### INNOVATIONS IN RURAL AND AGRICULTURE FINANCE



Combining Extension Services with Agricultural Credit: The Experience of BASIX India VIJAY MAHAJAN AND K. VASUMATHI

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India has nearly 90 million farm households. More than 80 percent of these farmers operate on a small or marginal scale, farming less than two hectares of land. They also usually have one or two buffaloes or cows, reared for milk and dung. Most of these small and marginal farmers fall below the poverty line. To reduce overall poverty in India, it is important to enhance the incomes of small and marginal farmers. One way to do that is to provide credit so they can get access to yield-enhancing inputs like seed, fertilizer, and cattle feed, as well as acquire irrigation pumps and crossbred cattle. But these kinds of investments alone will not raise farmers' incomes. Agricultural and livestock development services are also crucial to give farmers knowledge of improved practices and strengthen their links to markets.

BASIX is an Indian livelihood promotion institution working with more than a million poor households. Its mission is to promote sustainable livelihoods for a large number of rural poor people and women. When it started in 1996, BASIX's primary focus was delivering microcredit to its customers. In 2001, however, BASIX asked the Indian Market Research Bureau to carry out an impact assessment, and the results were rather disappointing. Only 52 percent of the customers, who had received at least three rounds of microcredit from BASIX, showed a significant increase in their income (compared with a control group); 25 percent reported no change in income level; and 23 percent reported a decline in their income level. BASIX then carried out a detailed study of those who had experienced no increase or a decline in income and found that the reasons for these results could be grouped into three factors:

- 1. unmanaged risk;
- 2. low productivity; and
- 3. unfavorable terms in input and output market transactions.

This analysis made clear the need for productivity enhancement, risk-mitigation services, and market linkages, as well as the need for rural producers to come together to amass greater bargaining power in the marketplace. In 2002, therefore, BASIX revised its strategy to provide a comprehensive set of livelihood promotion services to poor rural households. This livelihood triad strategy includes provision of financial inclusion services; agricultural, livestock, and enterprise development services; and institutional development services (Table 1).

### What services are provided?

Under Agricultural, Livestock, and Enterprise Development (AGLED) services, BASIX currently provides services to farmers growing nine types of crops (cotton, groundnut, soybean, pulses, paddy rice, chilies, vegetables, mushrooms, and lac [a form of organic resin]) and two livestock products (dairy and meat [sheep and goat]). Nonfarm business development services are also provided in selected activities like tailoring, woodworking, bamboo work, and retail stores.

### How are services delivered?

BASIX works in more than 25,000 villages through a network of 150 branches, each with five field executives under a team leader. Each field executive supervises five livelihood service advisers (LSAs), who each cover about 10 villages, originating credit, selling insurance, and collecting repayments. The LSAs also sell AGLED Services. BASIX has more than 3,000 LSAs.

BASIX field executives identify and select villages or clusters of villages to receive these services. A cluster is a group of villages within a radius of 6 to 8 kilometers—a size that includes a reasonable customer base for delivering services effectively and efficiently. The branches start enrolling customers for services in those villages where there are at least 30 existing borrowers for either crop or livestock activity.

BASIX has built a cadre of nearly 1,000 livelihood services providers (LSPs). LSAs function as BASIX salespeople, whereas LSPs are similar to extension agents. An LSP works with BASIX on a regular basis and is typically a high-school graduate with training as a para-extension worker or a para-veterinarian. He or she covers 200–400 customers for one crop or activity. BASIX distributes product brochures in regional languages telling customers what

### Table I—Services included in the BASIX livelihood triad

### **Financial Inclusion Services**

- Savings (directly in districts where BASIX has a banking license, and through other banks elsewhere)
- Credit: agricultural, allied, and nonfarm, short and long term
- Insurance for lives and livelihoods, including weather index-based crop insurance
- Money transfer, for migrant workers
- Experimental products: micropensions, warehouse receipts, etc.

# Agricultural, Livestock, and Enterprise Development Services

- Productivity enhancement: through increased yields, use of improved seed varieties or practices
- Productivity enhancement: reduction in costs
- Risk mitigation (other than insurance), such as livestock vaccinations
- Local value addition, such as processing cotton into lint before selling
- Alternative market linkages: input supply and output sales

## Institutional Development Services

- Individual-level awareness building, skill enhancement, and entrepreneurship development
- Formation of groups, federations, and cooperatives of producers
- Functional training in accounting and management information systems, using information technology
- Building collaboration to deliver a wide range of services
- Sector and policy work: analysis and advocacy for changes and reforms

Source: BASIX.

services they will receive and when. Customers pay Rs 450 (US\$10), including services tax, for a year of AGLED services.

### **Achievements**

In 2009 BASIX had nearly half a million customers for AGLED services. About half of these customers were using agriculture and livestock services, and the rest were using services related to nonfarm activities. The details are as follows:

- Agriculture: AGLED provided soil-testing service to more than 20,000 farmers, integrated pest management (IPM) or integrated nutrient management (INM) services to nearly 75,000 crop customers, and field surveillance to more than 30,000 farmers. It connected most customers to markets for inputs (seed, fertilizers, pesticides, and bio-inputs such as vermicompost and organic pesticides) and outputs. Weather index-based crop insurance was provided to more than 10,000 farmers for different crops and in different agroclimatic zones, in collaboration with private insurance companies.
- Livestock: BASIX AGLED services conducted health checkups of nearly 440,000 animals, vaccinated nearly 165,000 animals, and dewormed 125,000 animals. It trained more than 36,000 customers on feed and fodder and better dairying practices. More than 60,000 farmers were linked to milk marketing chains of cooperatives or private dairy companies. Livestock insurance was provided for more than 120,000 animals, in collaboration with private insurance companies.

#### **Lessons learned**

It has taken BASIX about six years to reach the scale described, and it has learned many lessons along the way. In the initial two years, the main emphasis was on market research to identify which services farmers needed. This research, conducted through a large number of field visits and group interactions with farmers, showed that small farmers preferred cost-saving and risk-reducing interventions over yield-enhancing interventions requiring greater cash outlays. It also showed that it was not possible to handle these interventions for a large number of crops, so BASIX focused on a few crops grown by a large number of farmers, such as groundnut in southern Andhra Pradesh, cotton in northern Andhra Pradesh, and soybean in western Madhya Pradesh.

The next step was designing the service offerings. For example, enhancing productivity could mean increasing the yield or reducing the cost for the same output. Local agricultural universities and research stations made available many packages of practices for increasing yields, so BASIX decided to focus more on cost reduction. One successful example of this approach was stem application of pesticide in cotton, which reduced pest multiplication and thereby reduced the need to undertake a large number of pesticide sprays later. Another example was introduction of soil testing, which led

to more precise and economical application of fertilizers. In the case of dairy animals, simple practices like vaccination and periodic deworming were more cost-effective than procurement of high-yielding crossbred animals.

Based on such experiences, BASIX staff learned how to customize AGLED services for different agroclimatic zones, which enhanced the farmers' willingness to pay for these services. Customer satisfaction surveys conducted by independent audit teams found that the satisfaction level was nearly 80 percent, with the main cause of dissatisfaction being inadequate visits of the LSPs. To improve service, field executives introduced tighter monitoring of service delivery, but this practice turned out to be expensive. BASIX is now pilot testing mobile phone–based monitoring of service delivery through which farmers will be able to report incidents of no visit or poor service.

### Sustainability and future plans

The income from AGLED services in 2009 was nearly Rs 145 million (US\$3 million), and BASIX made a modest profit of nearly Rs 22 million (US\$450,000) providing these services to nearly half a million customers. With more and more LSPs reaching the breakeven number of customers, profitability is likely to improve. BASIX also plans to move some basic facilities like soil-testing labs and artificial insemination centers under its own control to improve its service to farmers.

Although BASIX agricultural credit operations are aimed at small and marginal farmers, the organization plans to extend AGLED services to larger farmers (to whom BASIX does not extend credit) in the same villages. These farmers' enhanced yields will generate additional output as well as employment opportunities for the landless poor—outcomes that are in line with the BASIX mission. So far BASIX has worked mainly in poorer dryland districts, but it is also considering providing AGLED services in irrigated districts where it has no credit operations. With these changes, BASIX is confident of reaching 2 to 3 million farmers with AGLED services in the next five years.

For further reading: BASIX, www.basixindia.com; P. Chandra Shekara, Status of Private Extension in India (Hyderabad: National Institute for Management of Agricultural Extension [MANAGE], 2002); R. Sulaiman and V. V. Sadamate, Privatising Agricultural Extension in India, Policy Paper 10 (New Delhi: National Centre for Agricultural Economics and Policy Research [NCAP], 2000); S. K. Datta, A Perspective on Farmer-Market Interface: Results of a Revisit to Selected Villages from West Bengal, Gujarat, and Maharashtra (Ahmedabad: Indian Institute of Management, 1999); V. Mahajan, "From Micro Credit to Livelihood Finance," Economic and Political Weekly 40, no. 41 (2005): 4416–19; V. Mahajan, Beyond Microfinance, in C. Moser, ed., Reducing Global Poverty (Washington, DC: Brookings Institution, 2007).

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