



CGIAR Innovation Scaling Strategies

Background Paper

Harnessing Experience and Tools from Innovation
Scaling in the International Development Sector

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Executive Summary

Purpose and Scope:

This background paper aims to synthesize existing knowledge, tools, strategies and best practices related to the development and implementation of scaling approaches for socially impactful innovations within the international development sector, with a focus on CGIAR's work in agriculture, climate, and food security. It explores how organizations define, pursue, and operationalize scale and scaling strategies, providing a foundation for the development of CGIAR's own approach to developing scaling delivery strategies.

The materials referenced in this document were reviewed to inform the testing of CGIAR's methodology for developing scaling delivery strategies and formed the basis for informing how we set criteria for selection & prioritization of innovations to move through the process of developing scaling delivery strategies, as well as informing the outline of those scaling strategies and the resourcing and supporting structures designed to deliver them.

Reviewed Material:

The study combines consideration of CGIAR's Innovation Package and Scaling Readiness (IPSR) framework—an evidence-based, phased approach to assessing innovation maturity and scaling readiness—with an external literature review of 23 international organizations' scaling strategies. This includes multilaterals, bilaterals, INGOs, and donors known for innovation-driven impact within sectors directly related to those CGIAR works in (such as agriculture, food security and climate), or related sectors with similar complex social challenges and supply chain logistics at their heart such as the health sector.

Key Findings and Lessons Learned:

- *Diverse Definitions of scale:* organizations interpret and approach scale in various ways. Some see it as expanding market reach, others as broad social impact, systemic change, or institutional adoption - depending on their mission, sector, and strategy. These differing perspectives underscore that there isn't a single, universal definition of scale, but rather multiple pathways and concepts tailored to specific contexts and goals.
- *Pathways to scale:* again, these differ by organization and type of innovation. For example, private sector or revenue generating innovations may follow market-based pathways, such as expanding reach through sales, distribution, and market development. Public good innovations or public-private partnership-based innovations may follow systemic pathways to scale i.e. influencing policies, institutional change, and ecosystem shifts to embed innovations into public systems. Any type of innovation may also follow adoption pathways to scale i.e. promoting uptake through capacity building, partnerships, and demand articulation that facilitate integration into existing structures or new markets.
- *Responsibility & Ethics:* The strategies reviewed generally acknowledge that responsible innovation must incorporate ethical considerations, social equity, and environmental sustainability as integral to scaling efforts. Some explicitly emphasize the importance of gender-responsive approaches, ensuring women's participation and addressing gender-specific needs, while others highlight the necessity of ethical oversight to prevent harm, promote inclusivity, and uphold social responsibility throughout the scaling process. However, the depth of focus on ethics and gender responsiveness varies, often being addressed more strongly in strategies explicitly committed to social equity, and more weakly or simply implicitly acknowledged in others.
- *Organizational Capacities:* certain organizational capacities were highlighted as critical for success, including strong leadership and strategic vision committed to impact at scale, robust partnerships and stakeholder engagement to mobilize resources and facilitate adoption, adaptable organizational processes and a culture that encourages experimentation and learning, skilled personnel with expertise in scaling, monitoring, and evaluation, and sufficient resources—both financial and technical—to support scaling activities across different phases. These capacities enable organizations to effectively navigate complexity, foster collaboration, and sustain impact at scale. Nevertheless, these elements are often overlooked when considering scaling strategies and are also often under-resourced.
- *Challenges:* The most common challenges to successful scaling include internal organizational barriers such as limited capacity for change management, insufficient skills in scaling and monitoring, and lack of strategic alignment across departments. External challenges often involve inadequate partnerships, resource constraints, and resistance from stakeholders or target communities. Organizations most frequently fail when they lack clear pathways, underestimate the importance of stakeholder engagement, or do not adapt innovations to local contexts and needs, leading to top-down, supply-driven approaches that miss local buy-in and sustainability. It is crucial that organizations focus on demand-driven approaches to innovation and scaling, rather than supply-driven initiatives.

Conclusion:

This review highlights that the most effective scaling strategies are those that are comprehensive, context-specific and integrate clear scaling pathways.

To maximize the likelihood of successful scaling, strategies need to include a specific definition & vision of scale, well-articulated pathways to scale, and ensuring that innovation is demand-driven. There also needs to be consideration of how to strengthen team capacities, integrate strong partnership development and ensure adaptive management throughout the process. Effective scaling requires tailored strategies that account for the nature of the innovation—whether it is market-driven or a public good—each demanding different pathways, stakeholder engagement models, and risk management approaches for successful implementation.

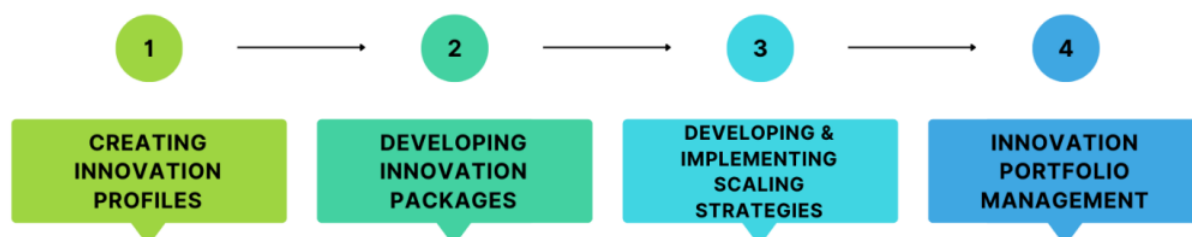
Part 1: Background – CGIAR Innovation Package and Scaling Readiness

Innovation and Scalability are placed at the forefront of CGIAR's mission in its 2030 Research & Innovation Strategy. This strategy underscores the importance of creating strategic and inclusive public and private partnerships to develop and scale products, services and other types of innovations (including methodologies and policy approaches) designed to respond to critical and complex social challenges centred around climate, agriculture and food security. This aligns with increasing global recognition of food security and food system challenges as systemic and interconnected – meaning expectations of demonstrable collective action around innovation development and use are increasing. It recognizes the urgent need to effectively improve the lives of large numbers of people in need by providing access at scale to innovations which often reach small numbers of beneficiaries relative to the need.

As a global research partnership, CGIAR spearheads the development of thousands of innovations and engages with partners in validating and scaling those innovations. To capitalize on the knowledge, learnings and impact of such a broad innovation portfolio, CGIAR is adopting a future-focused approach to Innovation Portfolio Management (IPM) whereby there is a standardized approach to classifying the state of readiness of the innovation, first alone and then as part of a package that takes the broader enabling environment into account, which permits the generation of analytics to guide strategic decision-making and resource allocation¹. Adoption of IPM approaches by public research and development organizations remains limited², but the need to do so is increasingly recognized. The CGIAR, in collaboration with Wageningen University, has been a pioneer in this space since 2012, with a unique IPM approach which balances enhancing internal organizational innovation and scaling capabilities with fostering connections to a diverse range of external partners in the agricultural innovation ecosystem. A core feature of this approach is having teams understand and effectively use the [Innovation Package and Scaling Readiness](#) (IPSR) model.

IPSR is an approach which introduces an evidence-based method for monitoring the stage of maturity of an innovation and curating innovation packages along an impact pathway. This provides standardized methodologies and metrics that facilitate the aggregation of data to effectively manage an innovation portfolio.

The framework and tools of IPSR focus on getting innovations scaling ready, identifying, and mobilizing scaling partnerships and tracking scaling progress and operate across 4 key phases:



Although discussions of adopting IPSR as a tool central to managing CGIAR's innovation portfolio began in 2020, the methodology was further formalized upon inclusion in the [CGIAR performance and results management framework for 2022 – 2030 \(CGIAR System Organization, 2020\)](#), the companion document to CGIAR guidance 2030 Research & Innovation Strategy. As of July 2025, in the PRMS system CGIAR has 1018 innovations under development, and 348 innovations in use. In moving the process forward, further progress is required in the design, delivery & the realization of scaling strategies, especially in light of increasing donor pressure for impact at scale in part due to desire to meet the 2030 Sustainable Development Goal (SDG) targets. Recognition of this was also demonstrated in 2017 with the establishment of the International Livestock Research Institute (ILRI)

¹ Schut et al., (2004), Innovation portfolio management for responsible food systems transformation in the public sector: Lessons, results and recommendations from CGIAR

² Proud, E., Schut, M., and Kumpf, B (2023), Innovation Portfolio Management in the Public, Non-profit Sector: <https://oecd-opsi.org/blog/innovation-portfolio-management-public-non-profit-sector/>.

Impact at Scale program. One of the key product lines of Impact at Scale is designed to provide the institute and its key partners with a framework for scaling proven technologies and solutions. In 2020, ILRI articulated an overview of the steps in a scaling process as envisaged for ILRI and highlighted tools related to scalability assessment developed by research institutes, development agencies, nonprofit organizations and private companies. That work forms part of the broader journey at CGIAR to articulate methodologies, processes and practices that will influence an innovation journey to scale³

While the advantages of IPM as an approach to help CGIAR in its journey to realising scale are increasingly recognized, there are some core considerations that have emerged as challenges to CGIAR achieving its innovation scaling ambitions. These include:

- Whether the necessary changes in internal practice, culture and incentives have been identified and put into place so that scientists perceive the benefits of designing with scale in mind and appropriate technical guidance is available to prioritize and support the scaling process;
- As non-research focused partners are requisite to undertake high levels of innovation scaling, the investment in identifying, cultivating and supporting these partnerships is significant and requires a breadth of resources and skills that need to be prioritized and financed within the organization or specifically within a team mandated to provide support for the delivery of innovation scaling strategies.
- Whether the resource needs required for the scaling process will materialize as uptake of design and validation with scaling in mind across the organization grows;
- If the CGIAR will invest more in up-front consultations to adopt a more demand-driven approach to the selection of innovations they should choose to develop and scale. There has been some criticism that innovations offered by the CGIAR are often supply-driven and top down⁴.

Part 2: Literature Review of Existing Scaling Strategies

A focused/targeted horizon scan of international organizations (including multilaterals, bilaterals, INGOs, donors and donor organizations) operating in the agriculture, climate and food systems space was undertaken to look at whether “scale” and “scaling” were inherent to their organizational mission and strategy, and/or whether they had specifically articulated strategies for how to achieve scale of innovations, project and programs or impact at scale. Additionally, organizations that were known for using innovation(s) to address complex social challenges outside of the specific climate/food/agriculture sector were also included – particularly those working on issues such as healthcare that have been leaders in developing scaling principles and approaches, although their delivery models often differ from those for agriculture - health innovations are often adapted into existing structures, while those for agriculture innovation packages need often to be newly created or require significant changes in the existing structures.

Based on this, we conducted a literature review gathering information across key concepts and definitions of scale – insights which would be particularly informative to the design, structure and journey of a CGIAR scaling delivery strategy:

1. Definition of Scale
2. Identified Pathways to Scale
3. Responsible scaling dimensions & definitions
4. Organizational capabilities and capacities required to scale
5. Scalability criteria (i.e. expected thresholds for innovations to move to scale)

Table 1 captures summary insights into the first three areas: Definition of Scale, Pathways to Scale and Responsible Scaling. Table 2 summaries insights into Organizational Capabilities and Capacities and Scalability Criteria.

Concurrently, we collected and reviewed any practical tools developed and tested, with a goal of adapting those that fit with the scaling pathways used to disseminate CGIAR innovations.

³ Dror, I. and Wu, N. 2020. Scaling better together: The International Livestock Research Institute’s framework for scaling. Nairobi, Kenya: ILRI.

⁴ Kohl, R. (2024), Mainstreaming Scaling Initiative Case Studies: the CGIAR of international agricultural research centers.

2.1 Key insights -- definitions of scale, pathways to scale & responsible scaling

In Table 1, we have ranked 23 key documents reviewed during the literature review in order of the most relevant and applicable to the development of the CGIAR innovation scaling delivery strategy, to the least applicable.

A central element in relevance and applicability is the alignment on the view of innovation and scaling with that of CGIAR. By this we mean that across organizations we see two main categories for grouping organizations around innovation and scaling considerations:

1. Organizations that focus on the development and validation of innovations (including bundles of complementary innovations) that are intended to address complex social challenges. "Scaling" is therefore the strategy and process (including investment opportunities) for delivery of these innovations at scale. Innovations may be novel products, processes, services or methodologies that intend to generate more effective solutions to complex and often systemic social challenges (such as climate change, food security, gender equality etc.), often for collective impact, gain and benefit. Of those we reviewed, organizations such as these include (but are not limited to) World Food Program (WFP), USAID's Feed the Future Program, GIZ and of course, current efforts with the CGIAR itself.
2. Alternatively, there are organizations which do not focus on the development of specific innovations per se, but rather look to integrate concepts of "impact at scale" across all their work. The objective of scale in terms of widespread impact, reach and number of beneficiaries is a guiding vision through all work, such as the World Bank's grant and loan support programs to low-income countries. Although this may seem implicit to the work of many international organization, there are some reviewed by us (such as Catholic Relief Services and Technoserve) that have a specific strategy for delivery of impact at scale which functions as a dedicated service-provision team or even projects (as in the case of CRS) that is tasked with ensuring integration of scaling objectives within the heart of the organization.

Our review shows that the first organizational category concerning how scaling is addressed is most aligned with the approach we are developing for CGIAR.

Table 1. Summary of Organizations' Definitions of Scale, Pathways to Scale, and Responsible Scaling Considerations, Capturing Organizational Type, Source of Information, and Potential Utility for the Proposed Delivery Strategy Development

Organization	Type	Document	Defining Scale	Pathways to Scale	Responsible Scaling	Potential Utility
USAID-Feed the Future#	Donor	Scaling for Widespread Adoption of Improved Technologies and Practices - U.S. Government's Global Food Security Strategy Activity Design Guidance (USAID, 2022) ⁵	Scaling of proven technologies and practices is the process of sustainably increasing the adoption and diffusion of a credible technology or practice, or a package of technologies and practices, to retain or improve upon the demonstrated positive impact of the technology or practice and achieve widespread use by stakeholders. We must reach millions, not thousands. Scale is reached when a majority of potential adopters within a target population are using the innovation. When we refer to the scaling up of activities, we mean scaling up activities for impact, rather than simply increasing the number of beneficiaries, outputs, or approaches. In contrast to scaling up a program from a pilot to higher-level systems change, scaling up an innovation may or may not require changing a system.	The scaling pathway depends on the nature of the good. The enabling environment is critical. Private goods are subject to demand-pull by markets; that is, there are high financial returns to individual actors, which incentivizes them to participate actively in the market. (USAID FtF preference for private-sector led scaling with sufficient resources & potential for sustainability through business model) Public goods are subject to supply-push forces, as there are low to no returns to individual actors. Can consider bundling a product with no demand-pull with one that has. (Will require donor or government support) For Common Goods , access is not controlled by payment, but access to the resource is restricted to entitled users.	Inclusivity including support for inclusive access.	High
GIZ	Donor	Scaling Toolkit: a guide to scaling (digital) innovation in international cooperation (GIZ, 2024) ⁶	Scaling is the process of adopting an innovation across large geographies and populations to achieve transformational impact.	1. Scaling vertically / scaling up: changing the institutional environment to achieve greater impact	Accessibility to vulnerable groups is a central criteria for scale.	High

⁵ USAID (2022), Scaling for Widespread Adoption of Improved Technologies and Practices: U.S. Government's Global Food Security Strategy Activity Design Guidance. (No longer available online).

⁶ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (2024), Scaling Toolkit: a guide to scaling (digital) innovation in international cooperation. <https://www.bmz-digital.global/wp-content/uploads/2024/04/GIZ-Toolkit-for-Scaling-Digital-Innovation-19032024.pdf>

Organization	Type	Document	Defining Scale	Pathways to Scale	Responsible Scaling	Potential Utility
			Transferring a proven solution to a new context (new geographic context, expanded or new target group, or even a new functional scope or thematic context) Focus is on optimal, not maximal, scale. Optimal impact is defined as relevance, sustainability, quality & quantity (impact as a quantifiable benefit).	2. Scaling horizontally / scaling out: expanding impact through replication and adoption in large geographies and populations 3. Scaling functionally: expanding/adopting the functional scope of an innovation for greater impact 4. Scaling deep: increasing impact of solutions by changing relationships, cultural values and beliefs, hearts and minds		
MSI / TetraTech	Private Sector	Scaling Up: from vision to large scale change. Tools for Practitioners (Management Systems International, 2021) ⁷	Primary definition is “Scaling Up”: expanding, replicating, adapting and sustaining successful policies, programs or projects in geographic space and over time to reach a greater number of people. 1. Expansion: growth, franchising, spin-off 2. Replication; policy adoption, diffusion, commercialization, grafting 3. Collaboration: partnerships, alliances, networks, coalitions, movements.	2 primary pathways for delivery of sustainable outcomes at scale; 1. Governments 2. Markets (Or combination of the two)	No clear reference.	High
Catholic Relief Services#	International NGO	Mainstreaming Scaling Initiative Case Studies - Catholic Relief Services (Will, M., Baldrige, E. and Blackwell, R., 2023) ⁸	CRS approach is focused on catalyzing outcomes at scale across all its work. Direct service delivery + systems thinking + catalyze outcomes at scale	Two pathways focused on supporting achievement of outcome at scale: 1. Scale-Specific initiatives 2. Scale-Sensitive initiatives (Se pg. 22 CRS doc for more info)	Focus on achieving humanitarian and development outcomes that are equitable, inclusive, and at the scale that is appropriate for the size of the problem.	High for Mindset to Scale

⁷ Management Systems International (2021), Scaling Up: From Vision to Large Scale Change. Tools for Practitioners. <https://scalingcommunityofpractice.com/scaling-toolkit-for-practitioners-new-2021-edition-available-now/>

⁸ Will, M., Baldrige, E. and Blackwell, R., (2023), Catholic Relief Services: Mainstreaming Scaling Initiative Case Studies. <https://scalingcommunityofpractice.com/wp-content/uploads/2023/11/Scaling-Up-at-CRS-FINAL.pdf>

Organization	Type	Document	Defining Scale	Pathways to Scale	Responsible Scaling	Potential Utility
ELRHA (Enhancing Learning and Research for Humanitarian Assistance)	International NGO	Progress to Scale Framework ⁹ (ELRHA, Enhancing Learning and Research for Humanitarian Assistance)	We define scale as building on demonstrated successes to ensure that solutions reach their maximum potential, have the greatest possible impact, and lead to widespread change.	A key pathway to scale is adoption or uptake — when an innovation is accepted and used by a relevant person or entity, especially in a new context.	Extensive considerations including: Inclusivity Accountability Duty of Care Equity Responsiveness Do No Harm Consent Sustainability Local Leadership	High for Participation / Humanitarian Innovation Toolkit
One Acre Fund	International NGO	Smart Scaling for Social Change Organizations: a case study of one acre fund's path to reaching 1 million farmers (USAID and One Acre Fund, 2020) ¹⁰	Impact at scale quantified as 1 million beneficiaries using their delivery system.	In new area, pilot testing of package of interventions, supported by their research unit. Local trained staff build up trust and expand package uptake by groups of around 15 farmers. Verify that desired impact is occurring along the scaling pathway. Belief expanding client density within existing region is efficient way to scale.	Not emphasized	Medium
World Health Organization (WHO)	Multilateral	9 Steps for Developing a Scaling Up Strategy (World Health Organization, WHO, 2010) ¹¹	Scaling Up defined as: deliberate efforts to increase the impact of successfully tested health innovations to benefit more people and to foster policy and program development on a lasting basis	4 potential scaling pathways identified: - Vertical (institutionalization through policy, political, legal, budgetary or systems change) - Horizontal (expansion/ replication)	Noted as a scalability criteria - responsible scaling as respect for human rights, equity & gender perspectives	Low

⁹ Enhanced Learning and Research for Humanitarian Assistance (Elrha) (Date Unknown), Progress to Scale Framework. <https://www.elrha.org/resource/progress-to-scale-framework>

¹⁰ USAID & One Acre Fund (2020), Smart Scaling for Social Change Organizations: a case study of one acre fund's path to reaching 1 million framers. <https://oneacrefund.org/publications/smart-scaling-social-change-organisations>

¹¹ World Health Organization (2010), 9 Steps for Developing a Scaling Up Strategy. https://iris.who.int/bitstream/handle/10665/44432/9789241500319_eng.pdf?sequence=1

Organization	Type	Document	Defining Scale	Pathways to Scale	Responsible Scaling	Potential Utility
United Nations Development Program (UNDP)	Multilateral	Strategy to Scale Social Innovation for Development (United Nations Development Programme, UNDP, 2020) ¹²	Scaling up is the process of ensuring: • Coverage, • Impact, and • Sustainability of a development innovation. This process involves not only an expansion of successful projects to a larger scale, but also strengthening of national capacities, and improvements of global, national and local policies	• Diversification • Spontaneous 3 identified pathways: • Scale Up • Scale Out • Scale Deep	Responsible scaling as a scalability criteria	Low
UKAid (Vuna Initiative)	Donor	Scaling up and Scalability: Concepts, Frameworks & Assessment - research report commissioned by Vuna (Adam Smith International & UKAid, 2016) ¹³	Focus is on “scaling up”. Scaling up means expanding, adapting and sustaining successful policies, programs, and projects in different places over time to reach a greater number of people. Scaling Up is additionally defined as “deliberate efforts to increase the impact of innovations, successfully tested in pilot or experimental projects so as to benefit more people and to foster policy and programme development on a lasting basis.”	3 types of deliberately guided scaling up: 1. Expansion or replications; policy/political/legal/ institutional scaling up (gov integrates into development plans); 2. Functional/ diversification scaling up (innovation added to existing packages). There are two broad approaches to scaling up. 1. Market-based with market demand and the profit motive driving the process; scaling up requires a large enough profit to justify continuing private investment.	Mitigation of negative effects on natural resources or environmental space. Climate smart considerations. End-user engagement in design process. No emphasis on inclusivity and inclusion of women and youth.	Low

¹² United Nations Development Programme (UNDP) (2020), Strategy to Scale Social Innovation for Development: A hands-on report for UNDP Accelerator Labs to enable context specific scaling of social innovation to achieve the SDGs. file:///Users/ilenapaltzer/Downloads/ScalingStrategy_UNDPAccLabs_SIPAL.pdf

¹³ Adam Smith International & UKAid, (2016) Scaling Up and Scalability: Concepts, Frameworks & Assessment – research report commissioned by Vuna (no longer available online).

Organization	Type	Document	Defining Scale	Pathways to Scale	Responsible Scaling	Potential Utility
				2. Through public sector and through social structures, and is motivated by the desire to achieve delivery of a public good. Note, long-term political commitment is needed to achieve socially valuable goals. In both cases the public sector has a role to play, and strategic partnerships are critical.		
Bill & Melinda Gates Foundation#	Donor	Achieving Lasting Impact at Scale: Behavior Change and the Spread of Family Health Innovations in Low-Income Countries (Report from a convening hosted by the Bill and Melinda Gates Foundation, 2011) ¹⁴	Focus is on concepts such as “solution leverage” and “integrated Innovation” which speak to a collaborative and system-wide innovation approach, leveraging multiple innovations & wins across a value chain for greater impact.	Strong preference for market-led scaling by the private sector i.e. investment into innovations that have a potential commercial pathway to scaling.	Inclusive Scaling GenderUp tool Clear commitment to including women (inclusive scaling) and minimizing environmental harm.	N/A
AGRA	Donor	Sustainably Growing Africa's Food Systems: AGRA's 5-Year Strategy (2023-2027) (AGRA, 2023) ¹⁵	Scaling inherent in its 5-year goal of supporting 28 million farmers across 15 countries in sub-Saharan Africa to lay the foundations for an inclusive, food systems-led agricultural transformation.	Partnerships-based approach to scale (ecosystem / systemic approaches to innovation), focused on addressing national priorities. Support to consortiums including private sector partners for value chain development. Primarily public-private pathways with mix of financial support to smallholder farmers as well as focus on strengthening viable and inclusive local and regional agri-food markets to strengthen markets & trade business.	Greater emphasis on sustainable farming practices (30% of farmers adopting) with focus on integrated soil fertility management; targets for female and youth inclusion.	N/A

¹⁴ Social Research Unit for Bill and Melinda Gates Foundation (2011), Achieving Lasting Impact at Scale: Behavior Change and the Spread of Family Health Innovations in Low-Income Countries. <https://socialvalueuk.org/wp-content/uploads/2016/08/Achieving-Lasting-Impact-at-Scale-Part-1.pdf>

¹⁵ AGRA (2023), AGRA's 5 Year Strategy (2023 – 2027). https://agra.org/wp-content/uploads/2022/09/AGRA's-Five-Year-Strategy_Sustainably-Growing-Africas-Food-Systems.pdf

Organization	Type	Document	Defining Scale	Pathways to Scale	Responsible Scaling	Potential Utility
Master Card Foundation	Donor	Mastercard Foundation Impact Strategy (Mastercard Foundation, 2020) ¹⁶	Transformation at scale to be achieved through systems change approaches. "By 2030, our goal is to enable 30 million young people, particularly women, to secure employment that they see as dignified and fulfilling"	Aiming for a positive cycle of commercialization and reinvestment. Transformational systems change through 3 main pathways: 1. Partners for scale (government, public sector, businesses, private sector) - partners have the capacity to deliver tangible benefits & achieve transformation change at scale. 2. Change in institutions & systems 3. Ripple Effects: work through societies & communities to transform individual impacts into impact at scale.	Inclusivity: women & youth Strong focus on country-owned & country-led. Demand-driven program portfolios.	N/A
AICCRA (Accelerating Impact for CGIAR Climate Research for Africa)	Multilateral Research Program (funded by the World Bank; CGIAR-led)	A vision for scaling climate-smart agriculture in Africa: Bridging the research-to-practice divide for climate-smart agricultural co-innovation in Africa. (Barlis, A. Bucknall-Williams, R. Loboguerrero, A. Negra, C. Rose, A., 2023) ¹⁷	Expand access, uptake and capacity of climate smart technologies. AICCRA is focused on validating technologies with national partners to get to the 10,000-50,000 beneficiary level. Three forms of scaling: 1. Scaling out (referring to uptake and adoption by larger number of people); 2. Scaling up (changes in enabling environment such as laws, policies, regulations and	No fixed scaling pathways identified as model believes a confluence of context specific factors combine to inform the way forward. Core principles informing the pathway for scaling: 1. Co-innovation: build on partnerships to bridge the research to practice divide. 2. Partnership-based scaling 3. Bundles: tailored technology / knowledge / service bundles at scale.	• Climate smart • Social inclusion • Targeted needs assessment for marginalized groups inform customized support strategies • Gender-responsive finance efforts to advance savings and insurance mechanisms that assist women-	N/A

¹⁶ Mastercard Foundation (2020), Impact Strategy. <https://mastercardfdn.org/en/what-we-do/our-strategy/>

¹⁷ Negra, C., Loboguerrero, A. M., Bucknall-Williams, R., Barlis, A., Rose, A. (2023), A Vision for Scaling Climate-Smart Agriculture in Africa: bridging the research-to-practice divide for climate-smart agricultural co-innovation in Africa. <https://aiccra.cgiar.org/sites/default/files/downloads/a-vision-for-scaling-climate-smart-agriculture-final.pdf>

Organization	Type	Document	Defining Scale	Pathways to Scale	Responsible Scaling	Potential Utility
			institutions i.e. context for financial investment); 3. Scaling deep (shift relationships, beliefs, values to enable new approaches such as co-design or participatory processes).	4. Validated solutions may be either directly replicated or adapted to suit local context depending on each country's specific entry points and granular baseline assessments 5. Policy changes & institutional innovation seen as powerful mechanisms for CSA and CSI scaling.	and youth-led enterprises	
World Bank (WB)	Multilateral	No specific document, but impact at scale (to reach millions) is core business model, aligned with national government priorities. 189 client countries.	Reaching millions based on evidence.	Projects/Programs are proposed, and bank & client decide together which ones to proceed on. WB loans/grants come with technical assistance. Focus on evidence-based investment decisions. Project Appraisal includes economic returns over a 30-year period, a section that now takes gender and environment into account. By end, expect government and/or private sector to keep managing the effort, as institutional capacity or enabling environment for business has been created. Note – this is different to investment in innovations, and this strategy is based on economic return on investment (i.e. not public goods)	In Food Systems 2030 (2023), the concept of Healthy People, Healthy Planet, Healthy Economy notes need for protecting the environment and greater inclusivity in value chain development. Project appraisal documents include significant targets for reaching women, and greater youth employment.	N/A
Asian Development Bank (ADB)	Multilateral	ADB Strategy 2023: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific	No specific definition of scale. "Scale" as a term is used almost exclusively in the 2030 Strategy in reference to "scale up work on.." or "scale up investment in..."	ADB's approach to maximizing the development impact of ADB assistance is through: 1. Facilitating policy dialogue 2. Providing Advisory services	Overall focus on inclusivity, resilience & sustainability.	N/A

Organization	Type	Document	Defining Scale	Pathways to Scale	Responsible Scaling	Potential Utility
		(Asian Development Bank, 2018) ¹⁸		3. Mobilizing financial resources through co-financing operations that tap official, commercial and export credit sources.		
African Development Bank (AfDB)	Multi-lateral	The Ten Year Strategy African Development Bank Group (2024 - 2033) (AfDB, 2024) ¹⁹	Term used is “scale up”. Scale defined primarily through quantifiable indicators of impact. For example, the Bank’s Technologies for African Agricultural Transformation (TAAT) program seeks to double productivity by giving access to more than 40 million smallholder farmers to agricultural technologies like climate-smart seeds by 2025.	No specific scaling pathways articulated	Cross-cutting priorities include: 1. Promote gender equality (at least 80% of public-sector operations and 50% of private-sector operations directly benefit women and girls) 2. Invest in young people 3. Respond to climate change and invest in climate action	N/A
World Food Program (WFP)	Multilateral	Scale Up Enablement: how to bring projects to scale (WFP Innovation Accelerator, 2022) ²⁰	Scale is how a project has grown sustainably over time Scaling goal: by the end of 2025, reach 100 million people	"Exponentially scale the world's most impactful innovations to reach zero hunger"	Implicit to work of WFP but not explicitly defined in innovation or scaling strategy	N/A
Global Innovation Fund	Multilateral Non-profit (public and private donor-funded)	2023 Impact Report: Why innovation pays (Global Innovation Fund, 2023) ²¹	No specific definition, but scale considered from outset of innovation development & design. Objective of fund is to support innovations with strong potential for social impact at scale. Use	Phases discussed, with pathways implied. Support Pilot; then Test & Transition; then Scaling. At test & transition stage, teams should propose a strategy to track and assess social impacts, cost effectiveness, operational feasibility, and if <i>relevant</i> ,	Incorporation into impact framework: • Women's equity considerations • Universal metric for incorporating	

¹⁸ Asian Development Bank (2018), ADB Strategy 2023: Achieving a Prosperous, Inclusive, Resilience and Sustainable Asia and the Pacific. <https://www.adb.org/documents/strategy-2030-prosperous-inclusive-resilient-sustainable-asia-pacific>

¹⁹ African Development Bank Group (2024), The Ten Year Strategy 2024-2033: seizing Africa's opportunities for a prosperous, inclusive, resilient, and integrated continent. <https://www.afdb.org/en/documents/ten-year-strategy-african-development-bank-group-2024-2033>

²⁰ World Food Programme Innovation Accelerator (2022), Scale-Up Enablement: how to bring projects to scale. https://cdn.prod.website-files.com/6241324b2f22ec56f2f9109a/64a57bbdca0554c3f5d46933_2022-05%20-%20WFP%20-%20Scale.pdf

²¹ Global Innovation Fund (2023), Why Innovation Pays. <https://www.globalinnovation.fund/assets/uploads/PDF-Documents/Impact-Reports/Global-Innovation-Fund-2023-Impact-Report.pdf>

Organization	Type	Document	Defining Scale	Pathways to Scale	Responsible Scaling	Potential Utility
			risk-adjusted, long-term scale projections.	<i>commercial viability</i> . At scaling stage, need to address operational challenges to scaling, <i>partnerships that will support effort beyond the GiF support</i> ; expanding to different contexts/countries, and improve cost-effectiveness as move to scale.	climate adaptation and resilience.	
HarvestPlus	Non-profit or for profit companies in specific countries aligned with CGIAR Program HarvestPlus;	Crop Biofortification: the pathway to scaling up (HarvestPlus, 2021) ²²	Terminology used is "Scale Up". Scale objective is by 2030, to help partners worldwide sustainably reach 1 billion people by embedding biofortified crops and foods in food systems. As of 2023, have reached 103 million.	Private sector approach, working with seed companies to move to scale as preferred choice, while coordinating with government programs for early generation material.	Not emphasized.	N/A
Technoserve	Inter-national NGO	No specific document	Impact at scale is an inherent approach to the work – based on Market systems development approach (M4P). Scale of impact quantified as "Over the next 10 years, millions of Technoserve clients will earn \$3 billion more in sustainable incomes"	Market systems approach i.e. focusing on market systems with: • A clear opportunity (an unmet demand for a product or service) • Potential for inclusive growth that benefits poor people in their roles as producers, entrepreneurs, employees or consumers) • Potential for scale (impacting significant numbers of families)	Preference for value chain investment where there is potential for inclusive growth	N/A

²² HarvestPlus (2021), Crop Biofortification: the pathway to scaling up. https://www.harvestplus.org/wp-content/uploads/2021/12/Crop-Biofortification_The-Pathway-to-Scaling-Up.pdf

Organization	Type	Document	Defining Scale	Pathways to Scale	Responsible Scaling	Potential Utility
OLAM	Private Sector	No documents available on website. Just news stories, etc.	Organizational strategy includes a focus on innovation "Offering added value solutions through our innovation centers and supply chain". Olam Agri says it support 400,000 smallholder farmers in its livelihood program in 2022.	Not specified, but smallholder support programs focused on crops that OLAM will purchase.	Not specified	N/A
East-West Seed Knowledge Transfer	Private Sector (Corporate non-profit foundation of private Dutch seed company)	East-West Seed Knowledge Transfer	Scale of reach/impact quantified in 5-year 2021 strategy: Our ambition is to expand the number of new farmers we train annually from 100,000 to 300,000 every year over the coming five years. To effectively reach 1 million smallholders.	Not clear	Target 50% beneficiaries women; 40% youth (<=35 years of age)	N/A
Syngenta Foundation for Sustainable Agriculture (SFSA)	Private Sector	SFSA Strategy Paper 2021-2025 (Syngenta Foundation for Sustainable Agriculture, 2021) ²³	No clear definition captured	Pathways: Expansion of efforts focused on commercial smallholder farmers with innovation & transformative solutions. Scale to be achieved through entrepreneurship & enterprise models. Combinations of scientific, non-profit, and private sector work. We enable private enterprises to offer the resulting appropriate products and services commercially to low-income farmers	Not specified	N/A

²³ Syngenta Foundation for Sustainable Agriculture (2021), SFSA Strategy Paper 2021-2025. This document is no longer available online as the Syngenta Foundation is no longer active.

2.1.1 Insights – core themes and definitions:

1. Definition of scale

The most commonly used term across the sources reviewed is “scaling up” - with varying descriptive definitions of what this means. Key terms included:

- Adoption
- Expansion
- Diffusion

This aligns with the wider body of literature on scaling social innovations that primarily refers to scale as “growth” with the objective of increasing the number of people who benefit from a social innovation. This might mean, for example, getting a set of principles or a methodology adopted more widely, replicating a programme or intervention in new areas or attracting more customers or users for a product or service. This type of scaling is likely to involve increasing reach across a wider geographical area.

But social innovations aren’t developed in a vacuum and the focus of scaling isn’t always on a single innovation. There may be instances where scale is achieved through iteration of social innovations (including by building on or adding to them) to have more impact on a target population or a social problem or need. This might include developing complementary innovations that address issues related to the same social problem, innovating in other parts of the supply chain or attempting to bring about policy or regulatory change. This type of scaling is sometimes called ‘functional’ scaling and refers more to adaptation of an existing innovation or in a basic sense the addition of extra functionalities.

In terms of determining whether scale can be said to have been achieved, across the literature we reviewed, core indicators that may signal the achievement of scale include:

- Increased impact to benefit more people
- Ensuring achievements endure over time
- Reaching maximum potential
- Having greater impact
- Resulting in widespread change
- And, enduring with sustainability.

The vast majority of descriptions and definitions of scale across the literature we reviewed for this work (and beyond), are qualitative, encompassing the point discussed above. Quantification of scale is likely only to be seen when a scaling strategy for a specific innovation or innovation package is developed, i.e. when exact targets are developed and attached to a scaling vision or ambition within a strategy, and the scaling pathway has been selected.

As mentioned on pg. 6 there is a significant difference to the definitions and strategies of “scale” between organizations that pursue the scaling of individual or bundled specific innovations, and those that consider “scale at impact” inherent across all their projects, programmes and interventions.

Based on this, for the purpose of the development of the CGIAR innovation scaling delivery strategies, we will consider the definition of scaling of proven innovations as:

the process of sustainably increasing the diffusion and adoption of a credible innovation or a package of innovations, thereby achieving widespread use and demonstrated positive impact of the innovation(s). Given its commitment to engage in research serving smallholder farmers in the so-called developing world, CGIAR has an obligation to scale responsibly, a commitment to gender equity and inclusiveness of vulnerable populations and doing no significant harm to the environment.

2. Pathways to scale

A critical element in considering how to scale innovations is the pathway through which they will scale – and choosing this is a key decision in the early stages of any innovation scaling journey.

A key distinguishing element of the scaling pathway for each innovation will be whether the innovation can be commercialized and therefore is likely to have a private-sector/market-led scaling strategy. Alternatively, an innovation may be a public good which therefore requires a public-sector led and delivered scaling strategy, or it may be a public good that can be bundled with commercial innovations or products along its value chain.

This gives us 3 scaling pathways that will be identified within CGIAR Scaling Strategies;

1. Market-led: private-sector driven for commercially viable innovations that aim to scale through profit/revenue generation and ultimately achieve 100% financial sustainability;
2. Public-sector driven: a public good innovation that is not profit or revenue generation. In this instance, the understanding is that innovation scaling has to rely for the *majority* of its financial resources on government or public sector funding.
3. Public-Private sector Partnership (PPP) driven: Public-private funds blended across the value chain. When public goods are bundled with commercial products or when potential commercialization of the innovation is only possible at particular points in the value chain. In contrast to public-sector driven scaling, where the majority of financial resources are public sector, in a PPP the majority may be either from the private sector or the public sector.

Under these, there may be models for scaling such as franchising, open-licensing etc. These are business models and will be identified by the innovation team after determining the pathway to scale.

Part 3: Responsible scaling

3.1 Definitions of Responsibility

Neither the process of innovation itself, nor scaling, are inherently “good”. Both may foster new forms of exclusion or have environmentally or socially damaging consequences. Key criteria in considering an innovation’s impact and potential scalability, such as its usability, adoptability, adaptability and accessibility, will vary context to context and with different user groups. As such, intentional consideration of responsibility criteria is required during innovation development use and scaling, and strategies to address them need to then be tailored accordingly.

Most frameworks of consideration for responsible innovation and scaling are organized around 4 key topics²⁴:

1. *Anticipation* (what might happen if we implement this intervention?),
2. *Inclusion* (who is involved, being consulted, in the innovation process? Are all relevant voices being heard? Who are the potential winners and losers?),
3. *Reflexivity* (critically asking ourselves if we’re doing the right thing and doing it right - a practice which can improve the effectiveness of the Do No Harm approach overall²⁵)
4. *Responsiveness* (how do we best respond to all these dimensions?).

In practical terms, Responsible Innovation and Scaling requires considering²⁶:

- Diversity and social differentiation among users and non-users of an innovation: *what diversity matters for what innovations?*
- The trade-offs and cross-scale effects of implementing an innovation: *what and whose goals matter and have priority over others?*
- The legitimacy of decision-making: *what decisions are taken, by whom and by what process?*
- The quality of that decision-making: *whose knowledge counts and how do we collect it?*
- Principles of do no harm and environmental protection: *how to ensure responsible innovation which considers doing good and avoiding harm through consideration of sustainability.*

Within CGIAR, the focus moving forward is to embed within the practice and model many of these key dimensions of responsibility across the 4 stages of IPSR (1. profiling, 2. packaging, 3. scaling and 4. innovation portfolio management). These include:

1. Anticipating socially differentiated outcomes
2. Anticipating trade-offs

²⁴ Wiarda, M. and Doorn, N. (2003), Responsible innovation and societal challenges: The multi-scalar dilemma. <https://www.sciencedirect.com/science/article/pii/S266665962300015X>

²⁵ Vitantonio, C. (2024), Reflexivity, coloniality and Do No Harm: thoughts on the subjectivity of aid workers - The Humanitarian Leader Working Paper 049

²⁶ Dror, I., Ewell, H. Leeuwis, C., MacMillan, S., McGuire, E., Schut, M., Urmeneta, C. and Jasada, I. (2024). Responsible Innovation & Scaling Strategy Development Process for CGIAR’s IPSR Framework Workshop Report, ILRI Campus, Nairobi, Kenya, 21-22 March 2024. <https://cgspace.cgiar.org/items/fbcec84f-2a88-45e2-b7af-5c4e948c6681>

3. Mobilizing relevant expertise and information
4. Practicing reflexive thinking
5. Ensuring that decision-making is inclusive.

Through our literature review, we see that across the strategies there is almost universal reference to considerations of responsible innovation and scaling – however, with wide variation in definitions and in very few scaling frameworks are explicit strategies of gender inclusion of environmental concerns considered criteria to be fulfilled before an innovation may move to scale. Many strategies allude to an inherent consideration of responsibility concerns – namely the principles that lie at the heart of their organizational values around do no harm, inclusivity and equity.

Across the literature review, we saw definitions of responsible scaling most often referring to:

1. Inclusive scaling / social inclusivity (i.e. targets specifically on women and youth participation)
2. Equitable / Gender equity
3. Environmental sustainability (particularly in relation to agricultural innovations) e.g. climate smart technologies
4. Accessibility to vulnerable groups / inclusivity of access
5. Innovations addressing cross-cutting issues e.g. gender, climate change or natural resource management
6. Ownership: country-owned & country-led
7. Do no harm principles (to people and nature)
8. Respect for human rights

For CGIAR innovations, our view is that responsible scaling is about:

- *Designing for sustainable and responsible change at scale from the beginning of the innovation journey – this means designing for responsible impact at scale from an early stage of innovation research and development. By embedding the approaches, tools and mindsets of responsible scaling in the earliest stages of CGIAR's innovation processes, we will ensure that our key responsibility concerns of:*
 - *Gender Equity & Inclusivity (especially of women and youth);*
 - *Environmental Sustainability;*
 - *Do no Harm;*
 - *Alignment with national priorities*
 - *Commitment to co-design with partners, with a focus on increasing engagement and leadership by national entities as scaling progresses.*

Are addressed in all CGIAR Scaling Strategies.

3.2 The practice of responsible scaling:

IPSR participants have through workshops²⁷ identified the following actions to ensure CGIAR's innovations are not only effective but also socially inclusive and responsible and that they drive meaningful change in agricultural development:

- Empower local-led innovation: It's time to empower locally led innovation processes, recognizing that designs must be effective on the ground to drive real impact. With improved problem identification and prioritization, the potential for co-design between researchers and community-based innovators increases.
- Integrate gender concepts early: Gender concepts and potential impacts should be integrated early in the innovation process. Ask: Who. will benefit from our innovations, and in what ways?
- Anticipate gender impacts: When scaling innovations, anticipate and address gender impacts. Think beyond immediate benefits and consider also long-term consequences.

²⁷ Dror, I., Ewell, H. Leeuwis, C., MacMillan, S., McGuire, E., Schut, M., Urmeneta, C. and Jasada, I. (2024). Responsible Innovation & Scaling Strategy Development Process for CGIAR's IPSR Framework Workshop Report, ILRI Campus, Nairobi, Kenya, 21-22 March 2024. <https://cgispace.cgiar.org/items/fbcec84f-2a88-45e2-b7af-5c4e948c6681>

- Support women farmers: Take action to remove constraints faced by women farmers, while being cognizant of appropriate engagement within the community to avoid backlash. Provide better access to resources, decision-making power, markets, and challenge limiting social norms.
- Embrace team diversity: Actively seek diverse team compositions, ensuring representation of both genders on the research teams, and engaging with gender researchers early in the innovation design phase. Ensure all team members feel empowered to contribute, fostering an environment conducive to innovation.
- Prioritize outcome-based scaling with a thorough understanding of user demand.
- Utilize GenderUp methods: Embrace the GenderUp method or equivalent as a tool to guide innovation teams in scaling agricultural innovations responsibly, ensuring equitable access to benefits.

One existing critical aid currently used within some CGIAR innovation efforts is GenderUp²⁸ -- a tool based on the tenets of responsible research and innovation, gender equity and the science of scaling. As a discussion-based/conversational method that is facilitated through workshops, it helps innovation teams to design Scaling Strategies for agricultural innovations in a more responsible way by achieving more equitable access to the benefits of those innovations. GenderUp operates across 5 stages of innovation journeys: 1. defining the scaling ambition, 2. exploring relevant dimensions of diversity, 3. understanding intersectionality of relevant diversities, 4. mitigating negative consequences, 5. integrating GenderUp (focused on how to incorporate the new inclusive scaling strategy into project work plans).

To serve IPSR's specific needs, a contextualized adaptation of GenderUp has been integrated into its profiling and packaging stages and includes not only considerations of inclusion, participation, diversity and resource allocation, but works to identify actions to mitigate and minimize the risk of innovation generating unintended negative outcomes. These activities are tailored for specific groups and contexts to ensure that the innovation can scale responsibly.

Building on these reviewed concepts, Annex I captures some suggested actions and tools that can be applied across each phase of the journey to scale. These may serve as pulse checks or stage-gating opportunities to address responsibility issues between each stage of the innovation-to-impact pathway.

Part 4: Scaling Criteria, Capacities & Capabilities -- Key Insights & Findings

From the review, we harnessed across 23 relevant scaling strategies the key elements considered as "criteria" for determining whether an innovation had reached a readiness threshold for scaling. Critical to this was an assessment of the relevance of criteria to the work of CGIAR innovations, as well as the existing criteria used to assess "innovation readiness" and "innovation use" and overlaying this against the information that is collected through the CGIAR IPSR innovation profiling and packaging processes, in order to select the criteria most relevant for our assessment.

²⁸ McGuire, E., Leeuwis, C., Rietveld, A.M. & Teeken, B. (2024), Anticipating social differentiation and unintended consequences in scaling initiatives using GenderUp, a method to support responsible scaling, <https://www.sciencedirect.com/science/article/pii/S0308521X24000167>

Table 2: Common Scalability Criteria Mentioned Across the 23 Relevant Scaling Strategies

Scalability Criteria	Explanation	# of strategies reference
Demand-driven	Clear market identified user need/community demand. Clear target group. Value	9
Evidence of Impact	Evidence provided to support Outcomes highlighted in the Theory of Change	8
Financial Sustainability	incl. financing strategies e.g. investment or viable business model if profit generating. Scaling resources. Scaling cost projections	8
Sustainability of Use	Ease of use. Includes transferability & adoptability	6
Scaling Vision	Ambition / Goal	5
Scaling Strategy	Fully articulated	5
Business model validity	If applicable i.e. pathway dependent – usually commercial pathway only	5
Conducive environment	Enabling environment, conducive innovation policies, legal & regulatory frameworks	5
Adopting org capacity	Capacity of the organization adoption (or taking-up) the innovation	5
Partnerships	Coordination, networks, strategic partners. Partners with drive & resources to do scaling	5
Scaling team	Dedicated team/human resources, sufficiently resourced	5
Competitive advantage	Market size, likelihood of success	5
Scaling pathway identified	Includes adaptability. Viable delivery model	4
Trust	Legitimacy, credibility, alignment of innovation	4
Innovation maturity	Innovation profile, solution maturity	3
Institutional Sustainability	Strategic longevity of the organization	3
Sustainability of access	Accessibility to user including vulnerable groups	3
MEAL	Monitoring, Evaluation, Accountability, and Learning	3
Stakeholder prioritization	Alignment with priorities of key stakeholders incl. Government, donors, end users	3
Proof of concept	Not same as evidence of impact – measures feasibility, viability, desirability.	2
Local ownership	End-user involvement & participation. Buy-in of user group	2
Market assessment	Gatekeepers	2
Social Return	Principles-based method for measure environmental or social value not usually included in standard financial accounting	1
Ecosystem analysis	Not relevant to all innovation packages	1

What is well-documented across the literature, including CGIAR's own research²⁹ is the critical role of certain organizational approaches, capacities and skills in order to ensure the success of innovation development and scaling. For example, at the forefront of this is the recognition that organizations working on ambitious innovations addressing systemic challenges will require systemic action and transformation to achieve success. Systemic transformation is highly dependent on working with other key actors, stakeholders and influencers within an ecosystem through partnerships, networks and informal collaborations.

Table 4 summarizes key capacities, capabilities and ways of working that organizations wishing to deliver impactful innovations at scale feel are requisite for success. This information will help inform the lessons we can share with CGIAR about the human resource needs of innovation teams (either core innovation teams, or innovation "service provider" teams that support from centrally located within an organization) and the types of capacities that will need to be embedded within the organization (and/or brought in as needed) to adequately support the development of scaling delivery strategies.

In developing a scaling delivery strategy, it is imperative for institutions to be honest regarding their capacity to deliver during the proposed implementation, and where capacity strengthening is required – particularly because of the collaborative and partner-based effort that scaling requires. Consideration will also always be needed in CGIAR's scaling work on whether the necessary skills and capacities exist in house, or whether they are offered and delivered by partners in the value chain.

²⁹ Kohl, R. (2024), Mainstreaming Scaling: A Case Study of CGIAR. <https://scalingcommunityofpractice.com/wp-content/uploads/2024/03/Scaling-Up-at-CGIAR.pdf>

Table 3. Capacities & Capabilities Required Within Organizations to Deliver Innovation Scaling and Number of Times Mentioned in 23 Scaling Strategy Documents Reviewed

Category	Explanation	Total
Partnerships & Networks	Collaboration, regional & national, public-private partnerships (PPPs)	13
Institutional Capacity	Dedicated innovation team, implementation competencies, process capacities, clear roles e.g. drivers, champion, leaders. Technical assistance (including as a hub)	10
Policy & Regulatory	Political economy analysis, contextual understanding, legal innovation aspects, conducive innovation policies	9
Wide Stakeholder Engagement	Mobilization & participation, collaborative innovation, co-innovation, engagement with relevant government bodies	7
Training & Capacity Building	Including provision of training and technical support to adopters to be able to implement and apply the innovation correctly	7
Learning & Knowledge Management	Communities of practice	7
Financial Skills	Resource mobilization, fundraising, financial management, business development	6
Advocacy	Including work to create demand among target or early adopters	5
Market Analysis	Market research	5
M&E	Impact measurement	4
Vision & Leadership	Culture of innovation, leading with energy, clarity, ambition to scale	4
Access to finance	E.g. dedicated funding for scaling esp. for non-commercial scaling pathway	3
Communication & Information Sharing	Communication from within and about the innovation portfolio to facilitate successful implementation, adoption & scale up of innovative approaches.	3
Organizational Change Management	Culture change, mindsets, addressing institutional bottlenecks	3
Digital Skills	The ability to effectively and safely find, evaluate, use, share, and create content, products and services using digital devices and technologies	3
Business Strategy	Business model development (Particularly applicable for Commercial Pathway)	2
User research/ insights	Understanding your customer base (this is separate from market analysis)	2
Ecosystem analysis	Understanding and interpreting the complex interactions within an ecosystem, to inform strategic decision making within a particular operating environment.	2
Data & Analytics	The ability to collect, analyze, interpret, and visualize data to extract meaningful insights and inform decision-making	1

Category	Explanation	Total
Incentives & Accountability	Related to performance and achievement, this is about strategically using rewards and consequences to motivate desired behaviors and ensure responsibility for outcomes.	1
Marketing	Linked to promotion of an initiative, product or service. Related to communication, creativity and understanding “customers”.	1

Based on the above review, we developed a set of screening and prioritization criteria (Annex II) to be used for review of promising CGIAR innovations for potential selection into this scaling delivery strategy development process.

Part 5: Summary of Current Financing Mechanisms for Scaling Agricultural Innovations and/or Value Chain Approaches

Across the financing landscape for scaling agricultural innovations and/or value chain approaches there exist a number of key financing mechanisms or modalities including:

1. Public funding and government support:

- Grants, subsidies or tax incentives to support research, development, testing and adoption of new technologies and innovations around agricultural practices and commodity-specific value chains (especially for export-oriented products);
- Public investment in infrastructure to support and create efficiencies in value chain operations;
- Policy and regulation support to create more conducive enabling environments for innovation and investment in the agricultural sector.

2. Private investments:

- Venture capital funds represent pooled investment of funds focused on early-stage companies that are perceived as high-growth opportunities. Financing is provided in exchange for startup equity. These are perceived as high-risk, long-term investments worth taking only if there is high return potential.
- Private equity financing is the process of raising capital through sale of shares in a company. Alternatively, it can also come through crowdfunding (see below in “innovative financial instruments”). Both private and public companies raise money for short-term needs to pay bills or long-term projects by selling ownership of their company in return for cash. In Africa, many initial investors in the agriculture sector are family members or so-called “angel investors,” individual or groups investing in a company that may provide adequate returns as well as meet other goals such as more sustainable farming practice. Most agricultural companies use a combination of debt financing (taking loans) and private equity (no obligation to repay).
- Impact investing is investment by those seeking to generate both financial returns and positive social and environmental impact, prioritizing increased investment in sustainable agriculture, climate-resilient systems, and value chains.
- Corporate social responsibility (CSR) is an avenue through which companies may invest in agricultural projects and initiatives as part of their CSR programs, supporting sustainable practices and value chain development.

3. Innovative financial instruments:

- Crowdfunding: Online platforms allow farmers and innovators to raise capital as investments from a large number of individuals globally who may wish to contribute to impactful social innovations.
- Mini-bonds: Small-scale bonds can provide access to capital for agricultural enterprises, particularly in emerging markets.
- Micro-finance or Micro-leasing: Microfinance refers to financial services, like loans, savings, and insurance, provided to low-income individuals or groups who are typically excluded from traditional banking, aiming to promote self-sufficiency and economic empowerment. In practice, microfinance has been more utilized to support non-agriculture SMEs, as the time period for repayment and amounts required often do not fit with the agricultural cycle. Micro-leasing is where microfinancing institutions retain ownership of assets until payments are completed, allowing those accessing the loans to purchase capital goods and access other financing sources.
- Warehouse Receipt Finance: Stored agricultural production can be used as collateral for accessing credit, allowing farmers to sell their produce when prices are more favorable.
- Trade Finance: Agricultural trade finance is the financing of international trade transactions involving agricultural commodities, providing credit, payment guarantees, and insurance to facilitate the movement of goods from producers to buyers, bridging the gap between when exporters need payment and when importers can pay.

- Risk-sharing mechanisms: Insurance and warranty programs can help farmers mitigate risks associated with climate change, pests, and diseases.
- Sustainable Bonds and Loans: Financial institutions are increasingly offering sustainable bonds and loans to support projects that promote environmental sustainability and social responsibility.

4. **Collaborations or partnership funding models** (value chain approaches) between financial institutions, value chain actors and government agencies.

- Value Chain Financing: Providing access to finance for all actors in the value chain, from smallholder farmers to large processors, is essential for sustainable development.
- Collaboration and Partnerships: Working with financial institutions, government agencies, and other stakeholders can create a more effective and sustainable system for financing agricultural innovation and value chain development. A model of this which is growing in popularity are credit guarantees, through which a government agency or specific development bank or group (e.g. AGRA) will provide a credit guarantee whereby they agree to repay a lender if a borrower defaults on a loan. This is a major support for agro-dealers and other smaller enterprises that may lack sufficient collateral to obtain significant bank loans.

In review of the literature, it was apparent that in the same ways as it will influence the scaling pathway, the need or opportunity for funding for innovation scaling will be highly dependent on whether the innovation is commercially viable and can achieve financial sustainability through profit or revenue generation, or whether it is a public good innovation which requires donor or government funding.

In the case of public good innovation, a key finding through our literature review and stakeholder interviews is that resourcing to move beyond innovation development, profiling and packaging (in the IPSR process) is a significant challenge. Even for market-oriented innovations, most growing agricultural businesses find it difficult to secure loans or other financial tools needed to invest in their operations, purchase inputs like seeds or fertilizers, or weather economic shocks. Banks often consider agricultural investments to be too risky, leading to a cycle of underinvestment and limited growth potential. It is critical for any innovation to evaluate its economic and other benefits for its endusers relative to its cost. Yet this is often not done in a timely manner which would ultimately enhance the ability of the team to attract financing.

Recognizing that banks struggle with how to support women and other groups that have been unable to access financial services, the FAO (2025) has developed a toolkit to support financial institutions to develop financial products and outreach strategies to reach more women in agricultural value chains³⁰.

As such, here we briefly consider the types of financing or alternative financing that could be applicable to the later stages of innovation development, i.e. scaling strategies & scaling activities:

1. **Support to Develop Scaling Delivery Strategies**

- a. Scaling Funds, to help innovation teams overcome key bottlenecks to scale and optimize their innovation packages, including capturing the economic costs and benefits of their operation. In addition, the costs of scaling to different levels relative to the returns should be considered.
- b. Accelerator platforms such as Accelerate for Impact Platform (A4IP) for Market-led Innovation Packages³¹. This platform aims to bridge “science and entrepreneurship to incubate and accelerate scientific ventures for spin-offs, such as start-ups, that directly respond to market demand and generate both impact and the resources needed to support continued research in pursuit of the Sustainable Development Goals.” It seeks to prepare innovators to be able to obtain venture capital funding.

2. **Financing of Scaling Interventions**

- a. Traditional Donors (public good and public-private partnership innovations, with an increasing emphasis on market-led innovations)
- b. Multilateral Donors (public good and public-private partnership innovations)
- c. Scaling Support Funds (public good innovation or market-led innovation), e.g. Global Innovation Fund

³⁰ <https://openknowledge.fao.org/items/c88b390e-ab06-4028-b767-21bcc37e031d>

³¹ <https://alliancebioversityciat.org/tools-innovations/accelerate-impact-platform>

- d. Blended Financing is defined as "the strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets"³², resulting in positive results for both investors and communities. It offers the possibility to scale up commercial financing for developing countries and to channel such financing toward investments with development impact. As such, blended finance is designed to support progress towards the SDGs. For example, AGRA supported financial service institutions to manage risk associated with the agricultural sector. Develop and deploy tailor-made risk sharing facilities that includes guarantees, grants, technical assistance facilities and insurance elements. However, again the agricultural sector receives a much smaller proportion of blended finance compared to the energy sector (the largest recipient), the financial services sector, health and education, and the infrastructure sector. In addition, investments in Latin America are higher than in Africa³³.
- e. Linkage to Multilateral Institutional Funding to Governments
- f. Linkage to Private Capital
- g. Equity Financing (for market led innovations). Raising capital by selling partial ownership interest to investors.
- h. Angel Investors: provide the financial resources, strategic guidance, and confidence entrepreneurs (including social entrepreneurs) need to bring their innovations to market. By fostering innovation and empowering early-stage companies, they serve as catalysts for economic growth and societal progress.
- i. Debt Financing. Debt financing for social innovations involves borrowing money, typically from investors or lenders, to fund social projects or initiatives, with the understanding that the borrowed funds must be repaid, often with interest, based on a set schedule

Although much of the above is relevant to market-led or commercial pathway innovations, across the literature review, there were some options or models for consideration in funding public good innovations. For example:

- Catholic Relief Services has a number of channels or models to fund its objectives of impact at scale:
 - Scale Fund. It should be noted this is specifically *not* a pilot fund. It exists to fund the work required to address needs or gaps identified in the scale vision exercise. The organization creates access to institutional funding for initiatives meeting criteria to scale.
 - Blended finance models (even into a fund itself) for meeting resource needs on scale initiatives.
 - Investment of discretionary funds to complement donor funds and increase chances of scale goals being achieved.
 - Mobilizing private funding to support catalyzing scale as this is an area with limited funding from traditional institutional donors. This funding is used to fill gaps where traditional funders do not fund. CRS also uses discretionary funding and blended finance to leverage catalytic impact
 - Impact investing
- Syngenta Foundation
 - Supports the private sector to invest commercially, including with public subsidies.
 - Conducts assessment of feasibility for longer-term private investment
- AICCRA offers models for revenue generating innovations such as
 - Supporting local entrepreneurs such as cooperatives & SMEs through financing strategies based on viable business models and investment mechanisms
- For public-private partnership innovations, the USAID Feed the Future, despite an admitted preference for scaling innovations with commercial potential, did emphasize that in early stages donor or government financing may be critical for create demand and/or improve the enabling environment to create conditions for the private sector to enter.

What emerges through this review, is that many innovation teams tackling complex social challenges (including those at CGIAR working on agricultural innovations) require significant technical expertise as support to develop the requisite business plans or critical financial justifications for public-sector innovations to be able to attract funding at scale.

³² https://en.wikipedia.org/wiki/Blended_finance

³³ Convergence Blended Finance (2024). *The State of Blended Finance 2024*. Convergence Report.

It is of note that digital agribusiness marketplaces are the most invested category as early-stage investors back the scalable aggregation of smallholder farmers to supply inputs and markets typically unreachable to them. Moreover, according to AgFunder, “climate finance for small-scale agriculture has been sourced 95% from the public sector, including governmental donors, multilateral development finance institutions and bilateral development financial institutions, with grants the predominant financial instrument providing 50% of committed finance, followed by concessional and non-concessional debt.”³⁴ Their review recommends that investors focus on six investment opportunities in the climate adaptation space that could benefit smallholder farmers, namely:

1. On-farm and post-farm infrastructure (e.g. irrigation and cold storage, emphasizing use of renewable energy as power source)
2. Climate-smart inputs (e.g. drought resilient seeds and health-enhancing microbes)
3. Enabling data and intelligence (e.g. agroclimatic risk tools and precision agriculture tools)
4. Innovative financial services
5. Climate adaptive value chain actors
6. Digital marketplaces (platforms to match farmers with better inputs & market opportunities)

Part 6: Scaling Tools

In a review of the existing literature on scaling socially impactful innovations, we also considered the type of document that each organization was presenting as their “scaling strategy”. It became clear that each organization included in our core review, presented different types of materials as “scaling strategies”. The majority of documents we reviewed could be classed as “strategies” in a traditional sense - they were long-form analytical reports considering the inputs required to increase the likelihood of innovations successfully moving from test to scale. A smaller number of them, 6, could be considered more concrete guidelines or tools/toolkits - a brief overview of these is provided below. Other types included workshop or meeting reports as well as Q&A-style documents.

1. **USAID (2018), Guide to the Agricultural Scalability Assessment Tool:** for assessing and improving the scaling potential of agricultural technologies³⁵.
2. **GIZ (2024) [Scaling Toolkit: a guide to scaling digital innovation in international cooperation](#).** Toolkit focused on digital innovations but with steps, templates and processes that can be generalized to innovation more broadly. It provides extensive guidance across four key stages: 1. Match Demand & solution, 2. Develop Scaling Strategy, 3. Establish Preconditions for Scaling, 4. Implement Scaling.
3. **World Health Organization (2010), [Nine Steps for Developing a Scaling-Up Strategy](#).** This document is both a conceptual framework, together with a step-by-step toolkit (question and resource based) with the purpose to facilitate systematic planning for scaling up innovations. It is intended for programme managers, researchers and technical support agencies who are seeking to scale up health service innovations that have been tested in pilot projects or other tests and proven successful.
4. **UNDP (2020) [Strategy to Scale Social Innovation for Development](#):** a hands-on report for UNDP Accelerator Labs to enable context specific scaling of social innovation to achieve the SDGs. This is a question-based toolkit for key scaling areas of consideration 1. Envisioning Scale (joint challenge definition, innovation scalability, scaling goals, who is scaling), 2. Ecosystem for Scaling (stakeholder engagement, building partnerships, conducive innovation policies, UNDP country offices, government, UN network & agencies, community engagement), 3. Resources for scaling (capacity building, financial resource access, knowledge & leveraging data, legal), 4. Learning from Scaling (learning from failure, M&E, Scaling Evidence, Collective Intelligence of Labs Network).
5. **Elrha (year unknown) [Progress to Scale Framework](#).** Practical framework with 5 key areas of questions, and the user of the toolkit is expected to generate their own actions in response to these guiding questions: 1. Clarity of Purpose, 2. Evidence of Impact, 3. Scaling Strategy, 4. Resources, 5. Execution.
6. **MSI (2021), [Scaling Up: from vision to large scale change - tools for practitioners](#).** This toolkit is structured to provide a basis for anticipating or remediating the most likely challenges that will be faced in attempting to scale innovations. The premise is to design interventions with scale in mind at the outset, and practitioners are guided to review the “scalability assessment checklist” (32 items divided into 7 sections): 1. Strategy, 2. Credibility, 3. Support, 4. Relative advantage, 5. Transferability/Adoptability, 6. Organizational fit, 7. Financing.

³⁴ Burwood-Taylor, L., S.Devermann, D. Zook (2024). Climate Capital: Financing Adaptation Pathways for Smallholder Farmers. AgFunder and ISF. 91 pages.

³⁵ Note, with the 2025 closure of USAID, this document is no longer publicly available online.

In the course of our literature review, we felt that those documents which were structured more as toolkits or “manuals for action” were the most useful and would be the most relevant for CGIAR innovation teams if we are expecting them to undertake new types of work in the process of delivering their scaling strategies. This is because a successful innovation journey (from idea, to pilot, to scale) requires not only an evidence-based impactful core innovation, but a well-designed innovation journey. The innovation design journey should at its core be human-centered, iterative and implement robust practice steps along the way - such as when exploring problems, generating ideas, testing solutions etc. The wider sector of innovation for complex social challenges has developed and customized numerous design and innovation tools to be used at various stages of the journey. It is our view that a significant portion of this methodology and the principles of the approach, since borrowed from the design sector, may be new to CGIAR core innovation teams.

As such, we believe it would be extremely beneficial to provide practical tools, templates, how-to guides and guidelines to CGIAR innovation teams at various stages through the “journey to scale” in order to define, refine, ideate, test and scale their innovations.

However, considering the timeline of this current contract, it wasn’t possible to develop these materials from scratch. As such, we provided a selection of existing tools and templates to teams along with the agenda for the first round of support workshops for reviewing development of the scaling delivery strategies - these general tools were selected to help teams with completion of necessary sections in the strategy.

Furthermore, we compiled a list of tools for the first four (4) sections of the Scaling Strategy and shared with teams during the initial drafting stages:

- **Stage 1: Problem Statement & Existing demand**
 - Problem statement tools
 - Stakeholder mapping tools
 - Root cause analysis tools
- **Stage 2: The Core Innovation(s) and Solution Statement**
 - Recommended tools were the stages of the IPSR process
- **Stage 3: The Context-Specific Innovation Bundle & Package**
 - Ethics/responsible scaling tools
 - Environment & ecosystem mapping / PESTEL analysis tools
 - Horizon scanning & futures tools
- **Stage 4: Scaling Pathways:**
 - Scaling strategy reports
 - Progress to scale frameworks
 - Pathways to scale tools
 - Scaling readiness material
 - Business model canvas

Please see Annex III for the full list of existing tools sourced and provided to teams. The usefulness of these tools will vary by innovation categories being pursued, the stage of the innovation and the existing expertise and experience of innovation design within the team.

During this process to pilot the development of three core innovation scaling delivery strategies, we expect that a number of methodologies and approaches throughout the journey will be new to CGIAR teams. As such, the use of concrete tools, guidelines and templates would be valuable. However, time, methodological and financial constraints mean that there is not sufficient scope to develop tailor-made guidelines beyond an agreed upon outline for the elements to be addressed in the scaling delivery strategy. The core team responsible for delivery of this contract will play close attention to the resource & support needs of innovation teams throughout the process, to capture as part of the lessons-learned process details on what kind of materials would be useful for development or disbursement across the CGIAR system to aid in mainstreaming scaling approaches and initiatives.

Acknowledgements

The research conducted to inform this paper and the work of CGIAR on designing a process, methodology and framework for developing scaling delivery strategies for agri-innovations that demonstrate high potential for impact at scale, is possible due to the publicly available literature cited in this paper. All documents consulted are fully cited in-text, and a full list of references is provided at the end of this paper. We are grateful to all organizations that make their literature publicly available.

Part 7: Annexes

Annex I - Stages of the Journey to Scale and Suggested Tools and Actions to Ensure Timely Integration of Responsible Scaling Concerns into the Process

Stage	Suggested tools/actions
Stage 0: Innovation Research & Development Ideation (and pre-ideation) i.e. innovation development	• Community scan for gender equality (GE) and social inclusion. • Include a gender/social inclusion expert for early assessment on GE in projects • Scan for inclusion of women and youth along value chain • Identify target groups, and those left out, including populations of different socio-economic status • Identify innovation demand & need • Do no harm check • Map potential unintended consequences Existing tools that may be used: • Responsible Scaling Scan, • Action Learning Tools, • Making Markets Work for the Poor (USAID), • Value Links (GIZ), • Stakeholder Interviews, • Landscape Analysis, • User Segmentation, • Generative Research as part of design thinking.
Stage 1.1: Innovation Identification – Profiling	• Scan horizon for potential partners committed to tackling gender equity and inclusivity considerations • Discuss how to deal with reduced control over how scaling partners use innovations e.g. regarding intellectual property rights.
Stage 1.2: Innovation Identification - Packaging	• Ensure inclusivity in packaging process through wide stakeholder invitation & engagement. • Use GenderUp or a checklist to ensure diversity of the participants (age, gender, location, education, discipline wealth, etc.). • Have IPSR facilitators undergo training in gender equality and social inclusion. • Consider if there are cultural norms that could exclude some groups. • Explore potential bottlenecks for women in particular.

Stage	Suggested tools/actions
	• Include a gender expert and if the package is gender unresponsive, flag that issue so that it can be addressed. • Focus on who the innovation is designed for and who will be impacted. • Tailor a given package for different users. Determine the conditions that will generate solutions that are responsible and effective
Stage 2 / 3 / 4 / 5: Innovation Scaling Strategy development (including preparatory scalability screen, strategy development, systems strengthening)	• Scaling strategy development should include a gender expert • Diversity of voices / team for strategy development • Consider intersectionality issues • Do no harm check checklist • Assessment & mitigation of risks & unintended consequences • Employ existing tools such as CGIAR Women's Empowerment in Livestock Index (WELI) to analyze trade-offs. • Where needed, implement a judicious mechanism to govern intellectual property rights.
Stage 6/7: Implementation Planning & Ong-going adaptive management (includes work of Innovation Portfolio Management)	• Ongoing M&E around gender sensitive / gender transformative innovation & scaling • Conduct a "portfolio health check" to see if all impact areas are covered, all target groups are addressed, etc. • Ongoing M&E around gender sensitive / gender transformative innovation & scaling • Employ ex-ante analysis and adaptive management to determine potential unintended consequences. • The Innovation Portfolio Management system needs to be governed inclusively, with gender experts participating

Annex II - Innovation Scaling Prioritization Framework Criteria

Criteria	Definition	How We Measure	What We Measure
Strategic priority: BMGF & CGIAR	Measures the degree to which an innovation aligns with the strategic priorities of BMGF-CGIAR, indicating potential synergies and the rationale for enhanced support and promotion	By assessing the innovation's objectives against the current strategic priorities and interest areas of BMGF-CGIAR	Category 1 (Low Alignment): Limited synergy with BMGF-CGIAR strategic priorities. Category 2 (Moderate Alignment): Some objectives align with BMGF-CGIAR priorities. Category 3 (High Alignment): Strong alignment and potential for synergy with BMGF-CGIAR strategic priorities, justifying an increased focus.
Alignment with Government Priorities	Innovation part of a sector/value chain or policy appearing among top priority areas of the country government and/or regional body	Qualitative review of relevant government strategy documents	Category 1: Low Alignment Category 2: Moderate (not explicitly mentioned), but fits with priority criteria concerning productivity, income or nutrition improvement Category 3: Explicit Alignment
Evidence of User Need or Explicit Demand	Innovation addresses articulated problem or expressed community demand	Qualitative Assessment of Evidence Presented.	Relevant statistics cited (food security, poverty, nutrition) or assessments conducted as part of evidence base (preference, willingness to pay); Category 1: Weak (not convincing) Category 2: Adequate (Need or Demand) Category 3: Strong (Need and Demand)
Core Innovation Readiness	A metric used to assess the maturity of an innovation, with a scale ranging from the idea (Lowest level) to validated under uncontrolled conditions (highest level)	Quantified using the Scaling Readiness Levels approach, starting with an idea (Level 0) and leading up to a market-ready innovation (Level 9)	Innovation Readiness scores: 0-9 Confirm Quality Assurance (QA) validated
Scaling Readiness Score (package)	Assesses the overall readiness of an innovation package for scaling based on the product of the lowest-scoring enablers.	Calculated by multiplying the scores of the least ready enablers within the package. This reflects the package's scaling potential by its weakest links (Liebig's law of minimums). The overall score ranges from 0 to 81, with 81 being the maximum	Innovation Readiness scores: 0-81 Confirm Quality Assurance (QA) validated
Scalability Potential Score (growth potential)	Evaluates the anticipated readiness and utilization of innovation enablers in a 12-month timeline, grounded in reasoned justifications and clear assumptions from the Innovation Team.	By analyzing the forward-looking projections for each enabler's readiness and usage, backed by concrete justifications and defined assumptions.	Innovation Readiness scores: 0-81

Criteria	Definition	How We Measure	What We Measure
Dominant Scaling Pathway at the Current Time	The type of strategy will depend on the scaling pathway, which much distinguish between innovations which can be commercialized, and public goods, which must be public-sector led or be bundled with commercial products	Classify the different innovations, with a goal of having diversity of pathways in the final set of candidates. Note that the pathway may change as the phase of the scaling effort matures. Please indicate evidence presented (Theory of Change/Impact Pathway) to justify choice	1 Public Sector-driven 2 Public-Private sector partnership 3 Market-led (private-sector driven—goal 100% financial sustainability)
Scaling Ambition (market size potential)	Measures the scale of the innovation's intended impact by identifying current and potential targets, including users, beneficiaries, actors involved, and targeted outcomes e.g. SDGs.	By comparing current innovation targets with potential expansion scenarios, considering context-specific factors that could enable broader adoption and impact. Consider whether proposed innovation could be expanded, replicated, adapted or adopted to other contexts or countries in the region	1. Low Ambition: Significant difference between current implementation and potential reach, suggesting major areas for expansion 2. Moderate Ambition: Recognizable room for growth towards full potential. 3. High Ambition: The current scope closely aligns with potential (for which evidence is presented), indicating readiness for scaling.
Financing Strategies	Based on their scaling pathways, evaluate the evidence presented for how they see the scaling effort to be financed at least in the medium-term	Evidence, if relevant, that the end user will make a profit engaging in this activity; evidence of financing mechanism that will be needed to fund the endeavor (cost projections) or type of external resources required	1 Not adequately addressed 2 Moderate understanding 3 Strong understanding 4 Strong understanding plus numeric evidence
Responsible Scaling	Recognizing the Responsible Scaling is newer concept to many, this will not be a make or break criterion for selection but will be including in Scaling Strategies	Assess whether women, youth, and marginal groups are already included as target groups and if potential negative consequences of innovation on the environment has been addressed	1 No aspects of responsible scaling included 2 Limited aspects of responsible scaling included 3 At least 2 aspects of responsible scaling explicitly included 4 Responsible scaling strongly addressed
Traction and Market Validation (for private-sector led and public-private sector pathways)	Gauges market demand for the innovation through end-user adoption, collaboration with key sector players, involvement with leading private sector entities, and support from national government.	Assessment of quantitative and qualitative market indicators such as MOUs, customer feedback, sales figures, and market share analysis.	Category 1 (Emerging): Initial signs of demand, few MOUs, and limited market data. Category 2 (Growing): Noticeable end-user uptake, partnerships forming, and positive market data. Category 3 (Established): Strong demand evident, multiple MOUs, robust sales data, and significant market share.

Criteria	Definition	How We Measure	What We Measure
Partnerships	Clearly relevant partnership types needed for scaling should be recognized	Assess the number of type of relevant partnerships that have already been created, and those that have been identified as relevant	1 Inadequate consideration of partnership types needed for scaling 2 Mapping of stakeholder ecosystem or equivalent 3 Clear identification of key strategic partners but currently no active collaboration 4 Demonstrated collaboration with key relevant partners
Team Leadership & Commitment	Successful Strategy development within stipulated time frame requires strong team leadership and adequate team size & commitment	Final selection criteria that will assist in choosing between the top two candidates in each category. Note that implementation of strategy may require inclusion of additional specialized team members in CGIAR or within partner	Confirmed list of at least 3 committed team members from relevant innovation within CGIAR for strategy development; and list of 2-3 partner organization participants

Annex III - General sector-wide innovation tools shared to aid CGIAR core innovation teams in Stages 1-4 of Scaling Strategy Development

Tool	Format	Resource & Link
GENERAL BACKGROUND		
Human-Centred Design	Toolkit	Human Centred Design for Health (UNICEF): A comprehensive in-depth review of the HCD process and the tools to guide you through conducting an HCD process on your own.
STAGE 1: PROBLEM STATEMENT AND EXISTING DEMAND		
Problem Statement	Worksheet	Revising your Problem Statement Worksheet (Elrha Humanitarian Innovation Guide): a longer worksheet with prompt questions to have you review, revise and refine your original draft problem statement based on more insights and information you have gathered.
Problem Statement	Worksheet	Problem Statement Canvas (UNDP): a UN-customized tool for articulating the specific problem you are looking to solve, and for whom.
Problem Statement	Worksheet	Problem Definition Worksheet (by NESTA): a worksheet template to help you refine your articulation of the problem and explore the underlying factors your solution needs to address.
Problem Statement	Worksheet	The Problem Template (by the Innovation Mode): answer a series of questions about the problem you are addressing to help you refine it and understand better what solution might be most relevant to respond to this.
Problem Statement	Worksheet	Examples of Thematically-relevant Problem Statements (Unicef): here you will find a list of well-drafted (clear, concise and specific) problem statements across a spectrum of child-centered challenges related to the SDGs.
Problem Statement	Video	An iterative process (Design in Tech Community): This video discussed the dangers of focusing too much on features and functions of your solution, without being sure that you are solving the right problem. It encourages reframing of your thinking by asking yourself "what does our user actually need?"
Problem Statement	Video	Creating a User Needs Statement in Design Thinking (The Green Dot Consulting Group) The User Needs Statement is an actionable problem statement that summarizes who the user is, what the user's specific need is, and why that need is important.
Stakeholder Mapping	Video	Tutorial – Stakeholder Mapping (Consortium for Public Education) An explainer video on Stakeholder mapping as a method for identifying, organizing, and understanding the role of individuals and groups within a system or community. This method is particularly helpful when first beginning to tackle a topic or problem that you may not fully understand; you will likely need to determine who to talk to and who to involve in the process.
Stakeholder Mapping	Article	The Complete Stakeholder Mapping Guide (Miro) Description of the purpose of stakeholder mapping with visuals and example templates to directly use in the process.
Stakeholder Mapping	Article	Actor Mapping Facilitation (FSG - nonprofit consulting firm) Actor mapping is another term for stakeholder mapping. This article looks at how actor mapping can support systems thinking when addressing complex social challenges.
Root Cause Analysis	Blog	Root Cause Analysis (Mind Tools) What is Root Cause Analysis - also looking at why it is important and how it can be applied through various methodologies such as the 5 Whys technique.

Tool	Format	Resource & Link
Root Cause Analysis	Video/Blog	The Basics of Root Cause Mapping (Think Reliability) <i>Detailed explanation of the value, methodology and steps of root cause analysis</i>
STAGE 2: THE CORE INNOVATION(S) AND SOLUTION STATEMENT		
<i>This is primarily information pulled from IPSR packaging process</i>		
STAGE 3: THE CONTEXT-SPECIFIC INNOVATION BUNDLE AND PACKAGE		
Ethics/ Responsible Scaling	Toolkit	Ethics for Humanitarian Innovation, a toolkit (ALNAP) <i>Toolkit with guidance and activities on how to support ethical humanitarian innovation across your work.</i>
Ethics/ Responsible Scaling	Article	Ethical Design in social innovation (Cambridge Network) <i>This article explores the importance of considering ethical and social implications in product design and its potential to make a positive social impact. Central to this discussion are three key pillars: inclusivity, sustainability, and responsible innovation.</i>
Ethics/Responsible Scaling	Toolkit	Principles & Ethics: Section of the Humanitarian Innovation Guide (Humanitarian Innovation Fund) <i>Elrha provides seven principles for ethical humanitarian innovation management based on the experience of those seeking to drive humanitarian innovation, whether from headquarters or at field level.</i>
Ethics / Responsible Scaling		Ethics for Humanitarian Innovation: a background paper (Elrha) - <i>a background paper on the research for developing a toolkit on ethics for humanitarian innovation. Covers research methodology, findings, development of ethics, discussion and limitations.</i>
Bias / Responsible Scaling	Article	Find Innovation Where You Least Expect It (Harvard Business Review) <i>How to overcome “functional fixedness” and other biases that get in the way of creativity</i>
Environment / Ecosystem Mapping PESTEL	Video	PESTEL analysis overview (CIPD) <i>description of the tool, what it stands for, what it looks at, and how it can help you in strategic planning and decision making.</i>
Environment / Ecosystem Mapping PESTEL	Research	30 Foresight Briefs, Special Edition 2017 - 2022 (UN Environment Programme - UNEP) <i>A special compendium of the UNEP Foresight Briefs based on the first 30 issues covering the period from 2017 to 2022. This compendium summarises a range of environmental emerging issues and provides a short description of each issue along with key recommendations.</i>
Environment / Ecosystem Mapping PESTEL	Video	Materiality Risk Assessment (Let's Learn Public Health) <i>A video asking “what is risk?” and how do we use a risk materiality matrix.</i>
Environment / Ecosystem Mapping PESTEL	Toolkit	Identify Trends - PESTEL Analysis , (the Humanitarian Innovation Fund - HIF) <i>Guided activity and exercises that will help you explore trends in your context or in the wider humanitarian sector that could create problems or opportunities.</i>

Tool	Format	Resource & Link
Environment / Ecosystem Mapping SWOT/TOWS Analysis	Video	TOWS Analysis (Forbes Baxter Associates) <i>The TOWS analysis model adds actions to a traditional SWOT analysis, making it a powerful summary of the future rather than a limited assessment of the present. Video with comparison of the models and discussion of their applicability.</i>
Horizon Scanning	Case Study	UNDP RBAP Horizon Scanning Initiative (UNDP Asia Pacific) <i>An example case study of UNDP applying Horizon Scanning & PESTEL analysis in Asia Pacific region.</i>
Horizon Scanning & Futures	Blog	Big Bang Partnership : <i>Blog on Horizon Scanning & Futures work around complex social challenges.</i>
STAGE 4: SCALING PATHWAYS		
Scaling	Toolkit	Strategy to Scale Social Innovation for Development (UNDP) <i>A hands-on report for UNDP Accelerator Labs to enable context-specific scaling of social innovation to achieve the SDGs.</i>
Scaling	Template	ELRHA Progress to Scale Framework (Elrha) <i>This framework is a tool to help funders and innovators in the humanitarian sector track progress to scale, and understand what support is needed for innovations to reach large scale impact.</i>
Scaling	Assessment Tool	Social Enterprise Readiness Assessment (FHI360) - <i>a self-assessment tool is designed for nonprofit leaders who are considering launching a social enterprise.</i>
Scaling	Website	Scaling Readiness (CGIAR): <i>Supports reflection on whether Scaling Readiness is fit-for-purpose and decision making on the required time, human, and financial resources for the rigorous implementation of your solution.</i>
Scaling	Toolkit	Pathways to Scale (USAID): <i>This guide, part of the USAID's Center for Accelerating Impact and Innovation's (CII's) "Idea to Impact" series, aims to help innovators still in the early stages of product development begin to consider what their "pathway to scale" might look like – specifically, the series of business model and partnership choices they must make to access the capabilities and resources to achieve scale.</i>
Scaling	Report	Scaling Up & Scalability: Frameworks & Assessments (UKAid): <i>A review of the determinants of scalability, and how investments can be assessed during project design, and a proposed model for assessing the scalability of pilot projects.</i>
Scaling	Research study/case study	How Do Great Ideas Scale? Learning From Scaling Successes In Humanitarian Innovation (Grand Challenges Canada) <i>A research study delving into 5 case studies of humanitarian innovations that have successfully scaled.</i>
Business Model Canvas	Template	Social Innovation Project Canvas (The Global School for Social Leaders): <i>The Social Innovation Canvas is a business model framed in a canvas. It aims at providing the grounds of a structured social innovation project.</i>

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