

## Combining Extension Services with Agricultural Credit: The Experience of BASIX India

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### SYNOPSIS

Since 1996, BASIX has piloted and scaled up livelihood promotion initiatives in which an integrated triad of services—financial services, agricultural, livestock and enterprise development services, and institutional development services—is delivered on a fee-for-service basis. BASIX has reached as many as 3.5 million poor households across 19 states in India. The emphasis has been less on increasing agricultural production than on reducing production costs through a variety of agricultural and business development services. A thorough analysis and understanding of particular subsectors (paddy, groundnut, dairy, and soy, among others) helped identify opportunities for increasing incomes and develop appropriate products and services. Facilitating linkages with high-end markets also resulted in a net increase in producers' incomes. Because products and services were tailored to customers' diverse needs, they were willing to pay for them. The mix of services enabled customers (primarily the rural poor) to increase their incomes from their crops, livestock, and other enterprises. While it is widely understood that financial services alone are insufficient for promoting livelihoods, BASIX provides an innovative strategy for offering such integrated services in a financially sustainable manner.

### CONTEXT

More than 80 percent of India's roughly 90 million farm households operate on a small or marginal scale, farming less than two hectares. Most of them also usually have one or two buffaloes or cows, reared for milk and dung. Given that most small-scale and marginal farmers fall below the poverty line, any improvement in their income will help to reduce overall poverty in India. Credit can help farmers obtain yield-enhancing inputs (improved seed, fertilizer,

cattle feed) as well as irrigation pumps and crossbred cattle, but BASIX realized that financial services alone could not raise farmers' incomes. Farmers also needed awareness of better agricultural practices and preventive animal healthcare to reduce risk and costs. In other words, they needed a range of agricultural and livestock development services to gain the knowledge to improve crop and livestock production, mitigate risk, and develop stronger links to markets.

### OBJECTIVE AND DESCRIPTION

BASIX ([www.basixindia.com](http://www.basixindia.com)) began in 1996 "to promote a large number of sustainable livelihoods, including for the rural poor and women, through the provision of financial services and technical assistance in an integrated manner." BASIX, recognized as a pioneer in livelihood promotion, now operates in over 40,000 villages across 19 states in India with more than 3.5 million poor households.

For the first five years, BASIX delivered what it called "microcredit plus" services to clients. The "plus" components were Technical Assistance and Support Services (TASS), provided through various programs:

- **Dryland Agriculture Productivity Enhancement Program (DAPEP).** DAPEP introduced new crops or varieties; arranged for inputs such as seed, fertilizer, and pesticides (including biopesticides); provided extension support for new agronomic practices to cut costs and increase yields; and arranged for collective transport, processing, and purchase of produce by local agencies and companies.
- **Inter Borrower Exchange Program (IBEX).** IBEX focused on the exchange of expertise among borrowers on better management practices and local innovations.
- **External Resource Person Advisory Program (ERAP).** ERAP invited experts to serve as resource persons to

deliver advisory services on required topics and practices.

- **Self Help Group Quality Improvement Program (SHGQIP).** A microfinance agent model for promoting self-help groups was tested under this program.
- **Rural Infrastructure Revival (RIR).** Local community resources were activated to rehabilitate lift irrigation, the electricity supply, milk chilling plants, and other infrastructure.

These programs delivered services on a full grant basis or 50:50 or 75:25 cost sharing by customers and BASIX, depending on need and customers’ willingness to pay. Under the triad strategy described in the next section, these services evolved into the services listed in table 3.11.

### RATIONALE FOR BASIX’S TRIAD STRATEGY

In 2001, BASIX asked the Indian Market Research Bureau, an independent external agency, to assess the impact of BASIX among recipients of its services. Only 52 percent of customers who had received at least three rounds of microcredit had significantly improved their incomes, compared with a control group who received no credit. Income levels did not change among 25 percent of customers; 23 percent reported a decline.

BASIX carried out a detailed study of those who had experienced no increase or a decline in income and concluded that this outcome arose from unmanaged risk, low productivity, and limited access to markets, combined with poor terms for buying inputs and selling output. The analysis clearly identified several needs: to improve farmers’ productivity, offer services to mitigate risk, improve producers’ links to markets, and organize producers to gain a stronger bargaining position.

(See TN 2, which discusses the need for financial services, and IAP 2, which explains how to build strong federations of farmer groups to obtain better services.) In 2002, BASIX developed a “livelihood triad” strategy to provide comprehensive livelihood promotion services to poor rural households. Box 3.36 describes how services evolved for one particular subset of clients.

### INNOVATIVE ELEMENT

As mentioned, the livelihood triad strategy includes the provision of financial inclusion services; agricultural, livestock and enterprise development services; and institutional development services detailed in table 3.11. Under Agricultural, Livestock, and Enterprise Development (AGLED) services, BASIX currently provides services to farmers growing several crops (cotton, groundnuts, soybeans, pulses, paddy rice, chilies, vegetables, mushrooms) (box 3.37) and lac (a form of organic resin) and producing milk and livestock (poultry, sheep, and goats).

Nonfarm business development services are also provided for selected activities such as tailoring, woodworking, bamboo work, retail stores, and niche handicrafts and handlooms. An example of the need for institutional development services beyond financial assistance is given in box 3.38.

### ACHIEVEMENTS

Today BASIX works in more than 40,000 villages through a network of over 250 branches, each with five field executives under a team leader. Each field executive supervises five livelihood service advisers (LSAs). Each LSA covers about 10 villages, originating credit, selling insurance, collecting

Table 3.11 Services Included in the BASIX Livelihood Triad

Financial inclusion services	Agricultural, livestock, and enterprise development services	Institutional development services
Savings (directly in districts where BASIX has a banking license and through other banks elsewhere)	Improved productivity through higher yields from improved seed or practices	On an individual level, develop awareness, skills, and entrepreneurship
Credit: agricultural, allied, and nonfarm, short and long term	Improved productivity through cost reductions	Form producer groups, federations, cooperatives
Insurance for lives and livelihoods, including index-based weather insurance for crops	Risk mitigation (other than insurance), such as livestock vaccinations	Functional training in accounting and management information systems, using information technology
Money transfer, for migrant workers	Local value addition, such as processing cotton into lint (fiber) before selling	Build collaboration to deliver a wide range of services
Experimental products such as micropensions and warehouse receipts	Alternative market linkages: input supply and output sales	Sector and policy work: analysis and advocacy for changes and reforms

Source: Vijay Mahajan, BASIX.

### Box 3.36 BASIX Services for Groundnut Farmers in Andhra Pradesh: From Financial Services to Livelihood Triad Services

In 2001–03, BASIX was working in Anantapur District, which had 700,000 groundnut farmers, with support from ICICI Bank. Based on recommendations from research institutes,<sup>a</sup> the program introduced drought-tolerant cultivars and agronomic practices to reduce the effects of drought, but three years of severe drought dashed efforts to raise groundnut yields. BASIX had greater success with improving groundnut marketing. BASIX formed a farmer cooperative and facilitated it to lease a local factory to shell groundnuts—an activity formerly done by intermediaries. This value-adding step enabled farmers to sell their produce at a higher price. Women’s self-help groups bought groundnuts produced under irrigation in the *rabi* (winter) crop cycle and processed them for sale. Large hand-processed nuts were sold as seed for the upcoming *kharif* (summer monsoon) crop cycle, and smaller ones were sold for bird feed.

Source: S. Amarnath and K. Vasumathi, BASIX.

(a) The International Crops Research Institute for the Semi-Arid Tropics and the Central Research Institute for Dryland Agriculture.

These interventions offered little for rainfall-dependent farmers affected by drought, however. Dairy production was promoted as an alternative livelihood strategy in 2003. BASIX identified villages to form milk collection routes, educated farmers in dairy farming, helped villagers grow fodder where some irrigation sources were available, and negotiated linkages with nearby bulk chilling centers established by the Andhra Pradesh Dairy Development Cooperative Federation. The market linkages facilitated with the federation led to the revival of chilling centers in Kalyandurg and Kannekal. Chilling center capacity increased from 2,000 liters to 10,000 liters. Outreach to women, for whom dairy became a primary livelihood activity, increased. Migration from the area declined. Many such efforts have led to the BASIX “livelihood triad” of services (financial inclusion services; agricultural, livestock, and enterprise development services; and institutional development services).

### Box 3.37 AGLED Services for Mushroom Cultivation

BASIX seeks to enhance clients’ awareness of good practices related to their investments. One example is the fee-based Mushroom Development Services Package, which BASIX offers to customers who have sufficient space to raise mushrooms as an additional source of livelihood. The package includes:

- A review of the primary requirements for mushroom cultivation. A suitable location and the use of specific materials are key factors for good mushroom production.
- Mushroom bed installation (including straw-cutting techniques, soaking straw in water, preparing the bed using spawn and feeding material), aftercare for optimum production, identification of poisonous mushrooms, and precautions to be taken.

Source: Tapaskumar Pati, BASIX.

- An assessment of mushroom beds for progress of mycelium growth. Training is provided to conduct regular inspections of beds to ensure regular growth of mycelium, avoid losses, and enhance production.
- Training in measures to mitigate the effects (and risks) of high temperatures and low humidity.
- Training in producing two value-added products. It can sometimes be difficult to sell raw mushrooms. Value-added products such as mushroom pickles and soup always fetch higher prices and increase profits for producers.
- Input market linkages for spawn and polythene. BASIX helps customers identify sources of good spawn and facilitates the procurement of polythene and spawn.

### Box 3.38 Contract Farming for Potato: The Need for Strong Farmer Organizations

BASIX became involved with financing the potato value chain in Jharkhand in 2005. PepsiCo was already buying potatoes from some farmers in Jharkhand but on a very limited scale. It approached BASIX to facilitate contract potato farming on a larger scale. BASIX had strengthened its capacity as a facilitator and subsequently helped negotiate contracts between PepsiCo and small-scale potato farmers to supply agreed quantities of potatoes at a specified quality and price to PepsiCo's chip-making factory in Kolkata. Although in the first years the contract resulted in increased yields and higher incomes for farmers, in later years farmers' yields were affected by problems with seed quality, heavy disease infestations, and unfavorable weather. Sometimes their potatoes were rejected at the factory because of poor quality, and other times they resorted to the open market, where they obtained better prices. Clearly the partners needed more than finance to continue their association productively. BASIX invested in strengthening the relationships with partner organizations and the farming community to ensure that contracts operated fairly.

Source: Mishra 2008.

payments, and selling AGLED services. Repayment schedules depend on the crop, cropping season, and household cash flows and range from 6 to 11 months and 1–3 installments. BASIX has more than 4,000 LSAs.

BASIX field executives identify and select villages or clusters of villages to receive services. A cluster is a group of villages within a radius of 6–8 kilometers, which offers a reasonable base for delivering services effectively and efficiently to customers. The branches start enrolling customers for services in villages where at least 30 borrowers engage in either crop or livestock activities.

BASIX has a cadre of over 1,000 livelihood services providers (LSPs). While LSAs function as salespeople, LSPs resemble extension agents. An LSP works with BASIX on a regular basis and is typically a high-school graduate trained as a para-extension worker or para-veterinarian. He or she covers 200–400 customers for one crop or activity. More than 10 percent of the LSAs and over 15 percent of the LSPs

are women. BASIX distributes product brochures in regional languages telling customers what services they can receive and explaining the service conditions. Customers pay 450 rupees (Rs) (US\$10), including a service tax, for a year of AGLED services.

In 2010, AGLED services had over half a million customers. About half of them used agricultural and livestock services, and the remainder used services related to nonfarm activities. Among the agricultural services, BASIX provided a soil-testing service for more than 30,000 farmers, integrated pest management or integrated nutrient management services to nearly 160,000 crop customers, and field surveillance to more than 85,000 farmers. It connected most customers to input markets (seed, fertilizer, pesticide, and bio-inputs such as vermicompost and organic pesticide) and output markets. BASIX provided index-based weather insurance to more than 10,000 farmers for different crops in different agroclimatic zones in 2009, in collaboration with private insurance companies.

BASIX also conducted health checkups of nearly 450,000 animals, vaccinated nearly 165,000, and dewormed 200,000 animals. It trained more than 170,000 customers in feed, fodder, and other improved practices for dairying. More than 60,000 farmers were linked to milk marketing chains supported by cooperatives or private companies. More than 120,000 animals were insured in collaboration with private companies.

#### LESSONS LEARNED

It has taken BASIX about seven years to reach the scale described, and it has learned many lessons along the way. Lessons that may prove useful for similar initiatives are summarized here.

##### ■ *It is vital to respond proactively to farmers' needs.*

In its first two years, BASIX emphasized market research to identify which services farmers needed. The organization also conducted action-research through many pilot interventions. This research, which featured numerous field visits and group interactions with farmers, showed that small-scale farmers preferred cost-saving and risk-reducing interventions over yield-enhancing interventions requiring greater cash outlays. BASIX also learned that it was not possible to handle such interventions for a large number of crops, so it focused on a few crops grown by a large number of farmers, such as groundnuts in southern Andhra Pradesh, cotton in northern Andhra Pradesh, and soybeans in western Madhya Pradesh.

- ***In designing services, focus on reducing costs.*** Productivity can be increased by raising yields as well as by reducing the costs of producing the same amount of output. Local agricultural universities and research stations had developed many practices for increasing yields, so BASIX decided to focus on reducing costs. One example of this approach was to apply pesticide on cotton stems to reduce pest multiplication and reduce pesticide applications later in the season. Another example was the introduction of soil testing to enable more precise, economical fertilizer use. For dairy animals, simple practices like vaccination and periodic deworming were more cost-effective than procuring high-yielding crossbred animals.
  - ***Customized services enhance willingness to pay.*** BASIX staff learned how to customize AGLED services to different agroclimatic zones, which enhanced farmers' willingness to pay for services. Customer satisfaction surveys conducted by independent audit teams found that the satisfaction level was nearly 80 percent; the main cause of dissatisfaction was inadequate visits from LSPs. To improve service, field executives introduced tighter monitoring of service delivery through passbooks, acknowledgement receipts, and service cards, but this practice was expensive. BASIX is piloting a strategy to monitor service delivery through mobile phones so farmers can report LSPs for poor service or missed visits.
  - ***Sustainability and extension of services to larger farmers.*** The income from AGLED services in 2010 was nearly Rs 148 million (US\$3 million). BASIX made a modest profit (nearly Rs 22 million or US\$450,000) by providing these services to over half a million customers. With 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-scale and marginal farmers, the organization plans to extend AGLED services to larger farmers to whom it does not extend credit in the same villages. In improving their yields, these farmers will generate additional production as well as employment opportunities for the landless poor, outcomes aligned with the BASIX mission. So far BASIX has worked mainly in poorer dryland districts. It is considering providing AGLED services in irrigated districts and for large-scale farmers where it has no credit operations through its new BASIX Krishi company. With these changes, BASIX is confident of reaching two to three million farmers with AGLED services by 2015.