governments and global public funding agencies and institutions

Human capital:

- Large number of diverse (across many dimensions such as scientific discipline, nationality, and gender) scientific staff in LMICs
- Expertise and experience in developing and applying research approaches (e.g. systems research, participatory research, gender transformative research)
- World-renowned expertise in numerous disciplines (e.g. breeding, gender and social inclusion, farm management expertise, systems modeling, water management, climate change, and scaling science)
- Unique intellectual assets (e.g. models, methods, metrics, datasets)

Biophysical capital (in LMICs):

- Genebanks, germplasm health units, and crop and animal breeding laboratories
- State-of-the-art laboratory and field facilities for crop, livestock, and aquatic food research
- Experimental stations for long-term crop, animal, and natural resource management field trials
- Laboratories for soil, water, analytical chemistry, nutrition, food safety, and greenhouse gas (GHG) analysis

Social capital:

- Long-term presence across LMICs, built upon long-term agreements with countries, long-lasting partnerships, and emerging novel partnerships
- Partnerships and networks that extend from research to implementation and from local to global
- Trusted convener for inclusive partnerships
- Established track record for high-quality multidisciplinary research

3.4.2 Applying the ISDC framework to analyze comparative advantage at Program/Accelerator level

Using a similar process to prioritization, a cross-CGIAR working group was formed to develop guidelines and a template for comparative advantage analysis based on the ISDC Comparative Advantage methodology, and to provide associated support to the Writing Teams. These guidelines (see Annex 4) called for the Writing Teams to undertake the **initial steps** of the methodology, namely to identify: (1) high-level outputs; (2) sources of comparative advantage needed to deliver them; (3) sources of comparative advantage that CGIAR and key partner types could bring to bear; and (4) preliminary conclusions.

These first steps provided a framework for a thorough analysis of the sources of comparative advantage, relevant partners, and differences across countries and disciplines. They yielded an extensive analysis at the level of high-level outputs. Program/Accelerator teams developed tables detailing the sources of comparative advantage for CGIAR and partner types for each high-level output (these tables are included in proposals' appendices). The teams found this approach to be helpful in providing initial insights that can be carried forward into the Inception Phase, recognizing that this level of analysis does not factor in the known heterogeneity of sources of comparative advantage of partner types across countries or how those might differ for different crops (e.g. with potential private sector partners). Common sources of comparative advantage were identified by many Programs/Accelerators, including specific scientific skills for which CGIAR is known, cutting-edge facilities, and partnerships. Most Writing Teams also pointed out that CGIAR has weaker incentives and skills in outputs closely related to scaling, while other partner organizations have important sources of comparative advantage in that area. At the research discovery stage, other advanced research institutions (and in some cases the private sector) were recognized as having important sources of comparative advantage in innovative methods, such as the use of digital tools and artificial intelligence (AI).

The analysis of the relative strengths of CGIAR and specific partners will be refined through further country- and partner-level discussions during the Inception Phase, with continued support from the working group on comparative advantage.

3.4.3 CGIAR's roles alongside partners

The CGIAR Engagement Framework for Partnerships and Advocacy provides a partner segmentation according to the stage of the theory of change where the collaboration occurs: demand partners, innovation partners, and scaling partners. A given organization can play multiple roles, e.g. as a scaling partner (driving the uptake of a CGIAR innovation) and as an innovation partner (co-testing a scaling method). Partners can also be further categorized by nature, e.g. governments; national and international non-governmental organizations (NGO); international financial institutions (IFI) and multilateral institutions; private sector; farmers organizations; and NARES.

CGIAR's role in relation to partners varies along each of the three main CGIAR impact pathways. CGIAR co-identifies priorities for research with demand partners and co-generates scientific outputs with innovation partners. Further down the impact pathway into spheres of influence and interest, other organizations (e.g. IFIs, private sector, extension systems, NGOs, national policy advisory think tanks) have more pronounced mandates, skills and expertise compared to CGIAR for scaling innovations and influencing policy; therefore, CGIAR's role is to engage with these scaling partners to promote the uptake of scientific outputs and support scaling processes through activities such as translating scientific findings into more accessible formats, providing training and guidelines, and developing financing and scaling approaches.

The roles of innovation partners in co-generating research outputs and expressing demand for CGIAR's research depend on their capabilities. Usually, there is demand for methods, tools, and services that are not available within these organizations. Conversely, CGIAR benefits from accessing methods shared by partners, for example, state-of-the-art breeding processes and methods (e.g. from the private sector), global modeling tools (e.g. through AgMIP), and use of digital tools and AI approaches (e.g. from big data companies and remote sensing centers).

Another source of comparative advantage of CGIAR is its role to convene or broker partnerships that can effectively generate globally and regionally relevant research to develop solutions to FLW system challenges, such as the long-term collaborative effort on biofortification of staple crops. These cross-country partnerships place a strong emphasis on mutual capacity sharing and strengthening.

CGIAR's roles alongside partners have evolved and will continue to evolve. In line with ISDC's technical note on inclusive innovation and other recommendations, CGIAR is putting in place a strategy to guide the development and implementation of more inclusive and effective partnerships, which will help to promote a shared approach for how to work with partners and facilitate capacity building within CGIAR on effective partnering skills and processes. In some cases, partnerships are led by CGIAR; in others, CGIAR engages in partnerships led by other organizations. CGIAR plays different roles according to the type of partnership. What all effective partnerships have in common is a shared understanding of a joint problem that can best be solved collaboratively.

CGIAR research teams systematically involve local research and scaling partners and end users as critical informants in the design and execution of interventions from farm to policy level, so that solutions respond to local priorities and are adapted to needs, context and capabilities. There are plans for more active engagement with a wider range of stakeholders to be able to better understand and overcome multiple complex challenges at scale. For example, the new Portfolio gives high priority to partnerships with public and private sector financial institutions.

Workshops in villages in Tanzania brought local villagers together to discuss inclusive agriculture.

Credit: Nkumi Mtimgwa / /CIFOR

3.5. From 2022-24 to 2025-30: Evolution in Portfolio contents

3.5.1 New components

New components introduced in the 2025-30 Portfolio in response to challenges/megatrends, comparative advantage analysis, and recommendations of evaluations can be grouped under the categories below, with selected examples provided for each.

Enhanced focus on key topics

- Elevating nutrition and sustainable and healthy diet considerations and mainstreaming climate change adaptation and mitigation across the Portfolio, as per the recommendations of the 2024 evaluation of CGIAR Science Groups.
- Increasing focus on youth (coordinated research agenda through a dedicated sub-Area of Work in the Gender Equity and Inclusion Accelerator), in accordance with the need highlighted in the ISDC study on megatrends to focus on opportunities for youth to create profitable career paths in FLW systems.
- In the policy arena, increased emphasis on integrating data and insights and improving the coherence, relevance, and actionability of investments and policy recommendations.

New areas of focus

- Given that conflicts, and climate change are disproportionally affecting the most vulnerable communities, the importance of social stability, resilience, and rapid response to shocks is growing. The new Portfolio is preparing for the future by elevating the research on resilience-building innovations designed to anticipate new challenges in "frontier" food systems that share features of resource-constrained food system fragility and at-risk societies.
- Expanding the scope of CGIAR's breeding by adding trees, vegetables, forage crops, food-feed crops, and specific "opportunity crops" included under the Vision for Adapted Crops and Soils (VACS) to take advantage of innovative options to build productive, resilient, and inclusive production systems.
- Strengthening the consumer-level impact of biofortified staples and developing food fortification solutions for nutrient-dense animal- and aquatic-source foods.

Use of new technologies, tools, approaches, and partnerships

- Systems approaches mainstreamed into the Portfolio to facilitate integrated thinking across sectors, identify synergies, and manage trade-offs.
- Wider application of current and new genomic selection techniques, novel phenotyping and speed-breeding methods, and predictive breeding and AI tools to improve and accelerate genetic gain.
- Designing AI-driven platforms and tools to provide small-scale producers and other stakeholders with accessible, context-specific, and real-time information.
- Developing a portal to facilitate users' access to genebank data and germplasm ordering.

- Exploring public-private business models and options for scale-appropriate machinery, including potential use in precision agriculture, and combining biophysical systems modelling and behavioral sciences to better understand priorities and support stakeholders' decisions and capabilities for bundling and scaling farm innovations.
- Advancements in the science of capacity sharing through use of novel tools, approaches, and methods co-created with NARES partners; CapSha KPIs assessed at the institutional level in addition to the individual level.
- User-focus and co-design with research and scaling partners to accelerate the uptake of solutions.

Improved CGIAR coordination mechanisms to enhance impact

- CGIAR's new Climate Hub established to improve availability of data, foster partnerships and learning, and coordinate Program contributions on climate change mitigation and adaptation.
- Exploring opportunities for cross-country policy research and learning through CGIAR's new Policy Hub.
- First CGIAR-wide attempt at confronting the challenges of scaling in a coordinated, systematic, and effective way via the Scaling for Impact Program.
- Structured and centralized coordination of CGIAR's capacity-sharing efforts via the Capacity Sharing Accelerator.

Dubbed as 'nutri-cereals' by nutritionists, 'future crops' by environmentalists, and hailed as 'miracle crops' by dryland farmers, millets have been making a comeback on both plates and farms in recent years.

Credit: ICRISAT

3.5.2 Discontinued components

Completed activities

Several activities have been completed in 2022-24, for example, activities under the Excellence in Agronomy Initiative that have delivered final products (e.g., agronomy-related products or 'turnkey solutions' ready to be transferred to partners); or the Women's Energy Empowerment Index (WEEI) and Energy Inclusivity and Equity Score (EIES) developed by the NEXUS Gains Initiative to provide insights into women's and marginalized groups' access to clean energy.

Shift of focus from diagnostic stage to implementation stage

Unless carried out in new countries, the diagnostic assessments and development of strategies carried out under multiple Initiatives during 2022-24 will give way to action research and implementation of plans and solutions, in a logical transition building on the 2022-24 achievements. Examples include shifting country support from developing-country emission reduction strategies to implementing these strategies, as well as moving from initial consumer-facing diagnostic work to testing the consumer-level impact of interventions. Similarly, successfully completed work on baseline and descriptive studies about the main types of mixed farming systems and their status will be discontinued to make room for work on bundled innovations and their improved targeting and scaling.

Deprioritized lower-potential activities

In some cases, prioritization exercises have resulted in strands of research being assessed as having a low opportunity for impact. Taking breeding as an example, product development activities will be discontinued for lower-impact market segments and funding will be redirected to market segments with the highest opportunity for impact. In other areas, activities that have proven too site-specific or have not generated the expected results are also being discontinued. Single, non-bundled/non-packaged innovation development without clear stakeholder demand will be deprioritized. Deprioritized activities also include cases where partner demand has changed, e.g. development of a climate security index for cross-geographic comparisons (which was planned under the Climate Resilience Initiative).

Shift of focus from individual/siloed components to systems approaches

The 2022-24 Portfolio attempted to adopt a systems approach. The 2025-30 Portfolio will take a step further in this direction and discontinue activities focusing on individual 'components' (such as water, crop, livestock, soil, etc.) and/or based on pursuing production or conservation goals separately.

4. More impactful CGIAR science and innovation

4.1. Leveraging CGIAR's track record

The proposed 2025-30 Portfolio builds on a well-documented track record of CGIAR impact. Large impacts from CGIAR's breeding research have been well demonstrated over the years (Fuglie and Echeverria 2024 being the latest study). In addition, over the past decade, evidence of CGIAR's broader contributions along its three main impact pathways has been documented in areas including food and nutrition, environment, climate change mitigation and adaptation, gender equality, and poverty reduction (see for example CGIAR contributions to the 2022 System Level Outcome Targets) and through the nearly 1,400 policy, innovation, and capacity outcomes reported between 2017 and 2023[1] (see 2017-21 and 2022-23 CGIAR Results Dashboards). These outcomes have occurred in all regions where CGIAR works (East and Southern Africa; West and Central Africa; Central and West Asia and North Africa; Southeast Asia and the Pacific; South Asia; and Latin America and the Caribbean), showing CGIAR is able to meet demand and facilitate use of its research in a wide range of contexts. These achievements have been made possible by the efforts of many partners. It is recognized that contributions to impacts could be enhanced by further deepening of existing partnerships and formulation of new partnerships in areas where capability gaps exist.

CGIAR has continued to deliver effective and impactful research and innovations while steadily growing the scope of its work in response to increasingly complex and interconnected global challenges. Building on this experience, CGIAR is well placed to raise its ambition and fully deliver on its 2030 Strategy through:

- greater co-location of the thematic components of the Portfolio to deliver on the most significant global challenges across pooled and bilateral funding sources, and stronger coordination and integration of co-located components;
- improved alignment with national priorities, strategies, and commitments and empowering partnerships with NARES in those countries;
- deepened high-leverage partnerships, including with IFIs, expanded partnerships in sectors beyond agriculture to drive transformation, more partnerships with the private sector, and further engagement with multi-stakeholder platforms;
- stronger alignment and coherence across scales, e.g. from global to regional to national, with a view to reaching impact at scale; and
- more coherent and collaborative management across Programs, Accelerators, and Centers to bring together scientists working on similar research challenges, to foster the development and use of cutting-edge science that will generate achievements of higher value.

With these improvements, CGIAR will be able to generate more complementary, impactful research that influences decisions from global to local; and collectively drive FLW system transformations throughout LMICs.

African kids eating some sorghum porridge, village in Botswana.

Credit: IITA

At the **local and national levels**, CGIAR supports nationally determined priorities for food, land, biodiversity, and water system transformation in priority LMICs, and strengthens targeted capabilities across a range of disciplines, sectors, and countries to enhance country-led research and stimulate transformative change at scale in FLW systems.

Examples of such work include:

- Use systems-oriented, integrated approaches to develop innovations that enable countries to meet their commitments in the agricultural, environmental, and food sectors, e.g. NDCs to reduce GHG emissions, plans to achieve land degradation neutrality, National Biodiversity Strategies and Action Plans, and Global Biodiversity Framework targets as part of coherent agrifood systems transformation pathways;
- Co-create solutions in use of local biological diversity, seed and market systems, food value chains, and food environments that reduce the costs of and increase access to sustainable healthy diets;
- Develop landscape approaches that enrich the natural resource base, reduce the environmental footprint of and inequalities in agriculture, and generate sustainable livelihoods;
- Assist countries in creating decent jobs in FLW systems;
- Support inclusive policy processes and propose enabling policy options that foster synergies between sectors and administrative levels in meeting multiple objectives and mitigating trade-offs;
- Strengthen the capacity of institutions that formulate and execute plans and policies related to FLW system transformation (including NARES, producer organizations, IFIs, private food system companies and entrepreneurs, and relevant government ministries playing key roles in FLW systems) in using methods, tools, and information for them to be better equipped to meet their own analytical demands and needs.

At the **regional** level, CGIAR supports regional cooperation strategies and strengthens regional research networks and other partnerships to develop, disseminate, and use research results.

Examples of such work include:

- Conduct regular dialogues with regional partners to identify priorities for collaborative research and scaling activities (e.g. the Technologies for African Agricultural Transformation (TAAT) program to better link CGIAR innovations with IFI investment);
- Engage with regional research networks to strengthen collaborative research and facilitate the adaptation of results developed elsewhere in a region where there is demand;
- Provide technical support toward regional policy organizations and networks' planning and cooperation objectives (e.g. South Asian Association for Regional Cooperation, Economic Community of West African States, African Group of Negotiators Expert Support);
- Implement capacity sharing approaches and South-South learning to meet core capacity needs of partners in food, land, and water systems research, policy analysis, and scaling of innovations.

Rice threshing, near Sangrur, SE Punjab, India.
Credit: NeilPalmer / CIAT

At the **global** level, CGIAR aims to contribute to global policy processes to drive public and private investment toward FLW system transformations that address multiple SDGs, and to produce high-quality global public goods that influence discourses and actions and encourage further research by partners in priority and novel areas. This is conducted in collaboration with strategic partners, namely FAO and other UN organizations.

Examples of such work include:

- Coordinate and communicate CGIAR's offer to support Multilateral Environmental Agreements (e.g. United Nations Convention to Combat Desertification, United Nations Framework Convention on Climate Change, Convention on Biological Diversity) and the follow up to the UNFSS;
- Develop metrics and methods that can be used by national and international partners to assess resilience to climate change and measure contributions to GHG emission reduction in FLW systems, thus accelerating the inclusion of agriculture and food and water security in climate change finance discussions;
- Identify innovations, interventions, policies, and programs that have been demonstrated to work toward meeting SDGs and can be scaled up through IFIs (e.g. World Bank, IFAD, ADB, AfDB, IsDB) and global initiatives (e.g. Scaling Up Nutrition);
- Contribute to global assessments that inform global policy processes (e.g. Intergovernmental Panel on Climate Change, Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services).

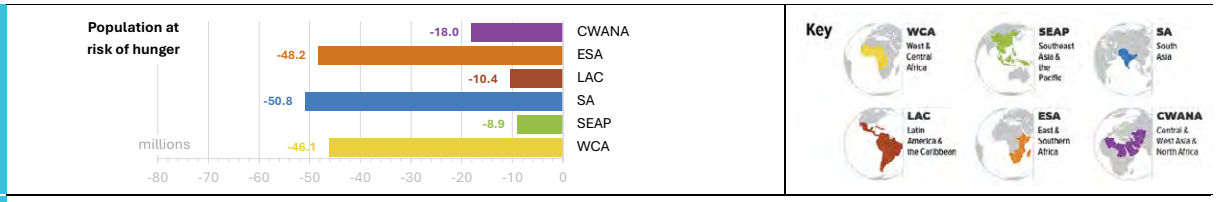
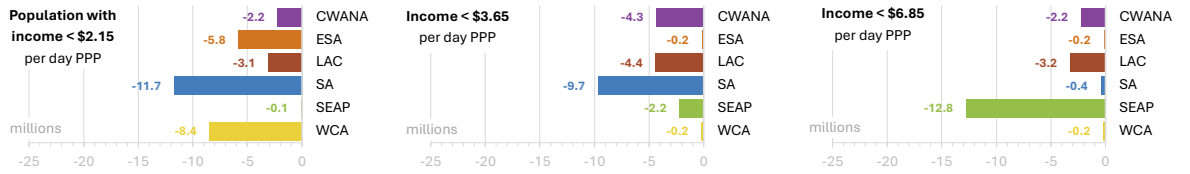
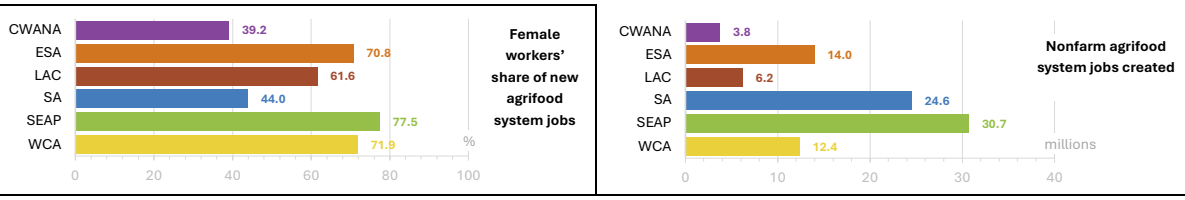
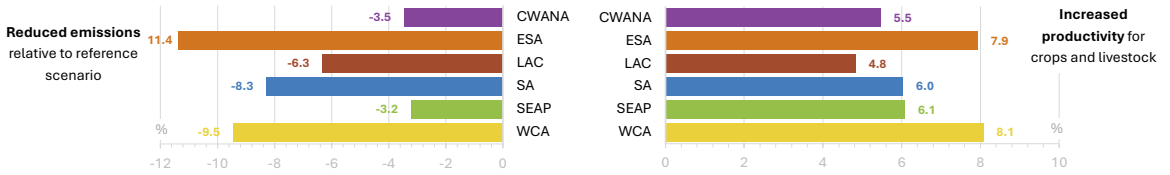
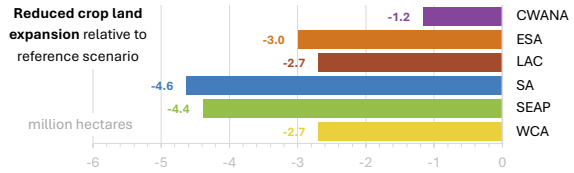
4.2. Projected impact ambitions to 2030

Tables 3 and 4 provide estimates of impact ambitions that can be achieved from continued investment in CGIAR and, importantly, continued development spending in systems. An explanation of how the estimates were generated is found in Annex 5. A fundamental assumption is that productivity growth in key crops, livestock, and fish will grow at an accelerated rate of 1% per year (or 6% over the period from 2025 to 2030, in comparison to a reference trend scenario). This assumption is in line with studies of CGIAR impacts of improved crop varieties alone. The productivity driver, along with other accelerator assumptions compatible with Portfolio priorities, are then modeled to bring about multiple multiplier effects as shown in Table 3. Some key impacts are: the population at risk of hunger reduced by 182 million, 31 million people assisted to exit extreme poverty, 20 million hectares of avoided deforestation, and 500 million mt CO2-equivalent emissions avoided. Table 4 shows how these global figures are distributed across regions. The major gains in reducing both poverty and hunger occur in South Asia, East and Southern Africa, and West and Central Africa. Avoided deforestation is more equally observed across all regions.

Table 3. Impact ambition estimates from investment in CGIAR innovation alongside complementary investment in agriculture in the Global South.

Impact Area	Impact Indicator	Estimated impacts by 2030 relative to reference scenario	Interpretation
Nutrition, Health and Food Security	Population at risk of hunger	A global reduction of **26%**, or **182 million people**.	Higher agricultural productivity increases the availability of food, lowers food prices, and raises the likelihood that households can consume at least the minimum daily recommended number of calories.
Poverty Reduction, Livelihoods and Jobs	Reduction in absolute poverty	**31 million people** lifted out of extreme poverty ($2.15 2017 PPP). **21 million** lifted above $3.65/day (2017 PPP, consistent with WB LMIC poverty threshold). **19 million** lifted above $6.85/day (2017 PPP, consistent with WB UMIC poverty threshold).	As CGIAR innovations increase productivity, they raise farm incomes, as well as incomes earned elsewhere in the agrifood system and economy. This makes it possible for more households to rise above the poverty line and afford the minimum daily cost of living.
	Jobs in the agrifood system	**92 million** new nonfarm jobs created in the agrifood system outside.	Increased production within agriculture creates new jobs in parts of value chains that extend beyond the farm.
	Agrifood system incomes	**7% increase** in average incomes earned by workers throughout the agrifood system.	CGIAR innovations increase production and profitability for farmers and workers and entrepreneurs in downstream agrifood system activities.
Gender Equality, Youth and Social Inclusion	Reduced gender inequality in employment	Female workers occupy **63% of new jobs** in the agrifood, up from 40% in 2021.	Gender-intentional policies and programs emerging from CGIAR research and facilitated by CGIAR innovations increases the likelihood that employment and job creation in the agrifood system favors female workers.
Climate Adaptation and Mitigation	Reduced emissions	**0.5 billion mt** CO_2 equivalent emissions avoided, **5%** below reference scenario.	Increasing agricultural production generates more emissions, but CGIAR innovations reduce the carbon intensity of the overall agrifood system, leading to lower than anticipated emissions.
	Productivity increase	**6% increase** for across all crops and animals targeted by CGIAR R&D.	CGIAR R&D currently focuses on 19 crops and most types of livestock. Increasing their productivity reduces the likelihood that local food supplies fall below reference levels during adverse climatic events.
Environmental Health and Biodiversity	Reduced cropland area	**20 million hectares** of crop land expansion averted, **1.2%** below reference scenario.	As climate change degrades existing farmland, and population growth increases demand, the pressure to convert more land to agriculture increases. The impact of CGIAR innovations and complementary investments is anticipated to partly offset this.

Table 4. Targeted regional impacts by 2030.

Nutrition, Health and Food Security	
Poverty Reduction, Livelihoods and Jobs	
Gender Equality, Youth and Social Inclusion	
Climate Adaptation and Mitigation	
Environmental Health and Biodiversity	

5. Operationalizing the Portfolio

CGIAR's 2025-30 science and innovation Portfolio has been developed against the backdrop of significant institutional change across the integrated partnership:

- Pursuant to the CGIAR Integration Framework Agreement, new governance arrangements have been established under an amended CGIAR System Framework and Charter of the CGIAR System Organization.
- The ICI (integrated, coordinated, independent) Forum has led a process to advance integration in several priority areas, including ethics and business conduct, internal audit, external audit, and risk management and internal controls.
- A multi-stakeholder Financial Model Reference Group (FMRG) finalized its proposed new modalities for 'pooled' (CGIAR Trust Fund W1/2) funding in June 2024.
- In addition, the organizational structure of the CGIAR System Organization and global functions overseen by the CGIAR EMD are undergoing major changes with a view to ensuring continued fit for purpose.

Consistent with and building on these changes, this section describes in broad terms the management and funding arrangements for the new Portfolio, as well as the transition and inception process aimed at ensuring an effective closeout of the current 2022-24 Portfolio of Research Initiatives and Impact Area Platforms, continuity of critical work and partnerships, and an effective and timely operationalization of the 2025-30 Programs and Accelerators.

The arrangements described here are informed by and respond to ISDC's recommendations on the May 2024 Portfolio Narrative, relevant evaluative evidence, and experience and lessons learned from past CGIAR research cycles. This section is not intended to be exhaustive, but rather a synthesis of efforts underway across multiple interconnected work streams, where associated documents and requested actions will be presented separately for decision-making at different levels (e.g. a preliminary W1/2 Budget for 2025 and final pooled funding modalities will be presented for IPB and System Council decision-making in November and December 2024).

5.1. Portfolio management arrangements

The management arrangements described here are intended to provide the 'form' that follows the 'function' of the 2025-30 Portfolio. Ultimately, they aim to enable CGIAR and partners to bring together and harness the best of their collective capabilities in response to the global challenges described in Section 2. They were developed through an inclusive process of co-creation led by a cross-CGIAR Task Force and with input from experts representing all Centers. CGIAR's Global Leadership Team (GLT, see below) has reviewed and aligned on the high-level management structure and provided guidance toward its operationalization.

The design, establishment, and operation of the Portfolio management arrangements are guided by the following principles: (1) integration across Centers, teams, programs, projects, and geographies; (2) fair, inclusive, and equitable treatment of Centers and staff; (3) collaboration, shared ownership, and co-responsibility; (4) diversity of leadership and teams; (5) transparency and accountability in the use and allocation of pooled funding; (6) alignment of work across all Centers

Floating market, Thailand.
Credit: Dominyk Lever /WorldFish

and all sources of funding; (7) symmetry of responsibility, accountability, and authority; (8) agility and responsiveness; (9) clarity and simplicity; and (10) stability and predictability.

CGIAR's science and innovation leadership and management operate at three main levels, summarized in Figure 5:

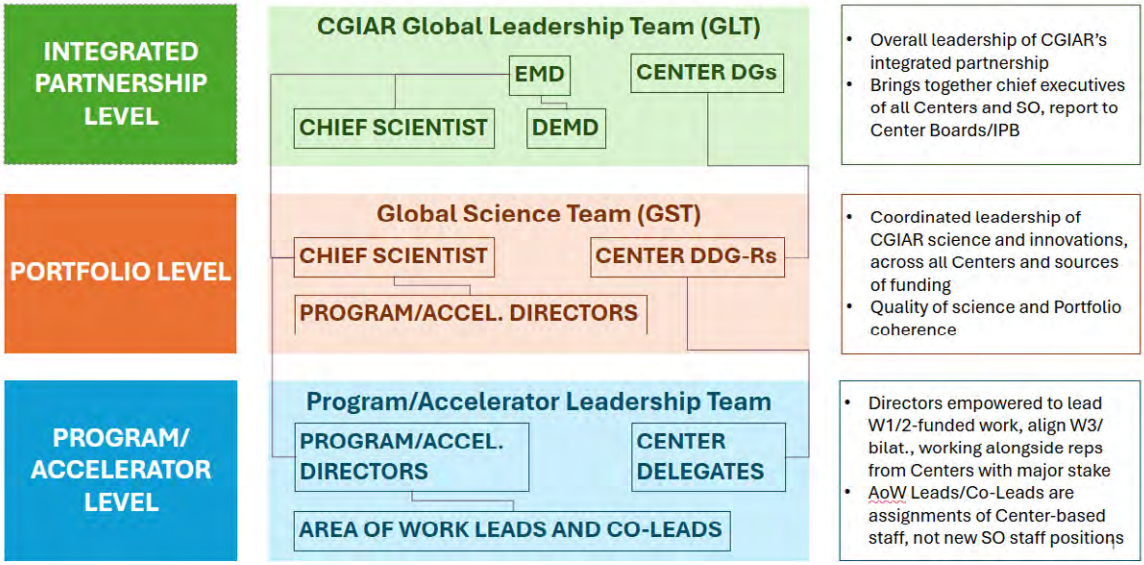
- **Integrated Partnership:** Across CGIAR's integrated partnership as a whole, Center Directors General (DGs) and the CGIAR Executive Managing Director (EMD) – as chief executives of the Centers and the System Organization, respectively – lead CGIAR's operations and are accountable to their respective Boards. The DGs and EMD, together with the Deputy EMD and Chief Scientist, form the CGIAR Global Leadership Team (GLT).
- **2025-30 science and innovation Portfolio:** The CGIAR Chief Scientist and Centers' Deputy Directors General for Research (DDG-Rs) or their equivalent lead CGIAR's science and innovation. Collectively, the Chief Scientist and Center DDG-Rs (or their equivalent), joined by Program and Accelerator Directors, form the CGIAR Global Science Team (GST). The Office of the Chief Scientist will house cross-Portfolio functions related to coordination and performance and results management.
- **Programs and Accelerators:** For each Program and Accelerator, a Director provides overall scientific leadership and holds accountability for W1/2-funded work. The Director works alongside a leadership team made up of delegates from Centers who contribute to the delivery of the Program/Accelerator, as well as Area of Work Leads and Co-Leads. Dedicated Program Management Units (PMUs) provide program management and administrative support toward the successful delivery of each Program/Accelerator, with capabilities spanning project management and coordination, monitoring, evaluation, learning, and impact assessment (MELIA), finance, people and culture, communications, and data and knowledge management.

The Portfolio management arrangements aim to **ensure clarity of decision-making and accountability while fostering integration, collaboration, and coordination** at all levels. Accountability for the use of W1/2 funding for its intended purpose flows from the EMD to the Chief Scientist, Program/Accelerator Directors, Area of Work Leads/Co-Leads, and ultimately Centers for the W1/2-funded work they deliver. The partnership-wide structures at different levels ensure that associated decision-making is transparent and inclusive – e.g. with the GLT reviewing and endorsing W1/2 budget proposals before they are approved by the EMD for submission to the Integrated Partnership Board. Similarly, Centers retain the ability to independently raise, approve, and deploy W3/bilateral funding and hold the associated accountability; while working through the Global Science Team and Program/Accelerator Leadership Teams to promote alignment of W3/bilaterally funded work with the 2030 outcomes and theories of change of the relevant Programs/Accelerators.

The management structure is designed to balance the need for highly capable and empowered Portfolio and Program/Accelerator leadership with the need to minimize any duplication of roles and ensure cost-effectiveness. The Chief Scientist and staff in their office, as well as Program/Accelerator Directors, will be employed by the CGIAR System Organization and primarily hosted in Centers, whereas Area of Work Leads and Co-Leads and Program/Accelerator PMUs are sourced through assignments of qualified Center-based staff.

Further details on these management arrangements are set out in separate working documents and will be further developed through terms of reference and job descriptions for the relevant management positions and bodies, as well as decision flows and RACI (responsible, accountable, consulted, informed) matrices for key decisions. An updated performance and results management framework and approach, underpinned by the new Technical Reporting Arrangement, will provide for robust, continuous performance and results reporting and adaptive management of the Portfolio at different levels. The management arrangements will be operationalized in a phased manner, with key milestones set out in Section 5.6, and will be periodically reviewed and adapted as needed to ensure effectiveness and efficiency.

Figure 5. CGIAR's science and innovation management structure at a glance.



A charity organization distributes food, “Takiya,” to displaced Palestinians, in the Gaza Strip.

Credit: IFPRI

5.2. Funding the Portfolio

The 2025-30 Portfolio is designed to encompass all of CGIAR’s work, across all Centers and all sources and types of funding: ‘pooled’ funding from CGIAR Trust Fund W1/2 as well as ‘non-pooled’ W3 and bilateral funding. The Programs and Accelerators have been designed to be funded through combinations of W1/2 and W3/ bilateral funding, with each type of funding governed and managed in accordance with applicable rules.

Consistent with the CGIAR Financial Model Reference Group’s proposal, presented to the System Council at its 20th meeting in June 2024, ‘pooled funding’ includes funding made available for the full 2025-30 Portfolio through W1, as well as W2 funding earmarked to a specific Program, Accelerator, Genebanks, and/or – subject to System Council agreement – Area of Work.

The Program and Accelerator proposals have been designed based on the understanding that, as a starting point and particularly in the first year of implementation, work currently funded through W1/2 under a 2022-24 Initiative or Platform will – subject to prioritization – continue to be funded through pooled funding unless an alternative W3/bilateral funding source has been confirmed. In addition, pooled funding is primarily deployed toward work that: (1) is foundational to the Program/Accelerator and the Portfolio at large and requires a high level of continuity and predictability; (2) fosters cohesion within the Program/Accelerator and across the Portfolio at large; and/or (3) serves to catalyze and unlock additional and complementary W3/bilateral funding.

In accordance with the CGIAR System Framework, the System Council approves “program proposals and indicative funding for the CGIAR Portfolio” and “the overall financial plan for the CGIAR System and the allocation of Unrestricted Funding for CGIAR Research” following concurrence by the IPB. At the management level, the proposed allocation of W1/2 funding is ultimately approved by the EMD following endorsement by the GLT. A transparent, evidence- and performance-based W1/2 budgeting process is being developed, incorporating top-down strategic prioritization by leadership and bottom-up inputs from the Programs and Accelerators, in consultation with partners. Consistent with System Council-approved W1/2 budgets and financing plans, detailed Program and Accelerator-level plans of work and budget will set out the allocation and intended use of W1/2 funding by Area of Work and Center.

Centers’ W3/bilateral funding will be deployed over various time frames and target various geographies and thematic areas as agreed between funders and Centers. To enable complementarity and synergies with W1/2-funded work, the current Program/ Accelerator proposals have been designed based on a preliminary mapping of key existing W3/bilaterally funded projects and programs (representing 90% of W3/bilateral budgets) to the most relevant Program/Accelerator. Going forward, CGIAR will work toward progressively greater alignment of W3/bilateral projects and programs with the 2030 outcomes and theories of change of the Programs and Accelerators. Centers will make available basic information on their W3/bilaterally funded projects and programs

to enable Program/Accelerator leadership to explore ways to achieve alignment based on, *inter alia*, complementarity of results as well as actual or potential thematic, geographic, and partnership overlaps. Reporting on and attribution of results across different sources of funding will be set out as part of the new Technical Reporting Arrangement.

5.3. Portfolio performance and results management

To provide the basis for strengthened accountability, assurance, learning, and resource mobilization, a new CGIAR Technical Reporting Arrangement (TRA) is being co-designed for the period 2025-30 with Funder representatives under the auspices of the System Council's Strategic Impact Monitoring and Evaluation Committee (SIMEC).

Key features of the new TRA include:

- **Integration**: Rising to the challenge noted by the ISDC in its feedback on the May 2024 Portfolio Narrative, a more integrated approach will be developed to track the performance of each Program and Accelerator, bringing together the outputs, outcomes, and impacts of the whole Portfolio through progressive alignment of the reporting on W3/bilaterally-funded components with a common framework.
- **Line of sight**: The TRA is designed to meet the needs of diverse funders, ensuring transparency and accountability by linking investment to results, both for pooled and non-pooled funds.
- **Impact focus**: Research results will be better linked to CGIAR's 2030 targets using enhanced Impact Area indicators. Impact assessments will be integrated into Program/Accelerator design. The use of geographically-bound targets will be explored for priority locations. A robust approach to project cross-Portfolio benefits by Impact Area for different funding scenarios will be developed; these projections will be used to set the targets and milestones against which progress will be reported.
- Simplified reporting: Overly complex requirements will be avoided, aiming to reduce the reporting burden on Centers in spite of the need for W3- and bilaterally-funded projects to be integrated with the common pooled reporting framework.

Technical Report products tentatively include the following:

- A Results Dashboard including AI functionalities will be updated several times per year to offer funders and partners closer-to-real-time data.
- Annual Program/Accelerator Technical Reports will be complemented by an Annual Portfolio Report which will convey progress by Impact Area, geographic, and thematic priorities and include information on CGIAR's internal practice change and learning.
- Portfolio outcomes and impacts will be consolidated in a specific report every 3 years. Evidence of CGIAR contributions to impact will be synthesized and regularly updated through an online "impact compendium."
- A 2022-30 report is also envisaged, to provide a macro-level view of CGIAR's role in FLW system transformation during the period covered by the CGIAR's 2030 Strategy.

In addition to annual reports and associated 'pause and reflect' processes at the Program and Accelerator levels, a robust **mid-term review in the first half of 2028** will take stock of Portfolio-level performance, results, and lessons learned to inform more significant adaptive management actions in view of CGIAR's 2030 targets. The mid-term review will draw on relevant evaluative evidence from System Council-commissioned IAES-implemented evaluations.

5.4. Portfolio transition and Inception Phase

With the exception of final reporting and closeout activities, the current 2022-24 Research Initiatives and Impact Area Platforms will be closed on December 31, 2024. Building on lessons learned from the 2021-22 transition, guidelines are in place to ensure a successful closeout and transition process across multiple dimensions (finance, partnerships, people management, planning and reporting, communications and outreach, etc.). Simultaneously, a Portfolio Inception Phase, through the first half of 2025, is being planned to ensure the timely and effective operationalization of the 2025-30 Portfolio. **Key deliverables for the Inception Phase** include:

- Addressing relevant guidance and recommendations from the ISDC, IPB, and System Council, and implementing relevant management actions in response to independent evaluations and internal audit engagements;
- Updating Program/Accelerator theories of change and setting out details on intended contributions toward Impact Areas and Program/Accelerator outcomes, associated targets, and schedules of outputs over the 2025-30 period, allowing for early IAES-facilitated evaluability assessments for each Program/Accelerator to be implemented, in alignment with CGIAR Evaluation Policy's Evaluability Assessment Guidelines;
- Developing Program/Accelerator MELIA plans in line with CGIAR's updated Technical Reporting Arrangement (see above) and relevant standards, systems, and tools;

A farmer carries harvested chayote shoots in Hua Bin province, NW Vietnam.

Credit: NeilPalmer / CIAT

- Listing intended partnerships by Program/Accelerator Area of Work and location, setting out detailed partnership arrangements for 2025, and initiating partner engagement for W1/2-funded work in priority regions and countries;
- Completing detailed, activity-level plans of work and budget by Area of Work and Center for 2025, and preliminary, higher-level plans through 2030; drawing on completed prioritization and comparative advantage analyses as well as on an updated view of relevant W3/ bilaterally funded projects and programs; and
- Identifying key risks and developing Program/Accelerator risk management plans.

At the Portfolio level, the management arrangements described above will be rolled out during the Inception Phase through a phased process that aims to ensure continued momentum while providing space for incoming CGIAR science leadership, including the Chief Scientist and Program/ Accelerator Directors, to shape their teams and ways of working.

In addition, to ensure the uninterrupted delivery of critical, continuing W1/2-funded work and to enable the delivery of the Inception Phase itself, a preliminary W1/2 budget will be presented for approval in parallel with the full Program/ Accelerator proposals in November and December 2024. A W1/2 budget review will be carried out in 2025, informed by complete Program- and Accelerator-level prioritization, comparative advantage analysis, intended partnership arrangements, and Impact Area contributions; strategic prioritization at the leadership level; and updated funding scenarios, with additional details on Funders' intended W2 earmarks.

Complete Inception Phase reports will be made available in Q2 of 2025, detailing the outcomes of the above deliverables and summarizing management's actions in response to the recommendations and guidance received.

5.5. Key risks and mitigation measures

The operationalization of the new Portfolio comes with significant risks. These risks have been assessed through a combination of top-down and bottom-up processes. The 2022-24 Initiative and Platform teams have identified transition risks related to their respective areas of work. In parallel, each Program/Accelerator proposal includes a preliminary set of top risks to the Program's/Accelerator's ability to achieve its objectives. Looking forward, plans for the Inception Phase will include further details on these Program- and Accelerator-level risks, including complete descriptions, preliminary ratings for impact and likelihood, mitigation actions, and risk owners. Finally, across CGIAR's integrated partnership, the Risk Management Community of Practice manages a register of top risks which are regularly reviewed with leadership. Taken together, these processes have identified critical risks in relation to science and innovation progress, partnerships, funding, talent, trust and credibility, external shocks and uncontrolled events, as well as data gaps and capacity constraints.

Table 5 provides a synthesis of these critical risks. It also includes key mitigation measures, some of which have been completed or are underway as part of the Portfolio development process. Others will require close attention during the Inception Phase.

Table 5. Overview of key risks and mitigation measures associated with the operationalization of the new Portfolio.

Key risks	Mitigation measures
Loss of science and innovation progress resulting from a lack of continuity of work, leadership, and key partnerships	• The Programs and Accelerators have been designed based on a careful assessment of existing work – particularly under the 2022-24 Initiatives and Platforms – with a view to leveraging what works well and adapting what could work better, while intentionally creating space for new and emerging opportunities.
Loss of key partnerships, inability to maximize value of partnerships resulting from a lack of science and innovation, funding, and leadership continuity	• The Portfolio transition guidelines prioritize measures to ensure the continuity of key partnerships. • The ongoing review of the System Organization's structure will ensure clarity on the Partnership function. • A CGIAR Partnership Strategy will be finalized and rolled out in early 2025. • The Portfolio Inception Phase will provide for meaningful stakeholder engagement.
Loss of funding resulting from a lack of clarity on the science and innovation content of the new Portfolio and the associated investment case, as well as the associated management and funding modalities	• The System Council, including its Funder Voting Members, endorsed the May 2024 Portfolio Narrative at its 20th meeting in June 2024. • Between meetings, Funders Voting Members of the System Council have been informed of progress through special update calls held in March, July, and October. • All interested Funders were invited to virtual stakeholder consultations on the new Programs and Accelerators in July and August 2024. • The Writing Teams and leadership have made themselves available to engage with Funders on demand. • Funders have been closely engaged in the development of the new W1/2 funding modalities, including as members of the Financial Model Reference Group. • Looking forward, the Inception Phase will deliver the remaining elements of a robust investment case for the new Portfolio through 2030.
Loss of talent due to change fatigue and job insecurity as new Portfolio management arrangements are operationalized	• Throughout the Portfolio development process, leadership has provided regular updates to all staff on the rationale for the process and its implications for staff. • Through inclusive, cross-CGIAR Writing Teams and close engagement with relevant CGIAR groups, the process has provided considerable opportunities for key CGIAR staff and leadership to engage and contribute. • Looking forward, recruitment processes for new leadership positions (e.g. Program and Accelerator Directors) will prioritize internal CGIAR talent.
Loss of trust and credibility due to a real or perceived lack of engagement during the Portfolio design process, a perceived lack of continuity and stability of direction	• The Portfolio development process builds on the Listening Sessions carried out in early 2024. • The virtual consultation sessions held in July and August 2024 offered broad opportunities for partners and stakeholders to learn about and provide input toward the development of the Programs and Accelerators. • In addition, the Writing Teams have engaged directly with a wide range of stakeholders.
External shocks and uncontrolled events like climate shocks, political unrest and disruptions could impact program outcomes.	• Definition of clear responsibilities in relation to business continuity of cross-Center work through common policies, procedures, guidelines, and/or joint plans • Development of adaptive management strategies to quickly adjust to changing conditions • Investment in capacity building by training local stakeholders to improve resource management and implementation of solutions • Implementation of a diversification strategy for growth and bringing new donors to CGIAR to secure multiple funding commitments and enhance financial stability
Data gaps and capacity constraints from delays in market intelligence, inconsistent data quality, reluctance to share, security vulnerabilities, and limited partner resource	• Maintaining a cohesive approach on digital strategies on security, data, and AI, with clear accountability for science and operations

5.6. Timeline of next steps

Table 6. Immediate next seps for Portfolio design, approval, and implementation.

Timing (2024)	Step
October	• Program/Accelerator Transition Teams formed, led by interim Program/Accelerator Directors and Deputy Directors, responsible for planning and – where required – delivering the Portfolio Inception Phase, handing over to the permanent Directors once in place. • Terms of reference for positions of Program/Accelerator Directors finalized, with positions to be advertised in November, first for internal CGIAR applicants and then opened externally when required.
Week of November 4	• Portfolio transition and Inception planning workshop bringing together interim Program/Accelerator Directors and Deputy Directors and experts representing relevant enabling functions to develop plans and guidelines for the Inception Phase.
November 6	• Management's proposed, preliminary W1/2 budget for 2025, including preliminary allocations of W1/2 funding by Program and Accelerator, submitted to the Partnership Audit, Finance, and Risk Committee for review and recommendation prior to IPB concurrence and System Council approval.
November 15-16	• Deadline for ISDC reviews of Program and Accelerator proposals and updated Portfolio Narrative. • ISDC reviews and updated versions of the Program and Accelerator proposals submitted to the IPB for review and, if deemed appropriate, concurrence *(including proposed W1/2 budget figures, intended way forward for a single Breeding for Tomorrow and Genebanks Science Program, as well as formatting and editorial improvements for consistency across the full Portfolio).*
~November 20	• Preliminary action plan for how ISDC's recommendations will be addressed as part of the Inception Phase submitted to the IPB.
25 November	• IPB meeting to consider concurrence with the Programs and Accelerators and preliminary W1/2 budget for 2025
November 27	• Program and Accelerator proposals, ISDC reviews, proposed 2025 budget, IPB decisions, and updated action plan for the Inception Phase submitted to the System Council for review and, if deemed appropriate, approval.
December 11-12	• 21st Meeting of the CGIAR System Council (SC21): approval moment for Programs and Accelerators
Week of December 16	Subject to SC approval of the Programs, Accelerators, and W1/2 budget: approval of preliminary 2025 allocations of W1/2 funding to Centers

An improved livestock production system in the Ea Kar District of Vietnam's Central Highlands has had a major impact on smallholder farmers, some of whom have been able to build new homes with the money they have earned from their cattle.

Credit: NeilPalmer / CIAT

ANNEXES

Annex 1. Responses to ISDC's comments on the May 8, 2024, version of the 2025-30 Portfolio Narrative

Note: Key recommendations included in Sections 1 and 2 of the ISDC May 22, 2024, feedback document on the substance of the 2025-30 Portfolio have been summarized in this annex, together with information on how each recommendation was addressed in the final submission of the 2025-30 Portfolio documents in November 2024. Not included: requests for Program/Accelerator write-ups to provide information which was not included in the May 8 Program/Accelerator summaries but is part of the Program/Accelerator proposal template.

SECTION 1 OF ISDC'S DOCUMENT		
Topic	**Feedback**	**Response**
Portfolio structure	An approach must exist to minimize duplication across the Portfolio.	Linkages and dependencies across Programs and Accelerators have been described in each proposal. Going forward, the Chief Scientist along with the Global Science Team will work to ensure coherence and complementarity across the Portfolio.
Portfolio structure	A clearer articulation of the role of Accelerators in supporting the work of Programs would be helpful.	See Section 3.2.2 of the Portfolio Narrative.
Portfolio structure	Including bilateral funding into the organizational structure will be challenging. Clearly articulating the KPIs for this task for 2025 would be helpful.	See Section 5.2 and 5.3 of the Portfolio Narrative. Achieving alignment, complementarity, and synergies across all sources and types of funding will rely on a continuous flow of data and information on W3/bilaterally funded work. The corresponding modalities will be set out in the 2025-30 Technical Reporting Arrangement. As part of the new Portfolio management arrangements, the new Global Science Team and Program/Accelerator Leadership Teams are responsible for fostering alignment of W3/bilaterally-funded work with Program/Accelerator outcomes and theories of change.
Portfolio structure	Consider merging Sustainable Farming and Multifunctional Landscapes.	Pursuant to the guidance received at the 20th meeting of the System Council in June, these two Programs will remain separate. See Section 2 of this Annex.
Portfolio structure	For the Genebank's Asset, one of the most powerful arguments for why it is needed is hidden in the second-last paragraph: "CGIAR genebanks have a legal responsibility, under the Plant Treaty, to conserve and make genetic resources held in trust available now and for future generations." Such fundamental roles and responsibilities should be mentioned within the opening statements.	CGIAR's obligation under the Plant Treaty is referenced in the first paragraph of the Executive Summary of the Genebanks proposal.
Prioritization	The distinction between existing and new research should be clearly highlighted. Determine which areas can be de-emphasized.	Section 3.5.1 of the Portfolio Narrative and Section 2.3 of each Program/Accelerator proposal highlight new areas of focus in the 2025-30 Portfolio as well as areas that have been deprioritized compared to the 2022-24 Portfolio. *"New in this Portfolio" should not be conflated with "innovative/cutting-edge." Most of CGIAR's research is new in the sense of "innovative/cutting-edge," though a large portion of it builds on the previous Portfolio.*

SECTION 1 OF ISDC'S DOCUMENT		
Topic	**Feedback**	**Response**
Prioritization	Include need for ongoing trade-off analysis through Portfolio cycle. Consider to review and cite ISDC trade-off commissioned work.	Programs and Accelerators aim to contribute to multiple impacts and have already begun to analyze tradeoffs. More detailed trade-off analyses will be undertaken by Program/Accelerator teams during the Inception Phase as they contextualize challenges and opportunities and engage in deeper discussions with partners. The Portfolio Coordination Team will ensure that the Program and Accelerator teams are aware of the ISDC work on tradeoffs.
Prioritization	There is no mention of external Evaluation studies within priority setting, which should be an important element.	Recommendations from evaluations are now explicitly mentioned in the prioritization section of the Portfolio Narrative (Section 3.3), as well as in other sections where they are relevant.
Comparative advantage	The Portfolio must be informed by solid comparative advantage analyses. A clear statement of important areas where CGIAR does NOT have a comparative advantage would also be helpful. CA analysis should be completed before the Inception Phase to inform and assist with developing partnerships, establishing Program governance and management, and distributing resources. In proposals, future-looking scenarios for comparative advantage would be valuable, which include emerging issues and risk/uncertainty elements.	See Section 3.4 of the Portfolio Narrative for summary remarks and Section 4 of each Program/ Accelerator proposal for detailed insights on CGIAR's comparative advantage for each high-level output. The recommendation to complete the CA analysis before the Inception Phase was not feasible to implement because more engagement with partners is required in order to be able to properly assess individual partners' comparative advantage and relative effectiveness in delivering specific outputs. Therefore, the proposal stage CA analysis focused on the sources of comparative advantage that CGIAR and key partner types can bring to bear, yielding preliminary results that will be updated during the Inception Phase.
Impact	A figure/table from the Strategy that aligns the 11 impact targets with the five Impact Areas would be useful. A graphic showing the clusters within the Programs would be helpful.	In order to keep the Portfolio Narrative relatively short, information included in other documents (in this case the CGIAR 2030 Research and Innovation Strategy) has been linked rather than copied into the document. Regarding the second recommendation: there are approximately 65 Areas of Work across the Programs and Accelerators; a graph would not be readable. If the purpose of this recommendation was to look for areas of synergy or overlap, observations on this are made in Section 3.2.2 and Annex 2 of the Portfolio Narrative.
Impact	Evidence of CGIAR's use of a reflexive practice, by recognizing that CGIAR's impact could be better, and that strategic partnering will help to fill capability gaps	This important observation on the contribution of partners to CGIAR's impact was integrated into Section 4 of the Portfolio Narrative.
Impact	NARES are important partnerships to CGIAR. This warrants its own bullet in growing impact.	This bullet was added in Section 4 of the Portfolio Narrative.
Impact	There could be specific mention of processes for linking outputs and outcomes from all Programs and Scaling for Impact.	This is a priority task for management. Discussions have begun to identify such mechanisms, drawing upon lessons from the current Portfolio. Coordination mechanisms will be finalized soon after the Chief Scientist is on board.
Partnerships	The anticipated publication date of December 2024 for the Partnership Strategy is not in sync for it to feed into proposal development and the Companion Document. How will the Strategy differ from the Framework?	Management will ensure alignment between the Partnership Strategy and CGIAR's Engagement Framework.

SECTION 1 OF ISDC'S DOCUMENT		
Topic	**Feedback**	**Response**
Partnerships	A strategy to respectfully disengage once the outcome has been achieved or the relationship is no longer functional is important.	This recommendation will be addressed in CGIAR's Partnership Strategy.
Partnerships	Need to include a statement about private sector engagement and how intellectual property will be managed	This recommendation will be addressed in CGIAR's Partnership Strategy.
Partnerships	This global approach driven by CGIAR planning cycles needs to be complemented by building, forging, and supporting partnerships at a more local- and project-level scale. The Document should recognize the value of this bottom-up partnering approach and provide complementary processes for the future.	See Section 3.4.3 of the Portfolio Narrative.
Management	Several recommendations on Program governance and management of the various funding sources	These recommendations have been included in Section 5 of the Portfolio Narrative.
Other	The document would benefit from a connection to learnings from other sectors (as suggested in Megatrends)	This suggestion is taken on board for the Inception Phase.
Other	The document would benefit from a balance of the document's target audiences: outlining science priorities versus attracting new investors.	This document's primary function is to provide an overview of CGIAR's proposed 2025-30 science and innovation Portfolio. Attracting new investors will be the objective of a different document, CGIAR's Investment Case (to be released in early 2025).
Other	The language on value proposition should be strengthened, bolder and clearer.	More work is needed to finalize CGIAR's value proposition. Therefore, the draft value proposition included in the May 2024 version of the Portfolio Narrative has been removed in the November 2024 version.
Other	Outline what will happen after December 2024. Will the MELIA and Capacity Building plans be presented to ISDC?	Program and Accelerator transition teams will be formed in late 2024 to implement the Inception Phase, including development of MELIA and capacity building plans. The Inception Phase reports to be shared with the ISDC will cover this point.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Breeding for Tomorrow	The Program needs to clearly define the selection criteria for participating countries.	The activities are demand-led, with low- and middle-income country partners expressing their interest for specific target product profiles (TPPs). The investment of pooled funding in TPPs is guided by the prioritization exercise and the use of the GloMIP tool.
Breeding for Tomorrow	Ethical, regulatory, and societal considerations need to be addressed to ensure responsible and equitable use of GI.	The Program's activities are guided by (1) CGIAR Principles and Guidelines related to the management of intellectual assets CGIAR Research Ethics Code; (3) CGIAR guidelines on the Nagoya Protocol on access and benefit sharing; (4) CGIAR obligations set forth under the International Treaty on Plant Genetic Resources for Food and Agriculture; (5) CGIAR's risk management guidelines; (6) other CGIAR policies, principles, and guidelines related to research implementation; (7) CGIAR Centers' policies on ethical, regulatory, and societal considerations, including related to standing research ethics committees/ institutional review boards that oversee the conduct of human and animal subject research; and (8) laws and regulations of countries that host CGIAR Centers and associated program/project activities. In addition, the Program's activities are guided by CGIAR's commitment to extensive stakeholder engagement, co-design of research activities, and an overall orientation towards addressing societal issues such as gender equality and social inclusion.
Breeding for Tomorrow	Program should articulate a transparent framework for partnering with the private sector, ensuring that intellectual property and ownership are effectively addressed.	This is addressed through the Program's ENABLE Area of Work. This area of work will provide recommendations on principles and practices for efficient and equitable management of breeding products, focusing on common principles for intellectual property rights, seed policies, licensing strategies, and biosafety policies and frameworks, with specific attention to breeders' and farmers' rights and access.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Breeding for Tomorrow	Ensure that the Program aligns with partner breeding targets and uses and integrates feedback mechanisms effectively. The Program needs to define strategies to enhance stakeholder engagement and co-creation.	This is addressed through: • the Program's Area of Work on Accelerated breeding: Breeding networks innovate and implement impact-oriented, sustainable partnership models in which partners (NARES, ARIs, SMEs, CGIAR) systematically contribute to innovation, priority setting, decision-making, and the development and delivery of farmer-valued cultivars; • the Program's Area of Work on Inclusive Delivery: Support activities will include cooperation with multistakeholder platforms, partnerships, and networks to advance seed sector development; development of technical and functional capabilities of seed sector actors to participate in, benefit from, and affect change; and collaboration with partners to improve their capacity to monitor and assess the impact of seed sector interventions to better inform evidence-based decision-making; • the Program's ENABLE Area of Work, through coordination of partnerships across the product design, development, and delivery spaces, reflecting a transition to broader and more inclusive network approaches to breeding and delivery in response to feedback from NARES partners.
Breeding for Tomorrow	There is a lack of prioritization of participatory breeding and decentralized breeding.	As highlighted in Section 7 (country integration) of the proposal, the Program will adopt a co-creation approach that engages partners across all CGIAR's regions and 107 countries with breeding activities, building on its longstanding collaborative networks with NARES and SMEs, and expanding its focus to serve food systems' needs. This co-creation approach is firmly grounded in creating TPPs for specific market segments, with partners in CGIAR-NARES-SME networks contributing to the design, development, and delivery of genetic gain in farmers' fields while also benefiting from the Program's ENABLE activity and BREEDING RESOURCES functions. The division of breeding network roles is based on comparative advantage, with CGIAR largely playing an upstream role in supporting inter-country integration among national TPPs, favoring intra-country synergies across TPPs and partners, and facilitating fundraising for specific impact opportunities.
Breeding for Tomorrow	The Program needs emphasis on inclusivity for optimal effectiveness and impact.	See Section 11 of the proposal (gender and social inclusion).

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Sustainable Farming	The Program should be merged with the Multifunctional Landscapes Program and develop strong links with the Sustainable Animal and Aquatic Foods Program, to avoid duplication and the potential for contradictory advice.	It was agreed with the System Council not to merge these Programs, which address different, complementary levels of agrifood systems. The Sustainable Farming Program's focus is at field, farm and community levels, whereas the Multifunctional Landscapes Program's focus is at landscape level. The two Programs co-invest in solutions at landscape, community, farm, and field levels. Three key topics for collaboration, co-location and co-investment are: (1) assessment of the productivity and ecosystem service status of landscapes with varying degrees of natural ecosystems to generate data in support of the land-sharing versus land-sparing approaches towards sustainable farming landscapes; (2) integration of watershed-related investments to capture more rainfall with farm- and field-level investments; and (3) assembling evidence-based policy documentation in support of targeting investments in sustainable intensification and/or agro-ecological approaches for specific contexts. In addition, the Programs will cooperate on research related to soil (micro) biology and health, with Sustainable Farming focusing on the relationship between specific farm- and field-level agronomic, soil and plant health, and farming system practices, including the use of effective bio-inputs and changes in soil health, while Multifunctional Landscapes will focus on the generation of increased biomass within landscapes as means of investing in soil health and (micro) biology. Additionally, both Programs will develop a joint set of critical KPIs in relation to productivity and other community and ecosystem dimensions. More details can be found in Section 8 (cross-Portfolio linkages) of the two proposals.
Sustainable Farming	The Program would benefit from a diagram explaining the interconnections between the Programs and how these will be operationalized.	See Section 8 (cross-Portfolio linkages) of the proposal.
Sustainable Farming	There is only a brief mention of engaging with national partners on capacity building and R&D support. A comparative advantage analysis that outlines the establishment of new partnerships needs to be included in the next iteration.	Capacity sharing with NARES is central to the Program. All Areas of Work include outputs and outcomes related to capacity sharing with different stakeholders (farmers, scientists, extension staff, NGO staff, private sector, policymakers, investors, etc.)
Sustainable Farming	The connection to megatrends is insufficient.	See Sections 2 (high-level vision) and 5 (Program TOC) of the proposal.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Sustainable Animal and Aquatic Foods	The Program overview would benefit from more emphasis on systems perspectives, especially integration of crop—animal/aquatic systems and a clear rationale for the scope of areas of work.	The Program embraces a broad systems perspective, integrating animal and aquatic species with cropping and tree systems. This includes incorporating fish in rice-based systems and optimizing nutrient cycling among livestock, trees, and crops to enhance productivity and sustainability. Research addresses synergies and trade-offs between livestock, aquaculture, fisheries and cropping/tree systems with a view to promoting nutrient recycling, emission reduction, soil fertility, efficient resource use and circularity. Collaborative projects will simultaneously address genetics, feeds, nutrition, emissions reduction, and health. Applying systems thinking and leveraging cross-disciplinary teams will help develop comprehensive solutions that recognize and utilize the interdependencies within food systems. Climate-smart technologies and management practices will serve as entry points to address the interlinked challenges in animal and aquatic food systems.
Sustainable Animal and Aquatic Foods	Animal and aquatic systems not only face many challenges, but they also pose many challenges. This does not come through clearly enough.	See Section 2.1 (challenges and megatrends) of the proposal, which highlights the effects of animal and aquatic systems on GHG emissions, decrease in fish stocks and loss of biodiversity.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Sustainable Animal and Aquatic Foods	The system's implications will need careful integration with other Programs, such as Sustainable Farming and Multifunctional Landscapes, and more explicit linkages to the Scaling for Impact Program.	The Sustainable Animal and Aquatic Foods Program focuses on the supply of healthy nutrient-dense foods from sustainable animal and aquatic production systems. It differs from the Sustainable Farming, Multifunctional Landscapes, Climate Action and Policy Innovations Programs by having a specific focus on animal and aquatic food systems, versus whole-farm, multifunctional landscape or system-wide contexts. In terms of genetic improvement activities, Sustainable Animal and Aquatic Foods will focus on the genetic improvement of animal and aquatic species, forage and feed-food crop improvement through selection and scaling of improved forages and feed-food crops, while breeding of forages such as Urochloa and Megathyrsus and feed-food crop barley will be implemented through Breeding for Tomorrow. Moreover, Breeding for Tomorrow will conduct basic studies on market segmentation and develop tools for genomic selection for animal and aquatic foods. Better Diets and Nutrition focuses on the consumption of animal and aquatic foods, while Sustainable Animal and Aquatic Food Systems focuses on supply of animal and aquatic foods through fostering inclusive, healthy, biofortified and nutrient-dense food supply chains that are climate and environmentally friendly. Scaling for Impact and Sustainable Animal and Aquatic Foods will collaborate to co-design and implement scaling strategies to integrate animal and aquatic-based food solutions into broader agrifood systems. Multistakeholder scaling hubs and the Innovation Packaging and Scaling Readiness (IPSR) approach will help prioritize innovation packages and ensure contextualized scaling strategies. This partnership will also generate evidence that informs policy, catalyzes investments and drives market system transformations while addressing scaling barriers such as capacities, incentives and the enabling environment. See Section 8 (cross-Portfolio linkages) of the proposal for details.
Multifunctional Landscapes	This Program should be merged with the Sustainable Farming Program.	See similar comment under Sustainable Farming.
Multifunctional Landscapes	The Program is framed as working at the landscape scale, the program of work is very broad in scope and there are activities with the potential to overlap with other Programs. Collaboration and differentiation of aims should be clear in the full proposal.	See Section 8 (cross-Portfolio linkages) of the proposal.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Multifunctional Landscapes	The Program should include some specific activities on trade-offs and opportunities at both the household and landscape scale for different nature-based solutions.	The Area of Work on Landscape Planning and Governance is aimed at developing integrated land use and management plans considering synergies and tradeoffs. The Area of Work on Performance Assessment and Evidence Generation assesses the integrated impacts of innovations considering synergies and tradeoffs. More generally, the Program emphasizes synergy and trade-off analysis of landscape services and sustainability issues across scales.
Multifunctional Landscapes	The Program could include in the scope of work how the Program builds on existing Initiatives to demonstrate ongoing scientific coherence as well as what is new.	The Program builds on the progress made by the Agroecology, Nature Based Solutions, and Livestock and Climate Initiatives. However, the Program takes a broader systems approach, contextualizing and bundling agroecology, nature-positive, regenerative, and restorative solutions to adjust to specific socio-economic and environmental settings. This integration addresses multiple objectives, including sustainable production, conservation, restoration, and regeneration.
Multifunctional Landscapes	There is no analysis of comparative advantage or description of how it will be used to create new partnerships.	See Section 4 (comparative advantage) of the proposal.
Better Diets and Nutrition	Establishing clear operational links to relevant Programs is imperative for a cohesive and impactful strategy.	See Section 8 (cross-Portfolio linkages) of the proposal.
Better Diets and Nutrition	Translating the evidence to date for impact at scale remains an unfinished agenda and should be considered more centrally.	The Initiatives/CRPs that this Program builds on (e.g. SHiFT, A4NH) have had strong links to country food system transformation processes, including UNFSS processes at country and regional/global levels. Work in each Area of Work of the Better Diets and Nutrition Program includes links with specific country processes towards impact at scale. Linkages with the Scaling for Impact Program will also help translate evidence into impact at scale.
Better Diets and Nutrition	It's essential that the proposed work aligns with the core remit of land, water, and food systems, leveraging CGIAR's comparative advantage, assets, and capabilities.	With a strong food system focus, Better Diets and Nutrition leads the Portfolio in addressing barriers to healthier diets at the consumer and food environment levels. Research to support wider scaling of biofortified staples, a multi-decade endeavor of CGIAR, is an important component of the Program. Links to land and water systems are made through addressing sustainability challenges of diets, which relate to production practices, processing, and market dynamics – the foci of other CGIAR Programs. As described in Section 8 of the proposal (cross-Portfolio linkages), these linkages offer opportunities for joint work across Programs. See the description of AoW6 for more information.
Better Diets and Nutrition	While sustainability and equity are sprinkled through the narrative, a stronger sustainability, equity, and resilience led focus would be important.	AoW1 and AoW3 explore diets from the perspective of sustainable production practices, while AoW5 is aimed at addressing equity challenges through multiple systems, including health, water and sanitation, and social protection systems. Thanks to AoW5's integrative function, sustainability perspectives will be included into national, regional and global discourses for influence, building strongly on stakeholder relationships established as part of the UNFSS process.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Better Diets and Nutrition	There is no mention of trade-offs or risks, which limits the potential to assess the strategic strength and assess the best use of available funds.	Analysis of tradeoffs of different policy interventions will be part of AoW1 & AoW2.
Climate Action	The full proposal should clearly articulate how all streams of funding will be combined to increase resilience and the adaptive potential of our agrifood systems in the face of ever-increasing climate risks.	See Section 14 (funding sources) of the proposal.
Climate Action	This Program draws upon previous findings, but new, innovative actions are missing.	Innovative components include: • novel frameworks on connections between climate change, justice and conflict; • Climate Hub for coordination of climate action across CGIAR; • novel approach to policy and finance; • maladaptation risk framework; • loss and damage; • enhanced use of digital technologies and AI.
Climate Action	Trade-offs and risks should be highlighted. Also, the interaction and function towards the other Programs and Accelerators should be described to increase scientific credibility and applicability.	One of the Program's activities focuses on understanding the synergies and trade-offs between adaptation, mitigation, and development agendas. See Section 8 for details on cross-Portfolio linkages.
Climate Action	The generation of climate data and information could be of great benefit for local stakeholders, but these are mostly not available in countries in the Global South. Which Program would conduct the necessary data analysis, generation, and provision?	Area of Work 1 has a focus on data, metric and information on the impacts of climate on FLW systems and vice-versa. Partnerships with national meteorological agencies, regional and global climate agencies and private sector providers will allow access to the necessary data resources. In order to measure hydrometeorological and GHG variables with consistent protocols, the option of establishing coordinated in situ climate observatories (revamping existing infrastructure) across the global south is being explored.
Policy Innovations	This Program comprises of four interconnected activity blocks: research, policy engagement and communications, capacity building, and finance. Every Program will have activities in these domains, so the question is how will these overlaps be leveraged to avoid confusion, contradictions, replication, and duplication? Are there missed economies of scale?	While all Programs generate policy-relevant research, the Policy Innovations Program has a unique focus on *the analysis of policies*, including how policy objectives in multiple domains cohere at scale and in practice. As such, the Policy Innovations Program adds value to the more granular policy insights from different Programs, with emphasis on synergies and tradeoffs across broader scale policy choices. See Section 8 (cross-Portfolio linkages) of the proposal for more details.
Policy Innovations	Engagement with policymakers is critical to the success of this Program. The record of engagement has been mixed with some prominent and important successes. How have prior successes and less successful efforts informed the strategy for engagement with policymakers? Are the priorities among local, regional, and global stakeholder groups clear?	Building on previous engagement with policymakers in 15 countries under the National Policies and Strategies Initiative, the Program includes an Area of Work on Country Strategy and Engagement. Lessons learned from policy engagement work have been considered in developing all six Areas of Work.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Food Frontiers and Security	The mapping of Initiatives into the Program is logical with evidence of demand. Whether this demand for food systems transformation translates into demand for research to facilitate food systems transformation is not clear. A stronger articulation of the role of scientific knowledge through research is needed.	This comment has been taken on board fully in the proposal, with emphasis on evidence-led change and use of research results in areas of planning and policy led by partners and food system actors. The theories of change of each Area of Work describe how partner engagement and evidence co-creation will enhance relevance and uptake of research results. These ToCs were validated by partners during Program design. See Section 6 of the proposal for more details.
Food Frontiers and Security	A reflexive analysis as part of the next iteration should clearly articulate CGIAR's comparative advantage in this space. There is hardly any discussion about potential trade-offs or risks, including areas that are deemed out-of-scope.	Please see Section 4 of the proposal. Risks to long-term impact and capacity are mitigated by operating in ways that strengthen – not replace –partner capacity.
Food Frontiers and Security	Strategic partnerships will be critical for success and this should be acknowledged, not as a weakness but as an opportunity to partner with organizations that have real strength in this field.	The three Initiatives integrated into this Program bring with them key partnerships and opportunities for tackling long-term food system challenges in frontier geographies. The proposal outlines strategies for working with existing partners in new ways (with a focus on elements of *legitimacy* and *effectiveness* from the CGIAR Quality of Research for Development framework) and with novel partners outside the traditional agricultural sectors to design transdisciplinary research. For example, in the Pacific region – an area where CGIAR has had limited engagement in the past – strong emphasis is placed on strategic partnerships that enable CGIAR to engage more widely in food, land, and water systems.
Scaling for Impact	A clear definition of the key pathways to impact, and the activities included in the scope of work, would enhance the clarity of the description. Increased emphasis on approaches to local involvement would strengthen the Program.	See Section 6 of the proposal. The Program team is actively developing more detailed pathways to impact and refining the scope of work under each AoW. Emphasizing local involvement is a priority, building on the groundwork of the Regional Integrated Initiatives in the 2022-24 Portfolio. The initial program description (May 2024 2-pager) may have overly emphasized impact pathways through International Finance Institutions (IFIs). While IFIs remain crucial partners, robust collaboration will also take place with national research and extension organizations, small- and medium-scale enterprises, larger private partners, local and international NGOs, farmers' and consumers' organizations and humanitarian partners through market, extension, policy and mass media pathways to ensure comprehensive scaling and impact. Area of Work 1 (Engage and Empower) focuses on localization and bottom-up demand, with all its activities aiming to strengthen local and national stakeholders.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Scaling for Impact	Critical areas of scaling science are the social processes of engagement to create deeper, more trusting, and longer-term partnerships. Partners, particularly those in the private sector, have different objectives and modes of operating and understanding these differences is critical.	This feedback aligns well with the Program's design process and strategic direction. Area of Work 1 (Engage and Empower) will prioritize regular and consistent stakeholder/partner engagement and demand signaling at national and regional levels. This focus aims to cultivate long-term relationships, particularly with new and innovative scaling partners, including the private sector. CGIAR's Country Conveners are expected to support this process and help maintain effective multi-stakeholder programs tailored to local contexts. Partner-led CGIAR advisory committees will expand to include both public and private sector partners in several countries, which will facilitate regular structured dialogues on evidence-based priorities for research and scaling. To address concerns raised by the private sector during CGIAR Listening Sessions, CGIAR's unique role as a neutral technical facilitator will be leveraged to convene and foster partnerships. This approach builds upon CGIAR's recognized strength in convening diverse stakeholders, with integration of the previous RIIs as convening platforms.
Scaling for Impact	The approaches needed to work alongside NARES, local institutions, community associations, etc., receive little attention. This must be addressed to avoid the top-down engagement approach becoming too dominant at the expense of critical understanding of local context.	Area of Work 1 (Engage and Empower) lays the foundation for emphasis on NARES, local institutions, and community associations, who are central to the Program's impact pathways.
Scaling for Impact	Although the Program will support the improvement and identification of CGIAR's comparative advantage, the Program itself needs to identify its own comparative advantage and this should be undertaken during the proposal design phase.	The Program's CA analysis includes comparisons with "internal alternative providers", such as other CGIAR Programs and Accelerators as well as bilateral projects. Further engagement with the ISDC on this topic would be welcome. See Section 4 (comparative advantage) of the proposal as well as the CA tables in the proposal's Appendix, which unpack internal and external actors' potential sources of CA.
Scaling for Impact	There needs to be better internal organization and approaches used for delivery of CGIAR research, scaling, and partnership engagement.	Indeed, the impact of the Program and of the overall Portfolio hinges on enhanced internal organization, coordination, and principled governance to effectively drive engagement, research, and scaling through structured and purposeful partnerships. While decisions on CGIAR's internal organization are outside of the scope of the Program, close alignment will be sought between the Program's design and future CGIAR-level organizational changes affecting partnership coordination. Please see Sections 5 (Program ToC) and 8 (cross-Portfolio linkages) for more information.
Gender Equality and Inclusion	The Accelerator would benefit from conceptual clarity on terms and definitions, including what is covered by concepts of "gender" and "social inclusion" and what the proposed research aims to address.	Please see here for standard definitions of these terms.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Gender Equality and Inclusion	The future proposal should seek to systematically identify which challenges and opportunities will be addressed vis-à-vis the megatrends: there is a risk of missing opportunities that are very important, impactful, and where CGIAR has a comparative advantage.	To reduce this risk, the Accelerator's "use case prioritization process" builds on CGIAR's comparative advantage on connecting gender research to the latest innovations developed to address challenges in FLW systems. In addition, on October 1-3, 2024, the GENDER Impact Platform organized a "Gender Science Exchange" in Lima. During this event, 60+ gender researchers from different CGIAR Centers and regions started drafting a set of 8 thematic briefs that highlight new directions in gender research that should be built into the Programs and Accelerators. More advanced versions of these briefs will be produced by the end of 2024 to inform the Portfolio's Inception Phase.
Gender Equality and Inclusion	While gender research has a history with CGIAR, the extent of CGIAR experience with youth and/ or social inclusion matters is not evident. It will be crucial to build partnerships with organizations outside the system to ensure that their research is benefiting from the best of innovative thinking.	CGIAR's work on youth focuses on developing economic opportunities for young people. A publication was recently commissioned by the CGIAR GENDER Impact Platform to support the integration of a broader youth perspective in the FLW system research-for-development undertaken by CGIAR and partners. Feedback from stakeholders during proposal design has resulted in the creation of a sub-Area of Work on youth. As described in Section 6.2.5 of the proposal, this work will be developed in collaboration with partners.
Gender Equality and Inclusion	Within the scope of work, more clarity is needed on what is new and innovative vs. which elements are building on previous work. The Accelerator should aspire to evolve research methods to integrate gender and social inclusion throughout the research to impact lifecycle.	Indeed, concepts, research and processes that address gender equality and social inclusion need to be included through the full research-to-impact lifecycle. Too often, gender only gets factored in when biophysical research innovations are ready to be scaled. The Accelerator proposes an alternative framing where solutions are co-developed, co-scaled and co-assessed with women and specific intersectional groups via a cycle that includes multiple feedback loops to foster continuous adjustment of research priorities across the Portfolio. In order to systematically and consistently address gender equality and social inclusion at all stages of the research-to-impact life cycle, CGIAR and partners need to embrace change and adopt institutional innovations that solidify the process. For this purpose, the AoW on Accelerating Change has defined a set of outputs and outcomes to promote best practices among decision-makers and FLW system actors.
Capacity Sharing	The proposals and Companion Document would benefit from more specific examples, building on lessons learned in this area (external Evaluation findings are available).	The proposal builds on external reviews (External review by the Independent Evaluation Arrangement (2017); Palenberg, M. and D. Bombart (2024), *Trends in Agricultural Research for Development (AR4D) Capacity Development since 2018 and Suggestions Going forward,* Institute for Development Strategy, Munich, Germany), various CGIAR CapSha Task Force projects developed between 2022-2024 (e.g. BMGF project, GIZ Collaborative Breeding Leadership Program Project, G7-AfriCampus Project, CAAS-CGIAR Project, CGIAR – UM6P Capacity Development Hub), and consultations conducted with partners in 2024.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Capacity Sharing	On prioritization, the range proposed seems to cover all sectors and actors, which will be difficult to achieve. More targeted efforts in specific areas or for specific partners would increase the effectiveness of capacity sharing initiatives.	Please refer to Sections 3 (prioritization), 4 (Comparative advantage) and 5 (Accelerator ToC) of the proposal.
Capacity Sharing	There is a lack of information on the role of this Accelerator vis-à-vis other Programs and the delineation of tasks. What will be implemented under the Accelerator? What will be done as part of capacity building under each Program (many have this element)?	Please refer to Sections 6 (Areas of Work) and 7 (cross-Portfolio linkages) of the proposal.
Digital Transformation	It is not clear if this is a data accelerator (much needed) or an innovation accelerator (also needed but under other terms). The notion of "Innovation Accelerator," suggests that other components aside from data flows and integration are to be considered.	The Accelerator is designed as a digital innovation accelerator with a core focus on the role of data in driving innovation. This reflects the role of CGIAR as a science organization for which data production is a key strength. While data flows and integration are central to the Accelerator's work, the scope of work extends beyond these areas to address the broader components necessary for a thriving innovation ecosystem, i.e. strengthening data governance, improving access to standardized and high-quality data, and promoting innovative approaches to data use and collection. In addition, the Accelerator will engage in activities that enhance the enabling environment for digital innovation, ensuring that the infrastructure and policies support sustainable scalable solutions.
Digital Transformation	While the Accelerator holds potential, there are concerns regarding the lack of evidence regarding data protection, privacy, stakeholder engagement, and participation. Clear goals and objectives for the Accelerator could address these issues effectively. An in-depth analysis of CGIAR's comparative advantage in this area will help to understand the scale and the reach of the Accelerator.	Please see Section 4 (comparative advantage) of the proposal.
Digital Transformation	Understanding the digital gaps and challenges in partner countries is crucial for tailoring solutions to local needs. The narrative does not yet sufficiently address how the accelerator will adapt its approach to different contexts.	The proposal has been informed by several consultations with a wide range of partners. Section 3 outlines key elements of a use case methodology aiming to ensure that efforts are driven by demand from both Science Programs and external partners/ stakeholders ("A successful use case will [...] prioritize strong demand and scaling partners identified a priori, to ensure that solutions are demand driven and can be rapidly scaled, based on clarity of the needs and capabilities of target audiences"). Adjustments to different partners and contexts is a requirement to respond effectively to demand. Section 4 (comparative advantage) of the proposal includes information on the potential strengths of the different partner types that will help fill gaps in the co-created country/ region-based projects.

SECTION 2 OF ISDC'S DOCUMENT		
Program/Accelerator	**Feedback**	**Response**
Digital Transformation	The narrative does not yet provide details on how stakeholders such as small-scale farmers, local communities, and civil society organizations will be involved in the design and implementation of the accelerator's initiatives, raising concerns about inclusivity and ownership.	Please see Sections 6 (Areas of Work) and 7 (cross-Portfolio linkages) of the proposal. The Accelerator will follow inclusive design principles and methods. The following activities can be highlighted: (1) citizen science applications, which involve digital participatory science at scale (Activity 2.3); (2) enhancing the inclusivity of existing and new products/services (Activity 2.4); Human Centered Design (Activity 4.3).
Genebanks	It would be useful to have more clarity on how the Asset will work together and with national genebanks for mutual benefit.	Genebank's Area of Work 5 focuses on capacity sharing with national genebanks, working through regional entry points and using different approaches to share practices (online courses and tools, ascertaining and addressing shared priorities by helping to convene regional networks and working directly with specific national partners…) Section 7 (country Integration) describes the range of entry points and mechanisms through which Genebanks connect with national partners. Section 3 (prioritization) describes how the global system of genebanks might be strengthened with national partners working as a hub of exchange between international genebanks and a wide range of national germplasm users.
Genebanks	A deeper analysis of CGIAR's comparative advantage and partnerships in the proposal will add value. This might involve exploring advancements in technologies for genetic resource conservation, plant health measures, collaborations with other institutions to broaden outreach, sharing resources or implementing initiatives focused on data sharing.	See Section 4 of the proposal for a comparative advantage analysis at the output level. Indeed, the advancement of AI technology is already enabling more efficient large-scale screening of diversity for specific traits or for evaluation using participatory approaches. Genebanks partnerships range from the global genebanks community to the breeding community, CGIAR and WorldVeg genebanks acting as a hinge between the two – allowing to harmonize and strengthen data standards and data management systems across both communities.
Genebanks	The narrative effectively links the work of CGIAR genebanks to broader megatrends such as climate change and biodiversity loss, emphasizing their role in building resilience and promoting sustainable agriculture. However, it could provide more specific examples of how the Genebanks Asset will address these megatrends through its activities.	The proposal provides details on how Genebanks address the dual challenges of climate change and biodiversity loss and make diversity available to communities for handling the challenges that they face on a day-to-day basis.
Genebanks	In the full proposal, the issues of financial sustainability should be addressed. There's a lack of clarity regarding funding and the challenges associated with the existing funding model. A viable funding strategy is essential to ensure the sustainability and expansion of these assets.	Raising funds and establishing diversified mechanisms for complementing the endowment fund managed by the Crop Trust is very much needed. This will involve developing a funding strategy with key partners such as the Crop Trust, Plant Treaty and BMZ/GIZ (which requires resources).

Annex 2. Types of products targeted to different end users by each Program/ Accelerator

	Targeted end-users and interventions					
	Farmers/Pastoralists/Fishers/Other resource managers		Market actors	Consumers	Policy makers	
	Technologies and inclusive delivery models for:	*Management advisories for:*	*Interventions and delivery models for:*	*Interventions and delivery models for:*	*Strategies, pathways, programs for:*	*Policy design & advisories for:*
Breeding for Tomorrow and Genebanks	Resilient, nutritious, in-demand varieties/seed/planting materials: food and feed crops, vegetables, trees				Regulatory solutions to accelerate inclusive access to quality seed	Farm-accessible seed
Sustainable Farming	Scale-appropriate mechanization; plant health solutions; mycotoxin protection	Crop/soil/nutrient/water/pest/whole farm advisories; innovation platforms for climate resilience market access	Traceability systems for mycotoxins and pesticide residues		Soil health/disease/pest monitoring; sustainable farming system solutions	Farm-accessible inputs, mechanization, water, and extension services
Sustainable Animal and Aquatic Foods	Animal/aquatic species breeds; health and feed solutions	Animal and aquatic food management/marketing; community resilience and resource management	Food safety; market information systems		Food safety: zoonotic diseases, antimicrobial use; digital infrastructure	Consumer-accessible, safe animal and aquatic foods
Multifunctional Landscapes	Agroforestry and forest innovations; agroecology, nature positive solutions	Nutrition-sensitive solutions; land use planning	Market opportunities for underutilized species	Certification for agroecologically produce food	Landscape/resource management and governance; ecological transition pathways	Biodiversity, ecosystem services, landscape/ resource governance
Better Diets and Nutrition	Vegetable and fruit varieties	Vegetable and fruit production solutions	Food safety; market information systems; market opportunities for nutritious foods	Diet advisories; consumer behavior interventions	Nutrition; food safety	Consumer-accessible healthy & nutritious food
Climate Action	Bundled adaptation innovations; post-harvest practices; derisked-micro financing	Digital climate advisories; locally-led adaptation/ mitigation platforms			Early/rapid climate response; climate adaption/low emission strategies, tracking/reporting	Climate action; community access to climate finance
Policy Innovations		Nexus water energy food management	Inclusive market and value chains	Consumer behavior interventions	Outlook and foresight; Early response to conflicts/shocks; policy coherence; market-led transformation	Inclusive growth and water-energy-food-ecosystem governance
Food Frontiers and Security	Island production technologies	Urban vegetable production	Urban food safety; circular economy; market opportunities in urban food systems		Fragile, conflict-affected and island food systems	Urban food systems Embedding development support in humanitarian programs
Scaling for Impact	Bundled innovations; delivery models for scaling hubs	Business and service opportunities	Scaling approaches; evidence to support scaling investment		Regional/country-level strategies, partnerships, finance for scaling	Enabling policies for scaling
Gender Equality and Inclusion	Gender equality, youth, and social inclusion solutions	Opportunities for gender equality, youth, and social inclusion	Opportunities for gender equality, youth, and social inclusion		Amplifying women's leadership, voice and influence; monitoring tools; youth-responsive solutions	Metrics for tracking progress on GESI
Capacity Sharing		Training modules supporting digitally mediated extension	Solutions for capacity needs for effective market systems		Strategies and plans for CapSha, South-South and triangular cooperation	South-South and triangular cooperation advocacy plans
Digital Transformation	Citizen science tools	Human-centered AI-enabled advisories and training programs			AI and remote sensing enriched global to local system analytics	Frontier digital technologies; inclusive and responsible digital system

Note: Annex 2 does not include the large array of intermediate outputs that are essential for downstream outputs to be impactful. For example, the Accelerators will work with Programs to integrate aspects of gender equality and inclusion, cutting-edge digital solutions, and best capacity-sharing practices into the design and dissemination plans of their key outputs. Intermediate outputs also include diagnostic studies, early-stage testing of innovations, and methods and tools for use by research partners, extension systems, NGOs, and civil society organizations.

Annex 3. Detailed guidance and templates for Writing Teams to undertake the Program-level prioritization exercise

Principles of the prioritization exercise

- Prioritization must be transparent, evidence-based, and demand-led, with clear documentation of assumptions to avoid biased and subjective decision-making. Approaches need to be implementable across Programs/ Accelerators, high-level outputs, and geographies to enable objective and comparable prioritization.
- The prioritization process is designed to be iterative, to allow for reflection and re-evaluation of assumptions, to bring in and consider results from monitoring, causal impact evaluation, and foresight activities as the Program/Accelerator evolves.
- Evidence can be quantitative and/or qualitative but must be documented.
- The collection, analysis, interpretation, and reporting of evidence entails many choices that can be viewed as arbitrary (e.g., enabling environments are difficult to quantify). The opportunistic use of these "degrees of freedom" increases the risk of prioritization being perceived as subjective and biased, even when based on expert opinion. These guidelines aim to contain the bounds of degrees of freedom and deliver transparency, enabling an objective dialogue around prioritization and providing confidence in the process.

What Writing Teams need to do – Summary

The complete process comprises 11 steps. Given the tight deadlines faced by Writing Teams and the differing starting points of the Programs/ Accelerators in terms of prioritization, a plan (see details below) has been made to alleviate the pressure on the WTs for the proposal phase while sticking to a rigorous prioritization process as requested by ISDC and donors.

According to this plan,

- A central back-office team will provide data to all WTs for Steps 2. Step 3 will be completed after September 12.
- WTs are responsible for completing, at a minimum, Steps 0, 1, and 4.

Step #	Step	Tables	Who	Mandatory for proposal phase
0	High-level outputs	Annex Table 0	WTs	Yes
1	Geographic systems	Annex Tables 1.1, 1.2	WTs	Yes
2	Current state	Annex Tables 2	Central team	Yes
3	Megatrend impact: the delta	Annex Tables 3 (by geographic system)	Central team	Yes
4	Refining geographic systems	Updated Annex Table 1.2	WTs	Yes
5	High-level output positioning	Annex Tables 5 (by geographic system)	WTs	No
Step #	**Step**	**Tables**	**Who**	**Mandatory for proposal phase**
6	Response potential: responding to the delta	Annex Tables 6 (by geographic system)	WTs	No
7	Potential effect size	Annex Tables 7 (by geographic system)	WTs	No
8	Enabling environment	Annex Tables 8 (by geographic system)	WTs	No
9	Comparative Advantage	Annex Tables 9 (by geographic system)	WTs	No
10	Overall prioritization	Annex Tables 10 (by geographic system)	WTs	No
11	Synthesis of priorities across geographic systems	Annex Table 11, Table y	WTs	No

Timeline:

Task	Responsible	By when?
Assemble base indicators and share the list with WTs via the PCT	Central team	By July 8
Provide Program/Accelerator's geographic systems (Annex Tables 1.1 and 1.2) to the PCT	WTs	By July 12
Provide requests for additional indicators (to be added to the list of base indicators) to the PCT	WTs	By July 12
Assemble base and additional indicators' metrics for simple geographic systems	Central team	By August 9
Carry out prioritization steps 4 to n	WTs	August 12 onwards

The prioritization process step by step

In all tables below, text in green corresponds to examples.

Step 0 - High-level outputs – Mandatory for WTs

Identify 10-20 high-level outputs for the analysis. See this document for guidance on levels of outputs and how to use them in the different sections of the Program/Accelerator's full design documents.

Describe these high-level outputs in Annex Table 0.

Annex Table 0. High-level outputs

High-level output	High-level output description
Improved methodologies to achieve stable productivity gains	
Platforms for technology and knowledge dissemination	

Step 1 - Geographic systems – Mandatory for WTs

Assess which regions, countries, ecosystems, farming systems, food systems, water systems, etc., are potentially in scope for the Program/Accelerator.

Use current knowledge of the geographic scope of mapped Initiatives and key bilateral projects. Additionally, literature and quantitative and qualitative information from stakeholders can constitute information sources.

Indicate the type of geographic scope used by the Program/Accelerator in Annex Table 1.1.

Annex Table 1.1. Geographic scope framing [to be completed and sent to portfolio-design@cgiar.org by WTs by July 12]

Farming system	Region	Country	Landscape or watershed	Farm typology	+	+
		X				

Based on the type of geographic scopes chosen, list the specific geographic systems of relevance for the Program/Accelerator in Annex Table 1.2.

Annex Table 1.2. Specific geographic systems

Countries	Farming systems	.....
Kenya		
Bangladesh		

Step 2 - Current state – To be completed by a central team and provided to WTs

Within each potential geographic system (identified in Step 1), identify and document key indicators relevant for each of the five CGIAR Impact Areas. This will provide an understanding of the "baseline conditions" in each geographic system in relation to the five Impact Areas.

Data sources for this assessment may include:

- AgMIP for climate data.
- Foresight Initiative (CC webinar, AFS Diagnostics Country Series).
- GloMIP's Impact Opportunities Portal features 207 impact opportunity indicators (including 26 future ones projected to 2030 and 2050) across 5 Impact Areas, available at national and crop levels for 171 countries and 45 food crops. See the reference manual for details.
- The food system dashboard https://www.foodcountdown.org/indicator-architecture.
- Other peer-reviewed sources which address animal, biodiversity, water, and other CGIAR critical factors.

The Impact Area indicators per geographic system will be documented in Annex Table 2.

Annex Table 2. Current values of key indicators [to be provided to WTs by August 9]

Impact Area Geographic Scope	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutrition, Health and Food Security	Poverty Reduction, Livelihoods and Jobs
Kenya	• Climate risk index = 158 • Population facing flooding = 12% • Failed season due to drought = 58%			• Undernourished population = % 26%	
Bangladesh	• Climate risk index = 170 • Population facing flooding = 57% • Failed season due to drought = 1%			• Undernourished population = % 11%	
.....					

Data sourced from GloMIP, ...

Step 3 - Megatrend impact: the delta – To be completed by a central team and provided to WTs post September 12

In this step, an assessment will be made of whether the current state (Step 2) is subject to disruptive change induced by megatrends out to a 2050 timeframe. This step will identify systems where trends are deleterious and systems where baseline indicators are at an undesirable level even if not negatively impacted by megatrends; these are cases where potential impacts are likely to be higher.

Data sources for this assessment may include any public, published data which indicates relevant trends, along with expert opinion, e.g.:

- AgMIP for climate data.
- Foresight Initiative (CC webinar, AFS Diagnostics Country Series).
- GloMIP's Impact Opportunities Portal (contains indicators projected to 2030).
- Other peer-reviewed sources which address animal, biodiversity, water, and other CGIAR critical factors.
- Expert estimates.

WTs will be provided with a table for each geographic system. Shading will be used to highlight systems where potential impacts are likely to be higher.

Annex Table 3. Megatrend Impact for [insert geographic system: Kenya] [to be provided to WTs post September 12]

Impact Area Megatrend	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutrition, Health and Food Security	Poverty Reduction, Livelihoods and Jobs
Climate Change	• Climate risk index = 164-168 • Population facing flooding = 15-18% • Failed season due to drought = 62-65%				
Environmental Degradation					
Demographic Trends					
Changing Consumption Patterns					
Market Concentration					
Shifting Global Health Challenges					
Geopolitical Instability					
Growing Inequalities					
Frontier Technology & Innovation					

Data sourced from GloMIP, ……., Key assumptions made….

Step 4 - Refining geographic systems –

Review the baseline analyses resulting from Step 2 (refinements based on step 3 will have to be undertaken after September 12) to consider adjusting the selected geographic systems. If needed, update Annex Table 1.2 accordingly.

Step 5 - High-level output positioning – Optional for WTs for proposal phase

Considering the megatrend impact analysis and the presumed likelihood that high-level outputs could contribute a measurable improvement in the value of Impact Area indicators if successfully adopted by intended beneficiaries, indicate the potential positioning of high-level outputs within a megatrend x Impact Area matrix.

For each geographic system, populate Annex Table 5 by positioning relevant high-level outputs within the matrix.

Annex Table 5. High-level output positioning for [insert geographic system: Kenya]

Impact Area Megatrend	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutrition, Health and Food Security	Poverty Reduction, Livelihoods and Jobs
Climate Change	• Platforms for technology and knowledge dissemination • Improved methodologies to achieve stable productivity gains			• Platforms for technology and knowledge dissemination • Improved methodologies to achieve stable productivity gains	• Platforms for technology and knowledge dissemination • Improved methodologies to achieve stable productivity gains
Environmental Degradation					
Demographic Trends					
Changing Consumption Patterns					
Market Concentration					
Shifting Global Health Challenges					
Geopolitical Instability					
Growing Inequalities					
Frontier Technology & Innovation					

Key assumptions made….

Step 6 - Response potential: responding to the delta – Optional for WTs for proposal phase

Documenting assumptions, quantitatively and, where lacking data, qualitatively, assess the response potential of each high-level output to address the megatrend delta/improve the relevant Impact Area indicators. Only assess the response potential (not other factors). For simplicity, classify response potentials as "very high", "high", "medium" or "low". Peer-reviewed publication extrapolations, historic trend analysis, impact assessment studies, extrapolations from existing research data, documented assumptions etc. can all be used to complete this assessment.

For each geographic system, populate Annex Table 6 by indicating the response potential status ("very high", "high", "medium" or "low") for each high-level output.

Annex Table 6. High-level output response potential for [insert geographic system: Kenya]

Impact Area Megatrend	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutrition, Health and Food Security	Poverty Reduction, Livelihoods and Jobs
Climate Change	• Platforms for technology and knowledge dissemination: LOW			• Platforms for technology and knowledge dissemination: HIGH	• Platforms for technology and knowledge dissemination: MEDIUM
Environmental Degradation					
Demographic Trends					
Changing Consumption Patterns					
Market Concentration					
Shifting Global Health Challenges					
Geopolitical Instability					
Growing Inequalities					
Frontier Technology & Innovation					

Data sourced from……., Key assumptions made….

Step 7 - Potential effect size – Optional for WTs for proposal phase

Estimate the potential effect size of high-level outputs. A high-level output with the same response potential (from Step 6) may have different potential effect sizes in two different geographic systems due to differing underlying metrics within each geographic system. Factors such as numbers of people, numbers of undernourished children, biodiversity quality, production loss due to climate change, water basin degradation etc. can all be used to assess potential effect sizes.

Determine the potential effect size of each high-level output by estimating response potential x relevant factor. For simplicity, classify potential effect size as "very high", "high", "medium" or "low".

For each geographic system, populate Annex Table 7 by indicating the potential effect size status ("very high", "high", "medium" or "low") for each high-level output.

Annex Table 7. High-level output potential effect size for [insert geographic system: Kenya]

Impact Area Megatrend	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutrition, Health and Food Security	Poverty Reduction, Livelihoods and Jobs
Climate Change	• Platforms for technology and knowledge dissemination: MEDIUM			• Platforms for technology and knowledge dissemination: HIGH	• Platforms for technology and knowledge dissemination: MEDIUM
Environmental Degradation					
Demographic Trends					
Changing Consumption Patterns					
Market Concentration					
Shifting Global Health Challenges					
Geopolitical Instability					
Growing Inequalities					
Frontier Technology & Innovation					

Data sourced from……., Key assumptions made….

Step 8 - Enabling environment – Optional for WTs for proposal phase

Qualitatively assess stakeholder demand and ability to translate high-level outputs into the desired impact, i.e. the articulated demand for the high-level outputs and the extent to which the system is ready to translate increased investment into increased impact. For example, providing policy guidance requires a conducive political environment; advancing regenerative landscapes requires conducive institutions for collective action; transferring genetic gains to farmers' fields requires functioning seed systems. Identify barriers and drivers in the enabling environment for high-level outputs within the relevant matrix intersections and summarize the overall state of the enabling environment per geographic system. Classify the power of the enabling environment to utilize the high-level output towards the desired impact as "very high", "high", "medium" or "low".

For each geographic system, populate Annex Table 8 by indicating the enabling environment status ("very high", "high", "medium" or "low") for each high-level output.

Annex Table 8. Enabling environment status for [insert geographic system: Kenya]

Impact Area Megatrend	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutrition, Health and Food Security	Poverty Reduction, Livelihoods and Jobs
Climate Change	• Platforms for technology and knowledge dissemination: HIGH			• Platforms for technology and knowledge dissemination: HIGH	• Platforms for technology and knowledge dissemination: HIGH
Environmental Degradation					
Demographic Trends					
Changing Consumption Patterns					
Market Concentration					
Shifting Global Health Challenges					
Geopolitical Instability					
Growing Inequalities					

Data sourced from……., Key assumptions made….

Step 9 - Comparative Advantage – Optional for WTs for proposal phase

Incorporate the status of the comparative advantage of CGIAR's partner network to deliver the high-level outputs within each geographic system. Build on the outputs of the CA analysis (Section 4), contextualizing them based on the geographic framing.

For each geographic system, populate Annex Table 9 by indicating the CA status ("very high", "high", "medium" or "low") for each high-level output.

Annex Table 9. Comparative advantage for [insert geographic system: Kenya]

Impact Area Megatrend	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutrition, Health and Food Security	Poverty Reduction, Livelihoods and Jobs
Climate Change	• Platforms for technology and knowledge dissemination: MEDIUM			• Platforms for technology and knowledge dissemination: HIGH	• Platforms for technology and knowledge dissemination: HIGH
Environmental Degradation					
Demographic Trends					
Changing Consumption Patterns					
Market Concentration					
Shifting Global Health Challenges					
Geopolitical Instability					
Growing Inequalities					

Data sourced from……., Key assumptions made….

Step 10 - Overall prioritization – Optional for WTs for proposal phase

For each geographic system, review and synthesize the outputs of steps 7, 8, and 9 to assess the priority level of high-level outputs within the megatrend x Impact Area matrix. Bring together the potential effect size, enabling environment, and CA statuses of each high-level output (see Figure 1), then assign overall priority levels as shown in Figure 2.

Any intersection with low CA status should automatically be classified as low priority or removed from the Program/Accelerator's scope. Intersections with low enabling environment status should be assessed to identify if interventions are available to improve the enabling environment; where these opportunities exist, Programs/Accelerators may decide to prioritize these intersections based on the potential effect size and CA statuses.

Figure 1. Bringing together prioritization statuses from previous prioritization analyses

Annex Table 7: High-level output potential effect size for [insert geographic system: Kenya]

Impact Area Megatrend	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutriti
Climate Change	Platforms for technology and knowledge dissemination: MEDIUM			Platfor techno knowle dissem HIGH
Environmental Degradation				
Demographic Trends				

Annex Table 8: Enabling environment status for [insert geographic system: Kenya]

Impact Area Megatrend	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutritio Food
Climate Change	Platforms for technology and knowledge dissemination: HIGH			Platfor techno knowle dissem HIGH
Environmental Degradation				

Annex Table 9: Comparative advantage for [insert geographic system: Kenya]

Impact Area Megatrend	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutrit
Climate Change	Platforms for technology and knowledge dissemination: MEDIUM			Platfor techno knowle dissem HIGH
Environmental Degradation				

Figure 2. Assignment of overall priority levels

High-level output	Potential effect size	Enabling Environment	Comparative Advantage	Priority
---	Very High	High	Very High	Very High
---	Medium	Medium	Medium	Medium
---	Low	High	High	Low
---	Low	Low	Medium	Low
---	High	Low	Very High	High*
---	Medium	High	Low	-

** Where additional CGIAR-partner or system interventions strengthen the enabling environment*

For each geographic system, populate Annex Table 10 by indicating the overall priority level for each high-level output.

Annex Table 10. High-level output priority level for [insert geographic system: Kenya]

Impact Area Megatrend	Climate Adaptation and Mitigation	Environmental Health and Biodiversity	Gender, Equity and Social Inclusion	Nutrition, Health and Food Security	Poverty Reduction, Livelihoods and Jobs
Climate Change	• Platforms for technology and knowledge dissemination: MEDIUM			• Platforms for technology and knowledge dissemination: HIGH	• Platforms for technology and knowledge dissemination: MEDIUM
Environmental Degradation					
Demographic Trends					
Changing Consumption Patterns					
Market Concentration					
Shifting Global Health Challenges					
Geopolitical Instability					
Growing Inequalities					

Key assumptions made….

Step 11 – Synthesis of priorities across geographic systems – Optional for WTs for proposal phase
This step consists in synthesizing priority levels across geographic systems to derive a prioritization matrix at Program/Accelerator level. In this step, the tables generated in Step 10 are brought together and summarized into **one Program/Accelerator-level table**. This synthesis should take into account high-level output "frequencies" across geographic systems (i.e. how many times across geographic systems high-level outputs are listed within a position in the matrix) and size differences in underlying factors used in potential effect estimation.

Populate Annex Table 11 by indicating overall priority levels of high-level outputs for the Program/Accelerator. Color-code entries as indicated in the table header to visually highlight priorities.

Review all steps again, making adjustments and documenting changes in assumptions as needed.

The final version of Annex Table 11 should be included as Table y in Section 3 of the Program/Accelerator's design document. In addition, use the outputs of the prioritization exercise to complete Table x for inclusion in Section 3.

Annex Table 11. Program/Accelerator-level high-level output prioritization.

Use this color-coding for priority levels; Green = Very high, Orange = High, Blue = Medium, Pink = Low, Black= undefined or N/A.

Annex 4. Detailed guidance and template for Writing Teams to undertake Program-level comparative advantage analysis

The ISDC's CA methodology includes four high-level steps. This analysis broadly follows the first three of these steps:

1. **Describe the desired high-level outputs**: identify the pieces that need to be brought together to achieve the objectives.
2. **Identify potential partners**: find other organizations that have the potential to produce some of these outputs. These may be known organizations currently active in the AR4D space or organizations not yet active in this area but which have the resources and characteristics to produce an output.
3. **Assess relative trade-offs**: using the best knowledge available, estimate the relative costs of producing the outputs for the identified organizations, including CGIAR. Even if one organization is not as capable as another in an absolute sense, its differing relative strengths may justify a partnership because the partnership might free up resources that CGIAR can deploy more effectively elsewhere.

The fourth step, i.e. reach out to the identified potential partners to establish clear responsibilities within the project, does not need to be done at design document stage.

Definitions and concepts

- **Sources of comparative advantage:** An organization's characteristics and their implications for potential production (i.e., sources of CA) can be grouped into four categories: 1. Incentives (the degree to which an organization is willing to pursue specific goals); 2. Human capital (the skills and knowledge of the organization's workforce); 3. Biophysical capital (such as labs, genetic material, and equipment); 4. Social capital (the set of existing relationships and agreements with other actors that might help synergize research efforts in similar areas as well as facilitate the take-up and impact of research outputs in the field).
- **High-level output:** A definition is in the works. In the meantime, think of high-level outputs as critical outputs describing what Programs/ Accelerators and their areas of work do at a relatively "consolidated" level and which logically relate to the planned outcomes. The high-level outputs chosen for the CA analysis should be the same as those used in the Prioritization section (which translates to roughly 2-5 high-level outputs per area of work, so roughly 20 per Program/Accelerator).

Template to be used for the analysis

The filled-in template should be provided as an Annex to the design document, while Section 4 itself provides a narrative summary of the analysis.

High-level output	Needed sources of Comparative Advantage required to deliver the high-level output	CGIAR's sources of Comparative Advantage in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector…)	Partners' sources of Comparative Advantage in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level output, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)

Annex 5. Methodology for projection of impact ambitions

Modeling Framework

Projecting the *benefits* of CGIAR's 2025-30 Portfolio of investments requires Science Programs and Accelerators to have identified key performance indicators within their domains of influence and have set targets for 2030. Such indicators and targets are not yet established. In the interim, it is possible to project the *ambition* of the new Portfolio, in other words, the level of change in the kinds of outcomes CGIAR is targeting across its five Impact Areas. This annex describes the process and methodology used to project CGIAR's ambition.

CGIAR maintains sophisticated modeling tools for food, land, and water systems. However, in this exercise, a simple model or accounting framework was used to track how changes in agricultural productivity, market development, and other impacts resulting from CGIAR innovations could lead to changes in a range of outcomes. **Figure A1** shows the overall framework and the flow of information from model inputs and outputs to the final estimated outcome indicators.

The model tracks all crops, livestock, forestry, and fisheries products. The level of detail included in the model is shown in **Table A1**. It includes the 19 CGIAR crops studied by Fuglie and Echeverria (2024), as well as all other types of crops within the primary agricultural sector. The model includes the major livestock commodities (i.e., meat, milk, and eggs) as well as animals with other uses and products (e.g. horses and bees). The forestry category includes the major types of wood and related products, while fisheries is broadly divided into aquaculture and capture. The model's base year is 2021. Data on commodity-level production, yields, crop areas, and animal herds or stocks comes from FAOSTAT. The model aggregates countries into the six CGIAR regions plus developed countries, allowing it to track production at global and regional scales.

The area and yields of crops are combined to estimate commodity level crop production quantities, and a similar calculation estimates livestock production. Forestry and fisheries production quantities are tracked directly. The value of commodity production is estimated using fixed 2021 international prices measured in US dollars from FAOSTAT. The combined profits and labor earnings generated from agricultural production – also known as gross domestic product or GDP – are calculated using fixed GDP-to-gross-output ratios derived from IFPRI's Global Agrifood System Database (GAFSD). The relative importance of major subsectors to each CGIAR region's agricultural GDP is shown in panel A in **Figure A2**. Crops dominate agricultural GDP in all CGIAR regions, but livestock, forestry, and fisheries are substantial in certain regions. Given the level of total agricultural GDP, the model then estimates agrifood system GDP, which includes the profits and labor earnings generated by downstream agrifood processing, trade, transport, and food services. Panel B in Figure A2 shows how primary agriculture accounts for only part of the total GDP generated in the agrifood system. This information is used to scale up agricultural GDP to agrifood system GDP using fixed ratios. The model also estimates agrifood system employment using fixed coefficients on the employment intensities of agriculture and agrifood system GDP, and then disaggregates this across male and female workers using base year employment shares. Similarly, the model tracks greenhouse gas (GHG) emissions from agricultural and off-farm agrifood system production, using 2021 coefficients derived from FAOSTAT.

Figure A1. Modeling framework

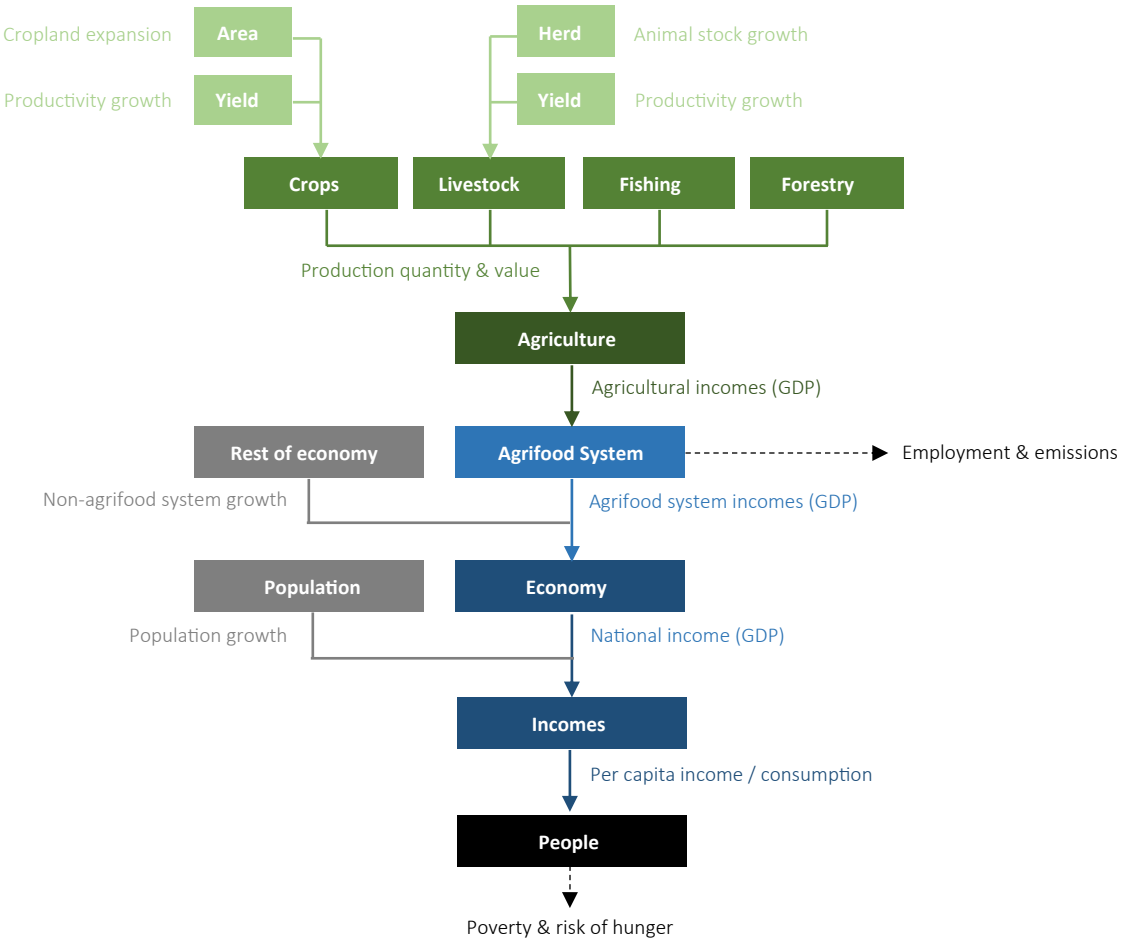


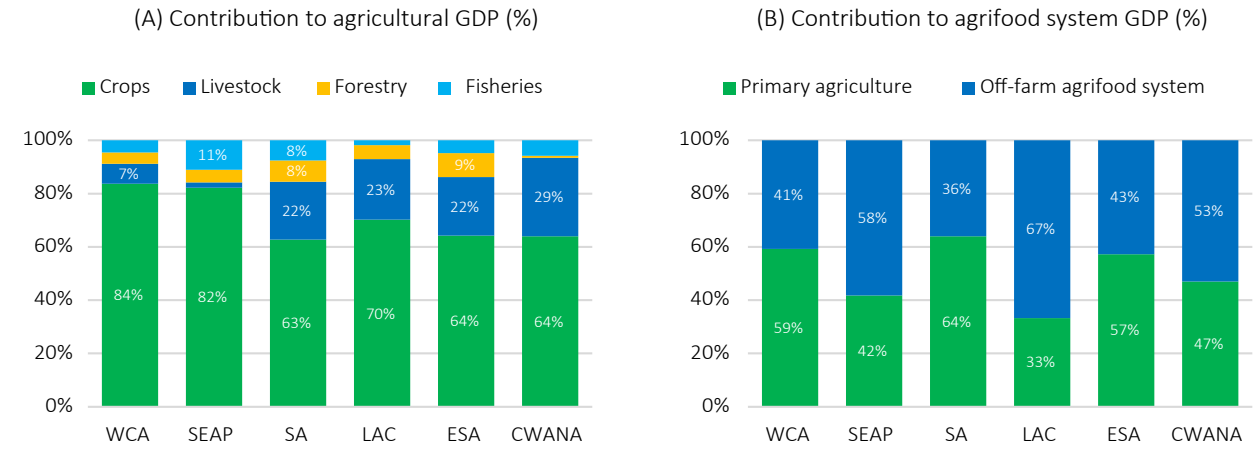
Table A1. Agricultural commodities in the model

Crops		14	Cowpea *	28	Citrus fruits	41	Other meat *
1	Wheat *	15	Chickpea *	29	Deciduous fruits	42	Milk *
2	Rice *	16	Lentil *	30	Tropical fruits	43	Eggs *
3	Maize *	17	Pigeon pea *	31	Sugar crops	44	Other animal products
4	Sorghum *	18	Faba bean *	32	Beverage crops	**Forestry**	
5	Millet *	19	Other pulses	33	Fiber crops	45	Wood fuel *
6	Barley *	20	Nuts	34	Other crops	46	Industrial roundwood *
7	Other cereals	21	Soybean *	**Livestock**		47	Charcoal, chips, etc. *
8	Cassava *	22	Groundnut *	35	Cattle meat *	48	Sawn wood, etc. *
9	Potato *	23	Other oilseeds	36	Buffalo meat *	49	Wood-based panels *
10	Yam *	24	Green vegetables	37	Sheep meat *	**Fisheries**	
11	Sweet potato *	25	Red/orange veg.	38	Goat meat *	50	Aquaculture *
12	Other roots	26	Other vegetables	39	Pig meat *	51	Capture fisheries *
13	Beans *	27	Banana *	40	Poultry meat *		

Note: * denotes focus commodities for CGIAR R&D.

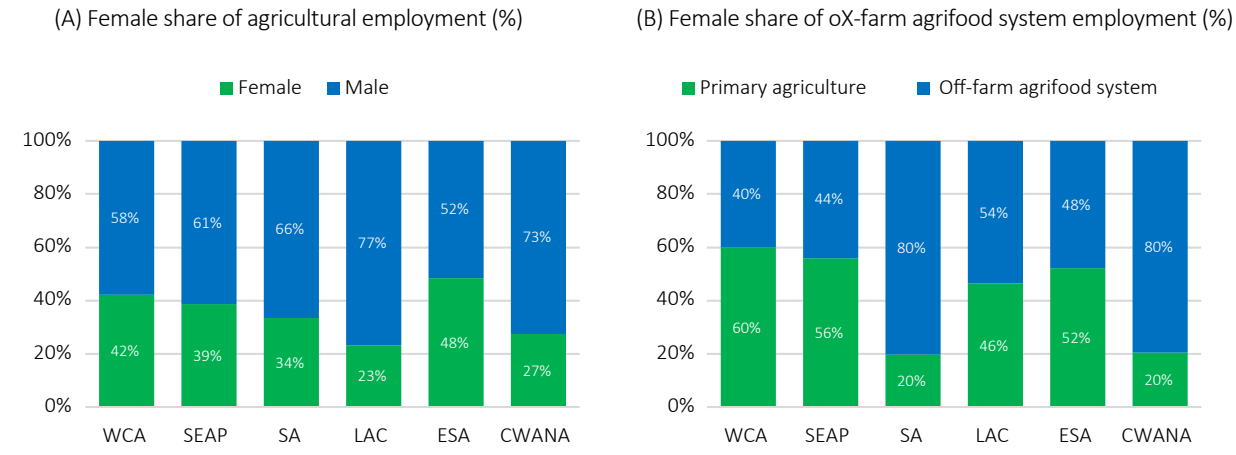
The model tracks total GDP by combining agrifood system GDP with GDP generated outside the agrifood system. Total GDP is divided by population to give average per capita income, which is then used to estimate the level of poverty and the population at risk of hunger. Information on the level and distribution of household consumption in each region is derived using data from the World Bank's Poverty and Inequality Platform.[2] Changes in per capita incomes (GDP) lead to proportional changes in mean consumption levels, which in turn lead to varying changes in poverty headcount rates using alternative poverty lines. Similarly, the model uses FAO data on the prevalence of undernourishment and the distribution of calorie consumption across the population to track how changes in per capita agricultural income (a proxy for calorie availability) affects the population at risk of hunger.

Figure A2. Agriculture and agrifood systems in CGIAR regions (2021)



Source: IFPRI Global Agrifood System Database.

Figure A3. Gender intensity of agricultural and agrifood system employment (2021)



Source: IFPRI Global Agrifood System Database.

[2] The model assumes consumption spending in each region is log-normally distributed with standard errors adjusted to reproduce the World Bank's reported poverty rate and mean consumption levels. This provides a reasonable approximation of the responsiveness of poverty headcount rates to changes in average consumption or income levels.

The model provides an internally consistent accounting framework that ensures changes in production at the level of agricultural commodities lead to plausible changes in other impact indicators. The model is stylized and overlooks numerous factors known to affect final impacts, such as market mechanisms that could cause prices to fall as production expands. These missing mechanisms could cause the model to overestimate some impacts and underestimate others. The final projection of *benefits* from CGIAR's 2025-30 Portfolio will use models that capture many more mechanisms absent from this simpler analysis. That said, the simpler framework allows the model to project impact ambitions based on a given set of assumptions about future trends and the impact of CGIAR innovations.

Table A2. Example impact indicators tracked by the model

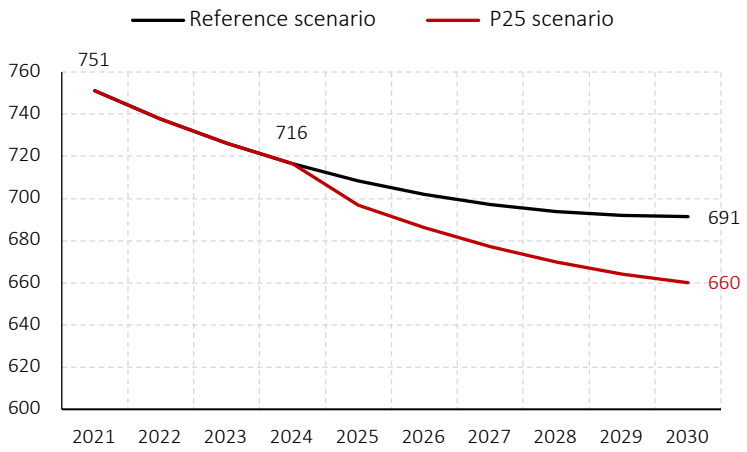
Indicator	Description
Population at risk of hunger	The number of people whose average daily calorie consumption is below the FAO's threshold to avoid undernourishment.
Absolute poverty	The number of people whose average daily consumption level is below the World Bank's international poverty lines ($2.15, $3.65, and $6.85 per day).
Agrifood system incomes	The total profits, wages, and rents (GDP) earned by people working in the agrifood system, which includes primary agriculture and downstream agrifood-related activities, including processing, trade, transport, food services, and the production of inputs into agricultural and processing.
Jobs in the agrifood system	The number of workers in the agrifood system's major sectors (see above).
Emissions in the agrifood system	The total quantity of GHG generated on-farm and in downstream sectors within the agrifood system, as reported by the FAO. This includes, among other things, on-farm emissions from residue burning, rice cultivation, enteric fermentation, and fertilizer and energy use; and off-farm emissions from processing, trading, and transporting agrifood products.
Agricultural productivity gains	Average productivity levels are estimated for CGIAR focus commodities (see Table A1) using weights based on the value of commodity level production estimated using fixed 2021 international prices.

Reference Scenario

The model is used to run two simulations or scenarios for the period 2021-30. The first is the Reference Scenario, which assumes agricultural production growth, as well as economic growth outside the agrifood system sector, continues at the same pace as during the 2010-21 period. The Reference Scenario also assumes key parameters in the models remain unchanged from 2021, including GDP-to-gross-output ratios, labor intensities of production, gender intensities of employment, and emissions intensities of production. Historical data is taken from FAOSTAT for agriculture, and IFPRI's GAFSD for GDP and sex-disaggregated employment.

Even under the Reference Scenario, the model projects that some of CGIAR's targeted impacts will improve. Figure A4, for example, shows the global population in poverty under the Reference Scenario. If agricultural production and the economy continue to grow as they have since 2010, poverty will fall from 751 million people in 2021 to 716 million in 2024 (i.e., the base year for evaluating CGIAR's 2025-30 Portfolio) to 691 million by 2030 (i.e., the 2025-30 Portfolio endline). This projection accounts for projected changes to population compared to the 2020s. The Reference Scenario therefore becomes a counterfactual to which we can compare the outcomes from the CGIAR 2025-30 Portfolio scenario.

Figure A4. Projected poor population under the Reference and 2025-30 Portfolio scenarios (millions)



Note: Population consuming less per day than the World Bank's $2.15 poverty line.

CGIAR 2025-30 Portfolio Scenario

CGIAR's 2025-30 Portfolio is anticipated to benefit food, land and water systems throughout low- and middle-income countries (LMICs). Among other things, CGIAR's research and development activities and related innovations are expected to accelerate agricultural productivity growth; lead to better-functioning markets; increase the profitability of smallholder farmers and downstream producers; and create new job and income opportunities for workers in the agrifood system, especially women. The 2025-30 Portfolio scenario attempts to capture this range of ambitions. This is achieved by adjusting parameters in the model over the period 2025-30, including, for example, annual growth rates and the employment and emissions intensities of production. Below is a list of the changes made to the Reference Scenario to capture a stylized representation of the 2025-30 Portfolio impacts and outcomes:

- **Agricultural productivity**: The rate of growth in crop yields, livestock productivity, and forestry and fisheries production accelerate by 1.0 percent per year on average across regions. Smaller increases are assumed for regions with smaller productivity gaps, such as Latin America and the Caribbean, where crop yields grow at only 0.5 percent per year, compared to 1.5 percent per year in East and Southern Africa. This is consistent with scenarios considered by some of the 2025-30 Portfolio's Science Programs. This impact requires not only higher rates of genetic gain, but also improvements in farming practices and service provision. As such, it assumes there are complementary investments in LMICs, in addition to investments in CGIAR research and outreach activities. The 2025-30 Portfolio considers increases in productivity for CGIAR's focus crops, livestock, forestry, and fisheries activities (see Table A1).
- **Cropland and animal stocks**: The 2025-30 Portfolio Scenario assumes a slight decline in rate of cropland expansion relative to the Reference Scenario. This offsets some production gains caused by higher crop yields, but leads to lower emissions generated by the agrifood system. Animal herds or stocks are expected to continue to grow, given rapid growth in demand for animal sourced foods. No changes are made to forestland expansion in the 2025-30 Portfolio scenario. This assumes that any additional production in the forestry sector caused by 2025-30 Portfolio investments are driven entirely productivity gains, rather than further deforestation.
- **Profitability of agricultural producers**: CGIAR's Portfolio conducts research and provides policy advice to develop and improve agrifood market efficiency. The 2025-30 Portfolio Scenario assumes this will allow smallholder farmers and small-scale enterprises to capture a larger share of the profits (gross margins) generated across the agrifood system. This is simulated by modest increases in GDP-to-gross-output ratios, such that profits as a share of gross output value increases by about 1.0 percentage point by 2030).
- **Expansion of downstream activities**: Agricultural transformation is typically associated with continued agricultural growth, but, more importantly, with an expansion of downstream activities within the agrifood system, such as processing, trading, transport, and food services provision (see panel B in Figure A2, where more developed regions have larger off-farm shares of agrifood system GDP). The 2025-30 Portfolio Scenario captures this transformation with small increases to the ratio of downstream GDP to primary agricultural GDP.
- **Incomes earned outside the agrifood system**: Agricultural growth generates demand for inputs produced by sectors outside agriculture, and, conversely, the incomes earned by agricultural producers are used to purchase commodities produced by nonagricultural sectors. This spillover from agriculture to the rest of the economy is known as a "multiplier effect." The 2025-30 Portfolio Scenario assumes a relatively small agricultural growth multiplier of 1.1. This means a 1.0 percent increase in agricultural GDP leads to a 0.1 percent increase in GDP in sectors outside the agrifood system.
- **Labor intensity of production**: CGIAR generally pays more attention to small and medium-sized enterprises (SMSE), rather than the largest commercial operators. It is expected that this focus on SMSEs, which includes informal traders and processors, should increase the average labor intensity of agricultural and downstream agrifood system activities. The 2025-30 Portfolio Scenario makes the modest assumption that the labor intensity of employment increases by 0.05 percent per year.
- **Female employment**: Empowering women and improving their economic prospects is a major focus for CGIAR. The 2025-30 Portfolio Scenario captures this by increasing the likelihood that women are employed in the agrifood system. The share of women in agricultural and off-farm agrifood system employment is increased by 1.0 percent per year in all CGIAR regions (see Figure A3 for the model's base year shares).
- **Greenhouse gas emissions**: CGIAR's innovations are expected to help developing countries transition towards a less carbon-intensive agrifood system, through changes in land use and production technologies and practices. The 2025-30 Portfolio Scenario assumes a small decline in the emissions intensity of production in the agrifood system. Specifically, the CO2 equivalent emissions per hectare and per ton of agricultural output is reduced by 0.1 percent per year. The same adjustment is made to the emissions intensity of downstream agrifood system production. The emissions impact is the total quantity of emissions averted and is calculated by comparing the level of emissions that would have resulted from the projected increase in agricultural production had emissions intensities remained unchanged, to the resulting emissions levels when emissions intensities are reduced.

The above changes to the model in the 2025-30 Portfolio Scenario are imposed onto the underlying growth trends captured in the Reference Scenario. The 2025-30 Portfolio's impacts are expected to start in 2025 and continue to 2030 and beyond. Impacts from the model are reported for 2030 and are deviations from the Reference Scenario. For example, in Figure A4, the number of poor in the 2025-30 Portfolio Scenario falls below the Reference Scenario's projection. By 2030, the number of poor is 660 million under the 2025-30 Portfolio Scenario, compared to 691 million in the Reference Scenario. This means the assumed changes brought about by 2025-30 Portfolio investments would lift 31 million people out of extreme poverty.

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CGIAR