CGIAR

Policy Innovations Program

Full design document

November 15, 2024

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List of acronyms

AoW	Area of Work
APEC	Asia-Pacific Economic Cooperation
BMGF	Bill & Melinda Gates Foundation
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Econ Cooperation
CA	Comparative Advantage
FAO	Food and Agricultural Organization
FLW	Food, Land and Water
GEF	Global Environment Facility
GESI	Gender, equity and social inclusion
GPE	Governance and Political Economy
GRI	Governance, rights and institutions
IMPACT	International Model for Policy Analysis of Agricultural Commodities and Trade
ISDC	Independent Science for Development Council (of CGIAR)
LAC	Latin America and Caribbean
LMIC	Low- and middle-income countries
MELIAF	Monitoring, Evaluation, Learning, Impact Assessment and Foresight
MSP	Multistakeholder Platforms
MTEF	Medium-Term Expenditure Framework
NAC	National advisory committee
NARES	National agricultural research and extension systems
NPC	National Planning Commission
NPG	Nexus Policy Gains
NPS	National Policies and Strategies (Initiative)
PCM	Policy coherence and metrics
PEDM	Political economy of decision-making
PEPA	Political Economy and Policy Analysis
PIEL	Poverty, inequality, employment, and livelihoods
PKBH	Policy Knowledge Brokering Hub
RIAPA	Rural Investment and Policy Analysis
SAAF	Sustainable animal and aquaculture food
SAARC	South Asian Association for Regional Cooperation
SADC	Southern African Development Community
SDG	Sustainable Development Goals
ToC	Theory of Change
UAE	United Arab Emirates
WEFE	Water, energy, food, and ecosystems
WFP	World Food Programme

1. Executive summary

Policies and institutions are powerful determinants of development outcomes. Sound policies, implemented via increasingly capable institutions, can create virtuous circles of positive impact. All CGIAR Programs and Accelerators engage with policy issues, but the Policy Innovations Program is unique in that it focuses on the transformation of food, land, and water (FLW) Systems *as a whole*. This systems-wide approach mirrors a fundamental challenge confronting high-level policymakers: they must simultaneously address multiple issues in the context of interrelated and ongoing (mega) trends while pursuing multiple objectives.

In collaboration with partners, the Policy Innovations Program identifies portfolios of policies, investments, and innovations that address all five Impact Areas. This Program's high-level research questions are fundamentally integrative. Examples include: What combinations of policies, institutions, and technologies are most effective in enabling FLW system actors to contribute to the inclusive, equitable, and sustainable transformation of food systems and economies? How can governance structures be enhanced to reduce the impacts of external shocks, improve accountabilities, minimize elite capture, enhance equitable outcomes, and strengthen the provision of environmental benefits? What sets of spatially targeted investments maximize synergies and minimize trade-offs across the Water-Energy-Food-Ecosystem (WEFE) nexus?

The Policy Innovations Program envisions "policies and institutions for FLW systems that drive rapid, inclusive transformation, fostering futures where people and planet thrive". This vision is operationalized via six Areas of Work (AoWs). Foresight and Prioritization (AoW 1) charts potential future development pathways and identifies cost-effective policy and investment packages that address inevitable trade-offs across competing objectives. Market-led transformation (AoW 2) identifies appropriate technological and institutional innovations, supportive policies, and innovative ways to harness the power of markets to drive positive transformation. Governance and Political Economy (AoW 3) recognizes that political economy barriers and governance failures can prevent the operationalization of good policy ideas and seeks to propose feasible paths forward. Nexus Policy Gains (AoW 4) navigates policy trade-offs and synergies across the WEFE Nexus. Country Strategy and Engagement (AoW 5) leverages on-the-ground policy programs with key national institutions to respond to demand for policy support and supply evidence-based recommendations into policy processes. The Policy Knowledge Brokering Hub (AoW 6) advances integration within and beyond the Policy Innovations Program and maintains a pro-poor focus.

Facilitating positive policy impact is often the result of a delicate mix of consistent and agile research and policy engagement. Consistency and perseverance build capability and trust, which are crucial for engaging partners and affecting policy reforms. Agility recognizes that major policy reforms often occur in relatively short time windows and that providing key inputs at the right moment in the process is often crucial for achieving impact. The Policy Innovations Program constitutes a unique package of activities that combines (i) consistent, high-quality, collaborative research that enhances capabilities and deepens trust with policy partners at multiple levels of decision-making and (ii) agile response to policy demand at high-leverage moments. Ultimately, the Policy Innovations Program aims to facilitate more deliberate and evidence-based decision-making and posits that this will lead to better decisions, delivering strong positive impact simultaneously across all five Impact Areas.

2. High-level vision in response to challenges and megatrends

2.1. Challenges and megatrends

Food, Land, and Water (FLW) systems are at the intersection of the mega challenges identified by the ISDC, including climate change, population growth, poverty, food and nutrition insecurity, increasing inequality, political instability, and environmental degradation (ISDC, 2024). These megatrends will have profound policy implications and addressing them through policy with the necessary evidence to inform decision-making requires systems thinking and a strong, coordinated, and multidisciplinary response from CGIAR and its partners. The Policy Innovations Program will support the development of evidence-based policies and innovative institutions that mitigate climate change impacts, enhance food system resilience and sustainable intensification, reduce pressure on ecosystems and biodiversity, and ensure equitable access to food. It will equip decision-makers with the ability to respond rapidly to crises while improving capacity to design policies that enhance social inclusion and social safety nets to protect vulnerable populations. By understanding the interplay of global mega trends and their local manifestations, this Program aims to generate actionable policy-oriented knowledge as well as know-how to inform transformative policy decisions that contribute to food and nutrition security, poverty elimination, decent employment conditions, and environmental sustainability.

2.2. High-level vision

The vision of the Policy Innovations Program is to position CGIAR as a global leader in generating and disseminating evidence to inform policies and institutions related to food, land, and water systems to drive rapid and inclusive transformation and foster futures where people and the planet thrive.

By leveraging CGIAR's strong capabilities and previous successes in agricultural policy-oriented research to address global megatrends (e.g., climate change, environmental degradation, and growing inequalities), the value proposition of the Program focuses on addressing interlinks and trade-offs of system-level challenges and outcomes across the five Impact Areas while also considering and learning from micro-level insights and how FLW system actors and institutions respond to exogenous shocks, external trends, and policy changes. This Program aims to achieve:

- Strengthened policy and institutional environments: Create enabling conditions for sustainable and equitable development through evidence-based policymaking and investments in FLW systems. Global, regional, and national partners use foresight analysis results and micro and meso levels of evidence to make informed decisions about the future of FLW systems.
- Accelerated food, land, and water systems transformation: Drive policy and institutional innovations, identify policy incentives to accelerate the adoption of sustainable and demand-driven agricultural practices and agroecological transitions and inform policy decisions and institutional changes that support food system resilience, inclusive growth, and rapid and inclusive transformation. Policy decisions and investments consider the value for money of institutional and technological innovations, the nexus FLW systems and the socioeconomic and geopolitical tensions, and other political economy considerations.
- Demand-led national policy engagement: Leveraging CGIAR-led global policy networks and accumulated policy knowledge, collaborating with governments, civil society, and the private sector, especially in the global south, to respond to the demand of country and partners in policy and institutional support.
- Developed individual and institutional capacities: Policy actors leverage communities of practices, use better tools and data to generate superior evidence that facilitates technical and policy decisions as well as assess complex interactions, synergies, and trade-offs between food, land, and water systems.

2.3. What is new in this Program?

A fundamental challenge confronting high-level policymakers involves simultaneously addressing multiple issues in the context of interrelated and ongoing (mega) trends while pursuing multiple objectives. The Policy Innovations Program mirrors this fundamental challenge by focusing on the transformation of food, land, and water systems as a whole. The Program itself is innovative in that, compared with CGIAR Initiatives, the Policy Innovations Program brings key AoWs under one roof. Specifically, the Program houses, under Foresight and Prioritization, cutting-edge ex ante analytics; under Market-led Agrifood System Transformation, rigorous ex post analytics; and under Governance and Political Economy, leading analytics related to feasibility and implementation capacity. Taken together, these AoWs address three fundamental questions related to policy formation: (a) *What will happen if…?; (b) What has happened?*; and (c) *Can it be done?*

Three additional AoWs seek to answer these questions in specific contexts. One considers the water-energy-food-environment nexus in specific geographies. Another, for the first time, explicitly builds on 15 country policy programs where CGIAR enjoys close relationships with key policy-formulating institutions. A final AoW provides light coordination for (i) collaborative studies across Programs, (ii) capacity sharing, and (iii) multistakeholder policy platforms. This component also houses a Sub-AoW that utilizes the powerful tools housed in the Policy Innovations Program to assess the impact of CGIAR's work, project benefits of alternative portfolio investment plans, and ultimately provide a rigorous information base that facilitates prioritization of the investment portfolio by CGIAR leadership. This element, labeled MELIAF, is also new.

In addition, examples of specific new activities include:

- At the request of UAE and BMGF, Foresight and Prioritization is already engaging deeply with 15 countries to facilitate the implementation of the Food Systems Declaration from CoP28 in the run-up to CoP30. Among other new elements, the Policy Innovations Program ims to implement a novel approach to developing country risk profiles.
- While the historical record shows low success in supply-driven innovations, Market-led Transformation aims to design and validate a wide range of demand-driven policies and technological and institutional innovations to identify suitable strategies and mechanisms for food systems transformation.
- The Nexus Policy Gains AoW will assess the effects of WEFE Nexus synergies and trade-offs on labor markets and migration in response to the ISDC Mega Trends paper.

- Governance and Political Economy will work with international partners to build more policy-coherent development environments, supporting gains in global environmental benefits and poverty reduction indicators.
- The Policy Hub will support this and other SPs in exploring opportunities for cross-country policy research and learning, primarily focusing on poverty, inequality, employment, and livelihoods while accounting for synergies and trade-offs with other Impact Areas. This will involve advancing existing integration efforts within CGIAR on these topics and leveraging high-level linkages with key institutions (such as those producing the Medium-term expenditure framework) and multistakeholder platforms in countries.

In sum, bringing together these complementary approaches to policy analysis, while delivering frontier research, is expected to enable high-quality and relevant policy and investment insights and facilitate the achievement of desired transformative change at scale.

3. Evidence-based and demand-led prioritization

Policy decisions will, over time, have strong implications for the evolution of CGIAR's five Impact Areas. The decisions will be influenced by the mega trends highlighted by the ISDC and will, collectively, influence those trends. Policy shifts can also have strong distributional implications, even if the effect on aggregate indicators is small.

The prioritization process for the Policy Innovations Program has been explicitly aligned with the nature of policy processes. These processes are typically characterized by relatively long periods of policy evolution within a given paradigm, punctuated by paradigm changes, often accompanied by relatively rapid changes in policy orientation.

These observations have a series of implications for prioritization in the Program. We focus on three:

1. **Quality**. The leverage factor in policy cuts both ways. While the gains from "good" policies can be substantial, the losses from "bad" policies can be correspondingly significant. Because of the stakes involved, there is no shortage of noise, advocacy for narrow goals, and shallow analysis of policy options. The Policy Innovations Program is based on the precept that deliberate and inclusive decision-making processes informed by high-quality information and solid independent analysis will yield better outcomes.
2. **Engagement**. Quality is frequently not enough for analytics to be used in decision-making. Consistent and strategic partner engagement in LMICs, which enhances capabilities and leads to trust, is critical to achieving long-term impact.
3. **Agility**. Having invested resources in high-quality analysis, enhancing capabilities, and building trust, the CGIAR must maintain the flexibility to respond to highly consequential demands from partners.

3.1. Criteria

The Program builds on a solid baseline of bilateral funding (which constitutes most of the resources dedicated to the Program) and four high-performing CGIAR Initiatives: Foresight, National Policies and Strategies, NEXUS Gains, and Rethinking Food Markets. Across bilateral programs and Initiatives mapped to the Policy Innovations Program, the Program is currently active in approximately 35 countries, principally in Sub-Saharan Africa and South Asia, as well as East Asia, Southeast Asia, Central Asia, North Africa, and Latin America. Activities include regional work in, for example, West, Central, East, and Southern Africa; South Asia; and river basins such as the Indus and the Nile.

Six interacting criteria were applied to geographically prioritize Portfolio funds. These are:

1. Scope for impact. The Program should allow ample scope for impact to be able to influence the five Impact Areas globally.
2. Reasonable geographic balance. The Policy Innovations Program concentrates considerable activity in Sub-Saharan Africa, South Asia, and Latin America while not ignoring other regions of the world.
3. Stakeholder demand. The government and the policy community should be keen to engage with the Policy Innovations Program.
4. The continuation of momentum established by the four constituent Initiatives. The word 'momentum' is chosen expressly (as opposed to, for example, 'continuity'). The intent is to allow the activities mapped to the Policy Innovations Program to build on experience.
5. The enhancement of synergies within the Program. Most activity within the Policy Innovations Program will be bilaterally funded. In the near term, synergies between bilateral and Portfolio funding represent one of the most significant opportunities to enhance impact.
6. Collaborative opportunities within the Policy Innovations Program. The Initiatives mapped into the Policy Innovations Program represent an obvious initial focal point for developing productive collaborations.

3.2. Application of these criteria toward initial geographic prioritization

Based on the above criteria, 15 countries were selected for deeper focus, out of approximately 35 countries where Initiatives and bilateral projects related to the Policy Innovations Program are currently operating (Table 3.1). However, for a variety of reasons, activities in the Program *will not be confined to these countries*:

- A significant effort will continue to be allocated to global activities, continental (such as African Union), by river basin, or regional (such as South Asian Association for Regional Cooperation, Bay of Bengal Initiative for Multi-Sectoral Technical and Econ Cooperation, APEC, Economic Community of West African States, Economic Community of Central African States, East African Community, and SADC).
- Major bilateral programs incorporated within the Policy Innovations Program operate in approximately 20 additional countries.

- Some countries form part of the momentum agenda for an Initiative but are not currently well suited to be a top 15 country for the full Program. For example, The Foresight and Prioritization AoW will continue to work with key institutions in Zambia as the relationship is strongly demanded, the continued engagement comes at a low marginal cost, and the potential for substantial benefit is high.
- Collaborative efforts across Programs will likely expand the geographic focus. For example, the Program contains significant bilateral activity in five countries listed as fragile (Ethiopia, Myanmar, Nigeria, Papua New Guinea, and Sudan), only two of which are among the listed top 15. A promising collaborative study with the Food Frontiers and Security Program might involve taking stock of the lessons learned from operating in fragile and conflict-affected environments. This study should logically involve all five countries where substantial operational experience has been obtained.

In addition, the list of top 15 countries is not meant to be set in stone for the entire duration of the Program. The list may change based on considerations related to performance, resources, and opportunity.

Regarding scope for impact, the countries chosen represent 36% of the global population (2.9 billion people) and are home to 51% of the global population categorized as poor (below the US$ 2.15 per capita per day threshold) and 58% of children under five that are stunted. Recent research finds that agricultural productivity is particularly susceptible to temperature rise in countries with an average temperature above 27°C. Of the 15 countries, 7 had average temperatures of 25.5°C or above between 2006 and 2015. All have vulnerabilities to extreme events, and all confront complex environmental issues. As recent unrest in Bangladesh, Kenya, and Nigeria attests, distributional issues are often front and center. A reliable national measure of women's empowerment is lacking. All available evidence points to substantial gender disparities in all 15 countries. Additional indicators are provided in Appendix 1.

Regarding geographic balance, there are seven from Sub-Saharan Africa, four in South Asia, and one each in Latin America, North Africa, Central Asia, and East Asia.

Stakeholder demand is strong in all 15 countries. For example, the council of ministers, including representatives from eight of the top countries in Africa, prioritizes the activities of AfricaRice on a biannual basis. Ten of the 15 are host to CGIAR country policy programs. These programs are initiated upon request from country governments and co-designed to meet country-specific objectives. These on-the-ground presences facilitate close partnerships with key institutions such as ministries of agriculture, planning and finance, regional bodies, and national policy research institutions. In addition, 12 of 15 countries are leading in implementing the Food Systems Declaration from CoP28. The Policy Innovations Program already supports these 12 countries, which aligns with pledged support from the UAE and BMGF.

Finally, regarding collaboration across constituent Initiatives, the chosen focal countries come close to maximizing the geographic overlap of the constituent Initiatives. Market-led transformation AoWs will be active in all 15 countries. Foresight and Prioritization has strong existing capacity in 14 of 15. Overall, three or more of the five AoWs are active in 11 of the 15 countries. Increasing productive collaboration across these 'momentum' activities and, by extension, across AoWs is a priority for the Policy Innovations Program from 2025 onwards.

Table 3.1. List of top 15 focus countries

#	Country	Foresight and Prioritization	Market-led Transformation	Governance and Political Economy	NEXUS Policy Gains	Country Strategy and Engagement
1	Bangladesh	X	X	X	X	X
2	Colombia	X	X	X		
3	Cote d'Ivoire		X	X	X	
4	Egypt	X	X	X		X
5	Ethiopia	X	X	X	X	X
6	Ghana	X	X	X		X
7	India	X	X	X	X	X
8	Kenya	X	X	X		X
9	Malawi	X	X			X
10	Nepal	X	X	X	X	
11	Nigeria	X	X	X	X	X
12	Pakistan	X	X		X	
13	Senegal	X	X			X
14	Tajikistan	X	X		X	X
15	Vietnam	X	X	X	X	

4. Comparative advantage

4.1. Information on high-level outputs

The Policy Innovations Program will deliver 25 high-level outputs through six AoWs. These are listed below and described in greater detail in Section 6 (Areas of Work) and Appendix 2.

4.1.1. AoW 1 – Foresight and Prioritization

- OP 1.1: An annual cycle of outlook reports and policy dialog fora at global, regional, national, and local scales.
- OP 1.2: A series of policy evaluation and policy prioritization reports and dialog fora, particularly at the national level.
- OP 1.3: Country reports analyzing past, present, and potential food crises' impacts on agrifood systems and food security.
- OP 1.4: Leading-edge, open access, and fully documented databases and models.

4.1.2. AoW 2 – Market-led Transformation

- OP 2.1: Best-fit combinations of policy, technological, and institutional innovations that benefit FLW systems actors.
- OP 2.2: Knowledge of how markets are performing and respond to policies and other institutional reforms designed to improve quality, safety, efficiency, and resilience.
- OP 2.3: Evidence on consumer behavior's role in driving sustainable food system transitions.
- OP 2.4: Models of social environments to enable policy, technological, and institutional innovation to transform FLW systems.
- OP 2.5: Methodological innovations for more cost-effective and accurate evaluation of technologies, policies, and institutions.

4.1.3. AoW 3 – Governance and Political Economy

- OP 3.1: Desirable governance and institutional modalities for systems transformation, focusing on areas of natural resource system fragility and social and political disruption.
- OP 3.2: Policy solutions to common pool resource threats and challenges.
- OP 3.3: Impact of food and energy subsidies in FLW systems sustainability, identifying opportunities to build more effective energy, food, and water market institutions.
- OP 3.4: Key policy coherence trends and directions, processes to achieve greater vertical and horizontal coherence.

4.1.4. AoW 4 – Nexus Policy Gains

- OP 4.1: Water, energy, food, and environment (WEFE) nexus models and data on synergies and trade-offs.
- OP 4.2: Empirical evidence on the impacts of socio-technical WEFE Nexus bundles.
- OP 4.3: Knowledge of cross-scale WEFE Nexus impacts.
- OP 4.4: Best practices for inclusive and equitable WEFE Nexus governance.

4.1.5. AoW 5 – Country Strategy and Engagement

- OP 5.1: Evidence-based knowledge related to strategic and policy options that inform policy choices and respond to policy demand.
- OP 5.2: Capabilities to utilize relevant tools and methods and to translate evidence-based knowledge into policy decisions.
- OP 5.3: Connections between key institutions with similar mandates for regional and cross-country learning.
- OP 5.4: Assessment of the impact of national/regional policy strategies on FLW system.

4.1.6. AoW 6 – Policy Knowledge Brokering Hub for pro-poor FLW systems transformation

- OP 6.1: Cross-cutting studies synthesizing the evidence for effective policy interventions at the country level to address priority issues in poverty, inequality, employment, and livelihoods (PIEL) and other outcomes.
- OP 6.2: Policy advice to country governments through innovative, evidence-based, and scalable policy interventions on the five CGIAR Impact Areas.
- OP 6.3: Enhanced repository of models, methods, and tools, as well as policy briefs and other dissemination material on policy knowledge translation, communication, and capacity development sharing.
- OP 6.4: Functional integrated monitoring, evaluation, learning, impact assessment, and Foresight for Policy (MELIAF-P) resource center.

4.2. Needed sources of comparative advantage (CA) in delivering these outputs

Delivering these outputs will require a combination of incentives, human capital, and social capital. These differ across the various outputs (See Appendix 2) but include several common elements:

- Incentives: a commitment to providing food system-related public goods at multiple geographic scales (local, national, regional, and global) and time scales (short-term, medium-term, and long-term), focusing on LMICs.
- Human capital: state-of-the-art analytical tools and capacity in multiple disciplines worldwide, including LMICs.
- Social capital: strong links to research and policymaking partners with complementary capacities in Africa, Asia, Europe, Latin America, and North America.

4.3. CGIAR's sources of comparative advantage in delivering these outputs

CGIAR has the strongest combination of the needed sources of comparative advantage (CA) to deliver these outputs, including social capital in the form of established and growing partnerships with other institutions that have sources of CA complementing those of CGIAR.

- Incentives: CGIAR's mandate and funding sources are committed to providing food system-related public goods at multiple geographic scales (local, national, regional, and

global) and time scales (short-term, medium-term, and long-term), focusing on LMICs. We are also committed to research effectiveness, i.e., for this Program, our results are used to inform policies, programs, strategies, and investments.

- Human capital: CGIAR research staff develop and maintain state-of-the-art analytical tools and capacity in multiple disciplines in Africa, Asia, Europe, Latin America, and North America, focusing on LMICs within a dynamic global context.
- Social capital: CGIAR staff develop and maintain links to key research and policymaking partners with complementary research and institutional capacities in Africa, Asia, Europe, Latin America, and North America.

4.4. Types of partners and their sources of comparative advantage in delivering these outputs

Several types of partners have some of the sources of CA that are needed to deliver these outputs. These include national agricultural research systems (NARES), universities, and private consulting firms.

- NARES have mandates to provide selected national food system-related public goods, staff expertise focused primarily on agricultural production and close links with other national research and policy institutions.
- Universities have mandates to provide selected food system-related public goods, primarily but not exclusively at the national level; analytical tools and capacity in particular fields and geographies; and close links with other research institutions.
- Private consulting firms have mandates to provide private, for-profit consulting services for selected food system-related topics and geographies, analytical tools, expertise for quick-response assessments of particular issues, and links to selected public and private partners.

4.5. Results of the analysis of the trade-offs between CGIAR and partners' sources of CA in delivering these outputs

CGIAR has the most complete set of relevant sources of comparative advantage needed to deliver these high-level outputs. These include a commitment to the provision of FLW system-related public goods at multiple scales, state-of-the-art analytical tools, a particular focus on LMICs within a dynamic global context, and, critically, a strong and growing partnership with other key research and policy institutions around the world that have complementary sources of comparative advantage. Appendix 2 presents the high-level CA analysis carried out at the proposal stage.

5. Program-level theory of change

Policies and institutions are, over time, powerful determinants of outcomes. Sound policies, implemented via increasingly capable institutions, can put in place mutually reinforcing virtuous circles with significant positive implications for all five Impact Areas targeted by CGIAR. The interdependencies across outcomes also imply constraints on development processes. To take just one example, persistent exclusion of specific population segments from growth/development processes can lead to social unrest, which undermines progress across the board, independently of the quality of policy/implementation in other domains. Policymakers are confronted with the challenge of *simultaneously* addressing multiple issues in the context of numerous interrelated and ongoing (mega) trends and pursuing multiple outcomes.

The Policy Innovations Program posits that evidence-based decisions will lead to superior outcomes in this complex context. In collaboration with other Programs and Accelerators, it seeks to identify sound policies, investments, and innovations to improve nutrition, reduce poverty, improve equity, halt biodiversity loss, improve environmental quality, adapt to climate change, and move rapidly to net zero greenhouse gas emissions. To best meet the needs of decision-makers, especially those in central decision-making organs, a distinguishing element of the Policy Innovations Program is that it seeks to identify packages of policies, investments, and innovations that simultaneously achieve all these objectives. This will be done through joint analytics, institutional and technological innovation, and capacity sharing.

Basic principles of the ToC include (i) a strong focus on research quality - because, while improved policies and institutions yield enormous benefits, low-quality information leads to poor decisions and can be very costly; (ii) co-development and capacity sharing because processes need to be owned by key stakeholders to build trust and relationships that enable transformation (a long run process); and (iii) championing policy, technological and institutional innovation, because novel approaches are required to achieve substantial and simultaneous progress across all five CGIAR Impact Areas.

To progress toward our vision of policies and institutions for FLW systems that drive rapid, inclusive transformation, fostering futures where people and planet thrive," the work targets government agencies at different levels, related institutions such as semi-autonomous research institutes and central banks, regional institutions such as the African Union (AU) and the South Asian Association for Regional Cooperation (SAARC), and the policy community broadly defined, including universities, international institutions, civil society, and other FLW system actors.

This progress is operationalized via six AoWs. The first three take specific analytical perspectives, while the others are integrative. Because policymaking, investing, and institutional development are inherently forward-looking exercises, the first AoW, Foresight and Prioritization, aims to draw together as much existing information as possible to, in collaboration with partners, rigorously chart potential future trajectories and develop appropriate policy and investment packages that address the inevitable trade-offs across objectives. The second AoW, Market-led Transformation, seeks to fill critical knowledge gaps to support appropriate technological and institutional innovation development, supportive policies, and innovative ways to harness the power of markets to drive transformative change and bring about desired outcomes. The third AoW, Governance and Political Economy, recognizes that political economy barriers and governance failures can prevent the operationalization of good ideas and seeks to mitigate these constraints.

The fourth AoW focuses on the Water, Energy, Food, and Ecosystem (WEFE) Nexus in locations where this nexus is of particular relevance. The fifth AoW takes a broad national perspective focusing on countries/regions where CGIAR has on-the-ground policy

programs already working with key institutions and individuals. The last AoW aims to highlight cross-cutting areas across the Policy Innovations Program and with other Programs and Accelerators. For example, while each AoW will be responsible for capacity sharing, the cross-cutting AoW will ensure that synergies are realized across the various capacity-sharing efforts.

The combined outputs of the first three AoWs constitute a package— deliberate forward-looking policies and investments, based on solid evidence, that are both politically feasible to become policy and practically feasible to implement. However, to be impactful, these packages must be embedded in specific contexts. The second group of three AoWs draws on the packages within a specific context be it a region, a river basin, a country, or a subnational zone. The various HLOs are clustered into seven aggregated HLOs, as seen in the ToC table and figure.

Positive policy impact is often the result of a delicate mix of consistency and agility. Consistency builds capability and trust, both of which are crucial. Agility recognizes that major reform often occurs in relatively short-lived time windows. Having the ability to provide key inputs at the right moment is crucial. This delicate combination of consistency and agility does not fit easily into the ToC template, but it is crucial to the effectiveness of the Program.

The Policy Innovations Program aims to facilitate more deliberate and evidence-based decision-making through consistent, high-quality, collaborative research that enhances capabilities and deepens trust and an ability to respond at high-leverage moments. The Policy Innovations Program assumes that this will lead to improved decision-making and that better decisions have the potential to deliver strong and positive impact simultaneously across all five Impact Areas.

Figure 5.1. Theory of change at the Program level

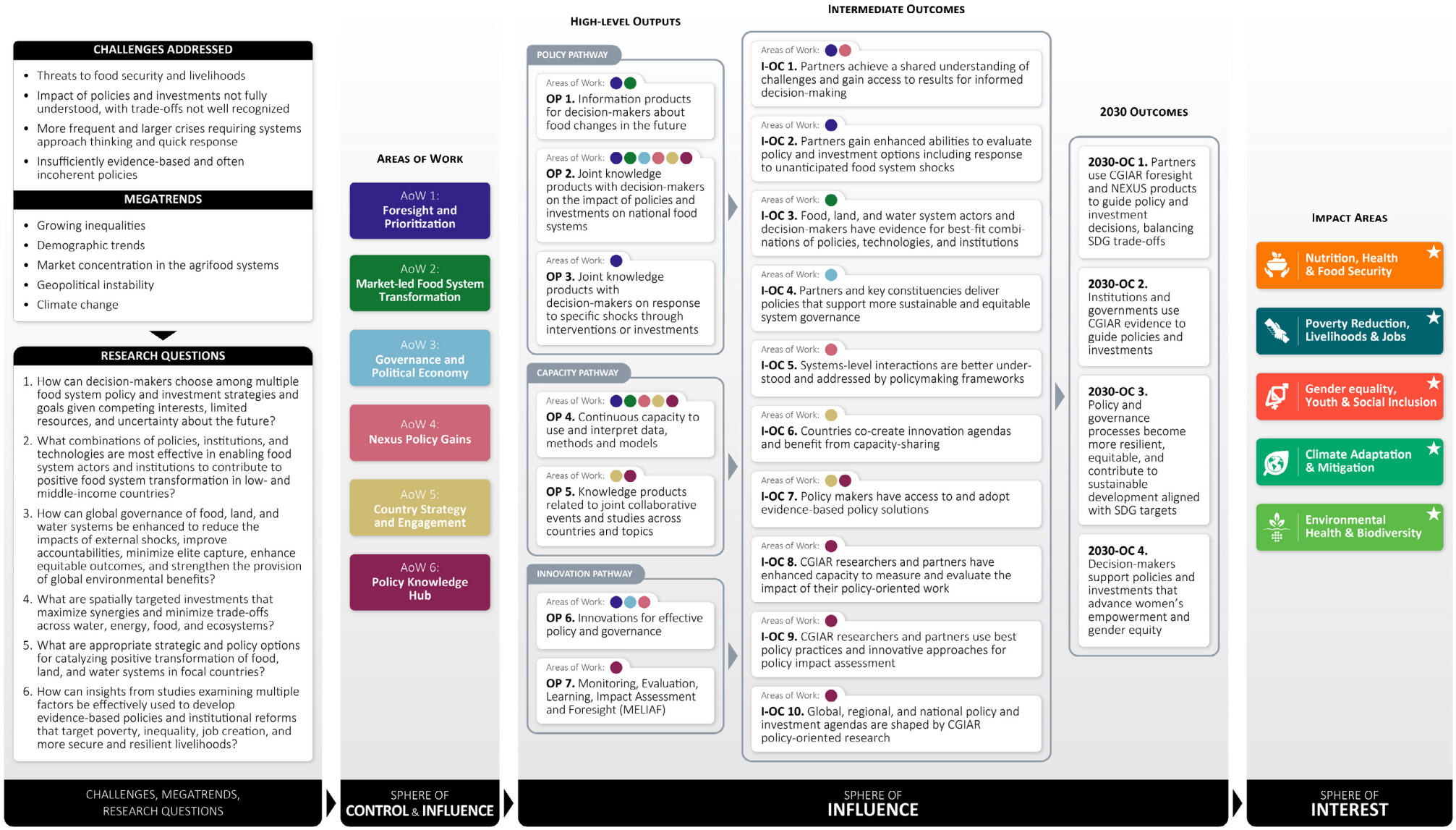


Table 5.1. Theory of change at Program level

ToC element	Statement	Contributing Area of Work #	Partners (including internal) and roles	Assumption (for Outcomes only)	Indicator and target (for 2030 Outcomes only)
Aggregated outputs					
Aggregated OP1	Information products for decision-makers about food system changes in the future	1, 2	NARES: national data and modeling inputs Universities: global and regional modeling inputs National statistical agencies: data International organizations: methodology, data analysis	Not required	Not required
Aggregated OP2	Joint knowledge products with decision-makers on the impact of policies and investments on national food systems	1, 2, 3, 4, 5, 6	National policy research institutes: modeling inputs and study co-design International organizations: data Government Ministries: policy inputs International organizations: methodology data analysis Partner universities: study co-design, data collection and analysis NARES: study co-design, data collection and analysis FLW system actors: study co-design and testing; validation of policies, institutional and technological innovations River basin organizations: policy inputs; study co-design and testing	Not required	Not required
Aggregated OP3	Joint knowledge products with decision-makers on response to specific shocks through interventions or investments	1	National policy research institutes: modeling inputs Government Ministries: policy inputs	Not required	Not required
Aggregated OP4	Continuous capacity to use and interpret data, methods and models	1, 2, 4, 5, 6	NARES: national data and modeling inputs National policy research institutes: data and modeling International organizations: data River basin organizations: data and models CGIAR Centers: model parameters	Not required	Not required
Aggregated OP5	Innovations for effective policy and governance	2, 3, 4	NARES: national data, modeling inputs, and analysis Universities: analysis FLW system actors: testing and validation of policies, institutional and technological innovations Government ministries: policy inputs; testing and validation Key constituencies and stakeholders: study co-design Civil society partners: study co-design River basin organizations: study co-design	Not required	Not required
Aggregated OP6	Knowledge products related to joint collaborative events and studies across countries and topics	5, 6	Country governments, regional institutions, private sector, and civil society: collaboration and partnership	Not required	Not required
Aggregated OP7	MELIAF	6	CGIAR researchers: data, resources, expertise	Not required	Not required

ToC element	Statement	Contributing Area of Work #	Partners (including internal) and roles	Assumption (for Outcomes only)	Indicator and target (for 2030 Outcomes only)
Intermediate outcomes					
I-OC1.1	Partners achieve a shared understanding of emerging challenges in food systems and gain access to cutting-edge foresight data, tools, and analysis for informed decision-making considering system-level interactions	1, 4	National governments, research institutes, universities, ARs: use of foresight and nexus tools and analysis in decision-making Development partners: use of foresight and nexus analysis in development support CGIAR researchers: use of foresight and nexus tools and analysis to guide research priorities National policy research institutes: modeling inputs Government Ministries: policy inputs	Partners are willing to use program data and tools; partners' priorities are relatively constant (data and tools remain relevant to partners); trade-offs are sufficiently acknowledged by partners	Not required
I-OC1.2	Partners gain enhanced abilities to evaluate and prioritize policy and investment options and strengthen their capacity to respond effectively to unanticipated food system shock	1	National governments, research institutes, universities, ARs: use of foresight and nexus tools and analysis in decision-making Development partners: use of foresight and nexus analysis in development support CGIAR researchers: use of foresight and nexus tools and analysis to guide research priorities	Data are available; funding is available to work on unanticipated system shocks	Not required
I-OC 2.1	FLW system actors and decision-makers have empirical evidence on the best-fit combination of policies, technologies, and institutions and how food land, and water systems actors react, value, and benefit from these interventions	2	NARES: scaling of the generated evidence Private sector and FLW system actors: scaling and adoption of the generated evidence Development partners: scaling of the generated evidence	Scaling mechanism to reach FLW system actors, governments, and decision-makers available	Not required
I-OC 3.1	Partners and key constituencies deliver policies that support more sustainable and equitable food, land, and water system governance in the face of global systemic threats	3	National governments, partner universities, NARES, think tanks: study co-design, key constituencies, stakeholders, and civil society partners: cross-validation of insights National governments: adoption of the generated insights in decision-making	Willingness to adopt changes based on insights delivered	Not required
I-OC 4.1	System-level interactions in FLW are better understood and addressed by policymaking frameworks	4	National governments, research institutes, universities, ARs: use of foresight and nexus tools and analysis in decision-making Development partners: use of foresight and nexus analysis in development support CGIAR researchers: use of foresight and nexus tools and analysis to guide research priorities	Nexus solutions address key concerns and priorities of Government stakeholders	Not required
I-OC 5.1	Countries co-create innovation agendas and benefit from capacity-sharing in the implementation of Program activities	5	Relevant government ministries and departments: use of tools, methods, and results	Ability and willingness to engage; relatively stable political agenda (Program engagement remains relevant)	Not required
I-OC 5.2	policymakers at national and regional level have access to and adopt evidence-based policy solutions on poverty, inequality, employment, and livelihoods	5, 6	Relevant government ministries and departments; regional organizations: use of tools, methods, and results	Ability and willingness to engage; relatively stable political agenda (Program engagement remains relevant)	Not required

ToC element	Statement	Contributing Area of Work #	Partners (including internal) and roles	Assumption (for Outcomes only)	Indicator and target (for 2030 Outcomes only)
I-OC 6.1	CGIAR researchers and partners have enhanced their capacity to measure and evaluate the impact of their policy-oriented work on poverty, inequality, employment, and livelihoods	6	CGIAR researchers and research partners: use of tools and methods	Funding is available; agreement on a common framework	Not required
I-OC 6.2	CGIAR researchers and partners use best policy practices and innovative approaches for policy impact assessment	6	CGIAR researchers and research partners: use of common impact assessment framework and agreement on topics	Funding is available; agreement on a common framework	Not required
I-OC 6.3	Global, regional, and national policy and investment agendas on poverty reduction, inequality mitigation, employment conditions, and more secure and resilient livelihoods are shaped by CGIAR policy-oriented research	6	National, regional, and international decision-makers: willingness to use CGIAR results	CGIAR is given the opportunity to contribute to these agendas	Not required
2030 Outcomes					
2030- OC1	National, regional, and global partners use, maintain and continuously develop CGIAR foresight and NEXUS data, results, and tools to guide their policy and investment decisions considering trade-offs between SDGs	1, 4, 5, 6	National governments, research institutes, universities, ARs: use of foresight and nexus tools and analysis in decision-making Development partners: use of foresight and nexus analysis in development support CGIAR researchers: use of foresight and nexus tools and analysis to guide research priorities	Partners have the willingness to use Program data and tools; partners' priorities are relatively constant (data and tools remain relevant to partners); trade-offs are sufficiently acknowledged by partners	35 partners use foresight and nexus data, results, or tools
2030- OC2	Global and regional institutions, and national and subnational government agencies use CGIAR evidence to guide pro-poor, inclusive, and climate-smart policies and investments	1, 2, 3, 4, 5, 6	Governments, regional and international bodies, development partners, donors, and investors: use of Program results to shape their policies and investments	FLW system actors, governments, and decision-makers are willing to use evidence in decision-making and policy formulation; political processes and shocks do not override evidence from research	55 institutions and agencies shape their policies or investments using evidence from the Program
2030- OC3	Policy and governance processes are better able to withstand pressures and shocks, are more equitable in their design and functioning, and contribute to more coherent and sustainable development processes that deliver positive outcomes across a range of SDG targets	1, 3, 4, 5, 6	Governments, regional and international organizations: use of Program approaches on policy and governance	Data and expertise available at country and organization level; political willingness to use a system approach	Program results shape 10 policy or governance processes
2030- OC4	Decision-makers and partners support policies and investments that support progress toward women's empowerment and gender equity	1, 2, 3, 6	Governments, regional and international organizations include gender equity considerations in policies using Program tools or results	Gender equity remains a key topic at policy level; decision-makers recognize the role of gender equity in delivering the other SDGs	25 institutions and agencies include women's empowerment and gender equity in their policies or investments

Note: indicators and targets will be revised during the Inception Phase.

6. Areas of Work

This section describes the six Areas of Work (AoWs).

6.1. AoW 1: Foresight and Prioritization

6.1.1. Overall ambition

The Foresight and Prioritization Area of Work will contribute to one overarching objective, i.e., that national, regional, and global partners gain enhanced skills and access to state-of-the-art foresight modeling tools, data, and metrics and contribute to and use foresight analysis to inform their decisions about policies, budgets, and investments to transform food, land, water, and economic systems in ways that improve nutrition, livelihoods, gender equity, social inclusion, climate adaptation and mitigation, and environmental outcomes. To help achieve this overarching objective, the Foresight and Prioritization Area of Work will contribute to two specific intermediate outcomes:

1. Partners achieve a shared understanding of emerging challenges and trends in food systems and gain access to cutting-edge foresight data, tools, and analysis for informed decision-making considering system-level interactions.
2. Partners gain enhanced abilities to evaluate and prioritize policy, budget, and investment options and strengthen their capacity to respond effectively to unanticipated food system shocks.

6.1.2. Research questions

This AoW will contribute to these outcomes by addressing the following research questions:

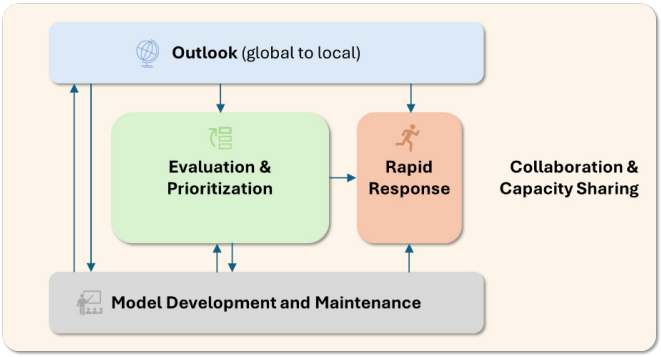
- How will global, regional, and national food systems evolve over the coming years and decades in ways that present new challenges and opportunities for decision-makers at multiple levels? (considering factors such as changing demographics, economic growth, diets, technological innovation, land and water resources, climate, markets and trade, fiscal constraints, and others)
- What significant food system policy and investment options are available to decision-makers to achieve development goals, and what are their benefits and costs?
- How can decision-makers choose among multiple food system policy options, investment strategies, and goals given competing interests, limited resources, and uncertainty about the future?
- What are the likely impacts of unanticipated food system shocks within and across countries, and what rapid response options are available to decision-makers that are consistent with their fiscal capacities and longer-term development goals?
- How can we ensure that our partners have access to the best available and most up-to-date foresight data, tools, and analysis to inform food system decision-making?

Policy partners and other decision-makers have raised these questions during implementation of the Foresight Initiative, related bilateral work, and the development of the program. They are gaining increasing urgency and attention but are rarely addressed using rigorous quantitative foresight analysis combined with policy engagement that accounts for complex food system interactions and trade-offs while focusing on the specific concerns and needs of decision-makers in LMICs. Doing so requires a specific mix of incentives and capabilities. CGIAR helps address these questions through capacity sharing and collaborative research using state-of-the-art modeling tools, analytical expertise, and experience engaging closely with research and decision-making partners in Africa, Asia, and Latin America (as well as high-income countries). (See Section 4 for more on CGIAR's comparative advantage in this area).

6.1.3. Research activities

The Foresight and Prioritization Area of Work will draw on insights gained from the CGIAR Foresight Initiative, the CGIAR National Policies and Strategies Initiative, and related project experience. A number of activities in those Initiatives and projects have been completed and will be discontinued or scaled back, including country diagnostic reports and updating modeling tools to the latest IPCC climate results. Going forward, the Foresight and Prioritization Area of Work will address the urgent challenges and questions identified above through an integrated approach built on three research activities and one support activity. Each of these activities incorporates a combination of enhanced and new elements, and each will generate one high-level output and several more specific outputs.

Figure 6.1. Links across activities



6.1.3.1. Global-to-local outlook

This activity analyzes historical trends and current conditions. It also conducts foresight modeling to anticipate emerging challenges (including changes in demand, technology, climate, and trade patterns) that will confront food systems or be generated by food systems and to explore their potential impacts from global-to-local scales (with a particular focus on LMICs) and from several years to several decades into the future. This will be done in close collaboration with leading global, regional, and national research partners. This activity will also help identify opportunities to alter future food system trajectories through strategic policy, budgetary, and investment choices. The high-level output from this research activity will be a new annual cycle of outlook reports and policy dialog fora at various scales. Specific outputs will include periodic thematic outlook reports on the five CGIAR Impact Areas and other special topics and country thematic outlook reports relating to NDPs, NDCs, and other policy needs.

6.1.3.2. Evaluation and prioritization

This activity will draw on ex post and ex ante impact assessment and impact evaluation methodologies and foresight modeling to evaluate alternative possible policy, budget, and investment scenarios and options and help decision-makers prioritize among them. This considers potential benefits, costs, synergies, and trade-offs in the context of resource constraints and multiple competing interests and goals faced by decision-makers. The activity will focus on informing decision-making at the national level, in close collaboration with national research and policy partners (in about 15 countries) but will also engage with decision-makers at global, regional, and subnational levels as appropriate. The high-level output from this research activity will be a series of policy evaluation and policy prioritization reports and dialog fora, particularly at the national level. Specific outputs will include periodic ex ante evaluation reports for specific large-scale national policies and interventions (including repurposing agricultural subsidies) and country prioritization reports identifying the most cost-effective technologies, policies, and investments to drive sustainable and inclusive agricultural transformation.

6.1.3.3. Rapid response

This activity will use available CGIAR models and data to rapidly analyze the impacts on food systems, poverty, and malnutrition of global and local crises (including those triggered by conflict, weather, and international trade shocks) and to identify suitable, cost-effective policy responses. The activity builds on recent rapid analyses of the impacts of COVID-19, the Ukraine war, the Sudan conflict, and El Niño. Beyond recognized crises, the activity will also respond to governments' urgent requests to inform strategy and policy design (including preparedness plans to mitigate the risks and impacts of shocks that can be anticipated in advance). The high-level output from this research includes country reports analyzing past, present, and potential food crises impacts on agrifood systems and food security. Specific outputs include cross-country studies of global and local crises when they occur, periodic country reports responding to requests for modeling support, and periodic research papers studying policies and other drivers of agrifood system resilience to shocks.

6.1.3.4. Model development, maintenance, and dissemination

This activity will invest in ongoing maintenance and upgrading key CGIAR modeling and data systems to ensure that the tools, capacity, and analytics shared with our partners through research activities 6.1.1 – 6.1.3 are the best available and ready to meet their needs. The high-level output from this support activity will be up-to-date, open access, and fully documented databases and models. Specific outputs will include documented and openly accessible updates to data, parameters, and code for the IMPACT and RIAPA global and country partial and general equilibrium modeling systems (among others) and improved links with other CGIAR models focusing in more detail on specific sub-sectors.

These activities will involve close collaboration and capacity sharing with partners, and with Nexus Policy Gains (AoW 4), Country Strategy and Engagement (AoW 5), and the other AoWs in the Policy Innovations Program.

Figure 6.2. AoW 1 Foresight and Prioritization ToC

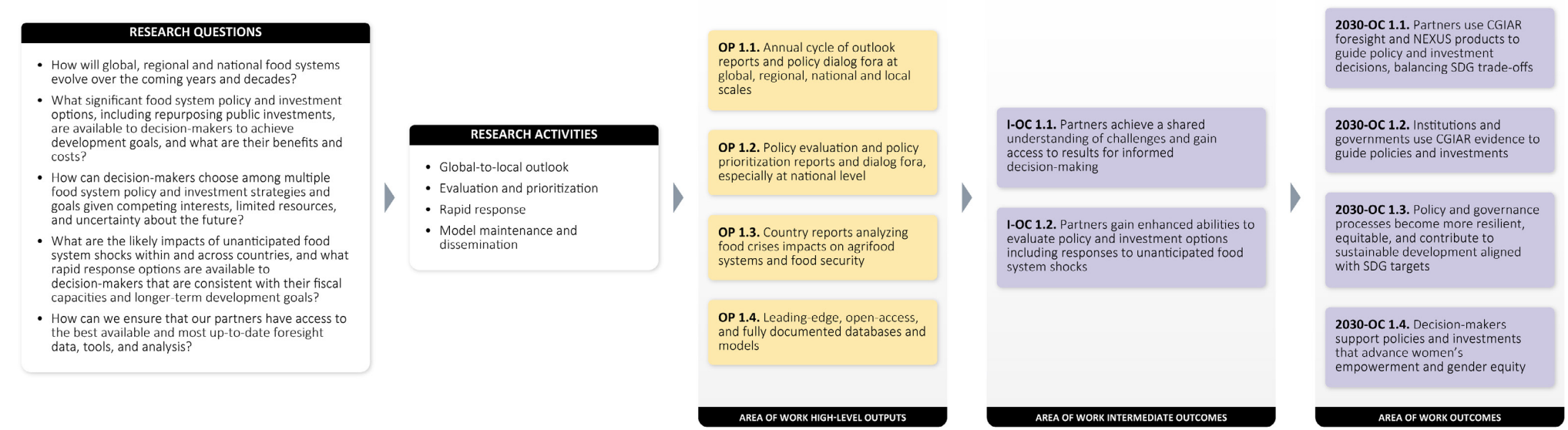


Table 6.1. Theory of change: Foresight and Prioritization

ToC element #	Statement	Partners (including internal) and roles	Assumption (for Outcomes only)	Indicator and target (for 2030 Outcomes only)
OP 1.1	Outlooks prepared and dialog fora hosted	NARES: national data and modeling inputs Universities: global and regional modeling inputs International organizations: data	Not required	Not required
OP 1.2	Policies, budgets, and investments evaluated and prioritized	National statistical agencies: data National policy research institutes: modeling inputs Government Ministries: policy inputs	Not required	Not required
OP 1.3	Rapid response challenges identified and analyzed	National policy research institutes: modeling inputs Government Ministries: policy inputs	Not required	Not required
OP 1.4	Models and databases updated, documented, and made accessible	NARES: national data and modeling inputs International organizations: data CGIAR Centers: model parameters	Not required	Not required
I-OC 1.1	Partners achieve a shared understanding of emerging challenges in food systems and gain access to cutting-edge foresight data, tools, and analysis for informed decision-making considering system-level interactions	NARES: national data and modeling inputs Universities: global and regional modeling inputs International organizations: data	FLW system actors, governments, and decision-makers actively use foresight tools and analysis in decision-making and policy formulation	Not required
I-OC 1.2	Partners gain enhanced abilities to evaluate and prioritize policy, budgets, and investment options and strengthen their capacity to respond effectively to unanticipated food system shock	NARES: national data and modeling inputs Universities: global and regional modeling inputs International organizations: data	FLW system actors, governments, and decision-makers have an increased capacity to understand and use foresight tools and analysis in decision-making and policy formulation	Not required
2030-OC 6.1.1	National, regional, and global partners use, maintain, and continuously develop CGIAR foresight and NEXUS data, results, and tools to guide their policy, budget, and investment decisions considering trade-offs between SDGs	National governments, research institutes, universities, ARs: use of foresight and nexus tools and analysis in decision-making Development partners: use of foresight and nexus analysis in development support CGIAR researchers: use of foresight and nexus tools and analysis to guide research priorities	Partners have the willingness to use Program data and tools; partners' priorities are relatively constant (data and tools remain relevant to partners); trade-offs are sufficiently acknowledged by partners	35 partners use Program data, results or tools [with overlaps with OC2]
2030-OC 6.1.2	Global and regional institutions, national and subnational government agencies use CGIAR evidence to guide pro-poor, inclusive, and climate-smart policies and investments	Governments, regional and international bodies, development partners, donors, and investors use of Program results to shape their policies and investments	FLW system actors, governments, and decision-makers are willing to use evidence in decision-making and policy formulation; political processes and shocks do not override evidence from research	55 institutions and agencies shape their policies or investments using evidence from the Program [with overlaps with OC1]
2030-OC 6.1.3	Governance and policy and processes are better able to withstand pressures and shocks, are more equitable in their design and functioning, and contribute to more coherent and sustainable development processes that deliver positive outcomes across a range of SDG targets	Governments, regional and international organizations: use of Program approaches on policy and governance	Data and expertise available at country and organization level; political willingness to use a system approach	Program results shape 10 policy or governance processes
2030-OC 6.1.4	Decision-makers and partners support policies and investments that support progress toward women's empowerment and gender equity	Governments, regional and international organizations: include gender equity considerations in policies using Program tools or results	Gender equity remains a key topic at policy level; decision-makers recognize the role of gender equity in delivering the other SDGs	25 institutions and agencies include women's empowerment and gender equity in their policies or investments

6.2. AoW 2: Market-led Food System Transformation

6.2.1. Overall ambition

Policies and technological and institutional innovations are ways to boost agricultural productivity, market efficiency, and economic growth in low- and middle-income countries (LMIC). Yet many people still experience poverty and hunger, and many are unable to benefit from expanding opportunities in markets for food and agriculture. Furthermore, many of the agricultural value chains in LMICs are still characterized by weak competition, inefficiency, and limited participation of marginalized social groups, including women and youth. These market characteristics limit the potential impacts of innovations for many value chain actors.

Many of the desired features of a food system transformation should be market-led to be viable and sustainable. However, Market-led Transformation requires best-fit combinations of technological and institutional innovations, supportive policies, and innovative ways to identify and address market failures. This AoW focuses on filling critical knowledge gaps to support such transformative change in a way that policies, institutions, and technologies effectively enable food system actors and the markets and institutions that connect them to support change processes that are technically efficient, economically beneficial, socially inclusive, environmentally sustainable, and resilient to shocks.

6.2.2. Research questions

The overarching research question of this AoW is: What combinations of policies, institutions, and technologies are most effective in enabling food system actors, markets, and institutions to support positive food system transformation in LMICs?

Specific research questions include:

- How can demand-driven innovations contribute to the transformation of the food system? A core function of CGIAR and its partners is to develop and scale technology, policy, and institutional innovations. While the historical record shows low success in supply-driven and isolated innovations, there is considerable recognition that demand-driven processes can be a more effective means of transformation.
- What public investments are required to facilitate a market-led transformation of FLW systems toward the achievement of multiple development objectives? Answering this question will build on existing CGIAR work on repurposing public investments.
- What strategies and institutions can effectively enable markets to incentivize quality and safety upgrading along the value chain? Examples include innovations that lower the cost of certification and other efforts to make unobservable aspects of product quality visible.
- What policy levers and financial products can improve the competitiveness and resilience of value chains? We will leverage ongoing work from the Rethinking Food Markets Initiative. New activities include how policies shape competition characteristics of domestic markets.
- How do consumer choices affect environmentally sustainable value chain development and how can they be shaped to provide more incentives for sustainable practices? This work will analyze consumer behavior in affecting sustainable agricultural practices and value chains development.
- How can social safety nets and targeted livelihood interventions best ensure that agricultural transformation is inclusive and equitable?

6.2.3. Research activities

The Market-led Transformation AoW is structured around four Sub-AoW: demand-driven innovation co-design and evaluation, market transformation, consumer behavior, and enabling institutions.

6.2.3.1. Demand-driven innovation co-design and evaluation

To realize the potential impact of innovations, there is a need to design and evaluate demand-driven, best-fit innovation bundles. The lack of uptake of innovations at scale is a major barrier to achieving development goals. This Sub-AoW will use field experimental methods and household and individual-level data to co-design, experiment, and evaluate socio-technical innovation bundles and packages (technological, institutional, and policy innovations) in the real world with our partners. Demand-pull approaches driven by direct and indirect beneficiaries will be prioritized, as opposed to traditional supply-push approaches. As a complement to activities in other Programs, policy and institutional measures will, in most cases, be the core innovations. The Sub-AoW will co-design and evaluate the impacts of best-fit and combined market products (credit and insurance services; input and output contractual arrangements; digital advisory services) with policy interventions (input subsidies), institutional changes (gender-transformative interventions that encourage role modeling and shape aspirations among women and girls, business models that fits the needs of youth and women) and technologies (varieties and breeds, agronomic and post-harvest practices). Investment cases will be developed based on pre-tested innovations to achieve development policy goals. This Sub-AoW will also us to undertake ex post evaluations to generate evidence of long-term and large-scale uptake and impacts of innovations on CGIAR Impact Areas.

6.2.3.2. Transformative markets

Input and output markets are critical in food systems transformation, conditioning the efficiency of food distribution from producers to consumers, the equity of opportunities for value chain participants, and the scope for rural transformation through value addition. This Sub-AoW addresses weaknesses and inefficiencies in the market institutions that define value chains and food systems.

Producers are often asked implicitly, through agricultural sector strategies and other policy objectives, to generate positive externalities, such as higher quality grain or specific attributes. To better inform decisions, there is a need for research on where markets fail to provide incentives for such change and what (technical, institutional) innovations can address such failures. This work would build on complementary disciplinary expertise available across CGIAR Centers. Key activities will include measuring the value of (positive and negative) externalities generated by small-scale farming through the use of particular technologies and practices; understanding who wins and loses with improved quality attribute discoverability; and assessing the competitiveness and resilience of value chains, such that new opportunities for value addition and external trade are fully realized as engines of economic growth. Across such questions, attention will be given to the distributional impacts (e.g., gendered outcomes) of alternative policies and institutional innovations.

6.2.3.3. Harnessing consumer behavior for sustainable food systems transitions

This Sub-AoW aims to assess consumer behavior's role in driving environmentally sustainable agricultural practices and value chain development. The research will be focused on understanding the dynamics of demand and identifying leverage points where consumer demand can be influenced to support eco-friendly agricultural practices and foster more sustainable value chain development. This Sub-AoW of activities will provide evidence-based recommendations for policymakers, businesses, and civil society organizations to harness the potential of consumer choice as a catalyst for environmental sustainability and value chain development, ensuring that the benefits reach vulnerable smallholder actors.

To achieve the objectives of this work package, insights on preferences, attitudes, and barriers to adopting environmentally sustainable consumer choices, with tailored surveys targeting different demographics, will be analyzed. Behavioral experiments will be used to test interventions aimed at influencing consumer choices. Economic modeling will analyze the impact of consumer demand on food supply chains while also assessing the cost-effectiveness of interventions.

6.2.3.4. Enabling environment for inclusive market and value chain transformations

An enabling environment is crucial for driving technological and institutional change among smallholder actors because it addresses the structural barriers and market failures that often impede the adoption of new technologies. This Sub-AoW aims to assess the role of safety nets and targeted livelihood interventions to improve the potential for low-income households to adopt promising agricultural and livestock technologies. The Sub-AoW will also assess targeted cash transfers and other social protection modalities bundled with complementary market-oriented technology packages to strengthen the poverty-reducing effects of both the transfers and the technologies. Affordability is an important aspect of food demand, which should be enhanced by promoting pro-poor development policies. All these will be supported by assessments of risk and ambiguity on the adoption of institutional and technological innovations.

Figure 6.3. AoW 2 Market-led Transformation ToC

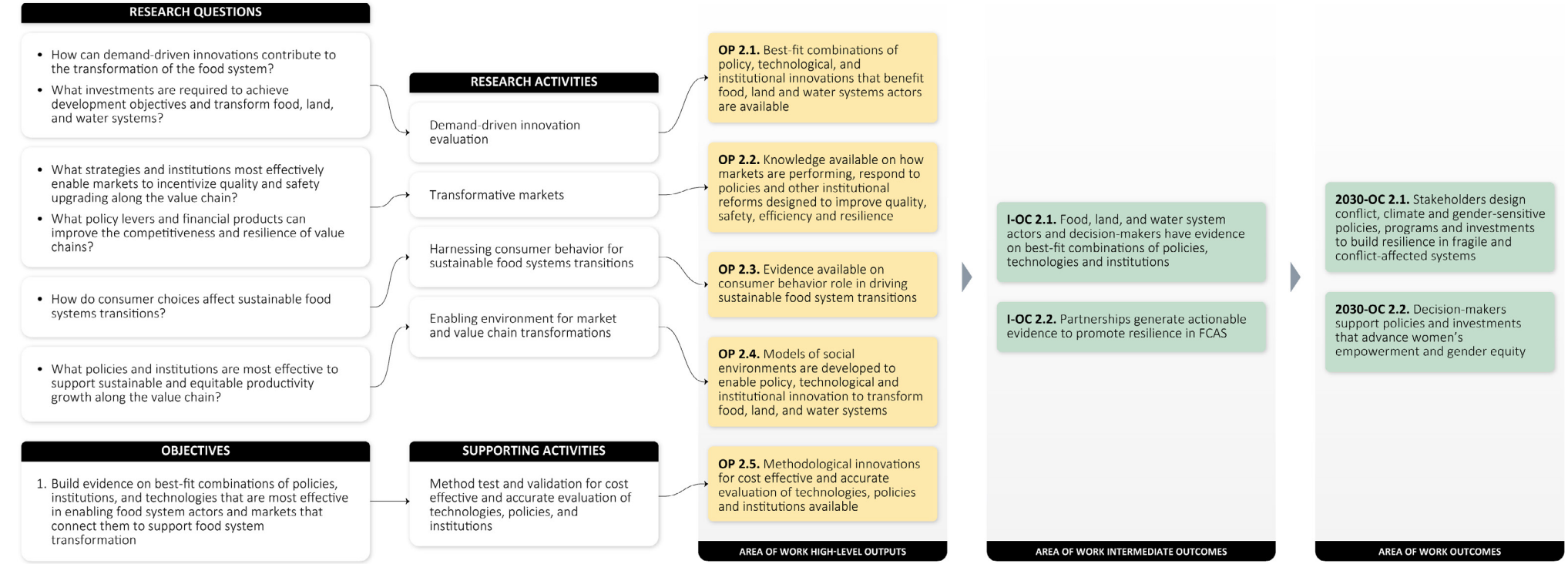


Table 6.2. Theory of change: Market-led Transformation

ToC element	Statement	Partners (incl. internal) and roles	Assumption (Outcomes only)	Indicator and target (2030 Outcomes only)
OP 2.1	Best-fit combinations of policy, technological, and institutional innovations that benefit FLW systems actors are available	NARES: national data collection and analysis Universities: Data analysis International organizations: Methodology Data analysis Private sector and FLW system actors: Test and validation of policies, institutional and technological innovations	Not required	Not required
OP 2.2	Knowledge available on how markets perform and respond to policies and other institutional reforms designed to improve quality, safety, efficiency, and resilience		Not required	Not required
OP 2.3	Evidence available on consumer behavior's role in driving sustainable food system transitions		Not required	Not required
OP 2.4	Models of social environments developed to enable policy, technological, and institutional innovation to transform the FLW system		Not required	Not required
OP 2.5	Methodological innovations for a more cost-effective and accurate evaluation of technologies, policies, and institutions available		Not required	Not required
I-OC 2.1	FLW system actors and decision-makers have empirical evidence on the best-fit combination of policies, technologies, and institutions and how FLW systems actors react, value, and benefit from these interventions	NARES: scaling of the generated evidence Private sector and FLW system actors: scaling and adoption of the generated evidence Development partners: scaling generated evidence	Scaling mechanism to reach FLW system actors, governments, and decision-makers available	Not required
2030-OC 2.1	Global and regional institutions, national and subnational government agencies use CGIAR evidence to guide pro-poor, inclusive and climate-smart policies and investments	National governments: adoption of the generated evidence in decision-making Development partners: adoption of the generated evidence in development support	FLW system actors, governments, and decision-makers actively use generated evidence and data in decision-making and policy formulation	Indicator: Number of investments, policies, and institutions informed by generated evidence Targets: At least 30 investments, policies, and institutions informed by generated evidence
2030-OC 2.2	Decision-makers and partners support policies and investments that support progress toward women's empowerment and gender equity	National governments: adoption of the generated evidence in decision-making Development partners: adoption of the generated evidence in development support	Gender equity remains a key topic at policy level; decision-makers recognize the role of gender equity in delivering the other SDGs	Indicator: Number of institutions and agencies, including women's empowerment and gender equity in their policies or investments Targets: At least 30 25 institutions and agencies include women's empowerment and gender equity in their policies or investments

6.3. AoW 3: Governance and Political Economy

6.3.1. Overall ambition

Policies to strengthen food, land, and water (FLW) systems in the face of global mega trends often encounter diverse governance and political economy challenges hindering effective policy design, adoption, and implementation. The Governance and Political Economy (GPE) AoW brings state-of-the-art understanding of these political economy and governance challenges across the CGIAR Portfolio and works with partners to identify solutions under three main activities: Governance, Rights and Institutions (GRI); Political Economy of Decision-making (PEDM); Policy Coherence and Metrics (PCM).

These Sub-AoWs will bring new insights into current institutional and policy processes, strengthen political feasibility and coherence of policy interventions, support innovations in capacity to overcome bottlenecks and ensure that policy processes and institutional environments in which they are delivered are inclusive, rights-focused, and gender transformative.

Governance and Political Economy will work with Foresight and Prioritization to strengthen the political-economic feasibility of first-best investment options, identify governance prerequisites for integrated management of water, food, and ecosystems under Nexus Policy Gains, and bring institutional and political insights to inform Country Strategy and Engagement. Governance and Political Economy will also contribute to the Knowledge Brokering Hub by supporting policy coherence across Program engagement at country and regional levels, building communities of policy practice.

Expected outcomes are:

- Partners and key constituencies deliver policies that support more sustainable and equitable food, land, and water system governance in the face of global systemic threats.
- Partners and key constituencies are equipped to support more coherent, equitable, and inclusive policy and institutional processes.
- Partners and key constituencies manage power and political-economic challenges more effectively to overcome long-term barriers to transformation and tackle more immediate shocks and crises.

6.3.2. Research questions

This AoW will address the following research questions:

- What are the new and emerging governance and rights challenges (and solutions) in FLW systems transformation across multifunctional landscapes?
- How can global governance of FLW systems be enhanced to reduce the impacts of external shocks, improve accountabilities, minimize elite capture, enhance equitable outcomes**,** and strengthen the provision of global environmental benefits?
- How can formal and informal institutions, at both local and national levels, engage the priorities of diverse stakeholders – including the most marginalized and women and youth – in complex policy formulation and implementation?
- What key governance risks and opportunities arise with new frontiers in common pool and open access resource development and use?
- How do patterns of power and coalitions of interest in different geographical and institutional contexts shape policy processes and outcomes, and how can political incentives enable more equitable and sustainable transformations in FLW systems?
- How can countries and regions improve policy coherence from policy design to implementation across sectors and from national to local levels, including strengthening key stakeholder engagement at different levels?

6.3.3. Research activities

6.3.3.1. Governance, rights, and institutions

Political economy of food, land, and water systems: A program of cross-country work including diverse natural resource systems, trade structures, political regimes, and private and public sector institutions, focuses on the political economy of FLW systems and how sector narratives (including food sovereignty) and coalitions shape their evolution and governance across diverse, often contested, landscapes.

Institutional environments for FLW system transformation: Cross-country analyses of institutional modalities at national and local levels (e.g., agricultural transformation agencies, agricultural innovation and extension systems, water apex institutions, and multistakeholder platforms) identifies their effectiveness in facilitating complex FLW policy implementation, incorporating diverse voices, and promoting accountability for performance.

Global governance of FLW systems: Landscape analysis of structural vulnerabilities in global governance mechanisms that weaken systems and whether proposed mechanisms for addressing these vulnerabilities are feasible.

Challenges to common pool resources: Co-developed policy analyses of challenges to common pool resources include areas where (property) rights, ownership, and resource exploitation are trigger points for conflict, including, but not limited to, wetlands and pastoral areas in Africa, and coastal fisheries in the Asia-Pacific.

The evidence-based and co-developed research will examine key system interactions between natural resources, socioeconomic structures, and political systems by working with partner universities, national research institutes, governments, and think tanks in Asia, Africa, and Latin America. The research will use frameworks from the Political Economy and Policy Analysis (PEPA) Sourcebook (Mockshell, J. et al., 2023), and analytical tools such as qualitative, quantitative, mixed methods, discourse and narrative analysis (van Dijk, 1996; Roe, 1994; Mockshell and Birner, 2020) as well as the NPS Initiative Policy and Institutional Landscape Analysis.

Outputs are:

OP1: New governance and institutional modalities, policy programs and options for FLW systems transformation, focusing on areas of natural resource system fragility and social and political disruption.

OP2: Policy solutions to common pool resource threats and challenges.

6.3.3.2. Political economy of decision-making

Policy on subsidies: Political incentives rather than local needs may shape policy on agricultural subsidies, generating negative environmental impacts and undermining efforts at systems

transformations. A program of co-designed studies in Asia, Africa, MENA, LAC, and South Asia will examine food subsidy markets and policy environments, as well as impacts at local, basin, land/seascape, and regional economic community scales where food and energy subsidies play a significant role in FLW systems sustainability.

Investment decision-making: Decision-making on FLW system investment varies extensively in terms of visibility, targetability, and geographical reach. Targeted comparative analyses will examine how political and business elites, as well as producers, fishers, farmers, and pastoralists influence decision-making processes and shape investment choices and outcomes, with attention to opportunities for meaningful involvement of women, youth and marginalized groups.

Trade and fiscal policy: Rising energy, food, water, and other prices confront consumers across geographies driven by disrupted trade, resource scarcities, market fragmentation, and geopolitical tensions. New research will identify influential actors in policy-setting, enabling targeted support to poor consumers facing livelihood impacts.

Outputs are:

OP3: Knowledge of the impact of food and energy subsidies on FLW systems sustainability, identifying opportunities to repurpose subsidies and build more effective energy, food, and water market institutions

OP4: New communities of practice at national and regional scales are supported, bringing together decision-makers and other key stakeholders to strengthen policy design and implementation.

6.3.3.3. Policy coherence and metrics

Responding to incoherence: Building on work under NPS, new research examines core policy coherence challenges involving trade-offs and contested policy narratives in Asia and Africa across diverse policy environments from migration policy, livestock, and transboundary mobility to wetlands conservation and development. Mixed-methods approaches will include the use of the NPS Initiative Policy and Institutional Landscape Analysis Framework (Nicol and Schutter, 2024, forthcoming) and comparative policy analysis, ethnography, and governance and power analysis.

A program of collaborative work with government and civil society partners in Asia, Africa, and Latin America, as well as international partners (including GEF and OECD) on policy trends and directions, supports policy design and implementation to achieve greater coherence and links across to work in Nexus Policy Gains on trade-offs and policy optimization. It aims to identify opportunities for next-generation Global Environmental Benefits through greater policy coherence, including work with GEF on the GEF9 replenishment.

The output is OP5: Key policy coherence trends and directions, processes to achieve greater vertical and horizontal coherence.

Figure 6.4. AoW 3 Governance and Political Economy ToC

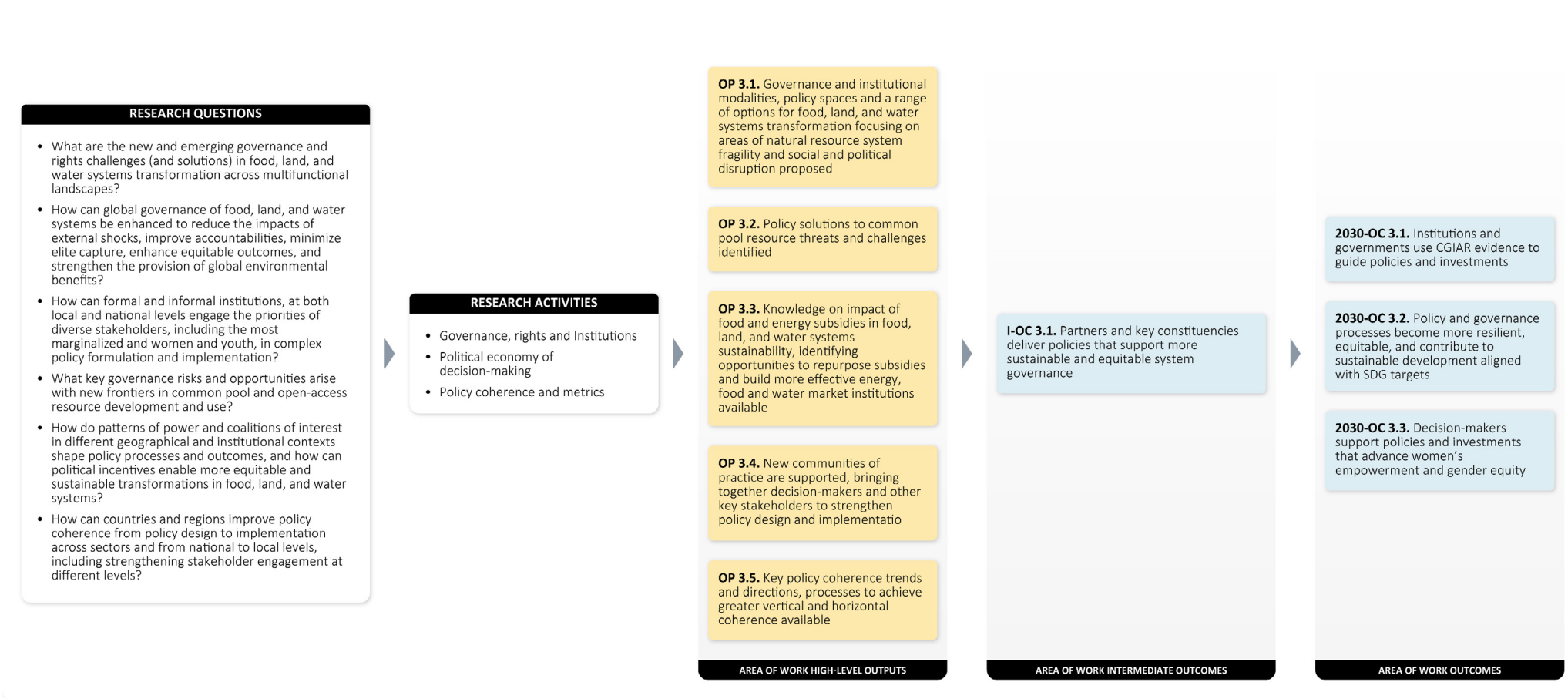


Table 6.3. Theory of change: Governance and Political Economy

ToC element	Statement	Partners (incl. internal) and roles	Assumption (Outcomes only)	Indicator and target (for 2030 Outcomes only)
OP 3.1	New governance and institutional modalities, policy programs, and options for FLW systems transformation, focusing on areas of natural resource system fragility and social and political disruption	Partner universities: study co-design, data collection and analysis NARES: study co-design, data collection and analysis Governments: study co-design Think tanks: study co-design, data collection and analysis Key constituencies and stakeholders: study co-design Civil society partners: study co-design	Not required	Not required
OP 3.2	Policy solutions to common pool resource threats and challenges identified		Not required	Not required
OP 3.3	Knowledge of the impact of food and energy subsidies in FLW systems sustainability, identifying opportunities to repurpose subsidies and build more effective energy, food, and water market institutions available		Not required	Not required
OP 3.4	New communities of practice are supported, bringing together decision-makers and other key stakeholders to strengthen policy design and implementation		Not required	Not required
OP 3.5	Key policy coherence trends and directions, processes to achieve greater vertical and horizontal coherence available		Not required	Not required
I-OC 3.1	Partners and key constituencies deliver politically feasible policies that support more sustainable and equitable food, land, and water system governance in the face of global systemic threats	National governments, partner universities, NARES, think tanks: study co-design, key constituencies, stakeholders, and civil society partners, cross-validation of insights National governments: adoption of the generated insights in decision-making	Willingness to adopt changes based on insights delivered	Not required
2030-OC2	Global and regional institutions, national and subnational government agencies use CGIAR evidence to guide pro-poor, inclusive, and climate-smart policies and investments	Governments, regional and international bodies, development partners, donors, and investors: use of Program results to shape their policies and investments	FLW system actors, governments, and decision-makers are willing to use evidence in decision-making and policy formulation; political processes and shocks do not override evidence from research	55 institutions and agencies shape their policies or investments using evidence from the Program
2030-OC3	Policy and governance processes are better able to withstand pressures and shocks, are more equitable in their design and functioning, and contribute to more coherent and sustainable development processes that deliver positive outcomes across a range of SDG targets	National governments: adoption of the generated evidence in decision-making	Governments and decision-makers actively use generated evidence and data in decision-making and policy formulation	Program results shape 10 policy or governance processes
2030-OC4	Decision-makers and partners support policies and investments that support progress toward women's empowerment and gender equity	Governments, regional and international organizations: include gender equity considerations in policies using Program tools or results	Gender equity remains a key topic at policy level; decision-makers recognize the role of gender equity in delivering the other SDGs	25 institutions and agencies include women's empowerment and gender equity in their policies or investments

6.4. AoW 4: Nexus Policy gains

6.4.1. Overall ambition

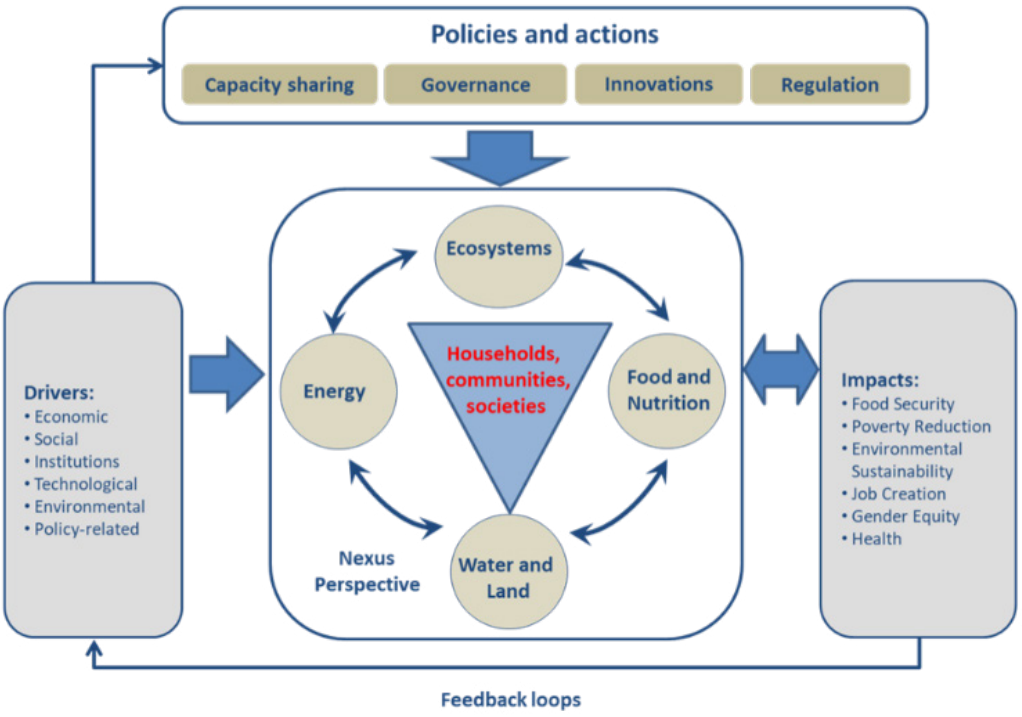
Nexus Policy Gains (NPG) seeks to foster the development and implementation of policies and institutions that enable more integrated management of water, energy, food, and ecosystems (WEFE). Fragmented policy approaches disproportionately burden the poorest and most marginalized communities, exacerbating social inequalities and amplifying environmental degradation.

NPG aims to address these challenges by co-designing policies that enhance the effectiveness and efficiency of cross-sectoral and cross-scale policy development and investments in WEFE sectors (Figure 6.5., Table 6.4). This Area of Work will generate evidence, progress innovations, develop and deploy modeling and analytical tools, and build institutional capacity to support partners in assessing and utilizing Nexus approaches, with important contributions to all five CGIAR Impact Areas. NPG will achieve these objectives through four integrated Sub-AoW, which will have strong linkages to other AoWs in this Program and to other Programs: Nexus analyses (synergies and trade-offs across WEFE systems) (with links to Foresight and Prioritization AoW, Climate Action Program), Socio-technical policy bundles for cross-sectoral impacts)with links to the Market-led Food System Transformation AoW, Sustainable Farming Program); cross-scale nexus policy innovations (with links to Governance and Political Economy AoW, Multifunctional Landscapes Program); and Nexus governance, inclusion and capacity sharing (with links to Governance and Political Economy AoW and Policy Knowledge Brokering Hub AoW).

Each Sub-AoW will answer specific applied policy research questions that are responsive to the demands and needs of subnational, national, regional, and international partners and build on the successful activities conducted under the NEXUS Gains Initiative while adding new research topics that integrate labor markets and mobility, income, livelihoods, and social and gender inequalities into every level of analysis (Figure 6.5).

The planned activities will build on the momentum and partnerships gained under the NEXUS Gains Initiative's focus geographies. These will be enriched with a significant body of bilateral work across Africa, Asia, and Latin America. New geographies will be added as funding becomes available, both pooled and bilateral. Focus geographies include the Aral Sea, Ganges, Incomati, Indus, Limpopo, Mekong, Niger, and Nile basins (alphabetical listing). The depth and timeframes of activities will vary, reflecting progress achieved and responding to emerging opportunities.

Figure 6.5. Conceptual framework for Nexus Policy Gains



6.4.2. Research questions

This AoW will address the following main research questions:

- What spatially targeted investments maximize synergies and minimize trade-offs across WEFE systems?
- What are the distributional effects of synergies and trade-offs across WEFE sectors?
- What are gender and social equity effects, and actor relations of WEFE system synergies and trade-offs?
- How can evidence be used to support more equitable and sustainable policy interventions?
- How can environmentally sustainable WEFE socio-technical policy bundles and investments raise incomes, create employment, enhance food and nutrition security, reduce poverty, promote inclusion, and empower women?
- How can government, civil society, and the private sector effectively support the co-development and uptake of locally-optimized socio-technical policy bundles?

- What are the labor market and migration effects of WEFE socio-technical policy bundles, and how are these distributed across diverse social groups?
- How can Nexus approaches help unlock solutions across multiple scales, including subnational and national policies and strategies, transboundary basins, regional economic communities, and global dialogs to improve livelihoods and facilitate more efficient and equitable resource sharing?
- How can cross-scale and cross-sectoral evidence be leveraged to support more equitable and environmentally sustainable policy interventions?
- How can systems thinking foster more equitable, environmentally sustainable, and effective nexus outcomes?
- What are effective institutional innovations that enable inclusive nexus-based policymaking and adaptive implementation?
- How can human and institutional capacity be co-developed for more effective and inclusive nexus governance and policymaking?

6.4.3. Research activities

6.4.3.1. Nexus analyses: synergies and trade-offs across WEFE systems

This sub-Area of Work will employ WEFE modeling approaches, including hydro-economic landscape and basin modeling, and integrated water, energy, food, and ecosystem health modeling tools within mutually connected biophysical and economic modeling systems. In addition, the work package will employ quantitative and qualitative case studies and assessments of WEFE Nexus interactions to support enhanced outcomes. The goal is to identify opportunities where investments can enhance synergies and reduce trade-offs across WEFE sectors for larger impacts. This will include assessing the distributional effects of WEFE innovations using mixed-methods approaches, including econometric, qualitative, and gender analyses. Participatory approaches will be embedded, involving regional, national, and subnational actor groups in the co-development of Nexus policy options. The main activities are:

- Engage with different actor groups to identify entry points and challenges in WEFE systems, their trade-offs, and synergies.
- Co-develop spatially granular analyses to assess returns and impacts of WEFE Nexus innovations and investments.
- Evaluate the distributional effects of Nexus solutions.
- Engage WEFE actors to analyze WEFE system synergies and trade-offs on local livelihoods, social equity, and gender equality.

6.4.3.2. Socio-technical policy bundles for cross-sectoral impacts

Developing socio-technical policy bundles, integrated solutions combining policies with technological innovations, for cross-sectoral impacts within the WEFE Nexus framework, such as policies and technological innovations for groundwater management or water productivity systems, involves ex ante evaluation of their potential impacts on incomes, labor allocations, migration, employment, food, water, and nutrition security, inclusion, gender equality, and poverty. These evaluations of WEFE socio-technical policy bundles will consider the technical innovations developed by the NEXUS Gains Initiative. Impact evaluations will employ both quantitative and qualitative methods to assess the economic, social, and environmental outcomes of these interventions through multi-criteria decision-making frameworks. Supporting policies for the dissemination of locally-optimized socio-technical policy bundles will also involve community-based participatory research and stakeholder engagement. Activities are:

- Impact Assessment to analyze the effects of WEFE socio-technical policy bundles and investments on key indicators of the five CGIAR Impact Areas, including assessment of employment and mobility.
- Evaluation of stakeholder roles and mechanisms for scaling of locally-optimized socio-technical bundles.
- Analysis of labor market and migration effects of WEFE socio-technical policy innovations considering a gender lens.

6.4.3.3. Cross-scale nexus policy innovations

This sub-Area of Work supports the development of nexus outcomes at subnational, national, regional and global levels, with a particular focus on transboundary water systems and regional economic communities (e.g., SADC, SAARC) as well as on shifting the global discourse toward more integrated or systems thinking, through engagement with UNFCCC, UNCCD, IPBES, Ramsar, CBD and other global frameworks, for example, through the Montpellier process.

- By analyzing the interactions and feedback mechanisms within and between WEFE systems at different scales, this work package will identify how these interconnections can be leveraged to achieve greater change faster with multiple outcomes and impacts. Activities are mainly:
- Analysis of the impacts of nexus policies and innovations focusing on their effectiveness at different scales, including subnational and national levels, transboundary basins, and regional economic communities
- Shaping the global discourse on nexus and systems thinking by participating in global framework discussions that benefit from nexus processes, institutions, and policies.

6.4.3.4. Nexus governance, inclusion, and capacity sharing

Building on an in-depth analysis of existing governance structures and contextual factors, comparative case studies will examine different nexus governance models, drawing on examples of institutional arrangements, legal frameworks, and policy instruments. The goal is to develop evidence-based guidelines that can be adapted to various contexts to enhance the flexibility and responsiveness of nexus governance approaches. Capacity-sharing activities will strengthen individual and institutional capacity to support inclusive nexus governance and policymaking. The main activities are:

- Equity and inclusion analysis: Determine how systems thinking can lead to larger, more equitable, environmentally sustainable, and Nexus outcomes.
- Institutional innovations: identify and analyze institutional innovations that can support nexus-based policymaking and adaptive implementation that address systemic barriers for meaningful and inclusive policy processes.
- Capacity sharing: developing a cadre of nexus leaders for more effective and inclusive nexus governance and policymaking.

Figure 6.6. AoW 4 Nexus Policy Gains ToC

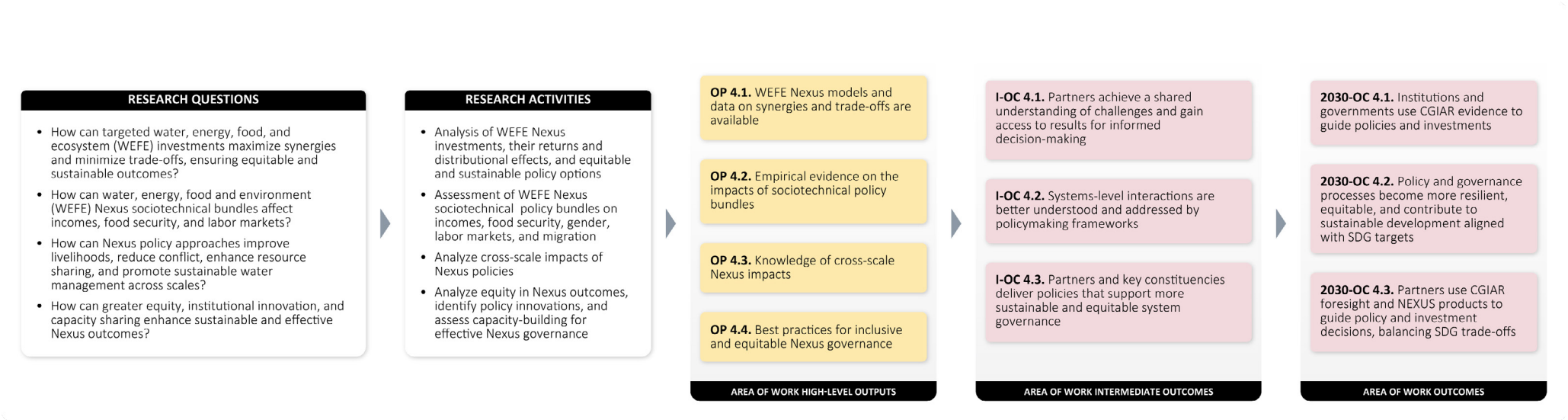


Table 6.4. Theory of change: Nexus Policy Gains

ToC element #	Statement	Partners (incl. internal) and roles	Assumption (for Outcomes only)	Indicator and target (for 2030 Outcomes only)
OP 1	WEFE Nexus models and data on synergies and trade-offs	NARES, River basin organizations, ARIs, CGIAR Programs on climate, INGOs, RECs	Not required	Not required
OP 2	Empirical evidence on the impacts of socio-technical Nexus bundles	Not required Not required	Not required	
OP 3	Knowledge of cross-scale Nexus impacts	Not required	Not required	
OP 4	Best practices for inclusive and equitable Nexus governance		Not required	
I-OC 4.1	Partners achieve a shared understanding of emerging challenges in WEFE systems and gain access to cutting-edge foresight data, tools, and analysis for informed decision-making considering system-level interactions	NARES, River basin organizations, ARIs, CGIAR Ppograms on climate, INGOs, RECs	Partners are willing to use Nexus data and tools; Nexus trade-offs are sufficiently acknowledged by partners	Not required
I-OC 4.2	Systems-level interactions in FLW are better understood and addressed by policymaking frameworks	NARES, River basin organizations, ARIs, CGIAR Programs on climate, INGOs, RECs	Nexus solutions address key concerns and priorities of government and other stakeholders	Not required
2030-OC 1	National, regional, and global partners use, maintain, and continuously develop CGIAR foresight and NEXUS data, results, and tools to guide their policy and investment decisions considering trade-offs between SDGs	National governments, research institutes, universities, ARs: use of foresight and nexus tools and analysis in decision-making Development partners: use of foresight and nexus analysis in development support CGIAR researchers: use of foresight and nexus tools and analysis to guide research priorities	Partners have the willingness to use Program data and tools; partners' priorities are relatively constant (data and tools remain relevant to partners); trade-offs are sufficiently acknowledged by partners	35 partners use Program data, results, or tools
2030-OC 2	Global and regional institutions, national and subnational government agencies use CGIAR evidence to guide pro-poor, inclusive and climate-smart policies and investments	Governments, regional and international bodies, development partners, donors, and investors: use of Program results to shape their policies and investments	FLW system actors, governments, and decision-makers are willing to use evidence in decision-making and policy formulation; political processes and shocks do not override evidence from research	55 institutions and agencies shape their policies or investments using evidence from the Program
2030-OC 3	Policy and governance processes are better able to withstand pressures and shocks, are more equitable in their design and functioning, and contribute to more coherent and sustainable development processes that deliver positive outcomes across a range of SDG targets	Governments, regional and international organizations: use of Program approaches on policy and governance	Data and expertise available at country and organization level; political willingness to use a system approach	Program results shape 10 policy or governance processes

6.5. AoW 5: Country Strategy and Engagement

6.5.1. Overall ambition

In most low- and middle-income countries, agrifood systems constitute a sizable share of economic activity and serve as a primary source of livelihoods, especially for poorer members of the population. As a result, national development strategies frequently put strong emphasis on the agrifood sector to achieve key goals, such as accelerating economic growth, reducing poverty, improving food and nutrition security, and confronting climate change. More recently, the profile of environmental stewardship has risen as an intrinsic positive, and the growing appreciation of the role of natural capital in supporting livelihoods and the development process has further accentuated environmental stewardship as a policy goal.

CGIAR has engaged with partners to inform key policy decisions around the world for five decades. Over the past two decades, CGIAR has established on-the-ground presences focused on policy issues. Currently, CGIAR has active country policy programs in 15 countries. These country policy programs are initiated upon request from country governments and co-designed to meet country-specific objectives. They facilitate close partnerships with key stakeholders such as ministries of planning, finance, and agriculture, regional bodies, and national policy research institutions. Figure 6.7 shows the 15 policy program countries as well as example activities within each country. Country policy programs are often hosts to substantial CGIAR activities with concomitant opportunities for collaboration.

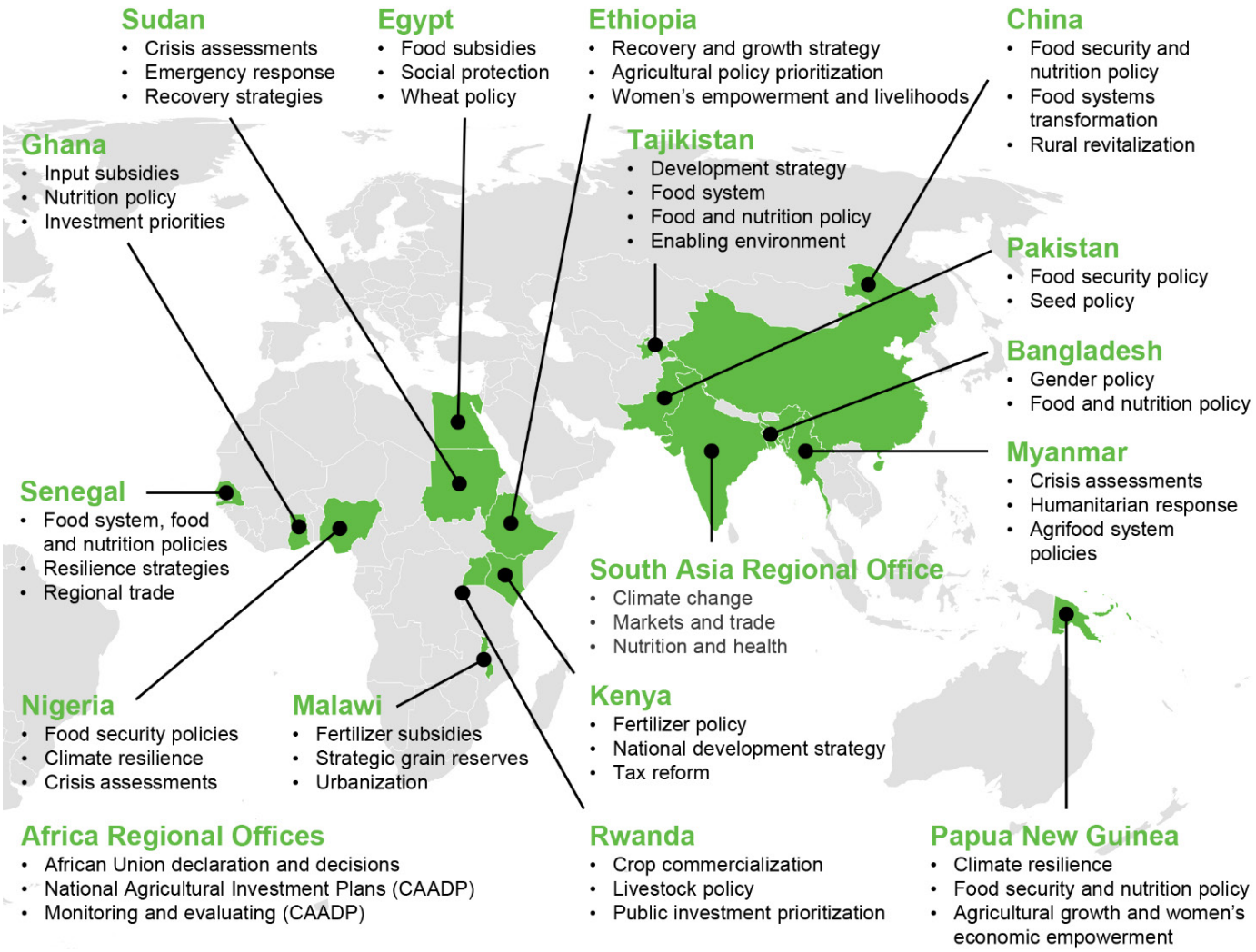
This AoW builds upon the experiences gained in these policy programs. The expected high-level outputs are:

1. Knowledge products related to strategic and policy options that inform policy choices and respond to policy demand.

2. Enhanced capabilities to utilize relevant tools and methods and to translate knowledge products into policy decisions.

3. Connections between key institutions with similar mandates for regional and cross-country learning via program-specific activities and through regional organizations such as the African Union and SAARC.

Figure 6.7. Country and regional policy programs, with examples of activities



Note: CAADP = Comprehensive Africa Agriculture Development Programme.

6.5.2. Research questions

This AoW has one overarching research question: What are appropriate strategic and policy packages for catalyzing the positive transformation of food, land, and water systems in focal countries?

In addition, there are four operational sub-questions:

- How to build relationships with relevant national bodies and respond to their needs in accordance with CGIAR comparative advantage?
- What tools and associated capacity sharing are most appropriate?
- How to structure relevant cross-country learning and leverage regional organizations?
- How to facilitate deliberate, evidence-based decision-making that considers and trade-offs across objectives?

6.5.3. Mode of operation of country policy programs

Current country policy programs are typically based on a memorandum of understanding with one or more key government institutionS and are often overseen by a national advisory committee (NAC) that provides input and feedback to the program. NACs typically comprise members drawn from various government ministries to enhance cross-sectoral coordination and ensure greater ownership of results by the wider government. Country policy program teams are headed by an internationally recruited program leader who manages the office and liaises with the government and partners. Other senior research staff lead specific activities, including research and capacity sharing. Country policy programs draw on expertise from across CGIAR. Large increases in capabilities throughout the developing world now allow for substantial reliance on locally recruited staff.

Activities in country policy programs span multiple research themes and take place throughout the policy cycle, from agenda setting to policy design to policy adoption, implementation, and continued reform (see Figure 6.8).

Figure 6.8. How country policy programs support the policy process

6.5.4. Research activities

The Country Strategy and Engagement Area of Work is planning for four interrelated Sub-AoWs:

1. Informing policy choice
2. Responding to policy demand
3. Integration of tools in national institutions
4. Cross-country learning and regional issues

In all country policy programs, these sub-areas of research are already ongoing, mainly with the support of bilateral funding (more than 85 percent of activity in this AoW is currently bilaterally funded).

6.5.5. Strategic use of Portfolio funds

The Country Strategy and Engagement Area of Work seeks to generate impact through high-quality, consistent, and demand-driven engagement coupled with selective and agile responses to opportunities for reform. To date, bilateral funds have supplied a reasonably consistent base for maintaining demand-driven engagement. However, bilateral funds have shortcomings in three important dimensions.

First, bilateral funders targeting single countries and specific objectives within those countries tend very strongly to assume that CGIAR brings intellectual leadership in development strategy. They are unable to pay for this basic work using specifically targeted bilateral funds. Portfolio funds could very valuably contribute to this core intellectual program. Two examples help to make the point. First, if labor-intensive manufacturing is no longer a viable option as the major development motor for many LMICs, what does that mean for the role of the food system in the development process? Second, while regional policy approaches have been in focus for some time, the need to confront climate change adds an important new dimension to regional cooperation both from adaptation and mitigation perspectives and should enter countries' strategic development calculus. Pooled funding should help address these key questions.

Second, funding tied to single countries with agendas within those countries is very rigid. Hence, an important role for Portfolio funds is to enhance the agility of the Policy Innovations Program, such that the highest priority items in focal countries can be addressed as circumstances evolve. Two examples illustrate the point.

- Nigeria's president, Bola Tinubu, who took office in late May 2023, has been engaged in substantial reforms, including serious attempts to harmonize exchange rates and reduce fuel subsidies. An emerging key policy priority for the Nigerian administration is increasing non-oil exports, starting with exports of agricultural and food products. The Nigeria country policy program is in discussions with the Office of the Vice-President (the strategic planning group in Nigeria) on policy priorities. However, despite very large opportunities to inform crucial reform processes in Africa's largest economy, there is very limited scope to respond due in large measure to financial constraints. Furthermore, if agile Portfolio funding were available to support current major reform efforts, it is very likely that more bilateral funding could be secured over time, freeing Portfolio funds for other uses.

- A great deal of research has been devoted to the agenda around repurposing agricultural subsidies. For example, at the global level, even a partial repurposing of producer support to research and development (R&D) could yield large gains in multiple dimensions, particularly if the new R&D diffuses widely beyond the country in which the repurposing occurs. However, while the potential benefits are reasonably well-established, actual reform must take place within countries. If a relevant country indicates interest in the repurposing agenda, then an ability to respond to meet that demand has the potential to both realize the benefits that repurposing offers to that country and provide an example for other countries to emulate, thus advancing the repurposing agenda more generally.

Third, bilateral funds are poorly suited to non-research collective activities across country policy programs that would benefit all countries or a sub-group of countries. For example, there are economies of scale to be realized in the development of common analytical frameworks, training curricula, training activities (both online and in-person), and cross-country learning. On cross-country learning, there is strikingly little interaction between people/institutions engaged in high-level development planning across countries. This is true even though the issues are often very similar, leading to the potential for substantial gains from appropriately structured interactions.

The Country Strategy and Engagement AoW embraces the Policy Innovations Program view of the policy process as characterized by relatively long periods of evolution within a dominant policy paradigm and relatively short periods of rapid policy evolution within a context of changing policy paradigms. The Theory of Change reflects this embrace. Because policy is so high-leverage and because the Country Strategy and Engagement AoW is integrative, the aim is for improvements in the major indicators deployed for all five of the Impact Areas of CGIAR, relative to a counterfactual, by 2030.

Finally, it merits highlighting that the CGIAR country policy program on which this AoW builds represents one of the most important pathways to policy impact in CGIAR. However, these programs have never benefited from funding that explicitly recognizes and builds upon the existing bilateral and is allocable to the strategic uses discussed immediately above. In this very important sense, this AoW is completely novel.

Figure 6.9. AoW 5 Country Strategy and Engagement ToC

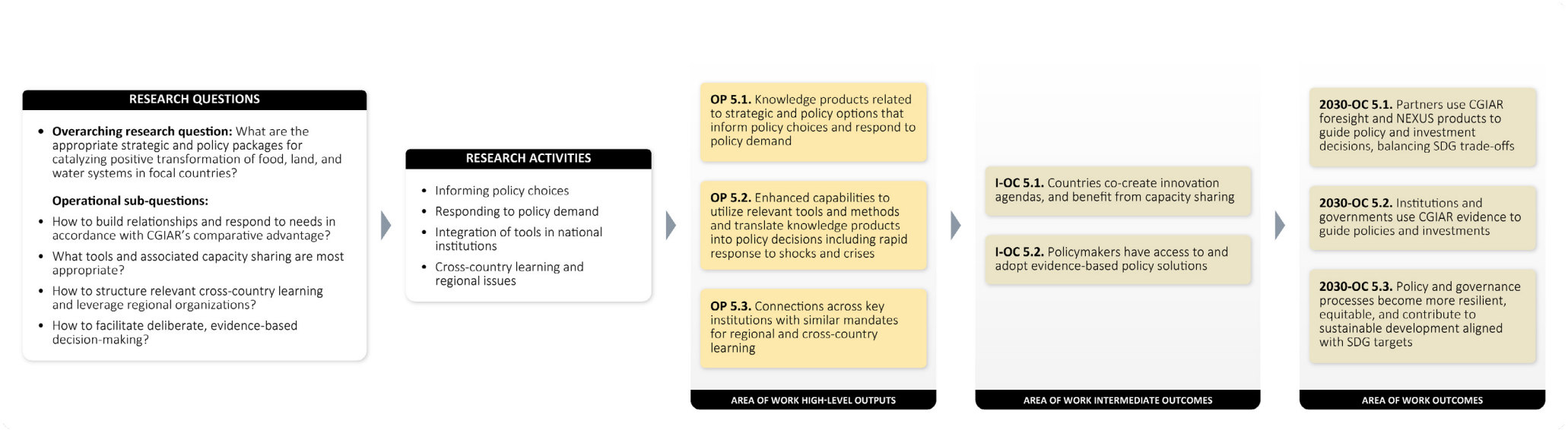


Table 6.5. Theory of change: Country Strategy and Engagement

ToC element #	Statement	Partners (including internal) and roles	Assumption (for Outcomes only)		Indicator and target (for 2030 Outcomes only)
OP 1	Knowledge products related to strategic and policy options that inform policy choices and respond to policy demand	All elements of a healthy policy ecosystem, including: Government Ministries, notably those involved in strategic priority setting. National policy research institutes. National statistical agencies. Universities and other research organizations. Regional and international organizations	Not required	Not required	
OP 2	Enhanced capabilities to utilize relevant tools and methods and to translate knowledge products into policy decisions, including rapid response to shocks/ crises		Not required	Not required	
OP 3	Connections across key institutions with similar mandates for regional and cross-country learning		Not required	Not required	
I-OC 1	Countries co-create innovation agendas and benefit from capacity-sharing in the implementation of Program activities	Government Ministries,	Implications of CGIAR activities are traceable to documents, plans, budgets, and laws	Not required	
I-OC 2	policymakers at national and regional levels have access to and adopt evidence-based policy solutions	Government Ministries, regional organizations	Implications of CGIAR activities are traceable to documents, plans, budgets, and laws		Not required
2030-OC 1	National, regional, and global partners use, maintain, and continuously develop CGIAR foresight and NEXUS data, results, and tools to guide their policy and investment decisions considering trade-offs between SDGs	National governments, research institutes, universities, ARs: use of foresight and nexus tools and analysis in decision-making Development partners: use of foresight and nexus analysis in development support CGIAR researchers: use of foresight and nexus tools and analysis to guide research priorities	Partners have the willingness to use Program data and tools; partners' priorities are relatively constant (data and tools remain relevant to partners); trade-offs are sufficiently acknowledged by partners		35 partners use Program data, results, or tools
2030-OC 2	Global and regional institutions, national and subnational government agencies use CGIAR evidence to guide pro-poor, inclusive, and climate-smart policies and investments	Governments, regional and international bodies, development partners, donors and investors: use of Program results to shape their policies and investments	FLW system actors, governments, and decision-makers are willing to use evidence in decision-making and policy formulation; political processes and shocks do not override evidence from research		55 institutions and agencies shape their policies or investments using evidence from the Program
2030-OC 3	Policy and governance processes are better able to withstand pressures and shocks, are more equitable in their design and functioning, and contribute to more coherent and sustainable development processes that deliver positive outcomes across a range of SDG targets	Governments, regional and international organizations: use of Program approaches on policy and governance	Data and expertise available at country and organization level; political willingness to use a system approach		Program results shape 10 policy or governance processes

6.6. AoW 6: Policy Knowledge Brokering Hub

6.6.1. Overall ambition

Building on the functions of the Poverty Reduction, Livelihoods, and Jobs Impact Area Platform, the Policy Knowledge Brokering Hub (PKBH) is a new Area of Work that aims to integrate policy research capabilities of the entire CGIAR by translating, synthesizing, and packaging key knowledge for external policy audiences with an all CGIAR primary focus on poverty, inequality, employment, and livelihoods (PIEL). PKBH will influence policy, budget allocation, and investment decisions by promoting continuous learning, capacity sharing, and evidence-based advice across the full range of global megatrends. Success depends on robust and relevant pro-poor policy research, continuous evaluation, learning, and collaboration among researchers, empowering multiple stakeholders, and effective communication and advocacy strategies. PKBH will catalyze innovation and change at the global (advocating to advance the most relevant SDGs), regional (supporting harmonized and coordinated policy and institutional frameworks e.g., CAADP), and country levels (embedding policy advice in national programming frameworks).

High-level outputs are:

Synthesis of evidence for pro-poor policy interventions: Mobilizing robust data, proven methods, and policy research and analysis and fostering practical/scalable solutions through high-impact, time-bound, cross-cutting studies in collaboration with partners and other Programs to deliver innovative evidence-based policy, budget allocations, and investments that address priority issues in PIEL.

Policy advice to national governments: This policy advice provides general guidance to national governments to address PIEL challenges, focusing on research-based innovations, best practices, methods, and approaches from relevant AoWs from all ProgramS. It aims to deliver scalable policy interventions on PIEL.

Enhanced knowledge translation, communication tools, and capacity sharing: Through (i) developing and maintaining a comprehensive repository of methods and tools to translate complex research findings into digestible formats for policy communities (high-level policy briefs, diverse communication materials, and other resources tailored for different audiences); and (ii) developing the knowledge and skills of researchers, policymakers, and development practitioners through well-designed capacity-sharing programs and tools.

Monitoring, Evaluation, Learning, Impact Assessment, and Foresight for Pro-Poor Policy (MELIAF-P): For pro-poor policy research programming to grow in strength and impact over time, we will develop an effective system-level MELIAF-P framework to measure the effectiveness of CGIAR research and interventions on policy and continually improve performance over time, building in insights from both CGIAR Portfolios and wider policy research communities.

6.6.2. Research questions

This AoW will address the following research questions:

- How can insights from studies examining multiple factors be effectively used to develop evidence-based policies and institutional reforms that target poverty, inequality, job creation, and more secure and resilient livelihoods?
- What are the most innovative methods and effective capacity-sharing and multistakeholder approaches to address the interconnectedness of poverty, inequality, jobs, livelihoods, and other factors (e.g., climate change)?
- To what extent do major drivers of change at the local level shape policy directions taken in food, land, and water systems transformation at a systems level? How, why, and what kind of transformation takes place under specific governance arrangements, and what are the policy and institutional implications?

6.6.3. Research activities

6.6.3.1. Cross-cutting collaborative studies

CGIAR cross-cutting collaborative studies involving other Programs and Accelerators aim to inform policy, budget, and investment decisions by:

- Focusing on a key topic and being future-oriented: Identifying critical areas for transformative change.
- Adopting transdisciplinary, collaborative, and data-driven analytical approaches to address complex problems.
- Leveraging MELIAF, utilizing insights, methods, and approaches to enhance policy impact assessments.
- Communicating policy and institutional knowledge effectively: Strategically synthesizing and sharing research findings with policymakers, stakeholders, and the public.
- The primary focus of these cross-cutting-studies will be on: (i) policy and institutional innovations and scaling (collaboration with Scaling for Impact); (ii) identifying and addressing trade-offs inherent in policy decisions (collaboration with NPG); (iii) equity and inclusion (linking on gender and youth with the Gender Equality and Inclusion Accelerator); (v) climate resilience into policy and decision-making (collaboration with NPG and the Climate Action Program).

6.6.3.2. Policy advice on pro-poor policy interventions and other PIEL dimensions

CGIAR's policy research impact must be effectively delivered, measured, and communicated to ensure maximum impact. This component positions CGIAR as a global leader and preferred partner for countries seeking to improve the daily lives of the 'bottom billion' through tailored policy advice.

By leveraging policy insights from all Programs, CGIAR will inform policy choices, budget allocations, and investments, and build partnerships to achieve the SDGs, particularly SDG 1, SDG 8, and SDG 10.

The hub will respond to country-specific needs and demands by providing tailored policy advice and sharing cutting-edge policy knowledge.

Key activities include:

- Establish an online policy knowledge hub for the whole CGIAR and partners with curated resources (datasets, best practices, methods, lessons learned) with a primary focus on measuring and evaluating the impact of government interventions (policy, budget allocations, investments) on PIEL.

- Develop practical guides and case studies showcasing successful methodologies on PIEL.
- Undertake policy reviews or assess policy impacts harnessing CGIAR-wide capacities.
- Facilitate knowledge exchange through webinars, online fora, workshops, global events, and augment CGIAR's visibility and reputation for its policy work on PIEL.
- Maintain and grow a community of practice on PIEL, focusing on improving practice and pushing research frontiers, especially on methodologies and policy practices.
- Continuously monitor and evaluate CGIAR performance on policy advice on PIEL through pre-defined indicators (link with CGIAR dashboard and prioritization exercise) and adjust as needed.

6.6.3.3. Enhanced multistakeholder knowledge-sharing platform and communication tools

Multistakeholder platforms (MSPs) can effectively institutionalize stakeholder engagement in public policy development to address PIEL. Working in partnership with public and private sectors and at national and international levels, this research area will coordinate efforts across CGIAR and partners to study and implement MSPs with a primary focus on PIEL in diverse contexts. By bringing together researchers, practitioners, and policymakers, we will (i) share knowledge and best practices to leverage the full potential of MSPs in effectively tackling PIEL; (ii) develop MSPs guidelines and tools to reinforce policy interventions on PIEL; (iii) strengthen stakeholder capacity to participate in MSPs; (iv) identify opportunities for scaling up successful MSP models.

6.6.3.4. Enhanced capacities (knowledge, know-how, and skills)

Collaborating with Component 5 (MELIAF-P) to ensure consistent impact measurement on the producer-to-consumer continuum across CGIAR, focusing on PIEL outcomes, this component will conduct needs assessments to identify gaps in data, methodology, and approaches, especially on PIEL. It will support pilot projects for testing new methodologies (collaboration with the Capacity Sharing Accelerator).

This integrated MELIAF-P will assess how research-driven policies and innovations contribute to CGIAR's goals in poverty, inequality, employment, and livelihoods (PIEL). By examining policies and innovations across the producer-consumer continuum, MELIAF-P aims to:

- Establish a library of survey instruments and protocols to streamline impact assessment.
- Understand and identify factors that support or hinder policy implementation and successful policy impact pathways.
- Collaborate with CGIAR scientists and partners to foster innovative and rigorous approaches to program evaluation.
- Inform future policy research and guide policy and investment prioritization efforts by funders, national governments, International Financial Institutions, and other development partners using insights from MELIAF-P.
- Provide funders with evidence about CGIAR's impacts, especially policy-oriented research, and attract additional funding to impactful areas of policy research to be prioritized.
- Support strategic planning and reprioritization within CGIAR, particularly when allocating pooled funding.

Figure 6.10. AoW 6 Policy Knowledge Brokering Hub ToC

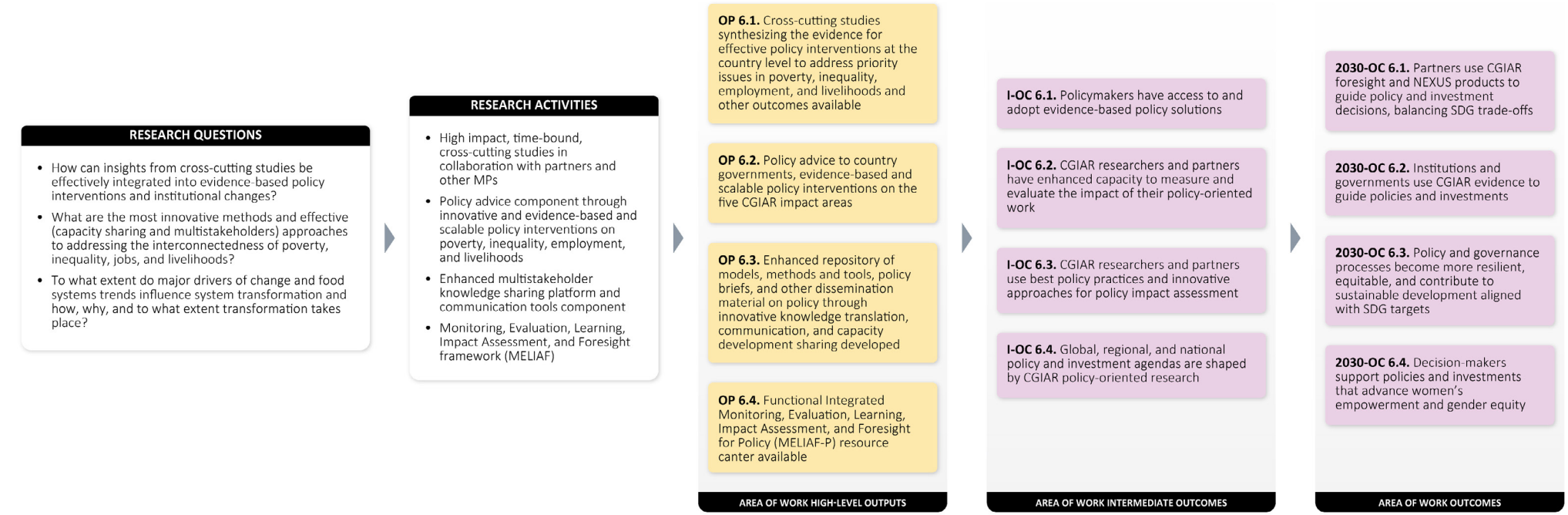


Table 6.6. Theory of change: Policy Knowledge Brokering Hub

ToC element #	Statement	Partners (including internal) and roles	Assumption (for Outcomes only)	Indicator and target (for 2030 Outcomes only)
OP 6.1	Cross-cutting studies synthesizing the evidence for effective policy interventions at the country level to address priority issues in poverty, inequality, employment, and livelihoods (PIEL) and other outcomes	NARES, CGIAR researchers: joint studies	Not required	Not required
OP 6.2	Policy advice on PIEL dimensions to country governments on innovative, evidence-based, and scalable policy interventions	Ministries, NARES, think tanks, CGIAR researchers: use of methods, results and joint studies	Not required	Not required
OP 6.3	Enhanced repository of models, methods, and tools as well as policy briefs and other dissemination material on policy knowledge translation, communication, and capacity development sharing developed	CGIAR: jointly developed knowledge products and their use	Not required	Not required
OP 6.4	Functional Integrated Monitoring, Evaluation, Learning, Impact Assessment, and Foresight for Policy (MELIAF-P) resource center available	CGIAR and other researchers: development of resource center and use of its resources	Not required	Not required
I-OC 6.1	policymakers at national and regional levels have access to and adopt evidence-based policy solutions on poverty, inequality, employment, and livelihoods	Relevant government ministries and departments, regional organizations, use of tools, methods, and results	Ability and willingness to engage; relatively stable political agenda (Program engagement remains relevant)	Not required
I-OC 6.2	CGIAR researchers and partners have enhanced their capacity to measure and evaluate the impact of their policy-oriented work on poverty, inequality, employment, and livelihoods	CGIAR researchers and research partners: use of tools and methods	Funding is available; agreement on a common framework	Not required
I-OC 6.3	CGIAR researchers and partners use best policy practices and innovative approaches for policy impact assessment	CGIAR researchers and research partners: use of common impact assessment framework and agreement on topics	Funding is available; agreement on a common framework	Not required
I-OC 6.4	Global, regional, and national policy and investment agendas on poverty reduction, inequality mitigation, employment conditions, and more secure and resilient livelihoods are shaped by CGIAR policy-oriented research	National, regional, and international decision-makers: willingness to use CGIAR results	CGIAR is given the opportunity to contribute to these agendas	Not required
2030-OC 1	National, regional, and global partners use, maintain and continuously develop CGIAR foresight and NEXUS data, results, and tools to guide their policy and investment decisions considering trade-offs between SDGs	National governments, research institutes, universities, ARs: use of foresight and nexus tools and analysis in decision-making Development partners: use of foresight and nexus analysis in development support CGIAR researchers: use of foresight and nexus tools and analysis to guide research priorities	Partners have the willingness to use Program data and tools; partners' priorities are relatively constant (data and tools remain relevant to partners); trade-offs are sufficiently acknowledged by partners	35 partners use Program data, results, or tools
2030-OC 2	Global and regional institutions, national and subnational government agencies use CGIAR evidence to guide pro-poor, inclusive and climate-smart policies and investments	Governments, regional and international bodies, development partners, donors, and investors: use of Program results to shape their policies and investments	FLW system actors, governments, and decision-makers are willing to use evidence in decision-making and policy formulation; political processes and shocks do not override evidence from research	55 institutions and agencies shape their policies or investments using evidence from the Program
2030-OC 3	Policy and governance processes are better able to withstand pressures and shocks, are more equitable in their design and functioning, and contribute to more coherent and sustainable development processes that deliver positive outcomes across a range of SDG targets	Governments, regional and international organizations: use of Program approaches on policy and governance	Data and expertise available at country and organization level; political willingness to use a system approach	Program results shape 10 policy or governance processes
2030- OC4	Decision-makers and partners support policies and investments that support progress toward women's empowerment and gender equity	Governments, regional and international organizations: include gender equity considerations in policies using Program tools or results	Gender equity remains a key topic at policy level; decision-makers recognize the role of gender equity in delivering the other SDGs	25 institutions and agencies include women's empowerment and gender equity in their policies or investments

7. Country integration

7.1. Nigeria as an example of integration in a country

An integrated assessment of the Nigerian economy, focusing on the food system with all value chains considered at once (including interactions), would be an important contribution to defining a conducive policy environment for growth. Nigeria's current administration undertook bold economic reforms in 2023, removing a regressive fuel subsidy, unifying parallel currency exchange rates, and, importantly, refocusing on agriculture to improve food security and drive non-oil exports. CGIAR and its partners have had a high level of engagement in Nigeria throughout 2022-24, offering a solid foundation for outcomes and effective impact. Under the National Policies and Strategies (NPS) Initiative, CGIAR Centers collaborated with Nigeria's Federal Ministry of Agriculture and Food Security to develop and disseminate the country's agriculture policy for 2022-2027. They provided tools for assessments of food security and poverty impacts of shocks. The main umbrella body representing the national agricultural research system are longstanding CGIAR partners.

Also, in 2023, the Nigerian government declared a state of emergency in food security and prioritized agriculture as an essential sector for replacing oil exports. It established a new Presidential Food Systems Coordination Unit (PFSCU) in July 2024. The PFSCU is keen to work with CGIAR and will be a crucial demand partner for efforts in Nigeria under the Policy Innovations Program. The PFSCU reports directly to the president and aims to provide strategic data analysis, insights, and technical assistance to drive the government's vision for agricultural transformation. The PFSCU is led by a board chaired by the vice-president, with representation from state governments, key ministries, donors, farmer associations, and the private sector. The Nigerian vice-president and his staff met with CGIAR leaders in May 2024 and expressed a clear demand for support for this agenda. CGIAR leadership in Nigeria is in close contact with the VP and the PFSCU Office.

The specific demand for CGIAR is to contribute expertise toward achieving impacts in six key results areas identified by the government: food security and nutrition; productivity; attracting local and foreign investments in food systems; gender and youth inclusion; job creation; and systems strengthening. To meet this demand, CGIAR engages with the PFSCU in value chain analytics to examine optimal ways to achieve the goals, prioritize policies and investments in the country's food system, conduct impact assessments, communicate, and strengthen capacity partners in ways that are politically feasible and within the implementation capacity of government.

Outputs from this work aim to guide public investments and policy reforms, prioritize research and development spending, and facilitate deliberate decision-making by broadly disseminating relevant information (such as outlooks). The government aims to produce tangible gains by 2027 and clear progress along transformation pathways by 2030. It merits highlighting that the full complementary package of research analytics housed in the Policy Innovations Program can be quickly brought to bear in Nigeria because all AoWs are engaged in Nigeria.

7.2. Overview of selected work in top 15 focus countries

Details of the work planned in the top 15 focus countries are available in various sections of this document. For example, the list of the top 15 countries (Table 3.1) indicates which AoW is active in a country. The narratives in Section 6 often summarize prominent country activities (e.g., Figure 6.8). In Section 14, there is a list of larger bilateral projects as well as budget estimates for bilateral and pooled funding by AoW. The list includes short project descriptions, which often refer to specific geographies, with many of these in the top 15. Note that bilateral projects are likely to represent 70% or more of effort within the Policy Innovations Program, including the top 15 countries.

Instead of providing a table, we provide the following four narratives that highlight work in the top 15 countries. Only one is country-specific. Hence, these example narratives illustrate the breadth of demand, including countries not in the top 15.

1. At the request of UAE and BMGF, the Program is already engaging with 15 countries to facilitate the implementation of the Food Systems Declaration from CoP28 in the run-up to CoP30. Nine of the 15 countries are among the top 15 for the Program: Bangladesh, Egypt, Ethiopia, Ghana, Kenya, Malawi, Nepal, Nigeria, and Vietnam. The Program will work closely with the governments of all 15 countries. The plan is to allocate around half the effort to conducting common analytics across all 15. These are (i) food systems structural diagnostics, (ii) an innovative approach to developing country risk profiles, and (iii) broad-level policy/investment priorities. This ensures baseline knowledge and facilitates training and cross-country learning. The second half will reflect bespoke efforts following country priorities. Detailed plans are expected to be presented at CoP29, and outputs are expected by CoP30.
2. In Pakistan, CGIAR is working closely with federal, provincial, and district governments to strengthen water governance, support climate change adaptation, and improve environmental sustainability. The Program will build upon efforts of the NEXUS Gains Initiative and FCDO-funded bilateral projects. Ongoing research supports the implementation of water sector reforms outlined in the Provincial Water Acts in Khyber Pakhtunkhwa and Punjab. It provides evidence and technical solutions to enhance water use efficiency from the farm to basin levels, improve inter-sectoral water allocation, and strengthen groundwater monitoring and management. The research explicitly engages women, youth, and marginalized groups, ensuring their input and participation in shaping solutions.
3. The Policy Innovations Program builds on country policy programs in 15 countries, of which ten are among the top 15. Malawi provides an example of the variety of issues that country programs engage in. Among other items, the Malawi policy program: (i) has become a member of the Strategic Grain Reserve Committee, which authorizes the use of the grain reserves to stabilize prices or for humanitarian relief; (ii) provides technical backing for ongoing reforms of Malawi's fertilizer subsidies at the request of the Minister of Agriculture; (iii) collaborated with the National Planning Commission (NPC) on using modern value chains to develop secondary cities in Malawi; (iv) worked with NPC, FAO, and WFP on El Niño response; and (v) developed a capacity-building program at the Ministry of Finance on modeling economic impacts of policy reforms.

4. Importantly, country policy programs frequently collaborate with Centers to provide more wholistic policy advice, building on Center's comparative advantage. For example, country policy programs have recently supported (i) the development of livestock master plans under the leadership of ILRI in Ethiopia (and Rwanda); (ii) potato strategies in Ethiopia and Nigeria under the leadership of CIP; (iii) soil health and fertilizer policies in Kenya, Nigeria, Malawi and Ethiopia under the leadership of IITA; and (iv) food, land and water policy coherence under the leadership of IWMI in India, Egypt and Nigeria.

5. Finally, the Policy Innovations Program includes significant work in designing and evaluating social protection programs with active engagement in Bangladesh, Egypt, Ethiopia, Malawi, and India and a growing presence in Kenya and Nigeria. In Egypt and Ethiopia, CGIAR research assisted in evaluating national social protection programs that increased household consumption and food security while lifting beneficiary households out of poverty through accumulation of productive assets and reduced debt. The Policy Innovations Program continues to engage closely with relevant ministries in these countries to inform social protection program designs that lift households out of poverty, strengthen resilience, and reduce malnutrition through enhanced productive capability and market engagement. Alignment with activities in the Market-led Transformation AoW provides a promising future avenue for collaboration.

8. Boundaries and linkages with other components of the Portfolio

8.1. Boundaries with other components of the Portfolio

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 can add tremendous value to the more granular policy insights from different Programs, emphasizing synergies and trade-offs across broader-scale policy choices.

For example, the Policy Innovations Program may help identify where policy recommendations arising from different thematic Programs may be in conflict, where outcomes of interest prioritized by different Programs may be affected differently by a given set of policy actions, or where bundles of policies may provide politically realistic pathways forward. In this way, the Policy Innovations Program can serve as a unifying framework for the Portfolio and can support the translation of technical recommendations from thematic Po effective scaling for impact strategies at the country level. As an example, we may consider policy analysis across the Portfolio for Kenya's ongoing policy reform discussions, for which several Programs will build on existing Initiative engagements to address development challenges in that country. The Sustainable Animal and Aquatic Foods Program will look at the effect of the new dairy regulations on that sector's productivity and their impact on the welfare of producers and other venture capital actors. The Climate Action Program will examine how policies influencing adaptation and mitigation practices contribute to emissions metrics. The Sustainable Farming Program will identify practices that can deliver sustainable intensification of outcomes at scale. The Policy Innovations Program, on the other hand, will evaluate the likely impacts of Kenya's bottom-up economic transformation plan on agriculture growth, including impacts on gender equality, nutrition, and the environment for the different agricultural sectors. Furthermore, it will seek to clarify where sector-specific target outcomes and policies recommended for achieving them may imply otherwise unforeseen trade-offs through sectoral lenses. Such perspectives may be critically important, for example, in identifying how policy guidance addressing national growth objectives may compromise progress toward climate mitigation and adaptation goals. In sum, the Policy Innovations Program takes a systems-level perspective. It is a unique Program concerned with key choices such as the role of the food system in achieving development objectives, development of coherent policy and investment portfolios that account for synergies and trade-offs, broad-scale innovation policy choices such as the level of public R&D to devote to food systems as well as choices within food systems such as balancing investment across value chains for staples fruits and vegetables, and animal-sourced foods, and the overall level of effort that should be allocated to the preservation of natural capital as well as the major choices across different options for preserving/enhancing natural capital. Finally, these choices should be reasonably coherent, or at least not in direct contradiction with one another.

8.2. Linkages across the Portfolio

Over 2025-30, the Policy Innovations Program will seek to engage with all other Programs and Accelerators (see Section 6.6). Four examples of potential collaborative efforts follow.

The Policy Innovations Program will complement efforts in the Breeding for Tomorrow and Genebanks Program to prioritize breeding targets and identify policy options for encouraging varietal turnover by (i) identifying returns to forward-looking genetic adaptation through spatially explicit foresight and related modeling efforts and (ii) providing evaluation evidence on the most effective ways to facilitate understanding of, access to and experimentation with new varieties by risk-averse and resource constrained producers in smallholder systems.

Yield gap decomposition analysis from the Sustainable Farming Program will help to prioritize catalytic investment levers (e.g., complimentary organic and inorganic fertilizer practices). Collaborative and complementary work in the Policy Innovations Program will evaluate policy options for incentivizing demand for such inputs, including smart subsidy designs for inorganic fertilizer; aggregate productivity, market-strengthening, environmental trade-offs; and repurposing subsidies in countries with active programs. Also, evaluate gains in distributional impacts of productivity and welfare.

The Sustainable Animal and Aquatic Foods Program (SAAF) will emphasize the need for greater productivity, sustainability, and food safety in SAAF sectors and value chains. The Policy Innovations Program will evaluate trade-offs of alternative developmental objectives at multiple scales and through complementary sectoral lenses, for example, by examining the potential impacts of alternative livestock development trajectories on climate change mitigation efforts.

Work on markets in the Better Diets and Nutrition Program emphasizes how domestic markets can provide consumers with safe, affordable, high-quality, and nutritionally diverse foods. Complementary work in the Policy Innovations Program will evaluate supply-side constraints related to observable quality and socio-technical innovations to enable the emergence of quality signaling in markets. Policy Innovations research on value addition and employment generation along value chains (including international venture capitalists) will also inform our understanding of demand drivers for consumption outcomes of interest to Better Diets and Nutrition.

The linkages above (and others) are partially operationalized through explicit collaborative research efforts outlined under the Policy Innovations Program's Policy Knowledge Brokering Hub activities.

The Policy Innovations Program will support scaling for impact through multiple channels: identification of bundled socio-technical innovations that are most effective for scaling the adoption of CGIAR (and other) technologies in target systems (AoW 2); identification of potential unintended consequences of sector-specific technology scaling efforts (AoW 2 and AoW 3); helping to mobilize scaling investment resources by clearly articulating the economy-wide returns to scaling investments (AoW 1). Moreover, through the Country Strategy and Engagement AoW, we will build on current strategic partnerships (e.g., CGIAR country policy programs) to coordinate and mobilize policy support for scaling efforts and strategies articulated by the Scaling for Impact Program.

The Policy Innovations Program will regularly liaise with the Gender Equality and Inclusion Accelerator to guide the design of inclusive policy analysis and to share the results of such analysis, e.g., the modeled distributional impacts of alternative policy options. There is significant emphasis on analytical capacity building linked with the co-design and implementation of policy modeling work with national partners. This work will align with broader efforts in the Capacity Sharing Accelerator. Policies that work around facilitating genetic and agronomic gains in smallholder systems and enabling transformative change in agrifood system value chains will emphasize the transformative role of ICT-enabled modern analytics, providing a natural linkage with the Digital Innovations Program. Our work in this area should help clarify the social and institutional bundling contexts (including supportive policy environments) that enable digital innovations to flourish at scale in target geographies.

9. Monitoring, evaluation, learning, and impact assessment (MELIA)

9.1. Monitoring, evaluation, and learning (MEL)

Assessing the diverse portfolio of interventions of the Policy Innovations Program aimed at guiding policy, investment, and research decisions related to food, land, and water systems requires a comprehensive monitoring, evaluation, learning, and impact assessment (MELIA) strategy to ensure accountability. The MELIA framework will have two components that are interlinked and complementary: (i) monitoring, evaluation, learning, and accountability (MELA), and (ii) impact assessment (IA).

The MELA will use a result-based approach focusing more on results. MELA will help define key indicators and targets along the impact pathway and the theory of change (ToC) at the Program and AoW levels. The annual monitoring of the achievements of targets will be documented through the CGIAR program management reporting system. To facilitate the annual reporting, an activity-based monitoring approach will be used in which possible monitoring of indicators and success stories will be based on activities. In addition, semi-annual data collection on indicators and success stories will be organized. Baseline surveys will be organized to set the baseline along the ToC.

9.2. Impact assessment

The impact assessment (IA) strategy will combine quantitative (both experimental and non-experimental) and qualitative (outcome-evidencing) research methods that substantiate the Program's contributions to CGIAR's Impact Areas. In addition, when needed, rapid impact assessment methods will be used to track achievements in support of rapid policy response. The impact assessment strategy will be aligned with the learning objectives of the MEL component, providing empirical evidence on the Program's effects. It will seek to understand the causal mechanisms underlying the expected and unanticipated outcomes.

For efficient MELIA implementation, the Program's ToC will be further developed and improved during the Inception Phase. In collaboration with internal and external stakeholders, the mechanisms underlying the expected and unanticipated outcomes will be further elaborated. In addition, the targets of all indicators will be refined based on the available budget. To improve the ToC and operationalize the MELIA framework, key tracking questions will be used, including:

- How does access to more accurate and up-to-date evidence information on food systems influence the decisions and actions of partners at national, regional, and global levels?
- What effects does the implementation of CGIAR evidence-based public policies have on diverse country contexts?
- How does access to new tools and knowledge transform the practices and decisions of decision-makers, improving policy design and investments?
- These questions will evolve throughout Program implementation as the understanding of interventions and their impacts deepens. An ongoing dialog will be established with key partners and stakeholders to refine the research questions, ensure their relevance, and contribute to the MELIA system.

10. Capacity sharing

10.1. Description of capacity-sharing plans

Capacity-building activities are embedded in each AoW. This choice reflects the need for customized and targeted capacity-building efforts that align with the activities in each AoW and the linkages between AoWs and bilateral programs. Similar to research, the effort devoted to capacity sharing in the bilateral programs will be significantly larger than in pooled-funded activities. AoWs are at the right level to develop synergies between the resources devoted to capacity sharing via the Portfolio and capacity-building efforts and capacity-building efforts undertaken via bilateral programs. At the same time, the Policy Hub (AoW 6) will provide relatively light-touch coordination across all capacity-building activities.

Across the AoWs, capacity will be shared through targeted training programs, hands-on learning through collaborative research, improved access to data and tools, and improved documentation of tools. As capacity sharing is a two-way process, partners will also share capacity regarding their expertise, experience, and data relevant to collaborative analysis and policy engagement in national and regional contexts. In addition, the Policy Innovations Program will seek explicitly to foster cross-country learning through direct activities of the Program and the auspices of regional organizations such as the African Union and SAARC. Finally, to meet the strong demand for training in analytical tools, CGIAR's NPS and Foresight Initiatives implemented with success a trainer-of-trainers (TOT) approach. This approach, which emphasizes long-term, in-country capacity building by empowering local researchers to train their colleagues and sustain knowledge transfer, will be continued under the Program.

10.2. Past and ongoing capacity-sharing activities

Capacity sharing by the Foresight and National Policies and Strategies Initiatives included training programs on the RIAPA and IMPACT models conducted with partners in Africa and Asia and Foresight Partnership Forums held in Nairobi (January 2023) and Kathmandu (April 2024). The next Foresight Partnership Forum is tentatively planned for the second quarter of 2025. The TOT approach was employed in collaboration with the recently established modeling units of the Egyptian Institute of National Planning and the Kenya Institute for Public Policy Research and Analysis. Beyond training, the TOT teams also co-created databases, models, and joint publications to address specific policy questions.

The NEXUS Gains Initiative dedicated a full work package to capacity sharing. After identifying key capacities and needs for nexus actors through country-specific scoping studies, efforts focused on raising awareness, interest, and skills in developing and implementing WEFE Nexus approaches, including the technical skills and general skills (e.g., negotiation and leadership skills) needed for this purpose. These efforts targeted, among others, government, NARES, practitioners, researchers, civil society, and graduate students through channels such as, inter alia: trainings and courses (e.g., professional courses, summer schools), a leadership program focused on developing the capacities of women WEFE professionals), the integration of nexus content in postgraduate curricula, the creation and nurturing of communities of practice to enable horizontal and social learning among WEFE professionals and the creation and sharing of learning resources that filled critical gaps in WEFE Nexus knowledge. Good practices from these efforts will inform capacity sharing in the Policy Innovations Program.

10.3. Policy Innovation Program capacity-sharing needs

Through the Initiative experience and via bilateral programs, the Policy Innovations Program has a good idea of capacity-sharing needs. For example, in AoW 1 capacity-sharing needs include:

a. improved general understanding of model uses and limitations for high-level decision-makers;

b. more detailed understanding of model capabilities and results for policy advisors; and

c. more technical knowledge of data inputs, model use, coding, scenario design, and applications for policy analysts.

Plans to meet capacity-sharing needs in AoW 4 are as follows. New cohorts will join the leadership program for (women) nexus leaders, and communities of practice will continue be nurtured, where relevant, to support horizontal learning among WEFE Nexus actors (government, practitioners, civil society, researchers, students). Content from the new courses developed under the NEXUS Gains Initiative will be shared with professors and other educators through TOT to promote uptake of the content into additional universities and training programs. Graduate students trained in the new 'nexus' courses will also be integrated into the Policy Innovations Program to apply their skills and solidify their learning through practice. Additional learning resources in various formats will be developed, as needed, to continue to support learning on WEFE Nexus approaches.

Because demand for capacity sharing is expected to remain high, it will be important to prioritize capacity-sharing activities and to deliver efficiently through TOT, distance learning, and other novel approaches.

11. Gender and social inclusion

Working with key policy partners in 30 countries, our approach across all AoWs will be to challenge wider social and institutional attitudes to participation in policy processes by women and the most marginalized groups in society, especially where there are key intersections with race, ethnicity, religion, disability and other issues of difference. This will include better understanding of feminist policy discourse across a range of sectors and policy arenas in diverse geographies and ways in which policy processes can help drive gender-transformative approaches in new and emerging policy environments, including digital policy and AI environments. We will co-identify with partners and stakeholders methods to achieve meaningful inclusion of women and key marginalized groups in the design and implementation of policy through multistakeholder platforms, support to engagement in public policy debate, and enabling policy landscapes to accommodate greater diversity and heterogeneity of thought and experience.

Outcomes on GESI will be: a) delivering more gender aware, equitable, and transformative policy portfolios in at least 15 countries in which we work; b) establishing institutional environments for policy research in partner countries that explicitly support gender-equitable and socially inclusive approaches within FLW policy transformation; and c) that CGIAR research on policy coherence and political economy across the science Portfolio thoroughly engages with gender rights and transformation, social inclusion and empowerment, and the voices of the most marginalized sections of society within policy decision-making.

This portfolio will build on an already extensive foundation of work CGIAR and its partners have engaged in over the past two decades across a range of diverse policy environments, ranging from social protection and food policy,[1] climate change, and environmental sustainability[2, 3] to natural resources and property rights.[4] Across a variety of disciplines and methods, the research demonstrates not just that GESI is pivotal in delivering more equitable food, land, and water security within a climate crisis but that gender equity and social inclusion are critical factors in human security across

[1] https://www.ifpri.org/blog/why-gender-sensitive-social-protection-critical-covid-19-response-low-and-middle-income/
[2] https://www.ifpri.org/blog/why-gender-sensitive-social-protection-critical-covid-19-response-low-and-middle-income/
[3] https://alliancebioversityciat.org/publications-data/gender-and-climate-change-evidence-and-experience
[4] https://www.iwmi.cgiar.org/Publications/Working_Papers/working/wor159.pdf

societies yet can frequently be 'crowded out' and subordinated to other development narratives on growth and security. In short, GESI in multiple policy environments can be a contested arena, which suggests the role of the Policy Innovations Program is critical in continuing to ask searching questions across the six AoWs, ensuring that policy innovations and capacity on GESI are an active part of our ToC and, at the same time, that the Program links laterally to other Programs as well as the Gender Accelerator, including through our cross-cutting Knowledge Brokering Hub.

11.1. Research questions

Research questions related to gender equality and social inclusion that the Program/Accelerator will address include:

- How will the major drivers of FLW systems affect gender equality, youth, and social inclusion at global and regional scales?
- How can political economies of gender and social exclusion be overcome across diverse policy environments and geographies?
- What new tools and approaches can create more gender-transformative and socially inclusive policy processes, from multistakeholder design through to implementation and evaluation?
- What structural changes are needed to shift gender norms that perpetuate inequalities in FLW systems, and to what extent does policy currently support or hinder structural change?
- How can GESI trends and metrics be better factored into policy design, goals and outcomes?
- How can gender-transformative approaches strengthen policymaking capacity in diverse geographies and sectors?
- In the context of climate risk, which national policies and investments will be most cost-effective in achieving improved opportunities for women and youth?

11.2. Results and theory of change

Gender and social inclusion outputs and outcomes and how they contribute to the gender and social inclusion Impact Area targets: (i) Close the gender gap in rights to economic resources, access to ownership, and control over land and natural resources for over 500 million women who work in food, land, and water systems, and (ii) Offer rewarding opportunities to 267 million young people who are not in employment, education, or training (highlighting the gender and social inclusion components of Sections 5 and 6)

Significantly impact the lives of millions of people living in vulnerable and marginalized communities through significant inclusion of GESI indicators in national, regional, and global policy processes spanning FLW systems, including through employing more explicit GESI outcome indicators, more progressive processes of inclusion and empowerment in policy consultation and design and stronger monitoring and evaluation of GESI-impacts

New benchmarks in policy processes were established in 20 countries employing GESI metrics to track quality of engagement, implementation strength, performance management, and outcome evaluation.

12. Climate change

12.1. Known impacts of climate change on the Program's AoWs

The Policy Innovations Program analyzes the significant impacts of climate change on food, land, and water (FLW) systems, including extreme weather events, water scarcity, biodiversity loss, shifting agricultural zones, and changes in agricultural productivity. These impacts are discussed in the Challenges and Megatrends Section (Section 2.1). The Program addresses these challenges through a systems-based approach that integrates policy and institutional innovations and combines rigorous analysis with close engagement with partners and decision-makers as part of its High-level Vision" (Section 2.2) and Theory of Change (Section 5). All AoWs emphasize the need for policies that enhance resilience and adaptive capacity to manage climate-induced risks effectively. The Foresight and Prioritization AoW (Section 6.1), in collaboration with other leading global research institutions, uses the latest data and results from the Intergovernmental Panel on Climate Change's Sixth Assessment Report (IPCC AR6) in water models, crop models and economic models to analyze climate change impacts on the five CGIAR Impact Areas, at global and regional levels and for selected countries and water basins, under alternative future scenarios to 2030 and 2050.

12.2. Planned work on adaptation

The Program will analyze the impacts of alternative technological and management adaptation options, under alternative policy and investment strategies, on the five CGIAR Impact Areas at global and regional levels and for selected countries and water basins to 2030 and 2050. The Program's contribution to the CGIAR target on reducing of equipping 500 million users to be more resilient to climate shocks by 2030 is an important element of the Foresight and Prioritization AoW (Section 6.1), which will help develop foresight tools, data, and analysis to guide national, regional, and global partners in making informed decisions about policies and investments that improve resilience to climate shocks. The Nexus Policy Gains Area of Work (Section 6.3) will play a critical role, focusing on integrated Water, Energy, Food, and Ecosystems (WEFE) analysis to enhance adaptive capacities and inform spatially targeted investments that minimize climate-related risks.

12.3. Planned work on mitigation with adaptation-co-benefits

The Policy Innovations Program will contribute to the CGIAR target of reducing greenhouse gas emissions and enhancing carbon sinks by 2030 more directly through its Nexus Policy Gains and Governance and Political Economy Areas of Work (Sections 6.3 and 6.4). These AoWs emphasize developing and promoting low-emission development paradigms, including socio-technical policy bundles that address mitigation and adaptation needs. The key strategies outlined to achieve these dual benefits are the focus on enabling policy environments for sustainable land and water management practices, equitable resource use, and enhancing ecosystem services. The work package on Harnessing Consumer Behavior under the Market-led Transformation AoW assesses consumer behavior's role in influencing low-emission agricultural practices and value chains. Specific activities include assessing the impact of socio-technical policy bundles on carbon emissions and implementing participatory approaches to develop inclusive policies.

12.4. Planned work on translating science into climate policies and action

The Policy Innovations Program's commitment to influencing climate policies and supporting the implementation of National Adaptation Plans, Long-Term Low Emissions Development Strategies, and Nationally Determined Contributions is highlighted in the Foresight and Prioritization, Nexus Policy Gains, and Policy Knowledge Brokering Hub Areas of Work (Sections 6.1, 6.3 and 6.6). These sections outline the strategies for engaging with national and regional stakeholders, providing evidence-based policy advice, and building institutional capacities to ensure that science effectively informs policy decisions. The Program's work complements and is aligned with related bilateral projects, including those funded by UAE and the Gates Foundation.

13. Risk management

Risks will be finalized and mitigation actions will be developed as part of the risk management plan during the Inception Phase.

The main risks and risk-mitigation actions include:

- **Limited uptake of scientific and policy innovations:** Focus on creating a shared information base to inform decision-making at multiple levels.
- **Misalignment with policy demands and cycles**: Co-create workplans with Technical Working Groups and Policy Advisory Groups to improve alignment.
- **Data limitations**: Address data inaccuracies and ensure accessibility beyond the Program's end.
- **Capacity constraints**: Provide access to CGIAR policy help-desk and hub support to enhance capacity and utilization (synthesis, briefs, methods, data, tools).

14. Funding sources

Bilateral resources far exceed pooled funding resources. Table 14.1 shows that the value of bilateral funding mapped to the Program amounts to about US$ 92 M. Table 14.1 also provides an estimation of the value of bilateral funds by AoW. Table 14.3 provides further details on bilateral projects with an estimated balance of funding greater than US$ 500,000 from January 1, 2025.

Table 14.1. Bilateral funding by Area of Work

Area of Work	Bilateral value
Foresight and Prioritization	$7,623,649.65
Market-led Transformation	$33,028,815.03
Governance and Political Economy	$3,034,643.81
Nexus Policy Gains	$16,228,820.35
Country Strategy and Engagement	$27,873,222.60
Policy Knowledge Brokering Hub	$468,050.25
AoW mapping TBD	$3,883,154.94
Total	**$92,140,356.63**

Table 14.2. Indicative distribution of baseline scenario pooled funding by Area of Work (2025)

Area of Work	Pooled funding (in USD)
AoW 1: Foresight and Prioritization	6,151,683
AoW 2: Market-Led Transformation	2,140,935
AoW 3: Governance and Political economy	1,733,343
AoW 4: Nexus Policy Gains	5,119,558
AoW 5: Country Strategy and Engagement	3,568,802
AoW 6: Pro-poor Policy Knowledge Brokering Hub	1,297,279
Total	**20,011,599**

It is important to highlight that the portfolio funding values in Table 14.2. reflect allocations for 2025 while the bilateral values in Tables 14.1 and 14.3 reflect the total value of the projects from January 1 2025, which often extends multiple years. At the same time, the values in the bilateral table exclude all bilateral agreements signed since mid-2024 and all future new projects with expenditures in 2025. Hence, while the numbers are clearly not directly comparable, it is also not immediately straightforward to arrive at a direct comparison. Based on past experience, the distribution of Program expenditures will likely be roughly 70-75% bilateral and 20-25% pooled.

Table 14.3. Bilateral projects (above US$500,000) mapped to Policy Innovations with projected balance as of January 1, 2025

Project/program title	Lead center	Funder	End date	Expected 2025-30 funding	Relevant Areas of Work, if known
Feed the Future BANGLADESH	IFPRI	USAID	2/8/2027	$11,305,261	Country Strategy and Engagement
Strengthening National Capability	IFPRI	Mastercard Foundation	6/12/2029	$9,027,837	Market-led Transformation
Supporting Colombia's Just Energy Transition, climate resilience, and food security through the introduction of inclusive agri-photovoltaic systems	ABC	BMWK - International Climate Initiative (IKI)	31/8/32	$6,150,000	Nexus Policy Gains
Blue Peace Central Asia Initiative 2.0 (BPCA 2.0)	IWMI	Swiss Agency for Development Cooperation	10/31/2029	$4,800,000	Nexus Policy Gains
Program for Seed System Innovation for VPCs in Africa	IITA	BMGF	30/09/2027	$3,434,301	Market-led Transformation
Myanmar Policy Support Program	IFPRI	USAID	6/9/2026	$3,406,167	Country Strategy and Engagement
Mastercard – RIZAO	AfricaRice	Mastercard Foundation	6/30/2029	$2,901,916	Market-led Transformation
Biotechnology Innovations	IFPRI	USAID	7/12/2026	$2,502,808	Market-led Transformation
Strengthening Governance for Transformational Change	IWMI	FCDO	7/12/2026	$2,414,704	Governance and Political Economy
Biofortification Deployment	IFPRI	Democratic Republic of Congo-Ministry of Agriculture		$2,403,266	Market-led Transformation
Policy Evidence Analysis Research and Learning (PEARL)	IFPRI	USAID	7/12/2026	$1,939,498	Foresight and Prioritization
Tajikistan Evaluation and Analysis Activity	IFPRI	USAID	6/9/2026	$1,762,106	Country Strategy and Engagement
Food and Agricultural System Transformation Research (FASTR)	IFPRI	BMGF	10/31/2026	$1,500,000	Foresight and Prioritization
Guiding Acid Soil Management Investments in Africa	CIMMYT	BMGF	01/31/2026	$ 1,499,310	Market-led Transformation
Papua New Guinea Agriculture Policy Support Program (PNG-APSP)	IFPRI	DFAT	6/6/2026	$1,482,007	Country Strategy and Engagement
Cassava Value Chain Development to Support Food Security and the Bread Industry in DRC	IITA	USAID	30/09/2027	$1,397,711	Market-led Transformation
Effect of Cash Transfers on Coffee Producers: Evidence from Ethiopia	IFPRI	HEREWEGROW	7/5/2029	$1,334,527	Market-led Transformation
Strengthening Capacities for Delivering Data and Evidence-driven Advice in Countries through Impact Assessments and Other Data Sources	IFPRI	BMGF	7/3/2027	$1,324,023	Market-led Transformation
SOIL VALUES PROJECTS (RAFS)	IITA	The International Fertilizer Development Center (IFDC)	12/31/2033	$1,208,302	Market-led Transformation
HIGH-RESOLUTION CROP STAT	IFPRI	World Resources Institute	7/3/2027	$1,176,289	Foresight and Prioritization
Project/program title	Lead Center	Funder	End date	Expected 2025-30 funding	Relevant Areas of Work, if known

Project/program title	Lead center	Funder	End date	Expected 2025-30 funding	Relevant Areas of Work, if known
Sudan Strategy Support Program	IFPRI	USAID	6/9/2026	$1,141,194	Country Strategy and Engagement
ASEAN-CGIAR Innovate for Food Regional Program	IRRI	Multi-Funder	3/31/2026	$1,132,371	Nexus Policy Gains
Promoting Resilience and Food Security through Risk-Contingent Credit in Africa	IFPRI	GIZ	4/2/2027	$1,089,159	Nexus Policy Gains
Liberia Land and Soil Resources Knowledge project (Soils4Liberia)	IITA	European Union	1/31/2029	$1,079,214	Nexus Policy Gains
Agro-biodiversity Index	ABC	The Food Planet Prize and The Curt Bergfors Foundation	26/5/28	$987,330	Nexus Policy Gains
Building resilient seed systems for rice, cassava, cocoa, coffee, and fish value chains to strengthen food and economic diversification in Liberia (Seeds4liberia)	AfricaRice	European Union	12/21/2027	$865,253	Market-led Transformation
Food Safety for Africa	IITA	European Union	30/11/2027	$820,649	Market-led Transformation
Institutionalizing Monitoring of Crop Variety Adoption Using Genotyping (IMAGE)	CIMMYT	Resource Inc.	3/31/2026	$798,288	Market-led Transformation
Food and Agricultural System Transformation Research (FASTR)	IFPRI	BMGF	7/12/2026	$774,344	Foresight and Prioritization
Guatemala Food Security	IFPRI	USAID	6/9/2026	$762,519	Country Strategy and Engagement
Strengthen PSNP 4 Institutions and Resilience (SPIR) II	IFPRI	World Vision International	7/7/2028	$707,279	Market-led Transformation
ReSAKSS South Asia	IFPRI	BMGF	7/10/2026	$653,402	Country Strategy and Engagement
Strengthening Capacities for Delivering Data and Evidence-driven Advice in Countries through Impact Assessments and Other Data Sources	IFPRI	IFAD	7/12/2026	$650,466	Market-led Transformation
Transforming Smallholder Food Systems in the Eastern Gangetic Plain	IFPRI	Australian Centre for International Agricultural Research	6/9/2028	$565,565	Country Strategy and Engagement
Enhancing Value Chains and Regional Trade in ASEAN	IFPRI	IFAD	7/12/2026	$555,566	Country Strategy and Engagement
Micronutrient Action Policy Support Tool	IFPRI	University of Nottingham	7/12/2026	$545,981	Foresight and Prioritization
Agricultural transformation in Nigerian federal states and Togolese regions toward achieving Zero Hunger	IITA	IFAD	31/01/2025	$539,827	Country Strategy and Engagement
TITUKULANE PROGRAM	IFPRI	CARE	7/7/2026	$531,803	Country Strategy and Engagement
Myanmar Strategy Support Program	IFPRI	USAID	6/9/2026	$508,637	Country Strategy and Engagement

Annex - Pooled funding

14.1. Foresight and Prioritization

AoW 1 Foresight and Prioritization builds on the Foresight Initiative. In 2025, pooled funding will be used as follows.

1. *Global-to-local outlook*. This activity will look beyond identification of megatrends to conduct foresight modeling to anticipate their potential impacts on food systems, from global-to-local scales (with a particular focus on LMICs) and from several years to several decades into the future, in close collaboration with leading global, regional, and national research partners. This activity will also help identify opportunities to alter future food system trajectories through strategic policy and investment choices.
2. *Evaluation and prioritization*. This activity will draw on ex post and ex ante impact assessment and impact evaluation methodologies and foresight modeling to evaluate alternative possible policy and investment options and help decision-makers prioritize among them, in the context of resource constraints and multiple competing interests and goals faced by decision-makers. The activity will focus on informing decision-making at the national level, in close collaboration with national research and policy partners, but will also engage with decision-makers at other levels as appropriate.
3. *Rapid response*. This activity will use available CGIAR models and data to rapidly analyze the impacts on food systems, poverty, and malnutrition of global and local crises (including those triggered by conflict and weather extremes) and to identify suitable policy responses, building on recent rapid analyses of the impacts of COVID-19, the Ukraine war, and other shocks. The activity will also respond to governments' urgent requests to inform strategy and policy design.
4. *Model maintenance, development and dissemination*. This activity will ensure that the tools, capacity, and analytics shared with our partners are the best available and ready to meet their needs.

Under a surge scenario, the following will be considered (in line with the discussion of best uses for portfolio funds in Section 6.5):

a. Enhanced efforts to model potential future impacts of megatrends on food systems under a wider range of biophysical (including climate) and socioeconomic scenarios.

b. Expanding coverage of analysis and engagement to inform evaluation and prioritization decisions to a wider set of countries.

c. Enhanced ability and agility to respond to a wider range of food system shocks and partner country requests.

d. Accelerated innovation and dissemination of foresight data and modeling tools to a wider group of partners and other users.

It is important to highlight that B and C have excellent prospects for attracting bilateral or Window 3 funding, in the long run, thus freeing portfolio funds for other high-priority and high-leverage uses in the future.

14.2. Market-led Transformation

The Markets-led Transformation AoW is structured around four activity areas: demand-driven innovation co-design and evaluation, market transformation, consumer and enabling institutions. These Sub-AoW build in part on activities in the Rethinking Food Markets (RFM) Initiative and the Regional Integrated Initiative for West and Central Africa (TAFS-WCA). However, all the Sub-AoW have important new activities to complement the gap of the 2022-2024 portfolio. The Sub-AoW on innovation evaluation will build on RFM work related to institutional innovations related to the emergence of quality incentives in food value chains, as well as Youth and Women Entrepreneurship models in Food Value Chains and ex post impact assessments of TAFS-WCA.

The Sub-AoW on transformative markets will expand RFM work in several areas, including innovations related to quality measurement and certification in food value chains, trade policy impacts, and leveraging finance for food system transformation.

The Sub-AoW on enabling institutions will continue RFM analytical work related to inclusive financial services access.

The volume of pooled resources for these activities is anticipated to be around US$ 3.3 M (from both RFM and TAFS-WCA). However, this AoW has new activities in all the four CoAs. Therefore, additional pooled funds are expected to be able to implement the new activities. In addition, bilateral funds will also be leveraged to achieve the expected outcomes.

To support new resource mobilization, the following activities are planned:

- In Sub-AoW 1, investment cases will be developed based on pre-tested innovations to achieve the development policy goals.
- In Sub-AoW 2, assessment of the competitiveness and resilience of value chains, such that new opportunities for value addition and external trade are fully realized as engines of economic growth.
- In Sub-AoW 3, behavioral experiments will be used to test interventions aimed at influencing consumer choices.
- In Sub-AoW 4, assessment of the targeted cash transfers and other social protection modalities bundled with complementary market-oriented technology packages to strengthen the poverty-reducing effects of both the transfers and the technologies.

14.3. Governance and Political Economy

Governance and Political Economy builds on National Policies and Strategies, particularly Work Package 1 on Policy Coherence and Work Package 3 on Political Economy. Governance and Political Economy will allocate pooled funding in 2025 to activities under each Sub-AoW that take forward this core work, especially addressing key institutional and policy coherence environments that link to megatrends in East and West Africa, South and Southeast Asia and Latin America.

Our core goal will be to strengthen the political feasibility and coherence of policy interventions, working alongside government partners (e.g., in Ghana on critical migration policy coherence and other sector policies), in Uganda (on wetlands and climate policy coherence), in Colombia on policy around Global Environmental Benefits and peacebuilding, and in Southeast Asia on common pool resource frontiers, rights and risks.

Of particular concern will be ways in which patterns of power and coalitions of interest across geographical and institutional contexts shape policy processes and determine outcomes, often stymieing reforms and innovations or skewing them to elite advantage.

At a global level, we will work on the governance of food, land, and water systems, including a landscape analysis of structural vulnerabilities in global governance mechanisms that weaken systems and whether proposed mechanisms for addressing these vulnerabilities are feasible. We will establish a network of research on global challenges to common pool resources, including areas where (property and human) rights, ownership and resource exploitation are trigger points for conflict, including, but not limited to, pastoral areas in Africa, coastal fisheries in the Asia-Pacific and wetlands in South Asia and East Africa.

Finally, we will work on the political economy of repurposing subsidies to improve environmental and social outcomes in the MENA, LAC and South Asia regions, identifying ways of repurposing including linkages with other sector policy environments across FLW systems.

This complete body of work in 2025 will continue to build on the partnerships, networks and alliances established under national policies and strategies and will work closely with AoW 6 on sharing policy experiences, identifying best practices and supporting continuous learning on tools and methods of comparative policy analysis across all Programs.

14.4. Nexus Policy Gains

The Nexus Policy Gains AoW will allocate pooled funding in 2025 toward activities that ensure momentum and cohesion across the AoW integrated approach to the WEFE Nexus. Building on the successful work of the NEXUS Gains Initiative, pooled funding will be used for i) analyses of trade-offs and synergies across WEFE sectors in key breadbasket basins, ii) identification of socio-technical policy bundles that jointly improve WEFE outcomes, iii) analyses of cross-scale policy innovations, and iv) governance, inclusion, and capacity sharing of WEFE innovations. The surge scenario will allow expansion to new geographies, such as the Mekong basin and Nigeria.

Pooled funding will support activities essential to the core functions of the Nexus Policy Gains, such as the development and refinement of WEFE modeling tools, including climate-water, hydro-economic, and energy models. In addition, pooled funding will support impact evaluations of socio-technical policy bundles, considering the technological innovations developed under the NEXUS Gains Initiative. Pooled funding will support cross-scale policy innovations by evaluating integrated policies at different scales, including policy on migration. It will also strengthen governance, inclusion, and capacity-sharing efforts, building equitable institutions across resource systems and empowering local stakeholders to implement sustainable WEFE management practices.

The Nexus Policy Gains AoW will differ from the NEXUS Gains Initiative by a heightened focus on policy analysis using a transdisciplinary research approach. Moreover, although energy forms an integral part of this AoW, research on the mitigation function of energy systems of the NEXUS Gains Initiative will be continued in the Climate Action Program.

14.5. Country Strategy and Engagement

AoW 5 Country Strategy and Engagement builds on the National Policies and Strategies (NPS) Initiative. In 2025, pooled funding will be used by Sub-AoW as follows.

1. Informing policy choice. The multi-country research on fertilizer policies and soil health that informed the Africa Fertilizer and Soil Health Summit in collaboration with Excellence in Agronomy Initiative will transition to support African governments in the implementation of the Nairobi Declaration. In response to recent events and emerging trends, the Program will also address new topics, such as the potential of Gen Z (and the youth) to accelerate food system transformation, including in the agricultural sector via agripreneurs. Finally, the AoW will continue with the implementation of support already offered to governments across all areas of food, land, and water strategies and policies, including economic, agricultural, and social dimensions.
2. Responding to policy demand. This is inherently uncertain. However, the rapid response mechanisms developed under NPS will build on existing linkages with Foresight and Prioritization and be further strengthened by broadening collaboration with other CGIAR Programs and strengthening cooperation with CGIAR country convenors/representatives.
3. The integration of analytical tools will expand the NPS “training of trainer” model by leveraging country-based experts to ensure continuous capacity sharing and the co-creation of relevant policy research. It will also seek to leverage capacity sharing developed by other AoWs, including the knowledge hub.
4. Cross-country learning and regional issues. This will begin with a pilot exercise reaching out to relevant institutions on the best ways to structure such an engagement.
5. Under a surge scenario, the following will be considered (in line with the discussion of best uses for portfolio funds in Section 6.5):
6. Enhanced efforts to consider broad development strategy issues taking into account the global environment and particular regional environments starting with South Asia and Africa South of Sahara.
7. Upscaled support to Nigeria in collaboration with other AoWs and other Programs to better respond to the demands expressed by the vice-president in our meeting of May 2024.
8. Response to requests from central organs of the Government of Ethiopia for support on economic strategies for emerging from civil war.
9. Linkages with NEXUS Policy Gains and the country policy program in Tajikistan to collaboratively address the stunningly large water resource challenges confronting Central Asia, beginning with Tajikistan.
10. Engagement with the African Union, SAARC, and BIMSTEC for more rapid development of efficient modes for cross-country learning.

It is important to highlight that B, C, D, and E have excellent prospects for attracting longer-run bilateral or Window 3 funding, thus freeing portfolio funds for other high-priority and high-leverage uses.

14.6. Policy Knowledge Brokering Hub

The Policy Knowledge Brokering Hub builds on the Poverty Reduction, Livelihoods, and Jobs Impact Area Platform. In 2025, pooled funding previously allocated to the platform will be used as follows:

1. Policy advice on pro-poor policy interventions and other PIEL dimensions
2. Enhanced multistakeholder knowledge-sharing platform and communication tools
3. Enhanced capacities (knowledge, know-how, and skills)
4. MELIAF for Pro-Poor Policy Innovation

It is important to note that 1 and 4 and to some extent 3 and 4 have good prospects for attracting bilateral or Window 3 funding to supplement portfolio (Window 1 and Window 2) funds for high-priority use such as provision as global public goods in terms of general knowledge and know-how on effective policies to address poverty, inequality, employment and livelihoods as part of food, land and water systems transformations.

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Policy Innovations Program

Appendix

November 15, 2024

Appendix 1: Prioritization indicator tables (Section 3)

Table A1. Food security and dietary outcome indicators

Countries	Stunting (% children)	Food Insecurity Experience Scale (moderate or severe food insecurity)	Number of people who cannot afford a healthy diet (millions)
Bangladesh	23.6	31.1	111.9
Colombia	12.7	n/a	16.1
Cote d'Ivoire	23.4	n/a	20.0
Egypt	22.3	28.5	67.3
Ethiopia	36.8	58.1	100.8
Ghana	17.4	39.4	25.4
India	35.5	n/a	1043.0
Kenya	17.6	72.3	39.2
Malawi	35.5	82.4	19.1
Nepal	24.8	37.4	22.9
Nigeria	31.5	69.7	199.5
Pakistan	37.6	42.3	191.6
Senegal	17.9	49.8	7.6
Tajikistan	17.5	n/a	4.3
Vietnam	19.5	9	20.5

Table A2. Food system drivers

Countries	Population with < US$2.15 per day, 2017 PPP (%)	Youth unemployment	Gender Development Index	Coverage of social protection	Food price volatility
Bangladesh	5.0	30.0	0.914	41.4	0.69
Colombia	6.0	23.2	0.998	31.8	0.46
Cote d'Ivoire	9.7	18.8	0.861	27.2	1.70
Egypt	1.5	26.9	0.884	92.3	0.70
Ethiopia	27.0	17.5	0.922	22.2	0.63
Ghana	25.2	27.7	0.933	17.4	0.56
India	12.9	23.5	0.852	94.0	0.67
Kenya	36.1	18.7	0.948	27.4	0.67
Malawi	70.1	19.4	0.926	38.3	0.58
Nepal	8.2	34.8	0.885	43.5	0.35
Nigeria	30.9	13.9	0.886	20.7	0.16
Pakistan	4.9	34.6	0.834	22.1	0.81
Senegal	9.9	33.0	0.925	39.0	0.74
Tajikistan	6.1	41.3	0.919	39.3	0.88
Vietnam	1.0	11.3	1.007	34.9	1.12

Table A3. Environmental and climate indicators

Countries	Agri-Food systems greenhouse gas emissions per capita	Climate Risk Index	Water use for food production
Bangladesh	840.7	23.5	5484.6
Colombia	3775.7	36.3	8736.5
Cote d'Ivoire	1524.8	111.7	3494.8
Egypt	841.6	102.0	9557.7
Ethiopia	1481.4	69.3	4708.1
Ghana	592.1	53.3	5074.2
India	939.8	16.7	4852.5
Kenya	1148.9	33.0	5237.4
Malawi	981.6	15.2	3115.4
Nepal	1277.2	20.0	4125.6
Nigeria	1031.2	70.0	3877.1
Pakistan	1271.2	25.0	6748.8
Senegal	1304.5	67.5	3658.5
Tajikistan	947.1	104.3	4428.9
Vietnam	1523.9	50.2	6789.6

Appendix 2: Comparative advantage table (Section 4)

Table A4. High-level comparative advantage analysis for the Policy Innovations Program

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
1.1 Global-to-local outlooks for food, land, water, and economic systems	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales	**Incentives**: international public goods provision **Human Capital**: Data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in low and middle-income countries (Laic's)	NARES, universities, private consulting firms, multilateral development agencies, and NGOs	**NARES**: National public goods provision, specialized analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver global-to-local outlooks based on its multiscale and multidimensional analytical capacity and its extensive collaboration with leading research institutions and governments worldwide. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage.
1.2 Evaluation and prioritization	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: trusted partnerships with policy research and advisory institutions in countries and funding partners	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: well-established and trusted partnerships with policy research and advisory institutions in numerous countries in Africa, Asia, and Latin America, as well as with funding partners	Policy research institutes, government ministries, universities, consulting firms	**Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver evaluation and prioritization services based on its cutting-edge analytical capacities and trusted partnerships with policy research and advisory institutions in Africa, Asia, and Latin America. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
1.3 Rapid response analysis and policy recommendations	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: trusted partnerships with policy research and advisory institutions in countries and funding partners	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: well-established and trusted partnerships with policy research and advisory institutions in numerous countries in Africa, Asia, and Latin America, as well as with funding partners	Policy research institutes, government ministries, universities, consulting firms	**Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver rapid response analysis and policy recommendations based on its agile and updated analytical tools and trusted partnerships with policy research and advisory institutions in numerous Laic's. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage.
1.4 Model maintenance and dissemination	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: links with leading research institutions around the world	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: well-established partnerships with leading research institutions around the world	Universities, consulting firms	**Universities**: public goods provision, analytical capacity **Consulting firms**: private goods provision, quick analytical capacity	CGIAR has the most complete set of relevant sources of comparative advantage to deliver model maintenance and dissemination services based on its experience human capital and well-established partnerships with leading research institutions around the world. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
2.1 Best-fit combinations of policy, technological, and institutional innovations that benefit food, land, and water systems actors are available	**Incentives**: public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales	**Incentives**: public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in Laic's	NARES, universities, private sector	**NARES**: national public goods provision, specialized analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Private actors**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver this high-level output. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage in co-design and assessment of combination of sociotechnical innovations.
2.2 Knowledge available on how markets are performing, respond to policies and other institutional reforms designed to improve quality, safety, efficiency and resilience	**Incentives**: public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales	**Incentives**: public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in Laic's	NARES, universities, private sector	**NARES**: national public goods provision, specialized analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Private actors**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver this high-level output. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage in co-design and assessment of combination of sociotechnical innovations.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
2.3 Evidence available on consumer behavior's role in driving sustainable food system transitions	**Incentives**: public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales	**Incentives**: public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in Laic's	NARES, universities, private sector	**NARES**: national public goods provision, specialized analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Private actors**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver this high-level output. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage in co-design and assessment of combination of sociotechnical innovations.
2.4 Models of social environments are developed to enable policy, technological, and institutional innovation to transform food, water, and land systems	**Incentives**: public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales	**Incentives**: public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in LMICs	NARES, universities, private sector	**NARES**: national public goods provision, specialized analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Private actors**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver this high-level output. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage in co-design and assessment of combination of sociotechnical innovations.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
2.5 Methodological innovations for more cost-effective and accurate evaluation of technologies, policies, and institutions available	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: links with leading research institutions around the world	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: well-established partnerships with leading research institutions around the world	Universities, consulting firms	**Universities**: public goods provision, analytical capacity **Consulting firms**: private goods provision, quick analytical capacity	CGIAR has the most complete set of relevant sources of comparative advantage to deliver this high-level output. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
3.1 A co-developed program of work examines governance and institutional modalities for systems transformation working with partner universities, national research institutes, governments, and think tanks in Asia, Africa, and Latin America, focusing on areas of natural resource system fragility and social and political disruption. Governance and institutional modalities, policy programs, and a range of options for food, water, and land systems transformation focusing on areas of natural resource system fragility and social and political disruption proposed	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: ability to deliver high-quality and relevant research in a timely manner through collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in LMICs, and high-level relationships within broad policy communities	Government ministries, NARES, universities, private consulting firms, policy research institutes, universities, consulting firms	**Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity **NARES**: national public goods provision, specialized analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector **Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver a co-developed program of work that examines governance and institutional modalities for systems transformation in areas of natural resources system fragility and social and political disruption. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
3.2 A co-developed program of work in partnership with key constituencies and stakeholders examines and seeks policy solutions to common pool resource threats and challenges. Policy solutions to common pool resource threats and challenges identified	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: ability to deliver high-quality and relevant research in a timely manner through collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in LMICs, and high-level relationships within broad policy communities	Government ministries, NARES, universities, private consulting firms, policy research institutes, universities, consulting firms	**Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity **NARES**: national public goods provision, specialized analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector **Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver a co-developed program of work that examines and seeks policy solutions to common pool resource threats and challenges. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
3.3 A program of co-designed studies in Asia, Africa, and Latin America and the Caribbean examines impacts at local, basin, land, seascape, and regional economic community scale where food and energy subsidies play a significant role in food, water, and land systems sustainability, identifying opportunities to build more effective energy, food, and water market institutions. Knowledge of the impact of food and energy subsidies in food, water, and land systems sustainability, identifying opportunities to repurpose subsidies and build more effective energy, food, and water market institutions available	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: ability to deliver high-quality and relevant research in a timely manner through collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in LMICs, and high-level relationships within broad policy communities	Government ministries, NARES, universities, private consulting firms, policy research institutes, universities, consulting firms	**Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity **NARES**: national public goods provision, specialized analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector **Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver a program of co-designed studies that examines the impacts of food and energy subsidies on food, water, and land systems sustainability and identifies opportunities to build more effective energy, food, and water market institutions. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
3.4 A program of collaborative work with government and civil society partners in Southeast Asia, Latin America and the Caribbean, West Africa, and South Asia, as well as international partners (including the Global Environment Fund and OECD), identifies key policy coherence trends and directions, supports the design and implementation of processes to achieve greater coherence, both vertically and horizontally, and links across to work in Nexus Policy Gains on trade-offs and policy optimization, including ways of increasing Global Environmental Benefits. New communities of practice are supported, bringing together decision-makers and other key stakeholders to strengthen policy design and implementation	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: ability to deliver high-quality and relevant research in a timely manner through collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in LMICs, and high-level relationships within broad policy communities	Government ministries, NARES, universities, private consulting firms, policy research institutes, universities, consulting firms	**Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity **NARES**: national public goods provision, specialized analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector **Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to support new communities of practice, bringing together decision-makers and other key stakeholders. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
3.5 Key policy coherence trends and directions, processes to achieve greater vertical and horizontal coherence available	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: ability to deliver high-quality and relevant research in a timely manner through collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in LMICs, and high-level relationships within broad policy communities	Government ministries, NARES, universities, private consulting firms, policy research institutes, universities, consulting firms	**Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity **NARES**: national public goods provision, specialized analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector **Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Universities**: public goods provision, analytical capacity, links with governments **Consulting firms**: private goods provision, quick analytical capacity, links with selected governments and private sector	CGIAR has the most complete set of relevant sources of comparative advantage to deliver a program of collaborative work identifying key policy coherence trends and directions that support greater coherence. This includes established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
4.1 Nexus modeling: synergies and trade-offs across water, energy, food and ecosystems	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: trusted partnerships with policy research and advisory institutions in countries and funding partners	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in LMICs	NARES, River basin organizations, advanced research institutes, universities, NGOs and civil society, national government bodies	**NARES**: national public goods provision, specialized analytical capacity, links with own national government **River basin organizations:** public goods provision, stakeholder dialogues, data collection and dissemination **Universities**: public goods provision, analytical capacity, links with governments **Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity	CGIAR has the most complete set of relevant sources of comparative advantage to deliver this high-level output, especially because of the concentration of strong inter-disciplinary skillsets. In most partner country contexts, policy analyses of water, energy, food, and ecosystems are usually done separately, leading to negative externalities of policymaking across these sectors, CGIAR also has established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
4.2 Sociotechnical policy bundles for cross-sectoral impacts	**Incentives**: international public goods provision **Human Capital**: data management, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: trusted partnerships with policy research and advisory institutions in countries and funding partners	**Incentives**: international public goods provision **Human Capital**: data management, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in LMICs	NARES, River basin organizations, advanced research institutes, universities, NGOs and civil society, national government bodies	**NARES**: national public goods provision, specialized analytical capacity, links with own national government **River basin organizations:** public goods provision, stakeholder dialogues, data collection and dissemination, **Universities**: public goods provision, analytical capacity, links with governments **Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity	CGIAR has the most complete set of relevant sources of comparative advantage to deliver this high-level output, especially because of concentration of strong inter-disciplinary skillsets. In most partner country contexts, policy analyses of water, energy, food, and ecosystems are usually done separately, leading to negative externalities of policymaking across these sectors, CGIAR also has established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
4.3 Cross-scale Nexus policy innovations	**Incentives**: international public goods provision **Human Capital**: data management, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: trusted partnerships with policy research and advisory institutions in countries and funding partners	**Incentives**: international public goods provision **Human Capital**: data management, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in LMICs	NARES, River basin organizations, advanced research institutes, universities, NGOs and civil society, national government bodies	**NARES**: national public goods provision, specialized analytical capacity, links with own national government **River basin organizations:** public goods provision, stakeholder dialogues, data collection and dissemination **Universities**: public goods provision, analytical capacity, links with governments **Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity	CGIAR has the most complete set of relevant sources of comparative advantage to deliver this high-level output, especially because of concentration of strong inter-disciplinary skills sets. In most partner country contexts, policy analyses of water, energy, food, and ecosystems are usually done separately, leading to negative externalities of policymaking across these sectors, CGIAR also has established and growing partnerships with other institutions that have complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
4.4. Nexus governance, inclusion, and capacity sharing	**Incentives**: international public goods provision **Human Capital**: data management, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: trusted partnerships with policy research and advisory institutions in countries and funding partners	**Incentives**: international public goods provision **Human Capital**: data management, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at global, regional, and national scales, links with leading research institutions and governments worldwide, including in LMICs	NARES, River basin organizations, advanced research institutes, universities, NGOs and civil society, national government bodies	**NARES**: national public goods provision, specialized analytical capacity, links with own national government **River basin organizations:** public goods provision, stakeholder dialogues, data collection and dissemination **Universities**: public goods provision, analytical capacity, links with governments **Policy research institutes**: national public goods provision, country-specific knowledge, some analytical capacity, links with own national government **Government ministries**: national public goods provision, country-specific knowledge, limited analytical capacity	CGIAR has the most complete set of relevant sources of comparative advantage to deliver this high-level output, especially because of concentration of strong inter-disciplinary skill sets. In most partner country contexts, policy analyses of water, energy, food, and ecosystems are usually done separately, leading to negative externalities of policymaking across these sectors. CGIAR also has established and growing partnerships with other institutions that have complementary sources of comparative advantage.
5.1 Knowledge products related to strategic and policy options that inform policy choices and respond to policy demand	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	The country strategy and engagement's principal sources of comparative advantage are in **human capital**, particularly the ability to deliver high-quality and relevant research in a timely manner, and in **social capital**, notably high-level relationships within broad policy communities. This combination implies that the research is taken seriously by influential institutions and individuals	Governments are key partners and explicit sources of demand. This AoW maintains close contact with central decision-making organs such as those responsible for developing medium-term expenditure frameworks and strategic plans. These partnerships are supplemented by links with the broad policy research ecosystem, including universities, research institutes, regional organizations, and financial institutions	These partners are normally key players in informing decision processes	For policy decisions related to food systems and their role in achieving shared (e.g., SDGs) as well as national (e.g., upper middle-income status by a target date) objectives, CGIAR has a combination of human capital and social capital, including an earned reputation for high-quality, independent analysis, that is effectively unique. CGIAR's in-country presence and inroads into policy processes provides.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
5.2 Enhanced capabilities to utilize relevant tools and methods and to translate knowledge products into policy decisions	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	This AoW has a comparative advantage in enhancing capabilities for the use of cutting-edge tools, particularly those developed and maintained by CGIAR. This AoW has particular advantages in matching high-potential people with high-level training, so training is a key mechanism for achieving high-level output	Governments are key partners and explicit sources of demand for high-level training from key institutions such as central decision-making organs. It is important that these partnerships are supplemented by links with universities, research institutes, and others to help create an ecosystem where talented people can develop skills and move into influential positions	These partners are normally key players in informing decision processes	The CGIAR has a comparative advantage in developing high-level materials and setting sustainable modes in place for building high-level capabilities. Partners, such as universities, have a comparative advantage in developing baseline skills/ knowledge.
5.3 Connecting key institutions with similar mandates for regional and cross-country learning	**Incentives**: international public goods provision **Human Capital**: data management, foresight modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	Staff from central banks meet frequently. It is not clear why staff from central policy planning organs in government come together so rarely. One explanation is that, while the functions are similar, the institutional arrangements differ across countries. This AoW has comparative advantage in whom to connect related to specific issues across countries	Focus on technical personnel within institutions directly engaged in the support of policy analytics. Examples include KIPPRA in Kenya, VP Office of Nigeria, and Niti Aayog in India	These partners are normally key players in informing decision processes	Connecting key institutions in the manner envisioned (and at low cost due to virtual communication modes) is a relatively new idea that builds on the same advantages that animate OP 5.1 and 5.2. How best to interface with partners such as the African Union, South Asian Association for Regional Cooperation, and Asia-Pacific Economic Cooperation will need to be worked out.
6.1: Cross-cutting studies synthesizing the evidence for effective policy interventions at the country level to address priority issues in poverty, inequality, employment, and livelihoods (PIEL) and other outcomes available	**Incentives**: international public goods provision **Human Capital**: data management, modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	This AoW has comparative advantage in providing insights to decision-makers about the complex and interconnected nature of major challenges that are common to most countries. This AoW has comparative advantage in leveraging state-of the art research on these topics and translating them into actionable policy recommendations	Policy research institutes, government ministries, universities, consulting firms The focus will be on policy experts within institutions directly engaged in translating evidence on complex cross-cutting issues into actionable policy recommendations	The partners for this AoW are typically key players in informing decision-makers and in understanding how to shape policy messages to maximize influence	CGIAR has the most complete set of relevant sources of comparative advantage to deliver this high-level output. This includes established high-level capacities on complex cross-cutting, interdependent issues available across Programs and growing strategic partnerships with other local and global institutions that will support CGIAR efforts to convey key policy message emerging from the cross-cutting studies. complementary sources of comparative advantage.

High-level output	Needed sources of Comparative Advantage (CA) required to deliver the high-level output	CGIAR's sources of CA in delivering the high-level output	Potential partner types (e.g., NARES, SMEs, private sector)	Partners' sources of CA in delivering the high-level output	Analysis of the trade-offs between CGIAR and (potential) partners' sources of CA in delivering the high-level outputs, and indication of where the CA lies (i.e., with CGIAR or with the potential partner)
6.2: Policy advice to country governments through innovative, evidence-based, and scalable policy interventions primarily on PIEL related issues as well while accounting for the synergies and trade-offs with the four other CGIAR Impact Areas	**Incentives**: international public goods provision **Human Capital**: data management, modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	This AoW has comparative advantage in connecting the provision of cutting-edge policy knowledge from across Programs and related to specific issues into targeted and adapted policy advice across countries	Governments and policy advisors are direct interlocutors. They represent the main sources to elicit policy demands for CGIAR-led policy assistance. These networks will be also strengthened by supplementary partnerships with local policy think tanks, research institutes, and universities involved in policy advice. Examples include Kenya Institute for Public Policy Research and Analysis in Kenya, the Vice Presidents Office of Nigeria, and Niti Aayog in India	These local and regional partners are normally key players in informing decisions and are knowledgeable about internal dynamics and the best ways to influence policy processes and outcomes	Connecting key institutions in the manner envisioned (and at low cost due to virtual communication modes) is a relatively new idea that builds on the same advantages that animate OP 5.1 and 5.2. How best to interface with partners such as the African Union, SAARC, and APEC will need to be worked out.
6.3: Enhanced repository of models, methods and tools as well as policy briefs and other dissemination material on policy knowledge translation, communication, and capacity development sharing developed	**Incentives**: international public goods provision **Human Capital**: data management, modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	Due to its sources of comparative advantage, this AoW is chiefly positioned to provide cost-effective services in identifying, selecting, and organizing and disseminating accumulated research-based knowledge for capacity development and partnerships development on PIEL	Focus on technical personnel within institutions directly supporting policy analytics (methods, tools, and approaches) and communication channels to address PIEL. Examples include KIPPRA in Kenya, VP Office of Nigeria, and Niti Aayog in India	These local and regional partners are usually best placed to identify key needs and unveil demands for capacity development on PIEL and in advising communication and dissemination material	This AoW has comparative advantage in leveraging existing multistakeholder platforms and harnessing insights contained in various material to enhance capacities of as well as information of stakeholders on PIEL.
6.4: Functional Integrated Monitoring, Evaluation, Learning, Impact Assessment, and Foresight for Policy (MELIAF-P) resource center available	**Incentives**: international public goods provision **Human Capital**: data management, modeling tools, multiscale and multidimensional analytical capacity **Biophysical Capital:** n/a **Social Capital**: collaborative networks at multiple scales. Reputation for independent analysis	This AoW has comparative advantage in whom to connect related to specific P-MELIAF issues across countries	Focus on technical personnel within institutions directly engaged in the support of Policy-oriented MELIAF	These partners are normally key players in informing internal decision processes on MELIAF	Connecting key institutions in the manner envisioned is a source of additional comparative advantage for CGIAR in undertaking robust, legitimate, and relevant MELIAF functions in support knowledge accumulation and impact focus.