TECHNICAL ASSISTANCE FOR SMALLHOLDER FARMERS: AN ANATOMY OF THE MARKET

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Technical assistance programs can be highly effective in helping smallholder farmers improve their agronomic skills, business and financial skills, and access to markets – but currently only $8 billion is spent on such programs each year, or an average of $18.66 per farmer. Skewing of the allocation of this funding across farmer segments leaves some farmers better served than others.

Over the past decade, agricultural technical assistance funding in developing countries has seen a steady rise and a trend towards incorporation of market linkages and greater use of technology. Meanwhile, food and agriculture companies have increased investment in their supply chains to strengthen sourcing relationships. Certification (e.g., Fair Trade) has created a number of premium markets with common standards. At the same time, emerging formal and informal networks and alliances have begun to increase coordination, advocacy, research, and dissemination efforts in technical assistance.

In order to support efforts to scale up and strengthen the impact of agricultural technical assistance, funders and other stakeholders must demarcate different technical assistance markets and understand the respective challenges and opportunities of each. These markets include the public sector extension market, the donor and corporate-funded value chain development market, the financial services advisory market, and the public administration strengthening market. Differences between these four markets are discussed further in this briefing note.

To accelerate the effectiveness of agricultural technical assistance in developing countries, three key actions need to happen:

i) Funders should support government extension systems to sharpen and improve the impact of their services, in particular by incorporating new technologies and best practices from around the world, linking extension programs more explicitly to agricultural research centers and national development plans, and incentivizing private sector service provision to small farmers.

ii) Funders should channel resources through technical assistance service providers towards programs that complement the activity of agriculture and food companies in order to more effectively support the public good aspects of private sector engagement with semi-commercial farmers, agro-dealers, agro-processors, and other value chain actors. This may include multi-country initiatives that match sustainable agriculture commitments of large multi-national agribusinesses.

iii) Technical assistance providers should increase coordination with one another to establish common standards and measurement systems, improve knowledge transfer, share best practices and lessons learned, improve quality of delivery, and coordinate complementary programs in overlapping value chains and geographies.

ABOUT THIS BRIEFING

This Initiative for Smallholder Finance briefing is the seventh in a series about catalyzing smallholder finance, and presents an overview of the different forms of technical assistance for farmers in the developing world. Technical assistance is critical to smallholder financing because it is the nearest adjacent market and has complementary linkages to financing. A forthcoming briefing will discuss these linkages to financing in more detail.
An estimated $8 billion is spent annually on agricultural technical assistance in developing countries around the world – a figure that amounts to only $18.66 per smallholder farmer. Efforts to scale up and strengthen technical assistance programs should start with a common understanding of the diverse and distinct technical assistance markets.

In 2011, global spending on agricultural technical assistance in developing countries was an estimated $8 billion – less than 5% of the total of $191 billion spent on agricultural development. Given there are 450 million smallholder farmers in developing countries, this amount translates to just $18.66 per smallholder farmer per year – a small amount considering periods of food insecurity in regions around the world over the last decade and the importance of smallholder farming to food security. The average spend per farmer is even lower in South and East Asia; roughly 80% of the world’s farms are located in these regions, but these farms receive only 60% of global agricultural technical assistance. Furthermore, spending on technical assistance skews within geographies across crops and smallholder farmer segments; government and donor funded programs focus on political or social priorities whereas certification and private sector funding focuses on cash crops. Thus, $18.66 per farmer is a notional reflection of the relatively small size of the overall market rather than an absolute reflection of support received by the average farmer.

Of this $8 billion, national governments contributed $7 billion and bilateral and multilateral institutions and foundations contributed about $1.1 billion in 2011. Agriculture and food companies (e.g., ADM, Cargill, and Mars) gave roughly $270 million. Among bilateral and multilateral donors, six donors accounted for an estimated 70% of total spending (figure 1).

The source and nature of funding for technical assistance is very different in each region. In East Asia, South Asia, Latin America, and the Caribbean, donor contributions make up less than 10% of total expenditure on agricultural technical assistance. In the Middle East and North Africa, donors fund an estimated 21% of total technical assistance, while in Sub-Saharan Africa, they fund an estimated 55%.

Despite its relatively small scale, agricultural technical assistance has been growing and now constitutes a significant proportion of aid for major multi-lateral donors. Despite a recent dip in the wake of the financial crisis, bilateral and multilateral funding to agriculture and agricultural technical assistance in developing countries has been rising steadily since 2005, at a compound annual growth rate of 11%. Technical assistance forms a substantial share of some institutions’ agricultural budget and activities; for example, it constitutes 30% of the World Bank’s agricultural spending.

In recent decades, the way agricultural technical assistance is funded and provided has changed significantly. Over the past decade in particular, technical assistance funding focused on value chain integration. Donor contributions have increased as the multiplier effects of technical spending have become evident in many areas of development, and programming has begun to incorporate market linkages, access to finance, health and nutrition, and conservation through a more localized and flexible curriculum. Additionally, funding has started supporting more global and complex agriculture value chains, technological improvements, and the inclusion of women in technical assistance programs.
The Four Agricultural Technical Assistance Markets in Developing Countries

To better understand opportunities for funders and other actors to scale the strongest models of agricultural technical assistance for smallholder farmers, the Initiative for Smallholder Finance undertook research to categorize and characterize the different kinds of agricultural technical assistance in operation in developing countries around the world. The agricultural technical assistance market is best understood as four unique markets, each of which is evolving in different ways (Figure 2).

In each of these four markets, agricultural technical assistance programs differ significantly by size and level of competition. Figure 3 on the following page maps out the estimated size of each type of program, the number of providers supporting delivery, and the number of individual programs.

Of the approximately $8 billion in technical assistance funding, the overwhelming majority of funding in the agricultural technical assistance sector is channeled through the “public sector extension market.” This market accounts for an estimated $5 to $9 billion in funding per year that comes primarily from local governments and to a small degree from multi-lateral donors. These programs work directly with smallholder farmers and intermediaries to increase farmer productivity and market linkages across value chains, primarily in cash crops and organized staple value chains. The opportunity for improvement in this market is large but complex. New curricula, application of new technologies, and new extension provision partnerships with the private sector all hold great promise. However, public extension programs are often criticized for leakage (e.g., graft), ineffective management, and slow uptake of new approaches despite the efforts of reform initiatives by host country governments, IFAD, FAO, and organizations such as the Global Forum for Rural Advisory Services (GFRAS).

### Figure 2: The four agricultural technical assistance markets in developing countries

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<thead>
<tr>
<th>Dimension</th>
<th>Recipient</th>
<th>Associated programs</th>
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<tbody>
<tr>
<td>Orientation</td>
<td>Farmers, Cooperative, Buyer, Input provider, Lender, Government &amp; parastatals</td>
<td>1. Government extension programs</td>
</tr>
<tr>
<td>Downstream support direct to SHFs</td>
<td>Public sector extension market</td>
<td>2. Value chain development programs</td>
</tr>
<tr>
<td>Midstream support to promote market linkages</td>
<td>Value chain development market</td>
<td>3. Pre-competitive platforms</td>
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<td>Upstream support to develop enabling institutions</td>
<td>Financial services advisory market</td>
<td>4. Certification programs</td>
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<td></td>
<td>Public administration strengthening market</td>
<td>5. Corporate sustainability programs</td>
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<td></td>
<td></td>
<td>6. Agribusiness Investment support programs</td>
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<td></td>
<td></td>
<td>7. Financial services advisory and support programs</td>
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<td></td>
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<td>8. Public sector institutional strengthening programs</td>
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</table>
The "value chain development market" is estimated to be $1.1 billion per year and includes a variety of program types that seek to increase the strength, integration, and performance of specific value chains. Fewer than 100 international providers, most of which align closely with US and EU funders, serve this market for agricultural technical assistance. Within this delivery ecosystem, roughly 15 to 20 providers have portfolios of over $20 million per year. Below that level, a set of smaller providers compete for niche projects, and over 150 national providers partner with others to help deliver programs in specific focus countries. Programs within this market focus on development of technical agronomic skills as well as business and financial management skills in order to improve competitiveness. Specific program segments within this market include:

- **Value chain development programs** ($500 to $700 million per year) funded by donors and designed in-country with a focus on improving productivity and building market linkages for cash crops and organized staples. Programs often include training on optimal farming practices, business management skills, and financial literacy.

- **Pre-competitive platforms** ($40 to $60 million per year) that are typically anchored by foundations such as IDH and Gates. These platforms bring industry players together to invest in pre-competitive programs focused on sustainability, quality, and general market development.

- **Certification programs** (about $60 million per year) that are typically anchored by a large buyer to build a sustainable sourcing infrastructure for specific cash crops. There are 8-10 major certification providers working in an expanding set of value chains with increasing sophistication.

- **Corporate sustainability programs** ($250 to $300 million per year) that are funded directly by multinational buyers, processors, and manufacturers to increase quality, sustainability, and the strength of sourcing relationships in different countries.
- Agribusiness investment support programs ($6.5 to $8 million per year) funded by development finance institutions and other financiers to support agribusiness investments with supplementary technical assistance.

The “financial services advisory market,” which is estimated to be worth $25 to $35 million per year, supports financial service providers such as microfinance institutions, banks, and social lenders to design, introduce, and expand specific agricultural lending products. A small set of 8-10 niche international providers specialize in technical assistance for smallholder finance lending. This is a niche market that will be discussed in greater detail in a subsequent briefing.

The “public administration strengthening market” is estimated to be worth $30 to $40 million per year and supports governments to develop enabling strategies, programs, and systems. These programs are typically small, specialized contracts that individual consultants deliver at a country level. Programs often include organizational capacity building, operations training, and support for strategic planning.

Across the markets, some providers have integrated horizontally, whereas other niche providers serve dedicated markets. For example, some global technical assistance providers work across the various programs in the value chain development market, including value chain development programs, pre-competitive platforms, corporate sustainability, and agribusiness support programs. However, services in government extension markets tend to be provided directly by a dedicated department within a particular nation’s ministry of agriculture. Meanwhile, providers of certification, financial services advisory, and public administration strengthening tend to be specialized, niche players within their respective markets.

Moving Towards Greater Coordination, Standards, and Investment

Differing funder objectives within the agricultural technical assistance industry drive highly variable standards of cost, efficacy, and ultimately impact. Funders are often torn between focusing on technical assistance to support livelihoods and food security versus technical assistance to support competitiveness and economic development. As a result, the industry lacks clear standards around efficacy, which makes it difficult to compare either cost or outcomes across programs. Fragmented individual funder and provider efforts to improve monitoring and evaluation of technical assistance efficacy are not being brought to an industry level to establish benchmarks or an overall industry learning agenda.

However, several promising trends could build the foundation for greater coordination, standards, and investment in the agricultural technical assistance industry. Specifically:

- Coordination: A set of global platforms and organizations are beginning to drive coordination, advocacy, transparency, research, and dissemination efforts in agricultural technical assistance. Notably, the Global Forum for Rural Advisory Services (GFRAS), founded in 2010, supports evidence-based approaches and policies for improving the effectiveness of rural advisory services. The Sustainable Commodity Assistance Network (SCAN), a partnership of 20 key global standards bodies, technical assistance institutions, and other important stakeholders, is developing a global network of national platforms for delivery of targeted technical assistance. Meanwhile, organizations like the SEEP Network have promoted informal information sharing, and other organizations such as TechnoServe are proactively making their methods and results more public to encourage transparency in the market.

- Standards: Certification has created a number of premium markets with common standards that an increasingly sophisticated set of technical assistance providers and third-party auditors are supporting.

- Private Sector Investment: Large food and agriculture companies are dramatically increasing their involvement in the development of their own value chains in emerging markets using a number of innovative models of technical assistance. In particular, companies increasingly coordinate their efforts with national extension services and local leadership to ensure operations are not disrupted and technical assistance efforts are not duplicated. In some cases, companies increasingly work directly
with farmers and farmer groups to ensure quality control and strengthen sourcing relationships.

With greater industry coordination, common standards, and thoughtful investment in the decade ahead, we could see a general emergence of quality management, inclusivity, and sustainability in technical assistance programming. Additionally, government extension programs might further collaborate with private sector buyers and manufacturers investing more heavily in local supply chains. Funders may focus more on longer-term institution building and efficacy.

In order to accelerate these positive trends, three key actions need to happen:

i) Funders should support government extension systems to sharpen and improve the impact of their services, in particular by incorporating new technologies and best practices from around the world, linking extension programs more explicitly to agricultural research centers and national development plans, and incentivizing private sector service provision to small farmers. This is hard work and has not always been successful in the past, but it is essential work because extension systems are the largest and most readily available source of technical assistance to smallholder farmers. Initiatives to support extension systems should transfer knowledge from donor and private sector sponsored programs and build on lessons learned from past reforms.

ii) Funders should channel resources through technical assistance service providers towards programs that complement the activity of agriculture and food companies in order to more effectively support the public good aspects of private sector engagement with semi-commercial farmers, agro-dealers, agro-processors, and other value chain actors. This may include multi-country initiatives that match sustainable agriculture commitments of large multi-national agribusinesses.

iii) Technical assistance providers should increase coordination with one another to establish common standards and measurement systems, improve knowledge transfer, share best practices and lessons learned, improve quality of delivery, and coordinate complementary programs in overlapping value chains and geographies.

Agricultural technical assistance is critical for helping smallholders improve their lives and yields. As the nearest adjacent market to smallholder financing, improved agricultural technical assistance also plays a complementary role to financing through various direct linkages, which a forthcoming briefing from the Initiative for Smallholder Finance will explore in more detail.

NOTES

1 Refer to methodology in annex for detailed overview of sizing approach.
2 IFAD estimate based on data from “World Census of Agriculture” by FAO and “Rural Population, Development, and the Environment 2007” by UNDESA.
3 $18.66 is the equivalent of one day of farmer training, two bags of fertilizer, three cocoa trees, or one eighth of a cow.
4 This study was unable to break down funding by crop or smallholder segment, so the suggestion of skew in the market is based on perceptions of expert interviews rather than quantified data.
5 Funding from companies does not include line spend on supply chain management; it only includes programmatic spend.
6 Source: OECD CRS database
7 Source: World Bank
8 Figures are approximate. The aggregate figure of $8 billion assumes an average size of $7 billion for the public sector extension market, but the actual figure is an estimated range from $5 to $9 billion.
THE INITIATIVE FOR SMALLHOLDER FINANCE
BRIEFING 07

SCOPE AND METHODOLOGY OF THIS STUDY

The findings in this briefing note form part of a broader effort by the Initiative for Smallholder Finance and Dalberg to understand the agricultural technical assistance landscape and its impact on smallholder financing. First, this research placed technical assistance in the agricultural development landscape by determining how much is spent on technical assistance programming within the context of overall agricultural development spending and how funding of technical assistance is evolving. The team did so through a predominantly top-down analysis of spending trends with some literature and portfolio analysis including: i) a literature review of past research on technical assistance, ii) review of previous studies and World Bank global data on government agricultural and technical assistance spend, iii) analysis of bilateral and multilateral spending based on program data in creditor reporting system databases, iv) a portfolio review of the Bill and Melinda Gates Foundation’s agricultural portfolio and other studies on Foundation spend, and v) interviews with four donors and other industry experts to identify funding trends.

Second, this research effort sought to understand how agricultural technical assistance is designed and delivered across the world, including how providers differentiate themselves and how technical assistance programs are funded. To do so, the team used a predominantly bottom-up review of programs and providers with some top-down sizing and country context analysis that included i) development of a database of key funders, providers, and other relevant organizations, ii) detailed organizational profiling of over 50 providers and funders, iii) desk review of about 50 technical assistance programs across program types, iv) interviews with 21 providers and other experts, and v) desk research into country contexts and country case studies.

RESEARCH BY
Dalberg

Dalberg Global Development Advisors is a strategy and policy advisory firm dedicated to global development. Dalberg’s mission is to mobilize effective responses to the world’s most pressing issues. Dalberg works with corporations, foundations, NGOs, and governments to design policies, programs, and partnerships to serve needs and capture opportunities in frontier and emerging markets.

ABOUT THE INITIATIVE FOR SMALLHOLDER FINANCE

The Initiative for Smallholder Finance is a multi-donor initiative hosted by the Global Development Incubator to build research and development infrastructure in the smallholder finance industry and make progress toward filling the gap in financing through targeted product development, piloting, and partnerships.

For the original report that led to the creation of the Initiative for Smallholder Finance, see “Catalyzing Smallholder Agricultural Finance” (2012).

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This study builds on the knowledge, experience, and research of many experts in the field of smallholder banking. The findings and analysis in these pages would not have been possible without the individuals from more than 25 organizations who shared data, insights, and perspectives.

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