

## ***Development of Farm Business Adviser Network in Zambia***

### **Background**

Three of every four poor people in developing countries live in rural areas, 2.1 billion living on less than \$2 a day and 880 million on less than \$1 a day. While most of these people depend on small-scale agriculture for their livelihoods,<sup>1</sup> small plot farmers' productivity, income and food security are limited by a wide range of constraints, including a lack of access to quality agricultural inputs, water control, credit and better information in order to improve productivity. When these constraints are addressed, farmers can turn produce more and diversifying crops, taking advantage of off-season price spikes, capturing market share from imported produce, becoming more attuned to market requirements and/or efficiently aggregating produce. This in turn increases their income, allowing eat three meals a day throughout the year, access healthcare, send their children to school, and invest in other ways that are important to them.

To address the constraints of limited access to both advice and agricultural inputs at farmer level, iDE has successfully piloted and begun to scale an approach in Cambodia for delivering high-quality agricultural inputs and technical advice to small-scale farmers through a network of private-sector extension providers called Farm Business Advisors (FBAs)<sup>2</sup>. Under this approach iDE selects and trains independent male and female entrepreneurs who travel within a four- to six village circuit assisting farmers to improve, intensify or expand market-oriented agricultural production. FBAs analyze individual farm enterprises and match any constraints with solutions in the form of products and services in their toolkit. This includes a range of products that reduce risks, improve productivity and increase income, such as high quality rice and vegetable seed, fertilizer, pest control, plastic mulch, shade screens, trellising, irrigation equipment, etc. FBAs sell the products at a profit, often on credit with payment due at harvest, and provide technical advice as an embedded service in person and by phone. FBAs generate an income from margins on the sale of the products and the cost of the agricultural advice to farmers is embedded in the cost of the product - creating profitable businesses for individual advisors and a lower cost and more sustainable services for small farmers. This improves the provision of extension services by introducing market incentives, more integrated service delivery, a strong customer focus, and a mechanism for on-going financial viability.

The pilot program began in 2005 with three FBAs. In February 2010, an independent evaluation<sup>3</sup> concluded that *"the Initiative is successful and has made major progress in its relatively short implementation period (18-months at the time of the evaluation)*. As of October 2010, the network had grown to a total of 61 FBAs serving nearly 6,000 farm households. On average, the farmer clients earn an additional \$110 of income after receiving one year of FBA support, representing an increase of between 30-40%. Surveys indicate that half of the FBA clients are from the poorest third of the population, indicating the program reaches the most vulnerable, and that women farmers benefit from FBA services at least as much as men. The FBAs themselves currently earn an income averaging \$640 per year from their business and household farm activities.

#### **Recognition for the FBA Model**

The iDE FBA model won the 2008 **World Bank Development Marketplace Award** and in 2010 became first laureate of the **Nestlé Prize in Creating Shared Value** out of 549 applicants.



<sup>1</sup> World Bank Development Report - 2008

<sup>2</sup> Pilot activities were funded by CIDA and CGIAR from 2005 to 2007. Scale-up activities started in 2008 with funding by CIDA, the World Bank, and Nestlé.

<sup>3</sup> The evaluation of the current CIDA-funded project was conducted by Agrodev Canada, a leading international development consulting firm that has completed more than 300 projects in 75 countries. <http://www.ideorg.org/IDE/Docs/Download.aspx?docid=760>

This Cambodian FBA model provides a clear demonstration of how markets can serve base-of-the-pyramid customers, not just selling to them but enabling them to become more effective producers and marketers themselves. It also demonstrates that, in the developing world as in the developed, extension services can be provided by the private sector on a for profit basis. iDE seeks to build on the success of this intervention in other country programs. To do so, it must understand the context of each country and tailor the approach to suit the particular challenges.

## The Zambian Context

In Zambia, agriculture employs 60 percent of the population but represents less than one fifth of national GDP. Smallholders account for 85 percent of households employed in agriculture and typically cultivate fewer than five hectares of land earning an average of \$92 per person annually. While the challenges to reducing this persistent poverty are complex, a low agricultural productivity is a universally acknowledged driver. Constraints to improving productivity include low-quality, inaccessible or expensive inputs restricting accessibility, and thus productivity, for all but the wealthiest farmers. Similarly, lack of knowledge about effective farming techniques among smallholders reduces yields, deters private sector interest in working with them, constrains smallholder bargaining power, and reduces food security. Although the constraints are many, a significant opportunity for smallholders exists in terms of income generation through both improved rain-fed crop production and expanding the potential for cash crop production in the dry season through high value horticultural activities. In order to take advantage of these opportunities, however, farmers need access to advice regarding growing and marketing and also to the inputs and technology necessary to make these more intensive productions systems commercially viable and ultimately profitable.

In recent years, there has been a growing understanding in Zambia that government extension systems are underfunded and too generalist in nature to provide the level and quality of engagement required by smallholder farmers. In many cases the agricultural advice a farmer receives focuses on improving the use of productivity-enhancing inputs and combining the delivery of these products improves the efficiency of the system and the value of the extension agent to the smallholder farmer.

In Zambia an FBA model along the lines of that developed by iDE in Cambodia has the potential to reduce the numerous constraints preventing smallholder farmers from accessing appropriate inputs and services, and thereby improving rural farmers' productivity and livelihoods. However, experience has shown that that models and approaches which may be successful in Asia may require adaptation to work under sub-Saharan African conditions<sup>4</sup>. This may be for a number of reasons:

- There are lower population densities and less-developed communication and transport infrastructure. This impacts both the input supply chain and routes to market for production.
- There is a less developed enabling environment for small-scale entrepreneurial activities – e.g. support for small business, access to finance and routes to market.

Thus the FBA concept as originated in Cambodia needs to be further refined and adapted for Zambian circumstances. iDE has initiated steps towards replicating the FBA approach, beginning with conducting a desk study on Models and Approaches to Private Extension and Agri-input Services<sup>5</sup>. Such an adaption will provide a valuable large-scale pilot for an FBA approach in southern Africa generally and Zambia more specifically.

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<sup>4</sup> An appendix that lists a number of these initiatives in Zambia is available.

<sup>5</sup> Funded by the Small Foundation

To date iDE has been involved with two projects which have incorporated a private sector extension approach. Since 2008 iDE has been implementing the Bill and Melinda Gates Foundation-funded Rural Prosperity Initiative (RPI). This project is aimed at increasing incomes of smallholder farmers through introduction of micro-irrigation technologies (and associated training) for dry season, horticulture cash crop production. The project's success and sustainability is based on working to strengthen the input supply chain to ensure sustainable and commercial supply of technologies and inputs to farmers. Under the first phase of this project (RPI I), 70 lead farmers were selected by iDE as program promoters to spearhead the mobilization of farmer groups and be organizers and role models within their communities. Under Phase II of RPI (started in 2011), initial steps have been taken further to develop these farmers into what have been termed Farm Business Advisers<sup>6</sup> each serving between 30 and 100 farmers. These FBAs currently act as the last link in the extension advice and input supply chains for iDE and receive a commission for each micro-irrigation technology sold to farmers within their groups.

In another initiative, just completed, the ADAPT project<sup>7</sup> focused on creating a network of 500 agro-dealers nationwide (30% of which are women) to serve 91,000 clients through provision of usually fixed location, small outlets for farm inputs. These agro-dealers were linked to sources of credit for business establishment, provided with training in business management as well as technical advice on handling and sales of chemicals and the project helped establish linkages with large private sector distributors of agro-inputs.

What has become clear from iDE's involvement in developing networks of agents to provide both advice and necessary inputs for farmers is that this is most successful if these agents are recruited from within the communities which they are serving. In some cases, these can be agro-dealers with fixed premises if these are within the communities which they serve. However, in more remote areas or where population densities are low, this means developing the capacity of existing farmers better to service the needs of their peers. To build their capacity, significant support and training is required so they can effectively fulfill this role. Locally based agents are likely to have a smaller customer base, posing the challenge of earning sufficient income solely from agricultural input sales, especially if limited to particular products, such as micro-irrigation technologies or agro-chemicals. However, it is clear that if a well-trained FBA can derive sufficient income from a range of sources, then the likelihood of establishing a sustainable advice and input supply network funded by the private sector is much higher.

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<sup>6</sup> It should be noted that these are significantly different in nature from the Cambodian FBAs

<sup>7</sup> [Agro Dealer Project \(ADAPT\)](#), a project funded by the Bill & Melinda Gates Foundation and led by CARE with work by iDE International Development Enterprises (iDE)

## Proposed Project

The long term goal of this proposed project is to develop a sustainable cadre of private sector extension agents (hereafter referred to as FBAs for the sake of convenience) in Zambia deriving an income from providing advice, goods and services to smallholder farmers. This will be accomplished by developing and training 250 FBAs in iDE's existing areas of operations (Copperbelt, Lusaka, Southern and Central provinces) who are capable of serving 16,000 smallholder households representing approximately 96,000 people<sup>8</sup>. This will be done by assessing the training and capacity building needs of the current cadre of FBAs and developing a common curriculum and set of training materials which will then be used to deliver training to existing and new FBAs engaged in iDE's existing programs. In addition to agronomic training this will include farm business management, farmer extension and mobilization and sales techniques. The project will take advantage of a strengthening of the training function of the organization similarly to build the capacity of iDE field staff in core subjects and will also be strengthened through "training of trainers" provision.

In addition to training the FBAs so as to equip them with the skills both to service farmers and manage their own enterprises iDE will work to engage other national organizations which are also adopting a private sector extension approach so as to ensure that its FBAs are able to access additional sources of income through servicing farmers. We will seek to position iDE as the key national broker of information in this area, leveraging the overlaps which already exist and assist organizations in identifying existing agents and service providers when considering expansion into new geographic areas.

The project will also serve as a pilot for other iDE Africa programs. To this end, other iDE country programs in Africa will be informed of interventions and dissemination of results.

The project entails the follow Outputs and Activities<sup>9</sup>:

### Output 1: Mapping of existing PSEAs in Zambia

- 1.1 Scoping of current landscape of private sector extension agents (PSEAs)
- 1.2 Field data collection
- 1.3 Data cleanup and entry
- 1.4 Production of map sets

### Output 2: Curriculum and training materials developed for FBAs.

- 2.1 Training needs analysis for FBAs
- 2.2 Review and synthesis of existing relevant training curricula and materials
- 2.3 Development of FBA training curriculum
- 2.4 Development of FBA training materials
- 2.5 Production and printing of FBA training materials
- 2.6 Review and refinement of training curriculum and materials

### Output 3: FBAs all receive appropriate training

- 3.1 Training of trainers – iDE Field Officers
- 3.2 Roll out of training to FBAs
- 3.3 Follow up tracer studies of those FBAs who have received training

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<sup>8</sup> Based on average household size of 6. <http://www.uneca.org/sa/publications/Statistical-Estimation.pdf>

<sup>9</sup> More detailed information available upon request.

#### Output 4: iDE FBA network linked to additional source of income

- 4.1 Networking and research activities to identify all players active in this field (see Activity 1.1)
- 4.2 Identification (on an area by area basis) opportunities for FBAs to link to other organizations
- 4.3 Joint training and demonstration activities
- 4.4 Identification of additional livelihood-enhancing technologies (e.g. small-scale solar lights and cell phone chargers) which can be supplied to rural communities by FBAs through existing supply chains

#### Output 5: Experience and best practice disseminated

- 5.1 iDE Africa programs invited to contribute to project design
- 5.2 iDE Africa programs share existing training materials and practice during detailed design stage.
- 5.3 iDE Africa programs comment on draft training curriculum and materials
- 5.4 Dissemination of progress reports amongst iDE Africa
- 5.5. Dissemination of soft copy training materials to all iDE Africa programs.
- 5.6 Case study of project experiences written up and shared within and outside iDE

### Anticipated Results

Targets (amounts in USD)	Zambia
<b>Funding Requested</b>	\$321,952
<b>Number of FBAs recruited/trained</b>	250
<b>Average number of clients per FBA</b>	65
<b>Aggregate households reached</b>	16,250
<b>Total number of people reached</b>	97,500
<b>Mean annual income gain per household</b>	\$150
<b>Total client income gain<sup>10</sup></b>	\$2,437,500
<b>Cost effectiveness ratio<sup>11</sup></b>	<b>7.57</b>

<sup>10</sup> Calculated as (number of households reached) x (mean annual income gain per household) x (3 years). This is a conservative calculation in that it i) assumes that each FBA client benefits from FBA services for only three years and ii) includes only those FBA clients reached during the project period, not those reached by FBAs after the end of the project period.

<sup>11</sup> Calculated as (total income gain over a 3 year period) / funding. Rounded to the nearest decimal.

## Expected Impacts

**Small-farm productivity and incomes:** FBA networks will help increase agricultural productivity and incomes of small-farm households by promoting and supporting crop diversification, year-round production and greater market orientation. Increasing productivity and income has multiplier effects in rural economies and reduces the pressure on women and men to migrate to urban centers in search of labor opportunities.

**Climate change resilience:** FBA networks are effective channels for disseminating new technologies, techniques and technical support to rural farmers; thus enhancing their ability to adapt to climate change by creating more stable income streams, reducing agricultural risks and improving access to adaptive technologies.

**Food security:** Increased agricultural productivity is an effective way to improve food security and resilience to food price volatility. It increases the amount and diversity of food available for home consumption and at local markets. Produce sold at market also provides cash income to growers to purchase what that they do not produce.

**Gender equity:** The project will improve gender equity by increasing women farmers' access to productivity-enhancing resources, especially extension services and technology. The project will increase women's involvement in agribusiness by actively recruiting and training female FBAs who, along with their male counterparts, will serve women clients.

**Demand-driven agriculture services:** The FBA approach establishes a commercial motivation for the FBAs to be responsive to the needs and aspirations of small-scale farmers. All players benefit most when the farmer is successful and thus all efforts are focused on helping farmers to produce high-value agricultural products that meet market demands. Furthermore, the financial viability of the FBAs depends on their ability to attract a loyal clientele of return customers rather than one-time opportunistic sales.

**Sustainable private sector development:** This program is an investment in the long-term growth of local agricultural economies because it builds the capacity of the private sector to supply and support rural farmers while helping farmers to earn more cash which can purchase productivity-enhancing inputs.

## Evaluation Methodology

iDE will measure project impact by the following indicators:	Primary Measurement Tools
<ul style="list-style-type: none"> <li>• Cumulative and year-on-year increase in the number of FBAs recruited, trained, and actively serving small-scale farmers</li> <li>• Cumulative and year-on-year increase in the number of farmers who become FBA clients</li> <li>• Total sales of agricultural inputs (disaggregated by type)</li> <li>• Change in annual net income for the FBAs' farmer clients</li> <li>• Increased annual income per unit area cultivated</li> <li>• Average profitability of the FBAs</li> <li>• The presence of local demand measured by total input sales to farmer clients</li> <li>• Cost effectiveness ratio (total net farm income gain per dollar of donor investment)</li> </ul>	<ul style="list-style-type: none"> <li>• Sales records of the FBAs and franchisors</li> <li>• Baseline and follow-up surveys of FBAs</li> <li>• Baseline and follow-up surveys of a representative sample of FBA clients and control households</li> <li>• Detailed farm records kept by a subset of FBA clients</li> </ul> <p style="text-align: center;"><i>All data will be gender disaggregated</i></p>

## Budget

iDE anticipates this project lasting three years.

	Year 1	Year 2	Year 3	Total
<b>Personnel</b>	59,700	54,810	57,551	172,061
<b>Direct Costs</b>	21,050	19,530	23,759	64,339
<b>Contingency</b>	4,038	3,717	4,065	11,820
<b>Indirect Costs*<sup>12</sup></b>	12,718	11,709	12,806	37,233
<b>Capital Expenditure</b>	36,500			36,500
<b>Total</b>	<b>134,006</b>	<b>89,766</b>	<b>98,181</b>	<b>321,952</b>

## iDE's Capabilities

iDE is an international consortium of non-profit organizations dedicated to eradicating poverty in some of the world's poorest countries by creating income and livelihood opportunities for rural households, enabling them begin an upward spiral out of poverty. iDE focuses primarily on helping poor rural farmers increase their agriculture productivity through affordable micro-irrigation technologies (MITs). To this end, iDE facilitates access to a range of products, including treadle and other manual pumps, drip systems, efficient micro sprinklers and water storage technologies<sup>13</sup>, through the local private sector. iDE invests in the design and initial promotion of its technologies and actively engages the private sector to manufacture them and sustain the necessary supply chains. All technologies are purchased by its smallholder clients. Additionally, iDE provides training to improve horticulture and business practices and establishes linkages with high-value markets in rural areas. Over the past 29 years, iDE partner entrepreneurs have sold approximately 3.5 million low-cost technologies in 13 countries across Latin America, Asia, and Africa, improving the lives of more than 19 million rural farmers and creating an aggregate income increase of over \$3 billion. iDE currently operates eleven country programs in Asia, Africa, and Latin America. With funding from more than 90 donors, including USAID, the Bill and Melinda Gates Foundation, DFID, CIDA, and the World Bank, iDE has successfully implemented more than 250 projects valued at over \$120 million. The organization employs 380 total staff worldwide and had an annual operating budget of \$29.5 million in 2010.

iDE Zambia was established in 1997 and is currently implementing multiple projects in five provinces. iDE Zambia collaborates with a variety of NGOs, private sector actors and government partners. The organization employs 26 fulltime staff in Zambia, all but one of which are Zambian nationals and had an annual operating budget of \$984,436 in 2010. In 2002, iDE Zambia won the World Bank's Development Marketplace Award in the category of 'Empowering and Investing in the Poor' for marketing low-cost irrigation technology.

<sup>12</sup> Indirect costs have not been calculated for the capital expenditure items

<sup>13</sup> See iDE's [product catalogue](#).

**Appendix 1 – Overview of organizations currently or recently involved in operating through or supporting private sector extension agents**

Organizer	Title of Agent	Nature of Advice	Reward for Agent	Notes
iDE	Farm Business Adviser	Horticulture and farm business advice	Commission on Micro-Irrigation sales	In addition to agricultural extension, iDE offers affordable irrigation technologies for smallholder farmers—something none of the other companies offer, coupled with on-farm water management knowledge.
Conservation Farming Unit (CFU)		Conservation farming techniques – mainly rain-fed crops	Monthly fee in the form of vouchers which can be exchanged for inputs and equipment	Initial meetings indicate CFU would be on board with the proposed approach. They have financial support from the EU and Norway. Promoting CF and associated technologies.
CARE / iDE	Small scale agro-dealers	Value-added - mainly with regard to pest and disease control or improved seed	Commission or margin on sales of agricultural inputs	Project now completed by network of agro-dealers still exists.
CropServe	Commission agents	Value-added - mainly with regard to pest and disease control or improved seed	Commission or margin on sales of agricultural inputs	
MRI Agro	Commission agents	Value-added - mainly with regard to pest and disease control or usage or improved seed	Commission or margin on sales of agricultural inputs	Initial meetings indicate MRI Seeds would be on board to collaborate if customer information is managed confidentially. Would like to reduce turnover of their agents, many of whom do not return for a second season.
Dunavant Cotton*	Depot buyer	Advice on all aspects production of cotton production	Commission on sales of seed cotton	

\* Note: There are other cotton ginning companies which follow similar models to Dunavant and these would be included in the study if they were cooperative.