Scaling Up in Agriculture, Rural Development, and Nutrition

EDITED BY

Johannes F. Linn

SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

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2020 VISION

FOR FOOD, AGRICULTURE, AND THE ENVIRONMENT

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After decades of neglect, volatile food prices and the persistence of hunger and malnutrition have brought agriculture and nutrition to the forefront of the international development agenda. As governments, donors, and other key actors deepen their commitments, they are also increasing their focus on how successful development interventions can be "scaled up," meaning how they can be expanded, replicated, and adapted to new and different contexts, for greater and sustained impact.

In late 2011, IFPRI's 2020 Vision Initiative approached Johannes Linn to develop a set of policy briefs that would contribute to a better understanding of scaling up in agriculture, rural development, and nutrition. The authors and other experts met at a workshop in Washington, DC, in January 2012, to discuss their draft briefs. The resulting series brings together a variety of experiences from around the world, delineates different pathways for scaling up, identifies both the key drivers that push the scaling-up process forward and the key spaces that enable initiatives to be scaled up, and outlines the lessons learned. These briefs were written by a wide range of actors, from local communities and nongovernmental organizations to private businesses and donors. They provide an invaluable perspective on the challenges and opportunities for successful scaling up.

We are most grateful to Johannes Linn for conceptualizing and editing this set of briefs, to the authors for contributing their experiences and insights, and to the reviewers for their constructive feedback.

It is our hope that the lessons gleaned from this series of policy briefs will help bring to scale development interventions that can truly improve the lives of poor and vulnerable people around the world.

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Taking successful development interventions to scale is critical if the world is to achieve the Millennium Development Goals and make essential gains in the fight for improved agricultural productivity, rural incomes, and nutrition. How to support scaling up in agriculture, rural development, and nutrition, however, is a major challenge. This series of policy briefs is designed to contribute to a better understanding of the experience to date and the lessons for the future.

There are many examples of successful scaling up. The Green Revolution dramatically raised the productivity of farmers in many parts of the world; the microcredit schemes of Grameen Bank and (Bangladesh Rural Advancement Committee) BRAC in Bangladesh helped millions of poor improve their livelihoods; the multidonor River Blindness Eradication Program controlled a debilitating disease affecting millions of people in Western Africa; and the conditional cash transfer program Progresa-Oportunidades improved the lives of millions of poor households in Mexico by offering them cash payments in exchange for sending their children to school and health clinics—a success story that has been replicated in many other developing countries.

More typically, however, development interventions are limited in scale and short-lived. Incoming political leaders tend to promote their own new initiatives rather than build on the success of their predecessors. Bureaucracies are plagued by a lack of continuity in leadership, a focus on the new and different, and a lack of effective evaluation of what works and what doesn't. External assistance reinforces these tendencies. The number of governmental aid agencies and NGOs continues to expand, the number of projects supported by donors becomes ever larger, their average size ever smaller, and donors compete for the attention of recipient organizations with newer initiatives. To better manage the growing complexity of aid, donor and recipient countries have agreed on important principles at the High Level Forums on Aid Effectiveness in Paris, Accra, and Busan. This has undoubtedly helped, but what is still missing is a concerted effort to support a systematic scaling-up agenda on the ground.

Scaling up is especially important for agriculture, rural development, and nutrition because of the global challenges of food security and rural poverty. Although the diffusion of agricultural innovations can be spontaneous and rapid, often the path from research to widespread application requires systematic support from public, private, and not-for-profit agencies. Moreover, if the obstacles to reducing rural poverty and malnutrition are to be overcome, and if extensive, deep, and productive value chains for specific commodities are to be created, then appropriate institutional, policy, and investment strategies are required. Their goals must be to help successful interventions take hold, expand, and be sustained.

Scaling up: Introducing the concept

Systematic scaling up requires a perspective that sees beyond the traditional project approach. It explores from the outset and throughout the project cycle the potential scaling-up pathways that can ensure that a successful project is not a one-time event but the stepping stone toward a wider and sustainable impact.

Scaling up expands, replicates, adapts, and sustains successful policies, programs, or projects to reach a greater number of people. It is part of a broader process of innovation and learning. A new idea, model, or approach is typically embodied in a pilot project of limited impact; with monitoring and evaluation (M&E), the knowledge acquired from the pilot experience can be used to scale up the model to create larger impacts. The process generally is not linear but an iterative and interactive cycle as the experience from scaling up feeds back into new ideas and learning.

Not every innovation can or should be scaled up, but the experimental nature of the innovation process needs to be recognized as important in its own right. The risk of pilots not succeeding must be accepted as an integral part of the innovation and learning process. They pay their own dividends in lessons learned.

Pathways for scaling up

A scaling-up pathway is the sequence of steps that need to be taken to ensure that a successful pilot or practice is taken from its experimental stage through subsequent stages to the scale ultimately judged to be appropriate.

Scaling-up pathways can follow different dimensions. They may simply expand services to more clients in a given geographical area, for example, or they could also involve "horizontal" replication, from one geographical area to another; "functional" expansion, by adding additional programmatic areas of engagement; and "vertical" scaling, moving from a local or provincial engagement to a nationwide engagement. The latter typically involves policy reform and institution building to help achieve the policy and institutional conditions needed for successful national scaling up.

It is important to define from a project's start the scale to which an intervention should or could ultimately be taken, given the needs of the target population and the nature of the intervention, and to consider realistically the time horizon over which the scaling process needs to extend. Along the scaling-up pathway the program should deliver intermediate results. This is necessary to allow for the testing and, where needed, adaptation of the approach. It also helps with ensuring the buy-in of the community, the government, and other stakeholders.

M&E and rigorous impact evaluations are key ingredients of a successful scaling-up strategy. During the implementation of the pilot, the intervention's impacts need to be assessed and the stakeholders need to learn what the potential drivers, spaces, or constraints for an eventual scaling-up process can be. During the scaling-up process the assumptions about drivers and spaces must

be tested and the impacts evaluated, with a randomized approach wherever possible.

Drivers

Drivers push the scaling-up process forward, and research has identified those commonly at work:

- **Ideas and Models.** There has to be an idea or model that works at a small scale or has been promoted successfully elsewhere.

- **Vision and leadership.** A vision is needed to recognize that the scaling up of an idea is necessary, desirable, and feasible. Visionary leaders or champions often drive the scaling-up process.

- **External catalysts.** Political and economic crises or pressure from outside actors (donors, NGOs, and so forth) may drive the scaling-up process forward.

- **Incentives and accountability.** Incentives and accountability for results are needed to drive actors and institutions. They include rewards, competitions, and political pressure or community demand, peer reviews, and independent evaluations.

Spaces

Successful scaling up requires effective spaces—enabling environments—in which an initiative can grow:

- **Fiscal/financial space.** Fiscal and financial resources must be mobilized to support the scaled-up intervention, or the costs of the intervention need to be pushed down to match the available fiscal/financial space.

- **Policy space.** The policy and legal framework has to be adapted to support scaling up.

- **Market space.** When scaling up agricultural production, potential market constraints need to be considered and addressed in order to help avoid negative price and wage effects.

- **Institutional capacity space.** Institutional, organizational, and staff capacity must be created.

- **Political space.** Important stakeholders, whether initially supportive of or against the intervention, need to be motivated through outreach and suitable safeguards to ensure the political support for a scaled-up intervention.

- **Natural resource/environmental space.** The impact of the intervention on natural resources and the environment must be considered, harmful effects mitigated, and beneficial impacts promoted.

- **Cultural space.** Possible cultural obstacles or support mechanisms need to be identified and the intervention adapted to permit scaling.

- **Partnership space.** Partners need to be mobilized to join in the effort of scaling up.

- **Learning space.** Knowledge about what does and doesn't work in scaling up must be harnessed through M&E, knowledge sharing, and training.

Scaling up agriculture, rural development, and nutrition

The authors of this set of policy briefs explore the experience of scaling up successful interventions in agriculture, rural development, and nutrition under five broad headings:

1. The role of rural community engagement

2. The importance of value chains

3. The intricacies of scaling up nutrition interventions

4. The lessons learned from institutional approaches

5. The experience of international aid donors

The briefs provide vivid pictures of scaling up. There are no blueprints for when and how to take interventions to scale, but the examples and experiences described offer important insights on how to address the key global issues of agricultural productivity, food insecurity, and rural poverty.

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Despite significant strides in reducing poverty during recent decades, there are still about 1.2 billion extremely poor people in the world. In addition, about 870 million people are undernourished, and about 2 billion people suffer from micronutrient deficiency. About 70 percent of the world's poor people live in rural areas, and many have some dependency on agriculture. Over time, however, there has been progress in reducing the total number of undernourished people and in reducing the number of poor people in Asia and in Latin America. Did agricultural performance help bring down the poverty and hunger rates?

There is evidence that agricultural growth has a high poverty reduction payoff. Higher agricultural productivity growth underpinned early development in Japan, the United States, and Western Europe, and later in China, the Republic of Korea, and Taiwan. Analysis by the International Fund for Agricultural Development (IFAD), the World Bank, and IFPRI shows that there is a clear correlation between the developing countries with the largest reduction in poverty rates and incidence of undernourishment and those with the most rapid agricultural growth. For example, a 1 percent per annum increase in agricultural growth, on average, leads to a 2.7 percent increase in the income of people in the lowest three income deciles in developing countries. Investment in agriculture is 2.5 to 3.0 times more effective in increasing the income of the poor than is nonagricultural investment. And agricultural growth, as opposed to growth in general, is typically the primary source of poverty reduction. The contrary is also true: a decline in agricultural growth throws many poor people into poverty. This explains some of the increase in poverty and hunger in developing countries during 2008 and 2010, when food prices increased worldwide.

How to stimulate agricultural production

Do we know how to stimulate agricultural growth and rural development in low income countries, and what is the relationship of such stimulation to "scaling up?" There is now a large body of literature indicating that domestic and international investment in agriculture and rural development, combined with supportive policies, stimulates agricultural growth. What is needed first are measures to improve farmer and agro-industrial access to markets through better government and partner country policy, investment in infrastructure, and government services. These involve the creation of an enabling environment for private investment in marketing, farm input supply, agroprocessing, and, of course, farming itself. The investments need to be both private and public, with the latter focused on rural infrastructure, rural education, information supply, regulation, and policy.

Second, international donor and individual government attention on smallholder farming is needed, because smallholders have special informational, infrastructure, and support needs. Such attention would focus on smallholder productivity, food production, reversal of environmental degradation, and management of

natural resources. This focus involves research and development, instruments to reduce farmer risk, rural financial services, development of farmers' organizations, improvement of labor mobility, and a higher quality of public sector governance.

Where agricultural production has been stimulated and why

If agricultural growth is so effective in reducing poverty and we know how to get such growth, why is agricultural production growth and rural development in most developing countries so problematic? Why is the global rural poverty and nutrition problem not being resolved in most countries? Why are known solutions not more widely applied?

The reality is that investment in agriculture, both by developing country governments and aid donors, has declined since the 1980s. Specifically, the share of agriculture in total bilateral and multilateral aid fell from a peak of 22.5 percent in 1979–1981 to a low of 5.4 percent in 2003–2005, before increasing to 6 percent, according to 2009 data from the Development Assistance Committee of the Organisation for Economic Co-operation and Development. The combination of declining aid to agriculture and low public investment in agriculture by developing countries in recent decades has resulted in a huge public investment gap between what is needed and what is supplied. In Africa, most governments still spend less than 10 percent of public budgets on agriculture, despite their commitment in the Maputo Declaration of 2003 to reach or surpass that target.

It is instructive to look at those African countries meeting the 10 percent target since 2000: Ethiopia, Madagascar, Malawi, Mali, Niger, and Senegal. Several of them had large public sector investment programs, operating on a large, nationwide scale, generally assisted by donors. This stimulated agriculture in Ethiopia, Mali, and Niger, but not in Madagascar, Malawi, and Senegal. In the latter cases, overriding factors affected agricultural growth, including poor agricultural price and marketing policy in Senegal and Malawi and civil strife in Madagascar. The implication is that bigger public expenditure programs for agriculture, supported by bigger aid allocations for the sector and combined with good policy and adequate governance in Africa, can lead to agricultural growth exceeding that of the benchmark Chinese rate of 4 percent per annum, as was the case for Ethiopia, Mali, and Niger. Looking back on the longer period of the 1990s and early 2000s, the available data suggest that good policies and high investment in large-scale agricultural programs by the governments of Brazil, China, Laos, Morocco, Mozambique, Peru, Tanzania, and Vietnam achieved excellent agricultural growth (over 4 percent per annum) and good poverty reduction.

Good performers also receive much donor aid for agriculture, helped by the fact that the governments have large-scale programs that donors can support. Scale, therefore, matters; large-scale programs financed by governments and donors boost agricultural growth, in turn reducing poverty, if policy is broadly enabling.

In countries that invest little in agriculture there is generally little scaling up. Investments are generally undertaken in small projects, with small amounts of donor aid and small portions of public sector budgets allocated to agriculture. Thus, very rarely are the investments at a sufficient scale to have an impact on large numbers of people. This situation, when combined with poor policy environments, leads to low agricultural growth and contributes to the hunger and rural poverty problem characteristic of these countries.

How the aid community participates in scaling up

Though donors are generally not as critical for scaling up as are developing country governments, they can be helpful—or harmful—to this agenda. The reason that the donors have often been harmful is, first, that there are so many of them. According to research by the Brookings Institution, the aid business is generally characterized by numerous small projects. Official aid data provides information on 925,000 projects covering 327 donor agencies since 1946, with around 100,000 active projects in any given recent year. An example is Ethiopia, where the World Bank documented 20 donors supporting 100 agricultural projects in 2005. This fragmented aid, when placed in a poor policy environment, often has little to show in terms of impact on significant numbers of people or agricultural growth rates. Creating aid-financed projects in support of larger government programs, or convincing governments and other donors to scale up successful projects, is the direction shown to be successful.

In the wake of the recent global food crisis, this is beginning to happen. At the G8 summit in L'Aquila in 2009, governments from North and South committed themselves to ratcheting up investments in and donor funding for agriculture, improving policies, and forging public-private partnerships at the country level and globally. Specific actions include

- the commitment by donors to dedicate $20 billion to this cause;

- the establishment of new facilities, such as the Global Agricultural and Food Security Program;

- the commitment to regionally focused public-private alliances such as the Alliance for a Green Revolution in Africa and the Coalition for African Rice Development, which focuses on scaling up rice value chains;

- the increase in funding for agriculture and rural development by IFAD and other donor agencies; and

- the creation of the Council for Food Security and the Comprehensive Framework of Action, with its High Level Task Force.

In addition, improved sector investment planning and harmonized implementation in countries have been reinvigorated under initiatives such as the Comprehensive Africa Agricultural Development Program. Most of these initiatives are at an early stage, and most of the L'Aquila aid pledges have not been forthcoming, so results are not yet apparent. However, donors and countries are beginning to recognize the importance of scaling up. For example, during the 9th Replenishment Consultation of IFAD, which concluded in December 2011, all members enthusiastically endorsed a scaling-up agenda.

Conclusion

There is clear evidence that where agriculture contributes a significant portion of gross domestic product, rapid agricultural growth is an effective tool for generating overall economic growth and reducing poverty. There is also good evidence about the types of private and public investment and policy that stimulate agricultural growth. The contrary is also true: there are policies and investments (massive fertilizer subsidies, export restrictions, and severe farm price controls) that inhibit agricultural growth or have negative impacts on natural resources, making agriculture less sustainable. Poor governance and civil unrest also curtail agricultural growth; good governance and stability help it. Public investment programs, supported by aid, in large-scale agricultural programs focused on what works can generate very high agricultural growth rates, in turn contributing to poverty reduction. But operating at scale with substantial resources is no panacea. If policies are not enabling, or governance is bad, big programs at scale are much less likely to work. Scaling up successful projects and policies is effective in generating growth and poverty reduction, but more readily so in countries with good policy environments and under reasonably good governance regimes. Brazil, China, Laos, Morocco, and Vietnam, and more recently Burkina Faso, Ethiopia, Mali, and Peru provide good models.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

Moving Local- and Community-Driven Development from Boutique
to Large Scale | *Hans P. Binswanger-Mkhize and Jacomina P. de Regt*

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Local- and community-driven development (LCDD) has emerged over the past 20 years in response to the advent of integrated rural development and difficulties with centralized service delivery. LCDD approaches generally have better outcome ratings than centralized approaches and deliver more sustainable infrastructure at lower costs. LCDD has also greatly enhanced government capacities to implement programs at scale. The most successful of these programs are embedded in decentralized government structures and involve a variety of stakeholders.

The elements of LCDD

The definition of community development has evolved over the past few decades. Originally it entailed community consultation, subsequently grew to include participation, and finally became empowerment—community control and management of development resources.

Although no two are the same, successful scaled-up LCDD programs share several characteristics. They are embedded in a decentralized structure of rural governance with an associated decentralized fiscal system, and they are part of a participatory planning system active at both the local and national levels. LCDD programs also need the participation and support of technical agencies of the government, civil society, and the private sector—facilitators from these sectors help community participants develop, present, and analyze information.

The core belief of LCDD proponents is that the poor can become the most important actors in their own development. Communities analyze their own problems, opportunities, and constraints and develop a list of projects and activities that they would like to undertake, thereby changing from passive recipients to active managers of their destiny. Participatory appraisal processes and toolkits safeguard against dominance by elites as all involved community groups, separately, are asked to develop priorities.

During the process of participatory appraisal, communities strengthen or create their own institutions through "learning by doing" and training. They learn how to interact effectively with organizations that work beyond the community—for example, organizations that can help access markets for productive projects. Such organizations may be introduced from the outside into LCDD programs by facilitators, or they may emerge from federations of villages.

Community priorities identified at participatory appraisal usually start from basic, productive, and social infrastructure needs: for example, needs in schools, health clinics, and markets. Natural resource management activities such as soil reclamation, regulation of livestock herding in the community, or tree planting have also become the focus of LCDD, as have safety net programs for disadvantaged or disabled members, such as home-based care for HIV and AIDS patients.

Livelihood and income priorities, however, are a challenge to address through LCDD. They require advisory services, input supply, access to credit, and marketing systems generally beyond the control of the community level and necessitate specialized skills and/or special organizations from the private, NGO, or government sectors.

In Brazil, Burkina Faso, China, Indonesia, the Philippines, and other countries where LCDD has be implemented successfully, developing communities are supported by various organizations. The major responsibility for coordinating the local development plan, cofinancing community activities, and facilitating development rests with local government. Facilitators and support organizations assist the communities with mobilization and organization and assist the program authorities with scaling up. As noted, technical assistance can be supplied by government departments (agriculture, water, health, education, and so forth), bought by the communities from private sector providers, or provided by specialized NGOs. The private sector can partner with communities in the provision of inputs, marketing of outputs, and financing of community development as part of its vertical supply chain presence.

Scaling up stepwise

Scaling up LCDD programs requires sequential steps, from the initial localized pilot program, through a scaling-up pilot, to a national program, and finally to consolidation. A diagnostic phase is necessary to establish the preconditions for a scaled-up LCDD program, which often requires policy or regulatory reforms. For example, a decentralized local government may exist but may not yet function well within a participatory environment; capacity building is needed. Progress then requires many parallel and systemic developments to take place.

The diagnostic phase is followed by a design phase and a pilot scaling phase, in which the processes, logistics, and tools for scaling up to national levels are first developed and fully tested. Such scaling-up pilots should cover all communities and subdistricts in at least one district of a country. The scaling-up pilot results in tested procedures, logistics, and tools, which are summarized in an operational manual. The tested program can then be rolled out and further adapted in the remaining districts of a country, province, or state. Only then can a truly scaled-up, countrywide LCDD program be put in place.

While local conditions will dictate how each step will be conducted, planners should give attention not only to individual steps but to the overall process as a nonlinear, iterative one and use a systems perspective. Experience shows that scaling up an LCDD program generally takes 10 to 15 years.

The dimensions, drivers, and spaces for scaling up LCDD

At least three dimensions of scaling up should be taken into account: the physical, the social (making the process more inclusive), and the conceptual (moving beyond participation to

embedding empowerment in the entire development process). In addition, all scaling up should be tailored to local cultural contexts.

Scaling up is often driven by the success of the pilot program; skilled leadership and management at local, regional, or national levels; and/or outside forces such as donors. For LCDD to be scaled up from a pilot project to a national program, political commitment is needed to ensure that power actually shifts from the top to the bottom. Central institutions and sectors must be aligned with LCDD concepts, administrative and fiscal decentralization must progress, and a government's own fiscal resources, both local and national, should eventually become the main source of support for LCDD programs. This requires a reform of the fiscal system in many countries.

Political will is not enough to ensure success. Diverse stakeholders have to be brought together to build a consensual space around the core LCDD concepts and platform, and governance incentive systems have to change concretely. It is important that stakeholders be able to present solid evaluation data and use them in consensus building, and they must recognize that consensus building is a continuous process that involves stakeholders at each level: national, provincial, local, and community. Stakeholder analyses conducted at regular intervals and for each level provide crucial information needed for building and sustaining consensus.

Factors needed to sustain scaled-up LCDD

A number of factors are critical to ensuring the sustainability of LCDD efforts:

- **Growing facilitation capacity:** As programs scale up, the facilitation agency has to have the reach and skill set to match evolving community needs and institutional capacities. It is important to consider costs, skills, and motivation in this evolution. To reduce costs, training teams of facilitators from the communities themselves is often introduced.

- **Building accountability systems:** In the empowerment model of community development, the primary accountability is to community members, and communities have to be trained in appropriate accountability processes, including procurement, disbursement of funds, accounting, and reporting to their own members. Community leaders and local program managers are also responsible for reporting to higher levels of authority and are subject to the possibility of audits. Different LCDD programs have experimented with independent monitoring and audit committees, as well as encouraging independent journalists to report.

- **Creating good monitoring and evaluation systems:** The goal is to develop a true learning organization. However, the state of monitoring and evaluation in most LCDD programs is poor. A World Bank review found that only 5 to 10 percent of projects had sound evaluation plans. On the other hand, the availability of solid evaluation research data enabled Indonesian stakeholders, for example, to make a strong case for scaling up and consolidating many different programs into one national program with one source of funding. Overall, the lack of convincing impact evaluation results that can prove convincingly the superiority of the LCDD approach is one of the reasons that the merits of LCDD versus sectoral development programs continue to be debated.

Conclusion

The LCDD approach can be utilized in almost any country, but the design and management of programs will differ according to the country and locality. During the diagnostic phase, stakeholders discern the best strategic fit among the country and community context, the locus of management responsibilities, and the flow of funds. Experience in Africa shows a progression of institutional complexity and institutional sustainability. Through policy reforms, decentralization, and capacity building over the course of 10 to 15 years, institutional arrangements in many cases have moved away from separate, "silo" programs toward programs fully embedded in national and local government structures. This is both a reflection, in part, of LCDD approaches already taken and a positive trend for future LCDD activities.

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Over the past thirty years, successive Peruvian governments have pursued development programs in the country's Highlands region, where poverty levels are severe. Using local community development models, they have built systematically on lessons learned and expanded both the area covered and the scope of interventions. The programs were supported initially and principally by the International Fund for Agricultural Development (IFAD), although over time other development partners joined the efforts.

IFAD's FEAS, MARENASS, CORREDOR, and SIERRA SUR project loans to Peru totaling US$124 million have targeted 120,000 households in over 1,600 poor communities in the Southern Highlands. According to IFAD project evaluation reports, around 30 percent of the target households have shifted out of extreme poverty, and 35 percent moved out of poverty altogether. These sequenced projects represent a pathway for a complex but overall successful scaling-up process.

Scaled-up innovations
Through these projects the government of Peru and IFAD introduced a series of interrelated innovations that included (i) transfers of public funds directly to community organizations, allowing them to hire technical assistance locally; (ii) competitions following the *Pacha Mama Raymi* (Festival of Mother Earth) methodology to disseminate and replicate technological innovations; (iii) Local Resource Allocation Committees (LRACs), the setting for a democratic process that forms the backbone of local empowerment and citizenship building; (iv) Local Talents, an effort to use local service providers hired directly by beneficiaries; and (v) women's savings accounts as rural finance instruments for inclusion of women in development.

At the core of this scaling-up process were approaches, actions, and instruments designed to empower local, poor communities. Empowerment was defined as the expansion of assets and capabilities of poor people to participate in, negotiate with, influence, control, and hold accountable institutions that affect their lives. Leadership of these change processes was vested in the local population and to a lesser degree in an informal country learning group.

Several assessments have underlined the centrality of citizenship building and empowerment in areas of the country where years of violence and social conflict have affected the rural poor.

Scaling up pathways: A multidimensional approach
IFAD's Peru country program involved a multidimensional approach to scaling up over time, within and across sectors, within and beyond geographical areas, across stakeholders, and with multiple institutions.

The starting point was the agriculture sector. MARENASS (Management of Natural Resources in the Southern Highlands) addressed communal rangeland and smallholder irrigation. Follow-up projects covered a broader range of rural development issues

and culminated in fostering rural-urban linkages formalized through strengthening rural entrepreneurship. The savings account approach piloted in the 1998 CORREDOR project (Development of the Puno-Cusco Corridor) is scaled up in the Conditional Cash Transfer Programme (JUNTOS). SIERRA NORTE (Project for Strengthening Assets, Markets and Rural Development Policies in the Northern Highlands), currently under implementation, seeks to combine a rural development approach with an inclusive territorial development approach.

Geographically, IFAD focused first on selected poor rural areas of the Southern Highlands, and over time expanded coverage within this region. Currently, projects also cover the Northern Highlands. Phasing of these interventions was not deliberate but resulted from an organic process determined by opportunities as they arose.

The main targeted actors and stakeholders are the *campesinos* (farmers) as rural "citizens." Their local government and communal institutions were strengthened by an open investment menu leveraging people's own resources.

AGRORURAL, set up in 2009 as the rural development agency within the Ministry of Agriculture, mainstreamed the innovations and knowledge gained from IFAD projects into its routine operations throughout the country. Furthermore, KfW and the World Bank replicated and scaled up successful innovations: competitions in the Agro-Environmental Program and the Local Resource Allocation Committees in ALIADOS, respectively.

Scaling-up pathways: The drivers
Among the external drivers that helped shape the Peruvian approach to rural development were (i) the economic crisis and structural reforms in the 1990s that had undermined the capacity of the state to pursue top-down, centrally led rural development programs and (ii) the impact of the battle against the Shining Path movement and its aftermath. Both factors encouraged a community-based strategy with a unique approach of bottom-up championship and leadership, rooted in a trust of *campesino* community-led development.

An internal programmatic driver was the development of a permanent learning and networking group constituted by national project management staff, the IFAD country program manager, and academics backed by experienced consultants. The group used regional grants and research programs in their critical reflections of pathways out of poverty and modifications of the developed innovations. A double-learning loop (group reflection, application) involving feedback from the farmer communities achieved consistency and coherence in approaches. Innovations were thus adjusted and enhanced during implementation.

Another critical driver of the long-term process of scaling up was a well-aligned and comprehensive system of incentives and accountabilities for and between multiple stakeholders (for example, ministries, municipalities, communities, and *campesinos*). These focused on the articulation and transmission of community demand as a key factor pushing the scaling-up process forward.

The role of spaces

A number of important spaces for scaling up were created by government, the municipalities, communities, and IFAD:

- **Political space:** As government desired a bottom-up approach, it allowed for a community-driven rural development process to be expanded systematically and consistently with the farming communities. This was possible in part because of the external drivers and was in part a result of the networking efforts involving many stakeholders in government, academia, think tanks, NGOs, and international partners.

- **Policy and institutional space:** Over time the necessary policy and institutional space was created by establishing the legal foundations for the decentralized and community-driven approach in the form of *nucleos ejecutores centrales,* legally recognized entities able to sign contracts, intervene in administrative and judicial procedures, and carry out all other functions required to implement publicly funded projects. For example, they could act as project management units (PMUs). The integration of the PMUs into ministerial structures, continuity in PMU staffing and leadership, and the creation of an overarching institutional umbrella for all related rural development efforts (AGRORURAL) supported this space.

- **Fiscal space:** No major fiscal constraints were encountered in replication and scaling up, mostly because unit costs were kept low by design and turned out even lower in implementation.

- **Cultural space:** One of the key ingredients of success was the cultural compatibility of the rural development model with the norms of the Southern Highland population. Differentiated power structures in this nonhomogenous community setting were countered by using LRACs, in which the interest of the more vulnerable, poor population was respected by the more powerful, "tolerant" part of the community.

- **Learning space:** Implementation and supervision arrangements created a learning space by enhancing a "learning by doing" culture, flexibility, and openness to change. The learning space was built by (i) strengthening capacity for mutual learning; (ii) providing earmarked resources and opportunities for local actors to experiment with, implement, and validate technical solutions; (iii) cooperating with a learning network of engaged experts; and (iv) preparing and disseminating documentation of learning processes and products.

Approach to monitoring and evaluation of the scaling-up process

Poverty in Peru diminished from 54.8 percent in 2001 to 31.3 percent in 2010. The Southern Highlands projects have contributed to this reduction. Their initial impact indicator (increased incomes) was scaled up into a full suite of indicators: increase in business sales, permanent active savers, increase of value of physical assets, reduction of chronic malnutrition, and increase in gender equity.

Demonstrating clear results and impact has become essential to justifying public investments in Peru. Nevertheless, the monitoring and evaluation (M&E) systems of both the government and IFAD remain weak on demonstrating rigorous impact data. M&E of scaling-up *processes* is weakly developed, although promising *results* of the process in the Southern Highlands are extensively documented for such areas as increased efficiencies in mobilizing and leveraging financial resources from the government and from the beneficiaries themselves.

Issues and challenges

Notwithstanding successes in mobilizing municipal funding for the LRAC initiatives, municipal fiscal space is still constrained by legal regulations. Funds for recurrent costs expenditures cannot be used for productive investments. Currently, a network of municipalities is exploring how to overcome these constraints by developing alternative income streams, for example, from mining royalties.

Staffing levels, attitudes, and capacities of local governments are often not appropriate to handle the complex innovations, which may alter the status quo and power relations.

Cultural values and Southern Highlands *campesino* philosophy may not necessarily be taken as given in other rural areas of Peru. Scaling up is hence not a mechanical process that can be taken for granted. Acknowledging local differences may require modifications to the innovations.

Drawing lessons

Allowing space for organic learning processes that put farmers and their communities at the center of development has proven key to scaling up innovations for poverty reduction in Peru. Providing incentives for local staff, securing their permanence in national institutions, and coupling them to cultural sensitivity represents another important driver.

Innovations cannot be introduced from outside—they must grow from within, through interaction and evidence-based learning by an enthusiastic team equipped with network connections and tools such as loans and grants. Citizenship building, social inclusion, and accountable governance are issues relevant to all countries, particularly middle-income countries. Finally, lessons learned from the drivers and spaces may contribute to dynamic knowledge management systems and thus to further scaling up of rural poverty reduction processes.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

Rehabilitating China's Loess Plateau

John Mackedon

Fifteen years ago China's Loess Plateau was a barren region plagued by wind and soil erosion, making farming beyond subsistence virtually impossible. Millennia of agricultural exploitation and relentless grazing by domestic livestock had taken their toll, transforming the once lush region into a dustbowl unsuitable for supporting its rural population. Today, thanks to one of the largest land rehabilitation development projects ever conceived, the plateau is a thriving, lush ecosystem providing improved livelihoods for more than 3 million farmers and their families. The Loess Plateau Watershed Rehabilitation Project, implemented by the Government of the People's Republic of China with the assistance of the World Bank, did more than just transform a region in China—it proved that large-scale ecosystem rehabilitation projects were both possible and replicable, redefining the notion of scaling up in agricultural development and paving the way for similar efforts to take hold in places like Ethiopia and Rwanda.

An ambitious theory of change

A clearly defined and usable theory of change (TOC) is an important component of any successful project and a vital element to the scaling up of successful initiatives. The Loess Plateau project involved a highly ambitious TOC, including transformation of ingrained agricultural practices, large-scale ecosystem rehabilitation, and the introduction of new crops. It built on the success of a model of alternative farming techniques being implemented elsewhere in the country. Establishing incentive and accountability drivers also helped propel this project, as did creating appropriate environmental, policy, and cultural spaces.

The sponsors were willing to take significant risks in their desire to rehabilitate the vast plateau. For the initiative to succeed, farmers in the region had to abandon goat-herding practices that they had employed for generations, and the sponsors introduced new crops on the terraced mountain slopes and in the fertile valley fields. Although this project's TOC required a major shift in long-standing cultural and economic practices among project beneficiaries, its implementing agencies were able to bring about these changes through the identification and creation of drivers and spaces—components that have since been incorporated into the scaling-up efforts of similar interventions.

Drivers

The Loess Plateau project featured a number of key drivers that served as crucial elements for the project's success. First was the model of changed agricultural practice, which served as the catalyst for the initial implementation processes. It was not until the project sponsors were exposed to a simple model for change being implemented in the nearby village of Shageduo that an initial breakthrough for the rehabilitation project was achieved and important drivers forged. Replacing traditional goat herding with walnut tree farming in Shageduo had resulted in drastically improved farmlands in the gullies near the village, and this example provided the change model underlying the implementation of the plateau project over the next decade. A first driver, the idea that man-made degradation of large-scale ecosystems could be reversed through agricultural initiatives, was coupled with a second—the model of successful and sustainable alternative livelihood practices. With this combination, the sponsors were able to demonstrate the positive implications of this process and produce a working model for replication.

In addition, the drivers of incentives and accountability helped solidify the crucial components of legitimacy and buy-in among local farmers whose participation ensured sustainability. Building on the demonstrated success of the replacement of goats with trees—which provided both economic and ecological incentives—and providing crop ownership opportunities through low-cost, long-term land-leasing options created the necessary economic incentives and stakeholder buy-in to induce the required behavior change.

Finally, the success of this project was ensured by one additional driver: a series of champions. Throughout project design, implementation, and completion, champions from both the World Bank and within various Chinese government ministries continuously monitored and pushed for the progress of this intervention and quickly responded to any problems that arose—helping the project build continuously on successes and avoid potential pitfalls.

Spaces

The Loess Plateau Watershed Rehabilitation project was successful in both identifying key obstacles that might have hindered success and minimizing the risks posed by these obstacles. Of the different spaces created during this intervention, four areas stand out as being of particular importance in the scaling-up context.

- **Natural resource/environmental space:** Of utmost importance to this project's design was the ultimate rehabilitation of the Loess Plateau watershed, which had the triple-win potential of improving a large-scale ecosystem, creating an agricultural environment that was more sustainable for rural livelihoods, and contributing to climate change adaptation and mitigation. Without the creation of appropriate natural resource and environmental space, this project would not have succeeded. The spaces created through enlarged and improved terracing along mountain slopes and fertile fields in the once-barren and flood-prone valleys resulted in both enlarged areas for agricultural production and increased yields from improved land management. Equally important to the creation of these spaces was the transformation of the space once dominated by herds of goats and other livestock. Newly constructed pens allowed for necessary shifts in land management to occur without abolition of the culturally ingrained practices of goat

herding—ensuring the retention of some traditional agricultural spaces along with the incorporation of new ones.

- **Policy space:** The natural resource and environmental spaces were paramount in the creation of this project, but the creation of policy space was essential for continued sustainability. Two key policy actions—the implementation of a grazing ban and the creation of land-leasing options for farmers—provided necessary spaces for success in the short, medium, and long terms. The grazing ban was essential in allowing grasses, trees, and shrubs to grow and in combating soil erosion. This ban allowed for the natural vegetation to fully recover and for astragalus and alfalfa to be grown on a large scale, increasing vegetative cover in the area—even during drought periods—and generating new economic opportunities through fodder production. The implementation of a land-leasing program by the Chinese government allowed farmers to reap the benefits from the output of their fields and orchards, providing economic and cultural incentives for those who ultimately guarantee the sustainability of this project. These policies provided the necessary time for ecological changes to take hold and economic benefits to be fully realized—time that had not been afforded to similar but unsuccessful projects in the past.

- **Fiscal/financial space:** Inherent to the overall success of policy spaces was the creation of fiscal and financial spaces, which allowed for a shift in agricultural practices without interruption to the economic livelihoods of the farmers most affected by these shifts. To help livestock owners adjust to the newly introduced grazing bans, informal credit was made available and project loans were created that allowed farmers to construct animal sheds and pens, procure fodder-processing equipment, and purchase animals more suitable for pen feeding. The end result of these actions was a sharp increase in incomes and productivity as farmers moved to more intensive production systems. They subsequently benefited from higher wool yields and improved quality of wool.

- **Cultural space:** The creation of cultural spaces is often the most challenging element for rural development project design and implementation. The Loess Plateau project involved the daunting task of changing embedded farming practices that had been deeply ingrained in the region's culture for generations. Recognizing that the long-term benefits of

change—especially change that requires radical cultural shifts—are difficult to convey to farmers who rely on the present landscape for their livelihoods, project implementers were able to utilize the policy space to create short-term incentives (for example, the aforementioned credit and loans to smallholders) to support fundamental cultural change. The short-term measures allowed for the long-term benefits to take hold, convincing stakeholders that these shifts could actually be beneficial. Furthermore, these measures were reinforced by deliberately gentle changes—shifting crops and penning livestock instead of eradicating traditional farming techniques all together.

Conclusion

When the Loess Plateau Watershed Rehabilitation Project was first conceived, the common assumption among agricultural development practitioners was that the project, if successful, could not be replicated. The overall size and scope of the project, the low capacity of the targeted beneficiaries, and the rigid political structure of the implementing client country convinced many that this initiative could never be scaled up. The implementers of the Loess Plateau project were instead able to demonstrate that adherence to manageable theories of change, implementation of well-understood drivers, and creation of necessary spaces can provide a roadmap for scaling up that is adaptable to the conditions of any project's scope, scale, or location.

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Regreening entails increasing the number of both on-farm trees and, in some countries, off-farm trees through natural forest management and for the protection and management of natural regeneration on degraded land. There is an urgent need to scale up existing successes in both regreening approaches, because trees produce multiple benefits for rural populations. Trees have a positive impact on agricultural production as they help maintain or increase soil organic matter content, which increases the water-holding capacity of the soil. Some species fix nitrogen from the air on their root systems, which helps maintain and improve soil fertility. Other species also produce fodder, which allows farmers to keep more livestock. Trees also decrease wind speed and locally reduce temperatures, which helps farmers adapt to climate change. More trees, higher crop yields, and more livestock enable farmers to better cope with drought years. Women are among the key beneficiaries of more on-farm trees, which they can prune for firewood.

The protection and management of woody species is a low-cost way for farmers to intensify and diversify their rural production systems and increase their incomes. Farmers can support regreening without procuring expensive inputs simply by investing their labor in the protection and management of woody species, which produces much better results at lower costs than tree planting.

Pathways to scaling up existing successes

A growing number of farmers in the Sahel protect and manage natural regeneration of woody species to build new agroforestry systems. One example is the large-scale regreening of the densely populated parts of the Maradi and Zinder regions in Niger, where farmers have protected and managed spontaneous regeneration of woody species since 1985. Their regreening efforts cover 5 million hectares.

The approach of African Re-greening Initiatives (ARI), which became operational in June 2009 in Burkina Faso and Mali, is to scale up existing successes in regreening. This policy brief builds on ARI's experience.

Lessons from ARI

Based on the work of ARI so far we can identify a number of key steps that help scaling up regreening.

1. Identify successes in regreening and analyze why and how they emerged. There are many small and large successes with on-farm regreening in the Sahel. Often these examples go unnoticed because most countries are not yet focused on monitoring landscape-level and farm-level changes in the age and density of on-farm trees.

2. Organize field visits for regional and local policymakers to areas regreened by farmers. The regreening initiatives in Burkina Faso and in Mali have organized visits for national, regional, and local policymakers and farmer leaders to the young agroforestry parklands on the Seno Plains in Mali. Several Malian policymakers have visited the large-scale regreening in Niger. Such visits can help stimulate an awareness of the prospects for scaling up regreening and the policy reforms needed to trigger landscape-level transformations.

3. Organize farmer-to-farmer visits. Regreening by farmers is concerned more with knowledge management and commitment of labor than with investment in costly inputs. Farmers learn from other farmers with relevant experience. Visits can be organized within villages, between villages in the same district, between districts, and also between countries. Farmers who observe what other farmers have achieved working under similar conditions often want to do as well, or better.

4. Build village institutions responsible for tree management. The technical aspects of regreening are fairly simple. The required social capital building for managing the new tree capital is much more complex. Individual farmers can protect and manage trees, but it is easier if entire communities develop rules and regulations for the protection and management of trees and are able to enforce these. This requires the building of village and intervillage institutions that represent all stakeholders (men, women, farmers, and herders).

5. Develop technical training for land users in pruning, tree management, and exploitation. Young trees need to be pruned to develop a trunk and a canopy. This requires training. Farmers decide what tree densities fit their specific situation, which depends on their soils, the types of trees that regenerate, and how much land they cultivate, and then prune accordingly.

6. Systematically use rural and regional radio to spread messages about regreening. Radio is an effective but too often underused medium in rural areas. Over radio, farmers can easily present their experience with farmer-to-farmer visits, the impacts they perceive, the development of their technical knowledge and skills, and so forth.

7. Adapt national policies and legislation to private ownership. National policies and legislation should induce resource users to invest in trees. Farmers will protect and manage trees only when they have exclusive rights to their on-farm trees. This is currently not the case in most countries. Farmers often need permission from the forestry service to cut or even prune the on-farm trees they have protected and managed. One reason why the large-scale farmer-managed regreening in Niger occurred is a shift in perception of ownership of trees.

In 1985 the general perception was that the state owned all natural resources, including the trees, but by 2012 most farmers recognize that they have a right to protect, manage, and benefit directly from the use of their on-farm trees. A weakening of the state after 1985 may have created space for farmers to take back what they thought rightfully belonged to them. Besides this, external interventions began promoting regreening by farmers, and they collaborated closely with the forestry service, which supported the process.

8. Mainstream regreening into existing agricultural, forestry, and rural development projects. On-farm trees tend to be ignored by ministries of the environment, which are more interested in protected areas, national forests, and plantations. Ministries of agriculture often concentrate on the modernization of agriculture by increasing the use of inorganic fertilizers or new seed varieties. Little or no attention is paid to the role of trees in agricultural production systems. Introducing an agroforestry component into agricultural development projects can often be achieved at little additional cost. If existing funds for tree planting would be redirected toward the promotion of natural regeneration by resource users, more can be achieved at lower cost.

9. Explore possibilities for developing value chains for agroforestry products. Certain tree products generate cash income for resource users. Shea nut in West Africa is a well-known example. It is collected and marketed by women's cooperatives, and it increasingly finds its way to pharmaceutical companies.

10. Produce documentaries for national TV about regreening and its impacts. A recent documentary, "More People More Trees," returned to locations filmed in Kenya and Burkina Faso in 1994 and presented interviews with the farmers and project staff involved in regreening at that time. It depicts a transformation that defies conventional gloom-and-doom stories. More documentaries should be made about regreening successes and their impact on food security, adaptation to climate change, and impact on poverty reduction.

11. Inform national as well as international media about successes in regreening. The overwhelming majority of Africans are convinced that degradation continues unabated everywhere. It is vital that national and international media publish information about success stories in order to create a more balanced picture.

12. Promote regreening with a long-term commitment (more than 10 years) of all stakeholders. Expanding regreening requires a combination of flexibility, transparency, and minimal bureaucracy, as well as a willingness to accept that one knows the starting point but cannot predict where the process will be in 5 or 10 years. Standard project implementation frameworks are not well suited to discovering innovations, capitalizing on unexpected opportunities, and following through to scale up successes.

13. Develop a movement of stakeholders willing to engage in the promotion of regreening. Scaling up requires the capacity and commitment of a large number of organizations, each with its particular strengths. Engaging diverse stakeholders would enable a process of promoting regreening through the dissemination of knowledge among farmers and through effective advocacy for policy reforms.

14. Develop research activities around regreening. It is important to generate hard data about the socioeconomic and biophysical impact of regreening, as such data can help influence decisionmakers and inform policy reforms. Governments and aid agencies need to be informed about the quantified impact on crop yields and on improving soil fertility, increasing food security, and reducing vulnerability to climate change.

Conclusion

Regreening has clear potential for improving farmers' welfare and reducing their vulnerability in arid African countries and elsewhere. Building on the growing knowledge of what works, the international community, national governments, local communities, and civil society organizations need to work together to go beyond isolated interventions and systematically scale up successful regreening projects.

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A large number of agricultural development initiatives now support value chain approaches. They encompass most stages of the chain, from inputs supply to production, processing, marketing, and financing. Given the complexity of integrated programs, scaling up value chains poses challenges. Chains operate with a multiplicity of actors and require numerous interfaces between the public and private sectors, which often have different objectives and respond to different incentive systems. A particular challenge is to ensure that scaled-up chains will benefit the poor, since chains typically favor better-off farmers, processors, and traders, while poorer actors in the chain, especially smallhold farmers, can get squeezed out.

There are two concepts of scaling up in a chain: (i) the development of an integrated chain is in itself a functional scaling up, as primary products are "scaled up" to higher-value-added goods and taken to market, and (ii) value chains are taken to larger scale by increasing the amount of goods produced, processed, and sold.

Both scaling up processes rely on drivers and need to overcome numerous constraints on the scaling-up pathway. Common impediments to scaling up are a lack of infrastructure, access to financing, access to markets, knowledge of appropriate technology, and the inability to deliver products at sufficient quantity and quality.

What is the optimal scale of an agricultural value chain?

Most scaling-up programs attempt to achieve scale by extending a model of service to a larger number of beneficiaries. But for scaling up value chains, "more" is not necessarily better. The scale is driven by the profit maximization objective of different actors along the chain. Most pro-poor value chains operate in restricted local markets, where strong supply responses lead to declines in prices. For example, in the Ghana Root and Tuber Improvement Program, output prices plummeted once root and tuber production increased significantly in response to improved production practices and the use of better seeds. Incomes of the farmers from sales actually declined. Scale objectives thus depend on access to markets and elasticity of demand. And value chains do not operate in a static environment. New processing and production technologies can be introduced, costs of labor and capital change, new markets can be accessed, and demand can fluctuate. These can lead to changes in scale objectives.

Pathways to scaling up

Commodity-specific strategic plans are useful for mapping a scaling-up pathway. They provide a market analysis, identify constraints on the different segments of the chain, and offer strategic guidance on where to invest scarce public capital and leadership resources to help remove key constraints. A challenge is that, while these plans need to be commodity specific, they should not become too narrowly focused, as the management of a large number of commodity plans becomes difficult. Moreover, commodity plans need to be regularly adjusted as new actors enter into the chain, new technology is introduced, and new markets are developed.

Drivers for scaling up value chains

In market economies, the private sector drives the value chain. The public sector can support private sector action but cannot substitute for it. And though various types of private or public organizations can impact the process, most frequently it is buyer-driven organizations—processors, traders, and exporters—who pull the chain, as they establish the linkages to the consumer. For scaling up, attention thus has to be given to support systems that these drivers find attractive and to the introduction of incentives to which they respond.

Financial return is ultimately the most important incentive for private actors in scaling value chains. Weak rural infrastructure and insufficient access to finance typically are the most important impediments to private sector engagement and the realization of financial returns. Rural roads, irrigation facilities, and access to power help ensure an adequate and regular supply of products and allow the installation of processing facilities. Much public support for value chains thus focuses on access to finance and the provision of rural infrastructure investments.

Constraints to be addressed on the scaling-up pathway

- **Political space:** Policy issues typically pose major obstacles to chain development and are frequently not addressed well in value chain support programs. Price regulation; burdensome regulatory requirements; subsidies (input and credit) directed to selected market actors; market interference by public actors; and monopolistic processing, storage, and trading systems often are major obstacles. While no single value chain program can likely address all prevailing policy constraints, an analysis of the significant policy constraints and an assessment of whether, when, and how these constraints can be addressed is essential when defining scale objectives and assessing the feasibility of the scaling-up process.

- **Institutional space:** Pro-poor value chains consist of collaborative and competitive systems. For example, collaborative processes are required to strengthen the power of poor farmers in the chain, but farmer groups are also in competition with each other. Processors exchange information and receive training on new technology in common training centers, but they also compete with each other. Traders benefit from joint markets and price information systems but typically operate in fierce competition. Public sector support efforts typically focus on strengthening collaborative institutions,

such as producer and trade associations, information networks, marketing facilities, training facilities, and regulatory, standard setting, and certification systems. In most donor programs, institutions are created that strengthen the linkages among traders, processors, transporters, input suppliers, and financial institutions. There are multiple models, but there are, as yet, no firm lessons about which institutions perform best. Top-down planning and bureaucratic processes, however, can pose disincentives for private sector actors to participate.

Pro-poor value chain programs often support community-based processes to strengthen the small-scale producer. Community-based groups, with the engagement of lead farmers and contract agents, are helped to develop joint investment and quality control programs so that they can meet the quantity and quality standards required to participate in the chain.

- **Financial space:** Poor access to financing is generally a key constraint. Multiple efforts to design value chain financing instruments are under way. These range from product financing, receivables financing, physical asset collateralization, risk-mitigation products, and securitization and guarantee instruments. Value chain financing should be provided by financial institutions that make their decisions on the creditworthiness of the applicant. Provision of financing should not be intermingled with other value chain support measures, but value chain programs are expected to increase the creditworthiness of the applicant and reduce the risk to financial institutions.

- **Fiscal space:** Grants are often important instruments in donor-supported programs. They provide, for example, support for infrastructure programs, or they support the adoption of new technologies and investment programs. An objective of such grants is to strengthen the financial position of the recipient, so that he or she can qualify for lending by financial institutions. There are few sound evaluations of the effectiveness of such grant programs. It is thus difficult to judge what role grants play in the scaling-up pathway of pro-poor value chains. And grant programs can rarely be scaled up to very large scale as fiscal resources are not available in public budgets to continue grant programs at large scale. Most grant programs are thus unsustainable once donor support for the fund facilities ends.

- **Knowledge space:** It is particularly difficult to develop measured knowledge in a value chain program. As value chain programs are not static models, monitoring and evaluation criteria need to remain meaningful as changes in scale occur. It is essential to focus monitoring and evaluation on the primary objective of the program. If the program objectives are income improvements for farmers and small processors, monitoring and evaluation systems need to regularly measure the income impacts on these groups. Evaluations conducted so far underline that value chains favor larger farmers with better asset endowment. Small producers tend to be marginalized. Monitoring is required to help include poor producers in the chain or to support other possibilities for employment for marginalized farmers. Price developments should also be carefully monitored, as value chain programs can lead to concentration of market power and reduction in producer prices.

Conclusion

Scaling up of pro-poor value chains poses its own challenges, as chains entail both public and private actors with their differing operating cultures. Moreover, chain actors typically benefit from collaborative structures but also act as competitors. And scale objectives can vary with changing technologies and markets, as each actor attempts to strive for profit maximization. Public sector support thus needs to carefully focus on the critical junctures of the chain, where skill formation, information networks, and joint market systems can strengthen the chain actors. Much of public support needs to focus on farmer groups to ensure that poor farmers do not get squeezed out as the chain matures and reaches scale.

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Scaling Up in Agriculture, Rural Development, and Nutrition

Scaling Up Agricultural Supply Chains in the Private Sector
Beth Sauerhaft and Ian Hope-Johnstone

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PepsiCo is a global business operating in more than 200 countries and territories and rooted in creating and delivering iconic, great tasting foods and beverages. A critical aspect of its operations is the ability to take successes in one part of the business and scale them elsewhere. This is increasingly common in agriculture supply chains as participants replicate and adapt to ensure a reliable supply of raw materials that meet cost and quality standards. An important focus of the company's scaling practices is that sustainability issues be factored in at the start of supply chain development.

The ability to scale makes an especially significant impact when the company expands to new markets and creates new products that demand the development of a sustainable agricultural supply chain to provide raw material ingredients. Emerging markets present great opportunities, but they also present significant challenges. The latter includes an insufficient number of farmers growing targeted crops, gaps in yield and crop reliability, minimal access to capital for purchasing inputs or technology, inability to meet quality criteria or properly store crops, and inadequate infrastructure to transport materials and finished goods through the value chain to market. The ability to scale up, replicate, and adapt business models is crucial to success.

Company agronomists, procurement specialists, and business development associates working in the field develop and execute business models that expand agricultural supply chains to meet market demands. Associates often contract directly with the growers, training them on agronomic best practices, quality criteria, and storage practices that will help increase yields, productivity, and economic returns.

The PepsiCo model for scaling up agricultural supply chains, technology transfer, and agronomic education is used in similar fashion across countries and regions. In each case, the process is adapted to fit local culture, agricultural maturity, politics, and market demands. Following a description of the general scaling-up model, this brief examines two examples.

Seven steps for scaling up

The model has seven steps:

1. Develop a plan for new market entry or demand for new crop procurement. The market plan includes clear direction on the commodity needed, the delivery schedule, product specifications, and the cost and quality needed for product manufacture in order to make the business model work for that market.

2. Conduct sourcing survey(s). The agriculture procurement team identifies local sourcing opportunities for existing crops as well as growing parameters, such as climate zone and soil type, needed for crop expansion

3. Identify key players in government agencies, research groups, or consultancy groups. Partnerships with these players help identify current available agricultural capacity and existing local practices that can be leveraged across the grower base. It can deliver close grower relationships, familiarity with target crop(s), relevant research programs, and access to grower capital.

4. Initiate pilot trials. Over two to three growing cycles, agronomists determine the capability of crops to comply with business objectives—answering such questions as yield, quality, cost, and reliability of supply. Global knowledge and experience are brought to bear in the pilots including the use or development of new varieties and agronomic practices.

5. Assess existing infrastructure and needs for the business venture. This includes identification of new capital investment needed for storage, mechanization, or field equipment that will justify support of new improved practices. Agronomists identify new seed programs or varietal replacements necessary to increase yields, better fit local growing conditions, and meet product needs.

6. Continually improve. Agronomists focus on increasing grower yields; productivity and other learnings from pilots and existing practices are shared with growers to develop or refine their expertise. The company develops local resources and invests in research and development that will support the local crop production program.

7. Scale up. The model expands to work with more growers and as the company cycles back with continuous improvement it includes more growers. PepsiCo identifies new supply opportunities and brings these growers into its supply chain, sharing technology and agronomic training so they too can increase yields, productivity, and economic returns while providing the raw material supply needed.

Two examples of successful scaling up

Producing local corn supply in Mexico

Sabritas is PepsiCo's snack business in Mexico. It wanted a local corn supply for its product line. This represented geographic movement of an existing supply through the development of small-scale subsistence farmers. Sabritas already had a market plan. It knew the commodity it needed as well as the timing and specifications for that crop. It had conducted the sourcing survey and understood the corn grower landscape and potential yields on existing corn lands in close proximity to the company plant needing the supply. With this information, agronomists understood the opportunities for reaching yield goals and looked for organizations to partner with,

who could help the company and the growers meet these goals. Sabritas and the Sabritas Foundation reached out to the Mexican Foundation for Rural Development (FUNDAR)—an NGO with proven results in strong social and technical education programs and which could coordinate grower activities and participants. It also provided alliances with key nongrower organizations, such as Bayer, Tepeyac, and Monsanto, which supplied credit lines, backed up by grower guarantees, for agrochemicals, fertilizers, and corn seed, respectively. Together, the partnership initiated Educampo, a project to develop small-scale corn producers near Sabritas's Guadalajara plant by providing technical assistance, social education programs for grower behavior change, and a commitment from Sabritas to purchase the entire crop.

No pilots were necessary as the growers had been growing corn their entire lives and PepsiCo Mexico already knew how to increase yields. The infrastructure needed to make this work included training, extension, and a secure market for the farmers' crops, which presented a lower risk for financial institutions. PepsiCo provided the market security in the form of guaranteed contracts and FUNDAR facilitated training and extension. Through this partnership, PepsiCo scaled up the corn supply chain in Mexico through technology transfer and the sharing of practices already in use elsewhere in the country. At the same time, the project reduced freight cost by sourcing 40 percent of supply closer to the Guadalajara plant, and growers saw yields and incomes increasing more than 100 percent.

Navigating water scarcity in India's supply chain

The second example involves the demonstration and deployment of various technologies that significantly increase yields and overall productivity in India. PepsiCo began developing a potato supply chain in India in 1994 and gradually transitioned from working with aggregators to direct contracting with growers as government policy permitted. This change in policy allowed PepsiCo to work more closely with individual farmers, resulting in more efficient grower training, new technology deployment, and, thus, scaling up of the agricultural supply chain. In India, developing a market plan and the sourcing survey were carried out in parallel. Agronomists looked for climate conditions and soils suitable for potato production. After focusing on areas that fit the crop needs, PepsiCo sought to understand current production practices and opportunities to influence these to deliver the required quality and volume that would benefit both the farmers and the company. As in Mexico, the company sought out partner institutions that could help to gain access to farmers and provide necessary inputs. It

found key partners in the Central Potato Research Institute and the National Bank of India.

One limitation to scaling up sufficient potato production was water. About 40 percent of potato farming in India is in water-scarce or drought-prone areas. Through pilots, the company confirmed that the introduction of drip irrigation, while not a new technology globally, had the potential to save significant amounts of water while increasing yields and tuber quality. To fill this infrastructure gap in technology and improvement of grower yields, PepsiCo helped to deploy drip irrigation in Maharashtra and Haryana states and currently has trials in Gujarat and West Bengal in India, as well as in some areas of China and the UK. In this case, the scale up has been both in expanding the potato supply chain in India and in transferring technology in areas where the company saw clear opportunity. As a result of this program, farmers found price stability, consistently higher returns, and training and technology transfer leading to an increase in productivity. In West Bengal alone, farmers gained access to technology, expertise, and the enabling environment that came from the company's partnership with the Central Potato Research Institute and the International Potato Centre for processing grade seed potato, with chemical companies for agrochemicals at subsidized prices, with loans from the state bank at an 8 percent annual interest rate, with crop and weather insurance companies, and with a cold chain company leading to new cold storage for 10,000 tons of potatoes.

Conclusion

In these examples, the barometer of success is that while PepsiCo's business in India and Mexico is expanding and has been established for the long term, the company has simultaneously mobilized the drivers—increased yields and successful technologies— for farmers to increase productivity and economic returns through successful scaling-up efforts in agriculture supply chains. These efforts entail three key lessons learned. First, it is imperative to ensure a market for the supply chains. Second, partnerships can help ensure access to a reliable supply that meets company standards and is mutually profitable to both grower and buyer. Third, overall costs are reduced when sustainability is part of the business plan from the start.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

SUN: A Global Movement to Accelerate Progress in Reducing Maternal and Child Undernutrition | DAVID NABARRO, PURNIMA MENON, MARIE RUEL, AND SIVAN YOSEF

20²⁰^{sm} VISION

FOR FOOD, AGRICULTURE, AND THE ENVIRONMENT

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As the 2015 deadline for meeting the Millennium Development Goals (MDGs) approaches, the poor countries of the world have already made considerable progress toward reducing maternal and child undernutrition. From 1990 to 2008, the prevalence of stunting in children under five years of age declined dramatically, from 40 to 29 percent, with countries such as Eritrea, Bangladesh, and Mauritania seeing reductions of 42 to 52 percent. UNICEF estimates that 63 countries are on track to achieve the MDG-1 target of a 50 percent reduction in underweight prevalence. This progress shows that political commitment, coupled with the right approach to addressing undernutrition, can be successful in improving nutrition despite poverty.

Yet more needs to be done, as progress toward the MDGs has been uneven. Improvements in many African countries remain modest, and nearly one in four children under five years of age in the developing world remains underweight. Food and nutrition security is increasingly recognized as being critical to broader economic, social, and human development. There is also growing awareness of the costs of ignoring undernutrition: it heavily impacts infant and young child mortality and morbidity; has largely irreversible effects on intellectual, physical, social, and economic development; and contributes to noncommunicable diseases such as diabetes, cardiovascular disease, and some types of cancer. In recent years, fortunately, there has been widespread agreement on the set of evidence-based and cost-effective interventions that can protect the nutrition of millions of individuals. Against this backdrop, a wide range of stakeholders have come together to launch the Scaling Up Nutrition (SUN) movement.

What is SUN?

SUN is a multistakeholder movement aimed at supporting national leadership for nutrition, focusing and aligning financial and technical support behind nutrition-sensitive national plans, and ensuring broad ownership of nutrition and development goals. Since its launch in 2010, SUN has built up a global coalition of more than 100 partner organizations and secured high-level political commitment to nutrition in 26 high-burden countries. The long-term development objective of the movement is to support SUN countries in realizing their national nutrition goals and targets, including the MDG-1 target. Many countries have also developed specific nutrition targets for the years beyond 2015.

The SUN framework employs a dual approach to reducing undernutrition. The first approach champions direct, nutrition-specific interventions such as promoting good nutritional practices, increasing intake of vitamins and minerals through supplementation and fortification, and therapeutic feeding for severe malnutrition. The second approach incorporates specific pro-nutrition actions into other sectors and development areas such as health, food security and agriculture, gender, social protection, education, and water and sanitation. Both approaches focus on the thousand-day window from the start of pregnancy to a child reaching two years

of age, during which better nutrition can have a life-changing impact on the development of a child and the basis from which he or she can become a well-nourished, healthy, and productive adult. SUN also recognizes the importance of involving socially excluded populations, especially women, throughout all processes. Improvements in nutrition have been shown to be inextricably linked to investments in the education and health of women and girls. They are linked as well to efforts to improve women's empowerment, including control over assets, social status, and decisionmaking power.

SUN partners align behind SUN countries' national policies, programs, and investments in nutrition. SUN focuses on some of the factors that are critical for scaling up nutrition actions successfully at the country level. Once a government signs up to the movement, it commits to

- identifying a high-level governmental focal point that can work across ministries;

- appointing a donor convener who can coordinate other donors behind national plans;

- conducting a nutrition stock-taking exercise;

- developing or revising national nutrition plans that explicitly aim to reduce undernutrition; and

- strengthening existing nutrition multistakeholder platforms.

What has SUN achieved so far?

To date, 22 SUN countries have updated and approved their national nutrition plans, 16 have identified donor conveners, 20 have established multistakeholder platforms, and some, such as Mozambique, have effectively engaged civil society and the private sector. SUN countries have also set bold nutrition goals and targets:

- Lao PDR has committed to reducing child stunting from 40 to 34 percent by 2015.

- Niger has pledged to reduce low birthweight by 30 percent by 2021.

- Uganda has committed to increasing exclusive breastfeeding in the first six months from 60 to 75 percent by 2015.

While SUN countries are in charge of their own nutrition destinies, SUN has assumed a global role in key strategic areas. One of its major roles has been to strengthen political commitment to nutrition by governments in high undernutrition countries, as evidenced by the movement's growing membership. SUN is also undertaking global and local advocacy efforts to increase understanding of the importance of addressing undernutrition. Alliances are forged with international stakeholders to broaden membership, ensure collaboration on common ground, and maintain SUN's identity as an inclusive movement. New global networks of donors, civil society, business, the United Nations, and national

governments, and a possible network on science and knowledge, will provide coherent support to national plans. Performance and evaluation indicators will encourage harmonization and mutual accountability. Donors are working toward developing consistent mechanisms for measuring aid flows, while many development partners are working to align their existing contributions to national plans and incorporate nutrition into their development strategies. Finally, SUN is putting into place global leadership, stewardship, and organizational arrangements to help maintain momentum.

The main investors in the implementation of SUN's nutrition-specific interventions, a task estimated to cost US$11.8 billion, are national governments. Ghana, Nepal, and Tanzania, for example, have already tripled national resources dedicated to nutrition. All SUN country governments are encouraged to improve the measurement of their flow of resources to nutrition, which will help ensure long-term sustainability and accountability by national governments.

What are the opportunities and challenges for SUN?

The pathway to scaling up is often influenced by spaces that can help foster the process and drivers that can help it overcome political or financial inertia. SUN has been able to strengthen existing political, cultural, and partnership spaces by working through national, global, regional, and provincial platforms. These platforms serve to amplify stakeholders' voices. High-level national leadership drives the process by serving as a compass for nutrition activities and helping diverse stakeholders negotiate common directions and priorities. External catalysts, such as donors and regional and international organizations, can also serve as drivers but such actors must be willing to operate within the space of each national plan.

For all the accomplishments of SUN since its launch, challenges lie ahead. The incentives for governments to incorporate nutrition into their national strategies must be aligned with their capabilities and the nutrition targets they have set. Governments must recognize the strengths and weaknesses of the relevant sectors within their countries and set pragmatic goals within realistic time frames while building capacity within and across sectors. Operationalizing the second component of SUN's dual approach—developing and strengthening nutrition-sensitive programs—is another formidable undertaking. SUN countries need more information on the cost and value-added of incorporating a nutrition lens into complementary sectors and development areas and a process for selecting the most promising sectors to engage for nutrition. Institutional arrangements, whether through a whole-of-government focal point or sectoral coordinating bodies, and incentive structures need to be in place to support nutrition actions, track nutritional outcomes, and foster collaboration among sectors.

In the end, accountability for the accomplishment of SUN's mission lies with each participating country, though external actors can help strengthen know-how and collaboration processes if national authorities request it.

What lies ahead?

The long-term success of the SUN movement depends on the ability of member countries to convert political will into effective action on the ground. The incorporation of nongovernmental stakeholders, including the private sector where desirable, into SUN platforms can help create broader ownership of the process and develop an incentive structure for implementing nutrition-sensitive interventions in complementary sectors.

Building a systematic learning agenda around SUN experiences, outcomes, and impacts is essential. SUN countries need to partner with research organizations and to strengthen research capacity to evaluate policy processes, delivery, and scaling up of SUN interventions. Areas to focus on include multisectoral approaches and tracking progress, improving outcome monitoring, identifying optimal institutional arrangements, and assessing the movement's impact and cost-effectiveness. Documenting the obstacles that countries encounter and the "wins" they secure as they move through the SUN process, and distilling these into global and contextually specific lessons, will help establish common knowledge systems, frameworks, and processes for accelerating progress in reducing maternal and child undernutrition.

Improving nutrition is a critical development need. The SUN movement has the potential to yield tremendous benefits for current and future generations of adults and children around the world. Securing high-level commitments to SUN requires convincing national leaders that bold nutrition targets can be met within a finite number of years. As the MDG deadlines near, one can expect an even greater drive to operationalize SUN within countries and at the global level and to scale up combined nutrition approaches.

For further reading: Scaling Up Nutrition: A Framework for Action, http://siteresources.worldbank.org/NUTRITION/Resources/281846-1131636806329/PolicyBriefNutritionScalingUpApril.pdf; A Road Map for Scaling-Up Nutrition (SUN), www.unscn.org/files/Announcements/Other_announcements/FINAL_SUN_Road_Map_FINAL_dn.pdf; Scaling Up Nutrition: Progress Report from Countries and Their Partners in the Movement to Scale Up Nutrition (SUN), www.scalingupnutrition.org/wp-content/uploads/2011/09/111006-ENGLISH-SUN-Progress-Report-ROME-VERSION.pdf; Scaling Up Nutrition: Compendium of Country Fiches, www.scalingupnutrition.org/wp-content/uploads/2011/09/compendium-of-country-fiches-ROME-VERSION.pdf.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

Alive & Thrive: Expanding Community Interventions to Improve Nutrition in Bangladesh | RAISUL HAQUE, KAOSAR AFSANA, TINA SANGHVI, SAIQA SIRAJ, AND PURNIMA MENON

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The levels of stunting, underweight, wasting, and childhood anemia are very high in Bangladesh, as are levels of maternal chronic energy deficiency and maternal and child anemia. A combination of poor maternal nutrition and postnatal factors cause child undernutrition, which in turn can have far-reaching consequences for national and global development, as well as individual health. Studies in Bangladesh show that infant and young child feeding (IYCF) practices, a critical determinant of child nutrition, are poor. Interventions to address them at a large scale are urgently needed, including behavior-change counseling for early and exclusive breastfeeding, age-appropriate complementary feeding and micronutrient supplementation, provision of micronutrient supplements or fortified complementary foods, hygiene interventions, and nutritional management of severe-acute undernutrition

Alive & Thrive (A&T) seeks to develop scaled-up models for preventing child undernutrition by improving IYCF practices. Funded by the Bill & Melinda Gates Foundation, A&T's interventions focus on achieving behavior change through existing service-delivery platforms, especially the health worker network of BRAC, the largest nongovernmental organization in Bangladesh. This brief focuses on A&T's use of BRAC's Essential Health Care (EHC) program in 2009–2011 as its operational platform. During this time, 9,000 managers, mid-level staff, workers, and volunteers were trained in interpersonal counseling, and an IYCF-oriented social mobilization strategy reached 15 million people.

Addressing IYCF in Bangladesh: The Alive & Thrive community-based interventions

The A&T model includes three cadres of BRAC community health workers who are responsible for counseling, coaching, training, and helping mothers use good IYCF practices: volunteers assigned to 250–300 households each, health workers who specialize in pre- and postnatal health services, and dedicated IYCF promoters who record services provided and fill in gaps in home visits. Mothers are counseled in the use of locally available resources to encourage healthy growth in children under two years of age. The model requires repeated home visits by trained workers, and priority is given to reaching mothers with infants less than 12 months old: the period of greatest vulnerability to growth faltering.

Through social mobilization, local opinion leaders such as imams, government health workers, and village doctors are engaged through forums and meetings to highlight the importance of nutrition, particularly in IYCF. Recently, BRAC has added forums for adolescents, parents, school teachers, local leaders, and elderly people. A&T reinforces and extends the impact of BRAC's community interventions through national mass media campaigns, policy initiatives, and partnerships with other community-based organizations.

Implementation: Rolling out the pilot and expanding scale

BRAC's A&T initiative began with a pilot in mid-2009 to test the A&T model under three different program platforms: (1) the EHC program; (2) maternal, newborn, and child health (MNCH) interventions; and (3) EHC plus a water and sanitation program. The pilot phase was carried out in one urban slum and three upazilas (rural subdistricts). During the pilot, many elements were adjusted: the selection criteria and hiring process for a new cadre of staff (the IYCF promoter) and their integration into BRAC's structure; division of roles and responsibilities among frontline workers; and an improved basic training module to account for local foods, the quantities needed to satisfy age-specific nutrient requirements, typical feeding bowls, the limited educational level of many of the frontline workers, global recommendations, and findings from the formative research. The pilot provided time to test and improve the data collection indicators, incentives for service delivery, and the process for identifying children and tracking home visitation.

The final selection of EHC as the program platform on which IYCF would be built was a major outcome of the pilot phase. The pilot resulted in a scaling-up target of 50 upazilas across the country, a decision to scale up in two phases, and the development of methods for ensuring accountability of cash incentives. Examples of lessons learned from the pilot:

- The listing of target households by child's age was initially done by data collectors. Later, during scale up, the IYCF promoters conducted child listing in their catchment areas, which was less costly and more efficient.

- Basic training was conducted in the pilot through 20 batches consisting of mixed groups of health workers, staff, and volunteers at five BRAC training venues. The project later increased the training venues to 16, allowing multiple simultaneous sessions.

- The roles and responsibilities of frontline workers and the timing and number of home visits evolved during the pilot. When worker gaps were identified, new workers were hired using modified criteria when needed to ensure adequate coverage without losing momentum.

Reflections on the scaling-up experience

Since IYCF promotion and counseling was already a known effective intervention, A&T relied on expansion through replication. IYCF was integrated into existing programs reaching the same target age groups. This was more rapid and affordable than establishing a new infrastructure and helped ensure that other preventive and disease control interventions would be offered alongside IYCF interventions. Adapting and simplifying the IYCF intervention for BRAC's EHC was considered essential, since it would be

implemented by a large number of managers and staff. EHC provided a ready-made platform for scale and sustainability with its own workforce, infrastructure, operational modalities, monitoring mechanisms, and potential for long-term financing from BRAC's institutional resources.

Although the wide geographical distribution of the 50 upazilas was challenging to manage, with one manager per seven, each upazila acted as a learning site for further geographic expansion in a region. Tools, processes, and lessons learned from the 50 sites are being incorporated into other stakeholder programs, and the IYCF interventions have already reached well beyond the 50 upazilas—for example, through BRAC's MNCH program.

Lessons on how to maintain quality and achieve sustainability came not only from the pilot but from the first and second phases of scale up, when the number and diversity of local contexts, managers, and workers increased. During the first phase, regional managers with decentralized responsibility and authority were deployed, and performance incentives were introduced. In the second phase, program organizers were hired specifically to carry out the social mobilization strategy. In some areas, many health volunteers had dropped out because they had joined without a clear understanding of their workload and remuneration. As a result, a large number of households were not receiving regular visits by the volunteers, and performance checklists for the health volunteers indicated gaps in knowledge. To address these challenges, BRAC increased the performance-based incentives, revised the criteria for selection of volunteers and their tasks, and introduced quarterly IYCF refresher training for the frontline workers.

The enabling environment or spaces for scale were created in several ways. Adequate funding from the Gates Foundation removed financial constraints. To remove policy constraints, A&T, in collaboration with UNICEF and government agencies, developed a national behavior-change communication plan for IYCF with specific goals, targets, responsibilities, and measurement and evaluation (M&E) indicators. BRAC assigned the necessary staff with operational skills to push the scaling-up process forward. A&T's engagement strategy with governmental agencies and the media created political space. Formative research and frequent reviews of field experiences helped ensure that the program reflected cultural sensitivities. Practical yet comprehensive M&E and knowledge-sharing processes were established to foster ongoing adjustments.

The drivers of scale for A&T in Bangladesh included ideas and models from former successes in breastfeeding and complementary feeding programs and endorsement of proven, high-impact IYCF programs. Visionary leaders at BRAC, A&T, and the Gates Foundation, with the encouragement of the government's nutrition leadership, drove the scaling-up process forward. In the aftermath of the dismantling of Bangladesh's National Nutrition Program, in part due to its limited scale, the search for a better option worked as an external catalyst. The Gates Foundation's "learning grant" program acted as an incentive, as it required a high level of accountability for results at scale.

Overall, the framework for scaling up developed for this series was broadly validated, with some caveats. A phased scaling up with key learning objectives at each phase is critical given the nature and challenges of sustaining IYCF behavior change. Reviewing experiences when operating at scale helped identify core processes for ensuring quality at scale. A strong technical team to adapt innovations was key, as was BRAC's ability to address variable needs such as staffing up volunteers and adding support for social mobilization. Different monitoring modalities, reporting to different units, also contributed to assessing and addressing program quality. Finally, a conducive, preexisting national policy environment for IYCF, created by an existing national IYCF Strategy (2007), and a more detailed and comprehensive national communication plan that was endorsed and adopted by the government (2010) helped ensure that all core processes and players were approved, and no additional clearances were required once scale up started.

These various factors came together to form an ideal environment for replicating and expanding IYCF interventions. Monitoring data indicate that IYCF practices have continued to improve in program areas during scale up, and early process evaluation data suggest services provided are of good quality. It is anticipated that the A&T approach will help achieve and maintain the impact of good IYCF practices at a large scale in Bangladesh for years to come.

For further reading: Alive & Thrive, www.aliveandthrive.org.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

Delivering Nutrients Widely through Biofortification: Building on Orange
Sweet Potato | *HOWDY BOUIS AND YASSIR ISLAM*

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The biofortification strategy aims to reduce the prevalence of vitamin and mineral nutritional deficiencies that are widespread in low-income populations by developing nutrient-rich varieties of staple food crops that the poor consume habitually. Biofortification is potentially a cost-effective and sustainable means of delivering more micronutrients to the poor. Since biofortification aims to increase the daily micronutrient intakes from improved staple foods, two factors—scaling up (to reach larger populations) and sustainability (to ensure long-term public health benefits)—are integral to its success.

Scaling up an innovation: Orange sweet potato

Orange sweet potato (OSP), rich in vitamin A, is the first biofortified crop to be released. OSP varieties that are suited to African tastes and environments have been developed and distributed in parts of Africa where prevalence of vitamin A deficiency is high and where white or yellow varieties—which provide little or no vitamin A—are traditionally consumed. Lessons learned from OSP delivery can be applied to the scaling up of other biofortified crops to ensure that target groups (primarily women and children) are consuming adequate amounts of biofortified crop foods to improve their nutritional status.

From 2007 to 2009, HarvestPlus and its partners distributed OSP to more than 24,000 households in Uganda and Mozambique as it scaled up pilot projects. In Mozambique its precursor was a program called Towards Sustainable Nutrition Improvement (TSNI). TSNI had 1,094 direct beneficiaries who received OSP, but the total cost per beneficiary was considered too high for the program to be sustainable. Lessons from TSNI were applied to a bridging project called Eat Orange that attempted to reduce costs per beneficiary while maintaining impact: adoption and consumption of OSP by farming communities. In Mozambique, HarvestPlus built on Eat Orange by horizontally scaling up its project to two more districts and increasing the number of beneficiaries to 10,800.

An operations research component was tasked with monitoring implementation activities, in part to draw lessons that could be applied to scaling up. A parallel impact evaluation team worked with the implementation team to carry out a prospective randomized control study—perhaps the first time this has been conducted on such a large scale with an agriculture-nutrition intervention. Despite differences between Uganda and Mozambique, in both countries the project led to increases in OSP adoption by farmers and consumption of OSP by households. As a result, vitamin A intake as much as doubled for both children and women.

Lessons from the OSP experience

For biofortification to be a viable strategy, the cost of delivering nutrients through food crops must be lower than the cost of interventions, such as supplementation and fortification. Factors that could have reduced delivery costs without affecting impact were identified. For example, the educational component of the project could have focused on key messages directly related to OSP and eliminated modules on complementary nutrition or agronomic practices. Diffusion was identified as a viable mechanism for spreading the innovation and reducing costs. Once a critical core mass of OSP adopters and producers has been established in a region (at a relatively high cost per household), complementary activities encouraged diffusion of OSP at lower cost to neighboring villages, thus creating a group of secondary beneficiaries. Adoption was highest among households that previously had regularly consumed high amounts of white sweet potato.

In Mozambique, the lowest marginal and average costs per target beneficiary (children 6–59 months and mothers) were US$17 and $52, whereas in Uganda they were as low as US$10 and $26, respectively. Costs were lowest in Ugandan villages where the diffusion rate of OSP vines to nonproject households was highest: 1.4 households received vines through diffusion per project target household.

Disability-adjusted life years (DALYs) are a commonly used metric for measuring the cost-effectiveness of health interventions. In Uganda, preliminary calculations (after taking cost reduction factors into account) suggest that the intervention cost US$15 to $20 per DALY saved, which by World Bank standards is considered highly cost-effective.

No evidence has yet emerged that small-scale farmers chose to grow OSP due to the project's marketing efforts. A lack of evidence is not surprising, given the short two-year project duration, as developing markets and products usually takes longer. Since markets may be critical for sustainability, costs could be kept low during the initial phase of an OSP project by focusing on seed systems and demand creation, with marketing and product development introduced at a later stage.

Gender roles as they relate to household production, consumption, and marketing of biofortified foods must be understood and carefully leveraged. A key factor in the success of OSP was the critical role played by women, both as caregivers of young children and as producers and retailers of OSP. It is thus important to reach women with messages on better agricultural production techniques as well as nutrition education. At the same time, men control family resources in the project areas and are the key decisionmakers regarding allocation of land and crops, so their role must be also considered. The issue of gender also extends to other actors. For example, in Mozambique female nutrition extension workers were significantly more successful than their male counterparts in conveying messages to the nutrition volunteers in target communities.

Successful branding of biofortified crops and determining whether visible traits (such as color) impede or facilitate acceptance and diffusion is an area for further research. Contrary to a priori assumptions, building an "orange brand" around OSP (traditional sweet potato varieties are yellow or white) was effective in both countries. Other similar research has shown that Zambian

consumers are undeterred by the orange color of vitamin A maize once the nutritional benefit linked to the color has been explained.

Biofortified crops with "invisible" nutrients that do not change color or taste, such as iron or zinc, will require a different marketing strategy. Combining high mineral and vitamin content with yield, other desired agronomic traits, and profitability will be crucial. Agronomic superiority can drive adoption of a nutrient-rich crop that is otherwise indistinguishable from the varieties that farmers already grow and consume. This strategy requires less investment in behavior change communication than do crops with visible traits, particularly if a high percentage of the total market can be captured by newly introduced higher-yield and higher-profit biofortified varieties. If this is not successful, the more costly alternative is to (i) insert high iron and zinc staple food varieties into public food distribution and income generation programs (for example, the World Food Program's Purchase for Progress) and/or (ii) brand and target these varieties to malnourished communities as a means for them to improve their nutrition.

Conclusion: Truly getting to scale

Efforts are under way to scale up OSP to reach a million more households in sub-Saharan Africa over the next five years. Lessons from OSP may be most applicable to other crops with visible traits, such as "yellow" cassava and "orange" maize, both with enhanced vitamin A. But they should also be relevant to invisible-trait crops being developed. At this point one can only posit what some of the elements of such a delivery and scaling-up pathway might be.

The first level of scaling up requires that a critical mass of poor farmers adopt the biofortified crop and feed it to their families. Evidence generated at this level will help convince stakeholders that biofortification does have a public health impact. At this level informal diffusion is a pathway by which the food is introduced to others in the community. At the second level, markets for the biofortified crop need be developed to provide farmers with an outlet for marketable surplus, thus reaching nonfarming or rural households that are net buyers of food. This second level is driven by further expansion through diffusion and complementary activities, reaching out to medium-scale producers,

and developing local markets and demand for products made from biofortified foods, still largely in rural areas. At the third level, the private sector becomes the main driver of the diffusion process. As sufficient surplus is generated to reach urban consumers, including the urban poor, value chains for biofortified crops can be developed to produce value-added tradable products in order to mainstream biofortification. However, the nutritional benefits of these foods must be assessed, as nutrients are lost during storage and processing.

Actors at many levels are needed to lead the scaling up of biofortification, once they are convinced by evidence from initial target countries that biofortification is a cost-effective, sustainable, and complementary strategy to improve nutrition for the poor. Investments must also be made in other arenas, such as better sanitation and education, to maximize the benefits of consuming biofortified foods. Improving nutrition—and health—must remain high on the agenda of the donor and policymaking communities, and the agriculture sector must assume more responsibility for improving nutrition. The global research communities should also make "better nutrition through food" a core component of their research and product development portfolios. Frameworks seeking to improve nutrition (for example, the UN's Scaling up Nutrition) or to improve regional planning (for example, the Comprehensive Africa Agriculture Development Program) can also do much to mainstream biofortification.

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INTERNATIONAL FOOD POLICY
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Imagine scaling up an agricultural project whose goal is to improve rural incomes by increasing rice yields. It has three components. The first is the introduction of a new high-yield strain of rice developed and delivered by the national Ministry of Agriculture (MOA). The second consists of organizing rice farmer associations to buy inputs and sell outputs as part of a value chain approach. This component is outsourced to local NGOs. The third component is the training of agricultural extension workers (AEWs) in value chains and cultivation of the new variety of rice to support the farmers associations. The AEWs are employed by local government units (LGUs) as part of a recent decentralization. Many LGUs in the project area have chosen to hire an insufficient number of AEWs—their salaries come out of the LGUs' budgets—and those that have been hired have not received even basic agricultural training. Because of this, prior to training in high-yield rice and value chains, the project sponsors had to pressure LGUs to hire AEWs as a condition of participation and had to provide generic training in agriculture. Assume for this example that the intervention itself has been rigorously evaluated as successful at small scale and merits scaling up to a number of provinces with concentrations of poor rice farmers.

Looking for institutional partners that fit the project

The first challenge is whether there exists an institution that has the capabilities and capacities to implement the intervention successfully at scale. Capacity here means having the reach to deliver the model at the desired scale. Capability means the ability to implement the intervention with the required quality and fidelity to the original design and adapt it to local conditions as necessary. The project model in the example is comprehensive and complex, with diverse components. Unfortunately, because of this, it is often unlikely that all of its components will be aligned with either the culture/incentives of a single institution or with its capabilities, let alone both.

A potential candidate is the national-level MOA, but in most countries the staff is largely composed of technical agricultural experts, and in these cases the staff's capabilities are neither in value chains nor in grassroots institution building. Implementing these approaches is incompatible with the ministry's technical competence and usually the associated organizational culture, which has more of an "engineering" than market or social mobilization orientation. Also, in countries that have decentralized or devolved agricultural and rural development services to the local level, having a single executing institution may simply be impossible as centralized, national-level agencies no longer have the means to reach end users or beneficiaries.

In many countries, NGOs working in rural areas have strong capabilities in social mobilization and a successful track record that has earned the trust of the local community. Unfortunately, it often turns out that in more remote provinces where scaling up is desired, no NGOs exist with the necessary community mobilization capabilities, and the original NGOs do not have the capacity to work outside of their province.

A possible solution is to invest in organizational strengthening and expand the reach of the original delivery institution. This assumes that the NGO is willing, which might not be the case. Another is to try to transform the culture and capabilities of the MOA, but this requires that the MOA—from management down through the staff—be receptive and willing to change. Trying to change organizational culture cannot be undertaken lightly and is a multiyear effort that requires steadfast champions and leadership.

A third solution is to scale up the multiple components through several organizations, mirroring the small-scale implementation structure. However, this presents two additional obstacles: finding the necessary number of implementers with the right capability and culture in the desired location(s) and then coordinating them. The pilot project succeeded by creating its own provincial project steering committee, co-chaired by the provincial governor and national minister of agriculture. It was made up of all the necessary agencies plus the NGOs and was created specifically for the project. It was able to effect coordination because of its structure and the political power of the chairmen. With several implementers, scaling up would require the creation of new coordination institutions in every province and the willingness of governors to use political capital to enforce cooperation, no small effort if numerous provinces are envisaged.

Aligning the project vertically and horizontally

Achieving horizontal alignment through coordination mechanisms is essential, yet vertical alignment of institutional incentives and cultures from national to local actors is also necessary. Vertical alignment across relevant government agencies, especially in decentralized or federal governance systems, presents numerous challenges. Donor projects or even national domestic projects may be aligned with national strategy and policy, but regional, provincial, district, and local governments often have substantially different priorities and incentives. The misalignment of institutional incentives becomes particularly important when scaling up is expected to use domestic funds and where multiple levels of government are involved in funding, approval, monitoring, and supplying in-kind (infrastructure and human) resources.

Whether scaling up is implemented through a single or through multiple organizations, another challenge is that generic capabilities and human resources may be weak or missing and have to be strengthened or even created from scratch. To address this challenge, one strategy would be to replicate at scale the same strategy used in the pilot—supplementing existing staff with direct hires and providing for one-off training of all AEWs. This is often a mistake for several reasons. First, training and retraining of AEWs will be an ongoing need, and therefore direct hires will not create sustainable, institutionalized training capacity. Second, training

often focuses on model-specific skills when what is needed is a much more comprehensive training effort. Finally, the common emphasis on training as the only type of capability or institution building needed is in most cases too narrow and insufficient. Training often needs to be combined with other organization- and even system-strengthening activities such as introducing rules, norms, and procedures for service providers; creating a system and norms for hiring, training, and promotion of AEWs; and improving supervision, accountability, and incentives.

Conclusions

There are various ways to address many of these challenges, all of which imply compromises and trade-offs. The first and less desirable option is to reduce the targeted scale. For example, in the presented scenario accept that the only implementer will be the MOA, or work only in those provinces where effective LGU and NGO capacity exists. The second alternative is to simplify the model, which will have a negative effect on impact, but will facilitate achieving large scale. Moreover, it reinforces a common tendency among large-scale implementing agencies, especially those with a technical bias or culture, to drop or dilute the delivery of social components of innovations, which are often key to their effectiveness. The third alternative is to make a substantial investment in capacity and capability building. While allowing for both scale and impact, this is easier said than done and contrary to common practice in development assistance. The extent of

investment needed will almost always entail more than the simple one-off training or investment in infrastructure and equipment so favored by donor agencies and foundations; it will require true organizational change. This is expensive and time consuming and requires the agreement of the implementing institution(s), which is not always forthcoming.

The fourth and most desirable alternative is to specify in the design phase what the potential scale is, and keep iterating and learning during the pilot implementation until the components in the ultimate design are aligned with existing capabilities and capacities and have significant impact. The advantage is that it will avoid investment in an unscalable model or project and avoid disappointing implementation at scale in terms of both reach and impact. The disadvantage is that this may constrain the initial design, and can be rightly criticized for potentially limiting innovations to those that involve only changes at the margins, depending on preexisting capabilities, incentives, and culture. The bottom line here is that if effective large-scale implementation of new innovations implies greater capabilities than exist, then there is no way around investing in systems and organizations.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

Aga Khan Development Network: Expanding Rural Support Programs in South Asia | *Henri Suter, Leanne Sedowski, and Joanne Trotter*

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FOCUS 19 • BRIEF 13 • JUNE 2012

The Aga Khan Development Network (AKDN) focuses its efforts in rural development primarily in fragile high-mountain and coastal areas with vulnerable and marginalized populations. The beneficiaries are often cut off from government service provision and living where market linkages are weak and access to technical innovations is limited. In these challenging environments, AKDN's mission is to transform the quality of life for the populations with whom it works. This requires a multi-input approach, including interventions in education, health, financial services, livelihoods, infrastructure, and local governance—and agriculture. AKDN's approach rests on the core belief that a sustained impact on quality of life can be achieved by empowering actors in the three domains of society: government, civil society, and the private sector. Such empowerment can ensure that they are active, informed, and capable of interacting appropriately to promote economic and social development.

AKDN's rural support programs (RSPs) were first initiated in Pakistan in 1982, and subsequently they have been replicated across the country, reaching 4.1 million households in 110 districts through the Rural Support Programme Network. AKDN RSPs now operate in 12 countries in Asia, the Middle East, and Sub-Saharan Africa. They often work alongside other AKDN agencies with mandates in different sectors to achieve meaningful impact at scale. This brief focuses on experience in Asia, providing an overview of the RSP model, how it has been scaled up over 30 years to reach 5.7 million beneficiaries, and lessons learned.

Operational principles

RSPs are local institutions established as locally registered, nonprofit, civil society organizations. They are intended to enable local people to better identify, plan, resource, and manage their own development processes. RSPs operate within a defined geographic area and aim to catalyze social and economic development. The close linkage to communities enables them to remain responsive and relevant over the long term.

RSPs eastablish elected village organizations (VOs) as an entry point for program activities. VOs represent the community and oversee the articulation of a village development plan (VDP). The VDP, which is created through a participatory planning process facilitated by the RSP, lays out a community's vision for improving its quality of life. Once it is drafted, often using visual plans so illiterate community members can participate fully, RSP staff members challenge communities to identify which activities can be undertaken with their own resources and which require external technical, financial, or human resources. The RSP role is then to connect VOs to the support needed to implement the plan, including making connections with government, the private sector, nongovernmental organization providers, or specialized AKDN agencies. In this way, VOs become a platform for community engagement with service providers.

VOs are provided with significant institutional strengthening support. This encompasses gender awareness, participatory monitoring and evaluation, project management, and linkage building in hopes that in time VOs can become self-sustaining local governance institutions. VOs regularly self-assess their institutional maturity and social accountability and can access additional, targeted training as needed. This investment in VOs as institutions of participatory governance is a defining characteristic of RSPs' work and is essential to the sustainability of activities and to the scaling up and replication of the approach.

RSPs form apex institutions to enable program growth and replication. Operating at a community level in a large, sparsely populated geographic area is very resource intensive. As VOs mature, the RSPs form apex organizations, constituted of VO members, at the district or subdistrict level. Through apex organizations, VOs share aggregated plans with higher-level government institutions and formulate development projects that benefit communities. This aggregation of demand strengthens VOs' voices with government or private sector service providers and creates a vertically integrated network of civil society partners with whom RSP staff members and other actors can work.

Women play a crucial role in the creation and implementation of VDPs. Because of cultural constraints, it is sometimes necessary for women to form separate VOs that are linked to male-led VOs, often through a husband and wife team. Over time, the RSPs establish significant trust with communities and develop sufficient access to address issues of specific interest to women through income-generating activities, financial services, and social development projects. For example, RSPs have promoted women-managed, community-based savings groups to reduce vulnerability to shocks.

Pathways for scaling up

Horizontal scale up takes place as RSPs form VOs systematically within a region of a country. The RSPs pilot, assess, and refine new ideas, approaches, or technologies and then roll them out to new VOs. For example, low-cost drip irrigation was trialed extensively in India, before roll-out across the program area. The proven technology has now been adopted by private enterprises that provide equipment, financing, and maintenance. For the scaling up to be effective, interventions and approaches are layered into local governance structures that promote equitable development at the community level and become part of an ecosystem supporting multisector development.

Vertical scale up takes place as RSPs focus on apex institutions rather than on individual community-level projects. As RSPs mature, most of the investment is in building the capacity of local service providers such as government departments, agricultural research facilities, sector-specific civil society organizations (for example, pasture management associations), or private enterprises. Through engagement at this level, RSPs help service providers and

policymakers better respond to the articulated needs and potential of local communities.

Resourcing scale up requires VOs and apex institutions to access the financial, technical, and human resources needed to sustain innovation and programmatic activity. RSPs play a strong role in pulling government resources down to district and community levels so they can respond to articulated demand. For example, the RSP "landless garden" approach has been adopted by the government of Bihar to facilitate wider replication in vulnerable, landless households. Where government resources for programming are constrained, RSPs facilitate linkages with other potential providers. In Pakistan, Mountain Fruits—a local enterprise that processes and packages dried apricots—evolved from the RSP's investment in horticulture and engaged with producer groups organized through VOs. Significant scale up has occurred as the RSP has transferred marketing and extension services to a private-sector actor.

Over time, after governance and service structures are stronger and linked to community demand, RSPs can function with relatively small amounts of funding and continue to achieve impact. Their focus shifts to facilitating innovation, monitoring and evaluation, impact assessment, exchange of experience, and linkage building.

RSP approaches influence policy to facilitate scale up. Through its efforts to build government capacity, engage government agencies in the development and rollout of subsector plans, and share lessons learned with government, AKDN has had considerable success at integrating RSP approaches into provincial and national policies and programs. Specifically, RSP experience in joint forest management became part of India's policy, which was adopted by 18 states. In Afghanistan, the RSP's approach to social accountability has been adopted into the National Solidarity Program, with potential reach of 25,000 communities.

Lessons learned

Start with private interest and then build in a focus on public goods. The initial motivation for farmers to form or join a VO tends to be self-interest. RSPs' efforts to improve food security and livelihoods by making appropriate technologies, infrastructure, and training easily available, however, also helps create a foundation of trust. In the case of Northern Pakistan, this trust has lasted for 30 years and resulted in sustained improvements in economic and social welfare.

Lasting commitments are necessary. RSPs learned that three-to-five-year programs do not allow enough time for development to take root. RSPs are thus committed for relatively long periods of time to allow for sustainable change. The intention is not to deliver a project intervention and then withdraw, but to partner with communities and enable them to meet their self-identified needs over time. This approach requires RSPs to constantly adapt their role and interactions with an evolving system of local institutions, providing targeted support where needed and stepping back as institutions mature. In particular, RSPs have progressed from directly providing services to beneficiaries toward playing a facilitative role in line with its systems approach to development.

Manage organizational change. The scale up of AKDN's RSPs has relied on the transfer of skilled human resources between different country contexts and the ability to adapt a highly process-oriented approach to different regions. This has created a rich environment for learning and exchange between programs. However, RSPs have realized that building and retaining the appropriate talent for scale up is a key constraint. Scaling up requires more management skills to complement technical and community development expertise.

Support from the government is key. RSPs in Pakistan, India, and Afghanistan have explicitly partnered with government and received substantial support from various government sources. Some rural development programs have even been structured specifically to enable better government outreach to remote communities. Particularly in resource-poor areas where market activity is limited, this engagement with government remains critical for RSP sustainability.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

SEWA: Supporting Village-Level Organizations to Improve Rural Livelihoods
Raj M. Desai and Shareen Joshi

2020 VISION
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In spite of the rapid growth of the Indian economy, the fraction of the rural population living in poverty has declined only modestly. Increasing indebtedness, rises in input prices, and rapid commercialization have contributed to what some policymakers call "generalized rural distress." Partly in response, the Indian government is in the process of scaling up a national rural livelihoods program that envisions a substantial role for nongovernmental organizations. This brief explores the determinants of the scaling-up path chosen, examines the effectiveness of village-based rural-livelihoods programs managed by the Self-Employed Women's Association (SEWA), and explores questions regarding the role of NGOs operating at scale.

Two principal drivers behind the scaling up of the rural livelihoods programs have been the continuing problems of traditional large-scale antipoverty programs and the potential effectiveness of the small-scale model. The large-scale programs typically have been impeded by capacity bottlenecks at the district or village level. And the lack of organization and collective action among the principal beneficiaries has meant that projects have been implemented without strong oversight and accountability. The government has responded with a mix of (i) greater commitments to decentralized governance, (ii) new partnerships with NGOs and the private sector, and (iii) greater use of alternate service-delivery mechanisms for program implementation.

In recent years, antipoverty programs have expanded the role for rural membership-based organizations in improving livelihoods. These organizations' members provide each other with mutual support while attempting to achieve collective objectives. NGOs have been the primary facilitators of these organizations, identifying and selecting poor rural households and mobilizing them into self-managed institutions such as self-help groups and their federations. The NGOs also provide capacity-building and training activities. These efforts increasingly focus on women as the primary beneficiaries of poverty-alleviation programs.

In 2009, the national government established the National Rural Livelihoods Mission, which will ultimately spend $5 billion dollars on strengthening institutional platforms for the rural poor in the country's seven poorest states. A significant component of this effort finances "livelihood grants" to village-based membership organizations to undertake "productive livelihood activities" including skills development, training for financial literacy, and business education. Eligible organizations include self-help groups, producers groups, farmers collectives, and producer companies. Their success in supporting the scaling up of rural development programs will be determined by answers to three questions: (i) Do they help improve rural livelihoods? (ii) Do they strengthen accountability? (iii) Are they able to function at a large scale?

Impacts of two programs of village-level membership organizations

Two recent programs undertaken by SEWA highlight the impact of membership organizations on rural livelihoods. The first, a program for poor female farmers in Gujarat, established village-level producer associations. The second, based in the southern "tribal belt" in Rajasthan, created self-help groups.

Producer associations in Gujarat

Women Farmers with Global Potential was designed to support female farmers in accessing global agricultural markets. About 200 village-level producer associations were established in villages in four districts in Gujarat. These producer associations were (i) linked to banks for access to savings accounts and credit services; (ii) given technical training in crop management and farming techniques; (iii) provided access to seeds, organic pesticide, fertilizer, and farming equipment available for rental; (iv) provided with price information for various crops, often on a daily basis; and (v) linked with SEWA's own processing centers as well as larger markets.

After 18 months of implementation, the Women Farmers project raised awareness of available opportunities among participants, linked women to the financial sector, and diversified employment opportunities, particularly in nonfarm work. SEWA members were less likely to work as unpaid workers, more likely to have better knowledge of loan products, more likely to have obtained those loans, and more likely to have superior information about market prices than nonmembers. SEWA women were also more likely to sell outside the established state-procurement system than nonmembers.

Finally, we saw no discernible effect on household incomes of SEWA participants, nor any effect on consumption, agricultural employment, or crop sales.

Self-help groups in Rajasthan

In 2007, SEWA established self-help groups in 32 villages in one of the poorest state districts. Participants met once a month and saved Indian Rupees 25–100 each in a linked bank account, thereby becoming eligible for credit. SEWA conducted educational and job training programs and employment and income-generation workshops.

The program was evaluated through a randomized-controlled trial. Baseline and follow-up surveys were conducted in 2007 and 2009, respectively. Women in SEWA villages were 24 percent more likely to participate in group savings programs, 11 percent more likely to save money regularly, and 5 percent more likely to be involved in nonagricultural employment than women in control villages. They were 4–7 percent more likely to participate in household decisions about children's education and the use of family-planning technologies. They were also 13 percent more likely to know where to report grievances regarding water, 10 percent more likely to have actually reported problems of water access to

village councils or district offices, and 5 percent more likely to know if anyone in the village had paid a bribe to gain access to water for farming or to public officials. As with the farmers participating in Gujarat producer associations, SEWA group members in Rajasthan did not experience any increases in employment or wage income.

Evidence from behavioral games with the participants, however, suggested that self-help group participation may have changed mind-sets and behaviors of participants: repeated social interaction increased trust and fostered cooperation, making it easier for the SEWA women to organize themselves than for those in control villages.

Can NGOs help improve rural livelihoods and strengthen accountability?

The evaluations of the two interventions suggest that NGOs can play critical roles in linking unorganized and marginalized populations to state-led antipoverty efforts and public goods and services. The NGOs' main effects appear to be organized communities, better informed participants, greater intragroup cooperation, and lowered costs of participating in collective decisionmaking. Impacts on income, employment, and household consumption are modest.

In achieving scale, therefore, it may be that indirect, behavioral effects on program participants outweigh direct effects on income, consumption, and employment. In both the Gujarat and Rajasthan programs, the strongest effect of the interventions was seen in terms of empowerment of women, including greater control over household finances, greater ability to make decisions regarding the health and education of children, and greater autonomy. Behavioral evidence from the Rajasthan program further shows that self-help groups lower collective-action costs at the village level. Strong self-help groups may thus be in an ideal position to demand transparency as well as accountability and thus improve the performance of poverty-alleviation programs and the provision of public goods.

However, in neither the Gujarat nor the Rajasthan programs is there broad evidence of improved political agency among members. Nor are there extensive improvements in service delivery or better public goods provision (with the exception of water in Rajasthan). While the membership groups may have overcome coordination problems among the poor, they have not effectively mobilized these groups to take the next, crucial step: more access to and representation in local decisionmaking circles in order to strengthen the accountability of local government to its citizens.

Potential political constraints for NGOs at scale

Program dynamics that operate at the village level may be quite different than those that are salient at scale. This is especially the case with NGO programs that acquire extensive reach and membership. SEWA's experience reveals the dilemma that NGOs may face as their programs reach scale and as their organizational resources are seen as politically valuable. SEWA's leaders claimed that the Gujarat state government—which had partnered with SEWA in several projects—wanted to use SEWA's network for political purposes. As SEWA resisted, it began to face charges of financial irregularities, found itself the subject of a series of audits, and for several years had state grants withheld. Ultimately, SEWA withdrew from all projects in which the Gujarat state government was a partner.

The National Rural Livelihoods Mission will significantly invest in developing institutional arrangements to enhance the access of poor, rural households to public services and to promote sustainable improvements in local governance by giving the poor, women, and other vulnerable groups greater representation in village-level government. To do this on the expected scale will require that NGOs avoid or overcome antagonistic relationships with local and state governments and enter into dialogues with these institutions in order to shape official development policy and deliver basic services.

Conclusion

NGOs such as SEWA that support village-level membership organizations can play valuable roles in supporting the scaling up of rural livelihoods programs. They empower local communities, especially women, but their direct impacts on livelihood improvements are limited and they do not appear to increase the political agency of the rural poor more generally. When they operate at a large scale they may become exposed to political tensions that limit their ability to support national strategies of rural poverty reduction. Their ability to effect indirect, behavioral change among participants, however, may be a resource in scaling-up efforts.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

Oxfam America: Learning from the System of Rice Intensification in Northern Vietnam | *Gina E. Castillo, Minh Nguyet Le, and Kimberly Pfeifer*

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Despite Vietnam's remarkable success in reducing poverty from almost 60 percent of the population in 1993 to 14 percent in 2008, 18 million Vietnamese still live on less than US$1.25 a day. Vietnam supplies a fifth of the rice consumed worldwide, and yet millions of rice farmers grow barely enough for subsistence. Over 9 million farmers in Vietnam own less than half a hectare of paddy land, generally fragmented into 6–10 smaller plots. Some 90 percent of these farmers live in the country's northern region. They are highly vulnerable to external shocks, especially climate change and the high and volatile price of food and agricultural inputs. Meanwhile, extension services often overlook their needs and rely on prescriptive, top-down approaches that have failed to invest in their ongoing adaptive capacity.

Oxfam America (Oxfam) has been working with civil society partners and the government of Vietnam to make the System of Rice Intensification (SRI) available to smallholder rice producers across Northern Vietnam at a scale hitherto unreached. Unlike many conventional rice-farming practices, SRI encourages farmers to optimize the performance of the individual rice plant rather than maximize inputs. It is a principles-based system and relies on a menu of husbandry practices, each of which delivers increased yields, often with fewer input requirements than established practices.

Oxfam encouraged farmers to experiment with transplanting seedlings younger than one month; transplanting individual seedlings rather than clumps of three or more; spacing plants widely and regularly rather than densely and irregularly; and keeping soils moist rather than inundated. The introduction of SRI is flexible. Farmers may adopt it at any scale and with any combination of the husbandry practices that SRI comprises, using the same seeds and fertilizers already available to them.

A design for scale

From the outset, the program aspired to move beyond local implementation and reach national scale and impact not only SRI implementation but the capacity of farming communities and extension services. At the national level, it had technical and financial support from Oxfam and the government's Plant Protection Department (PPD). At the local level, the program has coordinated with mass organizations, local government, and service providers to work together with farmers. At the provincial level, the PPD advocated for resources from the provincial government for field-level implementation.

The program design involved three interlinked phases:

1. Local testing and confirmation of the potential of SRI. SRI was tested in a range of local contexts to assess crop performance, profitability, and scope for local adaptation. The aim was twofold: (i) to build an evidence base confirming the potential of SRI and (ii) to build local experience in extension approaches that enable farmers and local technicians to adapt SRI principles and learn how to maximize benefits for themselves.

2. Expanding upon experience and the evidence base to build a critical mass. Oxfam and PPD focused on refining the SRI technical and extension materials in order to make these widely available to technicians and agencies. A tiered extension model was developed with intensive farmer field schools (FFSs) at one end of the spectrum and extensive farmer-to-farmer extension approaches at the other. This allowed the program to build a critical mass of experienced practitioners at both farmer and technician levels.

3. Aligning with the government and mobilizing resources. As the first two phases progressed, the program increasingly prioritized documentation of field results to engage researchers and policymakers. The program was able to align with and influence various policy mandates and leverage government resources to invest in the program. Advocacy has played an important role in the expansion of SRI: to gain support, leverage resources, and to foster greater dialogue between farmers and policymakers.

A growing reach: Results to date

A successful pilot in Dai Nghia commune in 2006 marked the launch of the SRI extension partnership for Oxfam and the PPD. Starting from 3,450 farmers nationwide who were applying SRI on 70 hectares of paddy land, Oxfam invested in six provinces. In 2011, the PPD reported that by the end of the spring crop, 1,070,384 farmers had applied SRI principles on 185,065 hectares across 22 provinces, accounting for 6 percent of the nation's paddy areas and 11 percent of Vietnam's rice farmers.

Farmers have directly benefitted from adoption of SRI. On average, SRI farmers increase their yields by 9 to 15 percent while reducing use of inputs compared to conventional practice: 70–75 percent less seed, 20–25 percent less nitrogen fertilizer, and 33 percent less water. This has resulted in additional income of US$95–$260 per hectare per crop season. Farmers report positive changes to the environment and their health as a result of less use of pesticides, herbicides, and chemical fertilizers.

Additionally, monitoring shows that as farmers gain confidence in SRI they are applying it to a greater portion of their paddy land. The average application per farmer increased from 0.01 hectare in 2003 to 0.26 hectare in 2008 and to 0.31 hectare in 2010.

Farmer participation in design and delivery of the program fostered buy-in, helped to garner support for horizontal scaling, and facilitated functional expansion and longer-term systemic changes. The extension services are working in a more participatory manner and are increasingly able to integrate farmers' challenges and demands. The evidence-based, open-ended learning approaches are well received by both farmers and local technicians. Farmers'

own findings and their messages are powerful in vertical scaling and leveraging political support.

The program prioritized working with women farmers, who make up 70 percent of participants in FFSs. Learning about SRI has given women greater confidence both at home and in public. Also, women farmers have proven to be better at training others than have men. After participating in an FFS, each woman helped, on average, five to eight other farmers adopt SRI principles, while every FFS male participant helped one to three other farmers. Given the growing number of SRI participants and diverse adoption at the provincial level, a rigorous impact assessment is needed.

Another achievement of the program has been its success in leveraging support and resources from the government. At the start of 2011, the government allocated US$383,000 in the six program provinces to support SRI and other low-input, low-carbon agricultural methods. This was one-third more than Oxfam's contribution. The recognition of SRI as a technological advancement at the central government level and integration with other rural development policy initiatives have been critical in creating space for provincial-level partners to access resources.

The challenge of maintaining political and learning spaces

As SRI gained greater support, there was a risk that proponents would lapse into presenting it as a quick set of prescriptive steps: fixed seedling age, fixed spacing, fixed fertilizer regimes, and fixed water regimes. While this approach will give some positive outcomes, it generally limits farmers' own learning and the program's long-term goals. To manage this risk, the program has worked hard to ensure that SRI remains principle based rather than prescriptive. It emphasizes farmer experimentation, which takes more time and requires genuine investments in building the capacity of farmers and the ability of extension service providers to keep pace with the plans of individual farmers.

By using this approach, the program also faced the challenge of integrating empowerment processes aimed at broader social change. The implementation of activities related to gender equality,

for example, have been one-off activities. Oxfam and partners are experimenting with different modes of collaboration at the district and commune levels—with cooperatives, farmers unions, extension centers, and so forth—to help address these issues.

Finally, the redefinition of central-local government authority relations under decentralization processes has created both opportunities and constraints for the scaling up of SRI. The Ministry of Agriculture and Rural Development (MARD) is responsible for agriculture policy and for achieving the agriculture targets set out in the government's five-year plan. It has approved SRI as a technological advance in rice production and recommended its entities apply for participation. Decentralization enables decisionmaking at the provincial level, which leads to uneven adoption of recommendations. Different views exist within MARD and its provincial counterparts on the efficiency in SRI adoption. Provincial support depends heavily on the connections and advocacy capacity of provincial staff. At the national level, Oxfam and PPD are advocating with policymakers to gain their endorsement and address policy contradictions. Documentation of program results and organizing visits to hear directly from farmers are important tools to get buy-in from different policymakers.

Conclusion

Having a lasting impact on agriculture on a large scale is urgent and necessary. This example from PPD and Oxfam illustrates that scaling up warrants a shift in design beyond discrete projects to a longer-term investment in partnership. As the program continues to move ahead in Vietnam, efforts to furthering its reach toward 2 million farmers will continue, but over time local actors, rather than Oxfam, will increasingly have to drive the scaling-up processes, and the emphasis will have to remain on strengthening the capacity and voice of farmers.

For further reading: SRI-Rice ONLINE, http://sri.ciifad.cornell.edu.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

The Bill & Melinda Gates Foundation: Catalyzing Agricultural Innovation
PRABHU PINGALI

2020 VISION
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FOCUS 19 • BRIEF 16 • JUNE 2012

The Bill & Melinda Gates Foundation is a very recent entrant in the agricultural development space. We have been active in this area for just over five years, yet we quickly became a major donor and advocate for smallholder agricultural development. Between the years 2006 and 2011, the Foundation invested close to US$2 billion to promote sustainable agricultural productivity growth, with a particular emphasis on Sub-Saharan Africa and South Asia. The Foundation is currently among the top five donors providing grants for agricultural development in Sub-Saharan Africa and possibly the top source of public research and development (R&D) support for the region.

The Gates Foundation approach to scaling up agricultural innovation

Our approach to improving lives at scale embodies the concept of catalytic philanthropy, which seeks to identify market and government failures and address those gaps. Since our inception, we have focused on supporting the provision of international public goods and on catalyzing the invention of innovative, high-leverage solutions that other sectors can adopt, adapt, or otherwise use. For instance, we have invested in such critically important yet underfunded areas as agricultural R&D for food staples important to the developing world.

But we recognize that upstream activities alone are not enough to achieve transformative results. Our large investments at national and subnational levels reflect a comprehensive approach to helping farmers prosper. This includes helping them access new tools and farm management techniques, opening doors to markets, and supporting effective policies. For example, some of our strongest investments in Africa support increased farmer access to farm storage technologies, warehouse receipt systems, market information systems, and low-cost, small-to-medium-scale processing facilities, which together improve market infrastructure, increase value addition, and stimulate end uses. Through support for regional research networks focusing on agricultural economics, we also invest in individual countries' capacities to analyze and better design policies to improve smallholder productivity and reduce poverty.

Our approach to achieving impact is also not restricted to large dollar investments. Focused advocacy, alliance building, and consensus-building interventions help create an environment that fosters success across our portfolio. For example, our insistence that women participate in and benefit from all our grants has resulted in widespread attention to women farmers as untapped economic agents, notably through reform efforts from the US Feed the Future initiative and the Consultative Group in International Agricultural Research (CGIAR).

Refining our approach

In 2011, we initiated a mid-course correction to our strategy, with the aim of becoming more effective in our ability to significantly reduce hunger and poverty in our target regions: Sub-Saharan Africa and South Asia. Our first four years of grant-making provided us with the following useful lessons that we used to recalibrate our work going forward.

1. Our grant-making, although substantial, was too diffuse to have widespread impact on the ground.

2. We lacked a clear pathway from global innovation to smallholder poverty reduction.

3. We were not well coordinated with contemporaneous efforts by governments, other donors, and development agencies along the chain from R&D to impact on farmers' fields.

We have now embarked on a refreshed grant-making strategy that tries to address these shortcomings. It places strong emphasis on three design principles: focus, integration, and partnership. By incorporating the full meaning of these principles in the reorganization of our work, we aim to move away from geographically dispersed boutiques of success, and toward integrated national models in which our portfolio can add up to more than the sum of its parts.

Sharper focus

Our resources are now more sharply focused on a set of priority commodities and a set of priority countries. Priority commodities are both crops and livestock products, and they are distinct for Sub-Saharan Africa and South Asia.

Priority commodities

Our prioritization of commodities was based on (1) an assessment of the food consumption basket of the poor, (2) demand projections through 2030, (3) the current supply situation, (4) productivity gaps, and (5) market failures in technology generation, diffusion, and marketing. We settled on a set of staple food crops that are important to the poor and that are grown in 11 of the 14 agroecologies of Sub-Saharan Africa; they are widely adaptable and amenable to scaling up across regions. We excluded high-value crops even though we are fully aware of the pro-poor benefits of smallholder participation in high-value supply chains. We do not believe that there is an R&D market failure for high-value crops where the private sector is already active. The rapid spread of *Bt* cotton in India is an excellent example.

Priority countries

Our refreshed strategy also provides a much sharper geographic focus for our efforts. When we started our work in agricultural development, we chose to restrict ourselves to Sub-Saharan Africa and South Asia. However, we found that even that delineation was too broad and diffuse for us to have a transformative impact on the ground. We therefore decided to take to scale our efforts in a few priority countries and depend on spillover effects for reaching the rest. The country prioritization was based on three major criteria.

1. Number of rural poor people: We selected geographies with the highest absolute number of poor people living in rural high-density areas. The seven selected African countries account for half of the urban and rural poor in Sub-Saharan Africa.

2. Potential for productivity improvement: We invest in areas of high and growing demand for staple-food and high-productivity potential and where cross-national spillover benefits between agroecologies can be maximized.

3. Probability of success: We estimated the likelihood of success in terms of an enabling political and economic environment as well as the potential to expand on our existing partnerships.

Integration across the commodity value chain

Traditionally, the concept of a value chain is meant to trace all components and processes involved in the movement of a commodity from the farm to the consumer's plate. Our more expansive view considers the entire chain from "molecule to mouth." Our definition of an integrated value chain is inclusive of the R&D associated with commodity improvement, all processes and components involved in technology transfer and dissemination, access to inputs, farm production and management, postharvest operations, access to markets, and the links to the food retail sector.

The integrated value chain approach helps us prioritize and integrate our work externally as well as internally. Strong internal teams around each of the value chains allow us to take a comprehensive approach to priority interventions and grant design. In each anchor geography, these teams look across the value chain to identify constraints and opportunities. For example, our investment in stress-tolerant varieties of rice for Africa and South Asia has resulted in several new varieties for flood and drought tolerance. But weak seed policies in Sub-Saharan Africa constrain the rapid movement of these varieties from experiment stations to farmers' fields. Complementary investments in an enabling seed policy environment at the national and regional levels improves farmer access to seed and enables more rapid productivity growth.

Effective partnerships for reaching scale

We recognize that our ability to scale up our efforts depends on aligning with and leveraging the skills, capacity, and resources of a wide set of partners in the region. While at the global level, we partner with a broad range of public and private partners to boost the pace of and ensure the relevance of our international R&D and policy agendas, one reason for deepening our engagement in a limited number of anchor geographies is to leverage partnerships that can heighten our impact on the ground.

Creating effective "hand-off" from global public good R&D to technology dissemination at the national and local levels requires identifying and strengthening partnerships with all players along the commodity value chain. The Alliance for a Green Revolution in Africa (AGRA) is a critical partner in building the bridge from global innovation to local adoption. The AGRA Program on African Seed Systems (PASS) has already released and disseminated more than 150 new and improved varieties of the major staple crops across Sub-Saharan Africa. PASS has shown the crucial importance of working with the local private sector, including small agro-dealers, in order to have impact on a large scale.

Our work in Ethiopia provides an early example of the way we can achieve widespread impact through improved coordination. Working with the Agricultural Transformation Agency (ATA), we are helping the Government of Ethiopia design and implement a long-term strategy for agricultural development through smallholder productivity growth. The ATA has been instrumental in bringing about improved coordination not just among the national agencies involved in agricultural development but also across the multitude of bilateral and multilateral agencies supporting Ethiopia's development.

Nevertheless, our ability to partner with institutions at the national and local levels is constrained by poor capacity at the technical, policy, and management levels. The few strong organizations that exist tend to be overwhelmed by donor requests to rapidly scale up programs. Broad-based capacity building efforts, though crucial, are beyond the scope of a single donor and require sustained commitment from a larger coalition of bilateral and multilateral funders. Developing countries themselves need to make a strong commitment to building broad-based capacity at all levels.

Finally, effective monitoring-and-evaluation and impact-assessment systems are needed to monitor progress toward our sustainable-productivity targets and poverty-reduction goals. Our investments in household data and other "real-time" M&E systems, including environmental monitoring, help us track progress.

For further reading: Bill and Melinda Gates Foundation, Agricultural Development Strategy Overview, http://www.gatesfoundation.org/agriculturaldevelopment/Documents/agricultural-development-strategy-overview.pdf; Bill and Melinda Gates Foundation, Agricultural Development Grant Overview, www.gatesfoundation.org/agriculturaldevelopment/Documents/agricultural-development-grant-overview.pdf.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

IFAD: Adopting a New Systematic Approach to Scaling Up in Agricultural
and Rural Development | *CHEIKH M. SOURANG*

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Concerns about insufficient progress toward the Millennium Development Goals have prompted a renewed interest in agriculture as a source of growth and as an effective tool for poverty reduction and environmental stewardship. With a target of taking 80 million rural poor out of poverty between 2012 and 2015, the International Fund for Agricultural Development (IFAD) has positioned itself as a significant financier for low-income developing countries and fragile states, a provider of knowledge services to middle-income countries, and a source of inspiration for like-minded partners. IFAD has extensive experience helping countries scale up successful interventions—sometimes by design, but more often by serendipity. Now the challenge is to become more systematic and proactive about going from pilot to scale and to help countries operate rural development programs at scale in a sustainable manner.

Taking stock of IFAD's scaling-up experience

In 2009 IFAD undertook an institutional scaling-up review. Experts from the Brookings Institution conducted a desk analysis of IFAD's country and thematic operational approaches. The review also considered IFAD's corporate strategy, operational policies, processes, and instruments as well as its budgetary and human resource management practices to determine whether they were supportive of a systematic scaling-up approach to development. In parallel, IFAD's Independent Evaluation Office carried out a corporate evaluation of IFAD's approach to innovation and scaling up. This first phase of analytical and evaluative work was completed in 2010 and led to a number of important conclusions:

- Scaling up is mission-critical for IFAD if it is to achieve its goals of reducing rural poverty.

- IFAD has effectively supported the scaling up of successful agricultural and rural development programs in a number of countries, including in Peru. (See brief #4.)

- However, this has not always been the result of a systematic operational approach, but is often due to fortuitous circumstances.

- Therefore, IFAD's strategies, operational policies, processes, and instruments, as well as its budgeting and staff incentives, need to evolve to support a more proactive and systematic approach to scaling up.

Consequently, IFAD management decided to expand its understanding of the scaling-up experience by carrying out eight in-depth country reviews and four cross-cutting thematic studies. The latter cover (i) scaling up through support for sectoral strategies and partnerships, (ii) scaling up through institutional capacity development, and (iii) providing support for scaling up in value chains and adapting results to management and monitoring and evaluation to facilitate effective efforts. This analytical work is ongoing, again with the support of the Brookings Institution, and will help inform future operational decisions by IFAD management when it is completed by the end of 2012.

Building on the lessons of the stock-taking

In the meantime, IFAD's management has moved ahead on a number of fronts to ensure that scaling up is effectively mainstreamed in its operational activities. First, scaling up is explicitly incorporated as an institutional objective in the formulation of IFAD's Medium Term Strategic Framework 2011–14.

Second, IFAD management, with the strong support and encouragement of its member countries, committed to pursuing a scaling-up agenda under the program to be funded by the ninth replenishment of IFAD's resources during 2013–15, approved by IFAD's Governing Council in February 2012.

Third, management concluded that planning for operations and impact at scale has to begin as early as possible in each country, specifically with the formulation—in close collaboration with government—of IFAD's Country Strategy and Programme. This is a results-oriented framework for IFAD's medium-term country engagement through investments, policy dialogue, partnerships, and knowledge management. Projects identified for preparation, financing, and implementation will henceforth include a plan for scaling up whenever applicable. The plans will identify pathways for scaling up, the drivers that can be mobilized, and the spaces (fiscal, environmental, policy, institutional, political, cultural, partnership, and learning) needed for a successful model to be taken to scale.

To this end, IFAD's internal guidelines for formulation, implementation, and monitoring of country programs have been adjusted to reflect a scaling-up mind-set. Likewise, project preparation guidelines have now been adapted to include a set of standard "guiding questions" that require the project management team to explore the scaling-up pathways, drivers, and spaces, and the related monitoring and evaluation practices. The guidance given to reviewers in IFAD's project-quality-enhancement and -assurance processes is also being progressively refined to reflect the institutional scaling-up agenda.

Fourth, deepening country and local leadership in strategy, project design, and execution will strengthen ownership and commitment to replication and scaling up. IFAD-financed projects would increasingly capitalize and rely on country systems—strengthening them when appropriate—so that successful activities can be more easily absorbed into mainstream government, NGO, and private sector activities when project financing ends. IFAD will devote more effort to building local capacity for managing scaling-up efforts, especially among national and local governments, farmers organizations, and civil society.

Fifth, impact at scale requires enabling government policy and an adequate public expenditure program. Policy that does not enable private investment in agriculture, for example, will inhibit

scaling up, given that agriculture activities lie in the private sector and require private investment. Good pilot projects supported with donor money tend neither to gain traction nor be replicated and scaled up when they reside in a poor policy environment that inhibits private investment. IFAD is committed to supporting improvements in countries' agricultural and rural policies and to working closely with private actors to ensure that they have the space to invest and produce.

Sixth, IFAD will work closely with its partners to ensure that promising innovations, successful pilots, and best practices are replicated and scaled up through joint or coordinated planning, financing, and implementation. A corporate partnership strategy is under preparation that will reflect these principles. Meanwhile, IFAD has already undertaken systematic outreach activities in an effort to promote a scaling-up community of practice, involving client governments, multilateral and bilateral financing agencies, research and technical support institutions, think tanks, foundations, and NGOs. Examples of IFAD's outreach and partnership-building activities from 2009 to 2011 include mutual peer reviews and learning events to foster a common understanding of scaling-up concepts and issues and the implications of a scaling-up mind-set in our respective ways of doing business.

Finally, managing for results, monitoring of project activities, and measurement of impact are important in order to know what to scale up, how to scale up, and what the impact is likely to be. IFAD has already adapted its corporate-level management framework and is refining its project portfolio management approach to report explicitly and separately on the scaling-up dimension of its work. IFAD's monitoring and evaluation approach at the project level will be enhanced to make it fully supportive of a scaling-up agenda at project, program, and/or sector levels. Meanwhile, IFAD's Independent Evaluation Office has already adapted its evaluation criteria to reflect a focus on scaling up in evaluating IFAD's country programs and individual projects.

Next steps

IFAD has only recently started on the journey of turning itself into a scaling-up institution. But its membership and management are committed to pursuing this agenda. The next step for IFAD is to expand its knowledge through in-depth case studies and thematic reviews, which are currently under way. IFAD will at the same time enhance its country-level engagement with the development of guidance and training tools and through support for local capacity development. Management will review IFAD's operational instruments and its budgeting and human resource management practices to ensure that the necessary instrumentalities, resources, and incentives are put in place to support the scaling-up process. A scaling up mind-set is not necessarily more costly or effort-intensive than the traditional way of operating, if it is done in the right way and given the opportunities to benefit from economies of scale and from partnerships in managing for greater impact and effectiveness.

Part of the challenge is to set achievable and measurable targets, monitor progress and impact, define mutual accountability frameworks and performance metrics at both country level and agency levels, and achieve efficiency gains. Risks associated with this institutional change include creating a new rote "mantra," adopting excessively burdensome processes, or spreading resources too thin. There is an overarching need to keep IFAD's goals focused and its processes simple. The effort will entail introducing and enforcing staff incentive systems that reflect the commitment to the scaling-up agenda. IFAD will monitor progress and results and adapt as it learns—and it will share.

For further reading: International Fund for Agricultural Development (IFAD) Independent Office of Evaluation, "Corporate Level Evaluation of IFAD's Capacity to Promote Innovations and Its Scaling Up." Rome: 2010; IFAD, "Partnership Building and Outreach on Scaling Up: An IFAD Hosted Learning Event," Rome, October 26–28, 2011, background documentation and presentations available at www.ifad.org/events/scalingup/index.htm; J. Linn, A. Hartmann, H. Kharas, and R. Kohl, "Scaling Up the Fight against Rural Poverty: An Institutional Review of IFAD's Approach." Global Working Paper 39, Washington, DC: The Brookings Institution, 2010.

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Scaling Up in Agriculture, Rural Development, and Nutrition

Learning from the Experience of Vertical Funds
Keith Bezanson, Paul Isenman, and Alex Shakow

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Vertical funds are multistakeholder global programs that provide earmarked funding for specified purposes. This brief presents a series of lessons learned from vertical fund experiences that are applicable to scaling up in agriculture and rural development. It draws on the experience of the Global Fund to Fight AIDS, Tuberculosis and Malaria as well as other funds with substantial operational programs at the country level. It also draws on the experience of the Scaling up Nutrition (SUN) movement, a multistakeholder global program without a vertical fund that is directly relevant to agriculture and rural development.

While the emphasis here is on learning from mistakes and challenges of vertical funds, it is important to note at the start the areas where they provide positive lessons. These include (i) a focus on results, in most cases outputs and in some cases outcomes; (ii) the inclusion of civil society and the private sector, in addition to governments, in governance; (iii) transparency in what they finance; (iv) innovation and adaptation; and (v) proven effectiveness in assisting developing countries to scale up. These positive lessons have already had a broad influence on international agreements for aid effectiveness.

At the same time, vertical funds raise problems in aid-dependent countries of inconsistency with the key principle of the Paris Declaration on Aid Effectiveness—support to government priorities, institutions, and the systems underlying the aid agreements. Eleven lessons for the design and reform of vertical funds in agriculture and rural development can be drawn

1. Think twice: Global action does not necessarily mean a new vertical fund. An initial, crucial, but often ignored lesson is the need to think twice—even in the face of public pressure—before launching a new vertical fund. In the past decade the great majority of additional funding for health has been through vertical funds, driven by public and political support in donor countries for narrow agendas. There has been little prior consideration, with consequent donor neglect, of broader health objectives and systems. This is now being repeated in the case of climate change. Yet the same donors who initially championed and have been the main sources of funding of vertical funds now loudly decry their proliferation and the distortions and fragmentation that they can produce. Thus, the Busan Outcome Document of the 2011 Fourth High Level Forum on Aid Effectiveness states, "We will work to reduce the proliferation of these channels [vertical funds] and will, by the end of 2012, agree on principles and guidelines to guide our joint efforts."

   What is required before setting up another vertical fund is a rigorous analysis of the "aid architecture" that already exists—including comparative advantages and weaknesses of existing relevant organizations. And that analysis should, to the maximum extent feasible, be done jointly by potentially interested funders, since multilateral funds require, by definition, collective action. Then the analysis needs to be accorded widespread consultation and serious political and policy consideration.

2. Use existing institutional capacity. If a new vertical fund is needed, then it is important to follow the commitment in the 2008 Accra Agenda for Action that "existing channels for aid delivery are used and, if necessary, strengthened before creating separate new channels that risk further fragmentation and complicate co-ordination at country level."

   In the case of agriculture and rural development, there are existing global funding sources, primarily the International Fund for Agricultural Development (IFAD) but also others, including the Global Agriculture and Food Security Program (GAFSP). Similarly, the Committee on Global Food Security and the High Level Task Force on Food Security and Nutrition provide existing mechanisms for advocacy and dialogue.

3. Don't forget the importance of adequate funding. Even without a new vertical fund, perhaps especially so, adequate finance is important, be it external or domestic. SUN, although not a vertical fund, gives high priority to mobilizing resources from existing relevant sources.

4. Set up an appropriate governance and organizational structure. If after in-depth analysis a new vertical fund is indicated, it should have governance that is strategic and robust enough to achieve its intended objectives. When the fund is established within an existing organization, there may be no need for an additional governance structure. Conversely, as the SUN movement shows, in highly selective cases it may be desirable to establish a governance structure even when there is no vertical fund. In the rare cases where a new governance structure is indicated, appointments to boards should wherever possible be based on a person's experience and qualifications rather than constituency representation (although taking some account of stakeholder and other balance). Experience shows that this is important in minimizing parochialism, gridlock, and conflict of interest. Experience has also shown that it is far easier to get governance right at the start, rather than trying to retrofit it to a board with established constituency "rights." The same points apply to secretariats. A new secretariat may not be needed or, as in the case of the International Health Partnership, it can be virtual and shared between two existing organizations. In the event a dedicated secretariat is needed, however, it should be adequately and predictably financed, so that it can contribute to getting the initiative off to a good, and credible, start.

5. Manage risk: Stop the pretense that major scaling up is possible without facing up to and managing risk. As the unsettling recent experience of the Global Fund shows (regarding donor recriminations over fiduciary concerns), there needs to be clear agreement between board and management—and transparency with stakeholders and publics—on the assumption and management of risk. Risk management includes positive reinforcement of accountability and transparency policies that uncover and address corruption or other serious issues. And it means facing up to needed changes in policies and even business models.

6. Have a constant focus on impact at the country level. This means avoiding a narrow view of scaling up, in which each donor goes from its own pilot project to scaling up particular (sets of) interventions. It means scaling up using the agreed upon, experience-based principles of aid effectiveness from the 2005 Paris Declaration: ownership, alignment, harmonization, results, and mutual accountability. Scaling up also must be done as part of broader sector and multisector systems. This applies to scaling up at all levels—specific interventions, broad regional programs (such as rural or community development), sectorwide country programs, and global initiatives like the Global Fund, the GAVI Alliance, or the SUN movement.

7. Match means and ends. The Global Fund aimed to maximize impact by rounds of one-off contests (challenge grants). Experience shows that contests are well suited to producing innovative research or pilot projects, but they are poorly suited to longer-run partnerships or major scaling up; they raise problems of predictability and sustainability, particularly for programs with large, continuing, recurrent costs.

8. Focus on sustainable results. Linking financing in part to results is important, but they need to be sustainable, not just one-off results. This applies whether or not there is a vertical fund.

9. Don't set exaggerated expectations for results and their time frames. Exaggerated expectation come back to bite, as the Global Fund (including its main stakeholders) found in its five-year evaluation when it could not measure outcomes.

10. Encourage good practice but avoid top-down prescription. For example, it is reasonable to call for broad national mechanisms for consultation and the participation of key stakeholders, but it is not reasonable to impose specific new institutions parallel to those of government.

11. Align incentives to objectives. This means a sharp focus on the consistency of internal incentives with stated policies and objectives. Conflicting donor incentives often lead, for example, to fragmentation, inconsistency, and frequent changes in priorities. Analysis in the health sector shows that conflicting government incentives—mixed with weak ownership—often lead to the substitution of donor financing for country financing.

Conclusion

In sum, there are valuable lessons for agriculture and rural development—positive and negative—from the experience of existing vertical funds and other global initiatives. It would be well worth considering each of them in determining how to scale up support for agriculture and rural development. For example, the need to think twice before establishing a new vertical fund and consider the availability of IFAD and the GAFSP argues strongly against establishing a new vertical fund, although there may be a case for supplementary funding for both that focuses on scaling up.

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SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

Going to Scale in Fragile States: Can It Work? Should We Try?
Laurence Chandy

The term fragile state is used to describe a country whose government struggles to perform some of its most basic functions, due to a lack of either political will or capacity or a combination of the two. In these states one typically observes persistent deficiencies in the government's authority, legitimacy (as perceived by its citizens), or its provision of services. Depending on the measure used, one can identify between 30 and 40 fragile states, which together contain around a billion people: a diverse group capturing a range of conditions, from postconflict environments to dysfunctional and corrupt regimes. They all present great development challenges, which raises the following question: Is scaling up under such circumstances possible?

Why scale up in fragile states?

According to a World Bank 2002 task force report, "aid does not work well" in fragile states, "may even be counterproductive," and has historically recorded "a disturbingly high rate of failure." Given these grim judgments, and the well-documented challenges of moving to scale in any setting, should scaling up even be contemplated in fragile states? The answer is "yes," for three reasons.

First, the development challenges facing fragile states demand it. In the space of a few years, fragile states have moved from the periphery of the international development agenda to a focus of global aid efforts. To understand why, consider the following three facts: (i) the share of the world's poor living in fragile states is estimated to have doubled, from 20 to 40 percent, since 2005; (ii) no fragile country has yet achieved a single Millennium Development Goal (MDG); and (iii) two-thirds of the world's remaining low-income countries are fragile. Helping fragile states has thus become inseparable from commitments to fighting poverty, achieving the MDGs, and assisting low-income countries. Overcoming these challenges will not occur through one-time, token interventions. The 2011 World Development Report and the "New Deal" agreed to at the 2011 High Level Forum on Aid Effectiveness in Busan, South Korea, are signs that the aid community recognizes this fact.

Second, there is growing recognition that aid to fragile states can achieve positive results if donors are willing to adapt their approaches to the environment. For instance, achieving genuine recipient ownership may require looking to the subnational level or to communities if the central government is unable or unwilling to fulfill the kind of leadership role required in recipient-donor relations. Aligning to country systems may require donors to apply greater oversight measures and the use of risk management instruments to ensure aid money is well spent. Approaches like these can likely claim some of the credit for narrowing the gap between the share of World Bank projects recording unsatisfactory performance ratings in fragile countries and the share receiving the same rating in stable settings since the early 1990s. However, the likelihood that this result is also partly explained by projects

becoming less ambitious—and the negative implications of this for scaling up—should not be overlooked.

Third, an approach to aid management and delivery that is supportive of a scaling-up agenda emphasizes many of the issues that are important to working in fragile states. These include using feasible and simple project designs, strengthening institutions alongside interventions, adopting long-term horizons, focusing on sustainability, and supporting endogenous learning.

Can scaling up work in fragile states?

This verdict leads to the core question: Can scaling up work in fragile states? The answer again is positive. There are, in fact, numerous examples of interventions being successfully brought to scale in fragile states, covering a range of different countries and sectors, including rural development and food security. (For two studies that provide a compendium of recent case study evidence, see the publications by Chandy and Linn and by Manor in "For further reading.")

This is not to suggest that scaling up in fragile states is straightforward. A review of the case studies suggests that executing scaling up in fragile settings is undoubtedly more challenging than in stable environments.

Three key challenges are apparent. First, political and social upheaval can easily thwart attempts to reach scale as donors struggle to shield their interventions from an unstable environment. Second, the weakness of formal institutions in fragile states (combined with low capacity) becomes an increasingly serious constraint as interventions reach greater scale and as the question of achieving sustainability comes into focus. Third, there is anecdotal evidence that donors may have backed away from efforts to move to scale due to the perceived risk of large-scale failure, which would likely be conspicuous and thus draw criticism.

At the same time, scaling up occurs more readily in fragile states than may be expected, with successful approaches from more stable environments often being picked up spontaneously. Donors have had particular success scaling up interventions whose success relies predominantly on identifying technical and logistical solutions and adaptation that play to donors' strengths.

How can projects be scaled up in these environments?

Successful scaling-up pathways in fragile states depend on donors exercising greater selectivity and scrutiny in determining which interventions should be scaled up, implying a higher threshold for what might constitute a "good candidate" project or program. Scaling-up pathways may also take longer to traverse in fragile states, as interventions are likely to run into more obstacles and take more time to embed. As a consequence, donors would be wise to reassess their project cycles in fragile states: scheduling early evaluations to inform resource allocation decisions and later evaluations to allow sustainability to be

properly assessed, and making multiyear commitments to individual interventions to allow them to expand at a realistic pace.

The role of drivers in fragile states is in many respects similar to that in other settings. Proven ideas and practical models have often been picked up in fragile states, contrary to the expectation that actors may be less responsive to recognizing and acting on the utility of promising results. Leaders undoubtedly have a role to play as drivers in supporting scaling up in fragile states, although there are dangers that must be avoided here. These include the perception that donors are picking political winners by nominating leaders, or that the survival of projects is tied too closely to the fortunes of a single leader's political career. Donors should therefore exercise prudence in working with local champions.

Finally, as might be expected, the greatest challenge to scaling up in fragile states is the limited "spaces," or room in which to operate effectively, that these environments provide. This is especially true for spaces that concern aspects of governance, politics, policy, and institutions.

Donors, on occasion, have found success in leveraging governance spaces at the subnational level, or away from the state entirely, in religious organizations, the private sector, or informal customary institutions. Such approaches have proven particularly effective at identifying fast-track solutions to essential service delivery and may offer sustainable solutions. However, the central development objective in fragile states is state building, so the challenge of building sustainable state structures cannot be ignored. Successful scaling up in fragile states usually depends on simultaneously securing institutional, policy, and capacity improvements. Targeting these improvements should therefore be integrated into project design.

The government of Ethiopia's Productive Safety Nets Programme (PSNP) provides a vivid example of the opportunities and challenges of achieving scale in fragile states. The PSNP was established in 2005 with the support of the UK Department for International Development and the World Bank. Its aim was to "graduate" people from food insecurity through a combination of food and cash transfers and by building community assets via associated public works schemes. The PSNP took an unusual pathway to scale. Based on a model that had proven successful in other countries, the Ethiopian government decided on an immediate rollout at scale across 7 of the country's 10 regions, against the advice of donors who preferred a phased approach. This decision likely reflected the strong ownership and political commitment behind the project, and the belief among Ethiopia's leadership that this program can help stimulate rural growth. On the downside, a weakness of the PSNP is in the design of its finances. Rather than falling within the normal framework for financing public services, the PSNP operates through a specific federal grant that relies on a discretionary process that is perceived as vulnerable to abuse through patronage and regional bias.

Conclusion

Fragile states increasingly represent a central challenge for the international development community. It is tempting for aid donors to respond with small, ad hoc, and short-term interventions in these environments. However, for fragile states to succeed, donors need to work with local stakeholders in developing long-term scaling-up pathways, building systematically on what works. They must be ready to take risks and adapt to rapidly changing environments. Experience shows that this is possible and necessary.

For further reading: L. Chandy and J. Linn, "Taking Development Activities to Scale in Fragile and Low Capacity Environments." Global Working Paper 41, Washington, DC: The Brookings Institution, 2011; A. Gelb, "How Can Donors Create Incentives for Results and Flexibility for Fragile States? A Proposal for IDA." Working Paper 227, Washington, DC: Center for Global Development, 2010; D. Gilligan, J. Hoddinott, and A. Seyoum Taffesse, "The Impact of Ethiopia's Productive Safety Net Programme and its Linkages," Journal of Development Studies 45 (10): 1684–1706; A. Hartmann and J. Linn, "Scaling Up: A Framework and Lessons for Development Effectiveness from Literature and Practice." Wolfensohn Center for Development Working Paper 5, Washington, DC: The Brookings Institution, 2008; J. Manor, Aid That Works: Successful Development in Fragile States (Washington, DC: World Bank, 2007); World Bank, World Bank Group Work in Low-Income Countries under Stress: A Taskforce Report (Washington, DC: 2002); World Bank, World Development Report 2011: Conflict, Security, and Development (Washington, DC: 2011).

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Scaling Up in Agriculture, Rural Development, and Nutrition

Lessons on Scaling Up: Opportunities and Challenges for the Future

Johannes F. Linn

20/20 VISION
FOR FOOD, AGRICULTURE, AND THE ENVIRONMENT

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Agriculture and rural development are essential components of economic growth and the battle against poverty, hunger, and malnutrition worldwide. In the developing world, investment in agriculture was much neglected in recent decades by governments and donors alike, as outlined in Brief 2. Following global spikes in food prices over the past several years, world attention has once again focused on the critical need to support this key sector. But it is not just a question of more investment and more aid; it is a question of how governments and donors ensure value for money. In the past, attention has focused on innovations in agricultural technology and rural development interventions, with little thought given to how one takes successful interventions to scale. Common political and administrative incentives have reinforced this pattern, as has an increasingly fragmented international aid architecture, in which small and disconnected donor-funded projects predominate.

It is now becoming clear that both innovation and scaling up "what works" are critical, and the policy briefs in this series provide many outstanding examples for effectively scaling up successful interventions in developing countries. They show not only that scaling up is possible but that there is an increasing commitment to it among concerned actors. It is not enough to merely replicate interventions; what matters is to scale up impact sustainably. Scaling up is not an end in itself but an instrument to achieve the goal of improved lives for the greatest number of people.

The previous briefs further demonstrate that it helps to have a common analytical framework and a common language as stakeholders consider scaling-up opportunities and challenges. The analytical framework used in this set considers pathways, drivers, and spaces (Brief 1). This is only one possible framework, but the authors found it helpful in exploring the experience of scaling up and considering suitable approaches for the future.

This brief summarizes the main conclusions from this wide-ranging series. It looks at the actors, dimensions, processes, and pathways of scaling up while summarizing what we have learned about the drivers of the process and how to create the spaces that allow scaling up to take place. Finally, it comments on cross-cutting issues that are relevant to the scaling-up process and that must be addressed as interventions are brought to scale.

Actors

Virtually all effective scaling-up experiences in agriculture, rural development, and nutrition have involved a multiplicity of actors: national, state, and local governments; civil society organizations; private businesses; public and private external donors; and, most importantly, farmers and rural communities. In the case of community-driven programs, Hans P. Binswanger-Mkhize and Jacomina de Regt said in Brief 3 that "bottom up meets top down." And, perhaps most obviously in the development of value chains, many actors must engage throughout the change process. For effective scaling up, the development of multistakeholder alliances is a key ingredient.

Dimensions

Effective scaling up of agricultural and rural development interventions usually takes place across multiple dimensions. The development program in the Peruvian Highlands (Brief 4) provides a case in point: projects gradually spread across different areas through "horizontal" scaling up, expanding thematically to cover broader aspects of the rural economy with "functional" scaling up. Over time, they scaled up "vertically" with adoption by the national government. One lesson drawn from the case studies in this series is that horizontal and vertical scaling up usually have to be combined to achieve success. This is true for area development programs in Peru and China, new rice production methods in Vietnam, value chain development, and community development programs.

Scaling-up process and pathways

There is no unique scaling-up process. It may be carefully planned from the beginning, as in the case of the value-chain development supported by PepsiCo, or it can be opportunistic, as in the Peru case. It may follow a broadly predictable sequence to disseminating technical innovation, as in the case of Vietnamese rice production improvements, or it may go against the better judgment of professional peers and be seen to involve considerable risk, like the China Loess Watershed Rehabilitation Project. It may involve a linear three-step sequence: (1) piloting an innovation, (2) piloting the scaling-up process, and (3) rolling out at-scale, as envisaged for community development programs in Brief 3. It can follow a more iterative pattern combining scaling up with innovation, as in the Peruvian Highlands projects and programs of the Aga Khan Development Network (AKDN). Or it may involve the mainstreaming of innovations in the context of existing development programs, as documented for the case of some of the initiatives supported under the Alive & Thrive program in Bangladesh.

In no case, however, was the process purely technocratic. It always involved a long-term engagement—more than 10 to 15 years in many cases—and adherence to a combination of key principles: a vision that scale was ultimately critical, a readiness to plan for scaling up in sensible steps, effective management of the process, learning by doing and adapting the approach as needed, building on opportunities for action as they arose, working with partners, and ensuring motivation among the stakeholders in the process. While some of the successes were serendipitous, there is little doubt that a systematic and deliberate approach in defining the scaling-up pathway is more likely to result in the effort being pursued and achieved successfully. AKDN, the Bill & Melinda Gates Foundation, Oxfam, PepsiCo, and the Global Fund have worked this way for some time, and now the International Fund for Agricultural Development (IFAD) and the Scaling Up Nutrition (SUN) initiative are also pursuing a systematic approach. It helps to consider explicitly who or what are the drivers of the scaling-up process and how obstacles can be removed or spaces created so the initiatives can grow.

Drivers

Successful scaling up almost always involves champions who push the process forward relentlessly. It can be an individual leader, as in the cases of AKDN and the Gates Foundation, groups of individuals as in the Peru case, or institutions that have scaling up in their DNA, such as PepsiCo and the Global Fund. Scaling up can be driven by crisis or memories of a crisis, as in the Peruvian case, where a history of violence in the region was a powerful driver for the area-based rural development programs.

Incentives are also critical drivers, especially as they help generate private demand for the innovations in farming practices to be scaled up. Ownership rights are essential for farmers, as demonstrated by the Loess Plateau project in China and the regreening experience in Africa. Empowered rural communities can serve as strong drivers of scaling up and as agents of accountability for public agencies. Finally, those institutions that have pursued a scaling-up agenda consistently and successfully evidently found ways to ensure internal accountability of their managers and staff to align with institutional goals.

Spaces

- **Institutional space.** A pervasive theme of the briefs in this series is the need for effective development and deployment of institutions that can carry forward the scaling-up process. The institutions that have promoted the original innovation or pilot may not have the capability to scale up or manage the initiative at scale. Special institutional capacity may have to be found or created. Often, many institutions are involved and need to cooperate or be coordinated. Institutional rivalries may prevent effective leadership of the process, and decentralization of governmental responsibility, now frequently promoted in developing countries, may interfere with effective leadership by national ministries. And yet the successfully scaled-up initiatives described in this series demonstrate that with imagination, persistence, and selectivity the institutional space can be created. Richard Kohl (Brief 12) concludes that the best approach is to focus from the outset very deliberately on the institutional choices to be made and the capacity-building needed for the chosen scaling up pathway.

- **Policy space.** The policy and regulatory framework is critical for effective scaling up. For farmers, ownership rules and their enforcement provide incentives or disincentives for adoption of innovations. The roles that rural communities are allowed to play and the support communities receive from local, provincial, and national governments are essential factors for empowerment and capacity. The general business environment and specific regulatory interventions can hinder or support effective development and scaling up of value chains. Rules governing rural credit, deposit, and insurance schemes can limit or support expansion of the rural economy.

- **Fiscal and financial space.** The extent to which fiscal and financial resources are available to sustain and scale up an initiative beyond the original donor-supported project needs to be addressed from the outset. National governments must make credible commitments to provide sustained budget funding where appropriate, or initiatives have to keep cost down to minimize dependence on outside funding. In the case of commercial ventures, such as the orange sweet potato initiative, innovations must be able to compete with other traditional products.

- **Political space.** Small initiatives tend to fly under the radar of major political actors, but, when scaling up is the goal, it is important to create the space needed to avoid political obstacles by advocacy and outreach to key constituencies and actors, as stressed for the regreening initiative in Africa. Brief 14 documents a case in which a highly successful Indian nongovernmental organization had to suspend a program in one state due to problems with state-level authorities. In countries subject to electoral cycles, building constituencies of support across the spectrum of political parties is important.

- **Partnership space.** All the successful scaling-up initiatives reviewed in these briefs involved deliberate efforts to seek out and mobilize the appropriate partners from the outset. In more advanced developing economies, this generally means national and local partners in the countries themselves; for less-developed countries, it also often means partnering with external donors. But in all cases, seeking local counterparts that own the donor initiatives and can eventually drive and sustain the scaling-up process is critical. For example, in its rice intensification project in Vietnam, Oxfam is deliberately planning for a "phase down" of its own engagement in support of project execution as local partners increasingly take over.

- **Learning space.** An evidence-based approach to scaling up is invariably needed. It starts with a good situation analysis, as stressed by PepsiCo in its approach to value-chain development, followed by effective monitoring and evaluation (M&E) along the scaling-up pathway, as in the case of HarvestPlus and Oxfam, and complemented by intensive institutional learning from experience, as documented by the Gates Foundation. Traditional modalities of M&E, which have focused exclusively on the achievement of project-specific input and output goals, need to expand to include the dimensions critical for scaling up. They must go beyond narrow project confines to measure whether and how the project supports the overall scaling-up process, in which the project is only one step along the pathway.

- **Other spaces.** Dealing with a severely constrained environmental space was of critical importance in the case of scaling up the Loess Plateau project in China. Capitalizing on the cultural characteristics of community action was a key asset for success in the Peruvian Highlands. Cultural obstacles needed to be addressed in the development of the orange sweet potato initiative, and PepsiCo had to adapt to the cultural context of the environments where it developed its value chains. Many of the briefs stress the importance of creating social space for women to contribute to the scaling-up process, whether it involves community-driven development, new agricultural crop methods, or the adoption of nutrition initiatives.

Cross-cutting issues

- **Sustainability.** Sustainability and scalability are deeply intertwined. Where a project is not sustainable, it is not likely to be scalable unless special attention is given to the factors that impede sustainability. These, in fact, are often the

same that prevent scaling, such as institutional weaknesses, policy constraints, and excessive costs in relation to financial resources or to consumers' or recipients' willingness to pay. The good news is that typically by focusing on these factors as part of the scaling-up challenge, constraints to sustainability are also addressed.

- **Risk taking.** Scaling up generally involves taking risks. Aside from exogenous risks (such as natural disasters, conflict, and poor weather) the risks involved are most likely related to the loss of key drivers and the inability to create sufficient spaces to allow the initiative to grow. Many of these risks can be mitigated by explicitly considering the scaling-up pathways, identifying the risks, and deploying measures to address them as far and as early as possible. This was the approach followed in the case of the Loess Plateau project, for example. However, not all risks can be mitigated, and what risks remain must be managed and responded to as they materialize. It is important to recognize, however, that scaling up does not necessarily involve higher risks than continuing the proliferation of disconnected small projects. The scaling-up approach may, in fact, be less risky, since it allows one to learn more systematically and build institutional capacity and stakeholder support, and thus mitigate important sources of risk.

- **Fragile states.** There is no doubt that many of the factors that support scaling up are more constrained in fragile and conflict-affected states than in stable environments. But, as noted in Brief 19, a fragile state should not avoid scaling up successful interventions. Indeed, the evidence shows that scaling up is possible in fragile states, and a good case can be made that while it will likely take longer and require perhaps different modalities, a scaling-up perspective will help address the huge challenges that people in these countries face.

Role of external donors

Ultimately, the scaling-up task is one that must be addressed by stakeholders within developing countries: government, business, civil society, rural communities, and individual farmers. External donors can help or hinder this process. They hinder when they intervene with fragmented and short-sighted initiatives. They can help by focusing on the task of scaling up. Long-term engagement

and sticking with it is an essential prerequisite, since scaling up by necessity is generally a long-term process, especially in fragile states. A systematic focus on scaling up in donor strategies, operational processes, and internal incentives is needed. The experience of vertical funds reviewed in Brief 18 shows that this is possible, and IFAD's scaling-up agenda, described in Brief 17, demonstrates a way to systematically increase effectiveness in supporting smallholder development. The Gates Foundation has made scaling up a clear objective for its operations. Based on an explicit stock-taking of its experience to date, the Foundation recently recalibrated its strategy of support for agriculture and rural development with a view to effective impact at scale.

Donors should avoid what the authors of Brief 18 call "a narrow view of scaling up, in which each donor goes from its own pilot project to scaling up particular (sets of) interventions." All scaling-up interventions, whether specific interventions, area-based or sectorwide country programs, or global initiatives like the Global Fund and SUN, should adhere to the principles of aid effectiveness from the 2005 Paris Declaration on Aid Effectiveness—ownership, alignment, harmonization, results, and mutual accountability—and, where applicable, consider broader sectoral and cross-sectoral linkages. Concerted donor support for "mainstreaming" the right policies and institutional mechanisms for agriculture, rural development, and nutrition; community empowerment; and supportive gender policies is a key aspect of effective scaling up.

Conclusion

Scaling up is "mission critical"—to use IFAD's term—if developing countries and their external donor partners wish to tackle effectively the multiple challenges of agricultural development and the reduction of rural poverty, hunger, and malnutrition. As the briefs in this series show, we have many good examples of successful scaling up. We also have some very helpful cross-cutting insights into the institutional, policy, and process requirements that make scaling up possible in addition to a simple framework with which to assess the challenge and tailor a suitable response. The main issue now is whether, collectively, we have the will to work systematically—and together—toward meeting this opportunity.

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FOCUS 19

SCALING UP IN AGRICULTURE, RURAL DEVELOPMENT, AND NUTRITION

Edited by Johannes F. Linn

Taking successful development interventions to scale is critical if the world is to achieve the Millennium Development Goals and make essential gains in the fight for improved agricultural productivity, rural incomes, and nutrition. How to support scaling up in these three areas, however, is a major challenge. This collection of policy briefs is designed to contribute to a better understanding of the experience to date and the lessons for the future.

Scaling up means expanding, replicating, adapting, and sustaining successful policies, programs, or projects to reach a greater number of people; it is part of a broader process of innovation and learning. A new idea, model, or approach is typically embodied in a pilot project of limited impact; with monitoring and evaluation, the knowledge acquired from the pilot experience can be used to scale up the model to create larger impacts. The process generally occurs in an iterative and interactive cycle, as the experience from scaling up feeds back into new ideas and learning.

The authors of the 20 policy briefs included here explore the experience of scaling up successful interventions in agriculture, rural development, and nutrition under five broad headings: (1) the role of rural community engagement, (2) the importance of value chains, (3) the intricacies of scaling up nutrition interventions, (4) the lessons learned from institutional approaches, and (5) the experience of international aid donors.

There is no blueprint for when and how to take an intervention to scale, but the examples and experiences described in this series of policy briefs offer important insights into how to address the key global issues of agricultural productivity, food insecurity, and rural poverty.

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