

Business services in support of farm enterprise development: case studies



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Preface

This Working Document focuses upon Business Development Services (BDS) within the context of selected case studies of programmes in countries of Asia and Africa. It examines different approaches to the design and delivery of BDS to farmers and rural entrepreneurs. The document also reviews the range of services offered and discusses their impact and sustainability.

The term ‘business services’ refers to the range of non-financial services provided to micro and small enterprises (MSE) at various stages in their development. Contained within the broad concept are such activities as group training, individual counseling and advice, the development of new commercial entities, technology development and transfer, information provision, business links and policy advocacy.

The document begins by providing a background and an outline of study objectives. This is followed by the study methodology which presents the case study projects and goes on to discuss the objectives and target clients.

The document then provides a detailed outline of each of the case study programmes, grouped by countries. The presentation of each project includes a short background description, the major objectives and details of the overall programme and the broad approach and experience.

In the final chapter the paper proceeds to discuss the differences between the case studies and a summary of lessons learned. The chapter discusses the extent to which the projects studied have ensured satisfactory performance and sustainability. The evidence from this evaluation is only partial and is not altogether encouraging.

This publication is directed at institutions involved in designing policies and programmes for farm level and micro-enterprise development, including donors, government institutions and programme/project managers. It should also be of interest to support service institutions and policy makers engaged in supporting service delivery.

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Acronyms

ABC	Agri-Business Corporation, Bangladesh
ACDI	Agence Canadienne de Développement International (Canadian Development Agency)
AMIT	Affordable Micro-Irrigation Technology, India
APSIDC	Andhra Pradesh State Irrigation Development Corporation, India
APFMIS	Andra Pradesh Farmer Manager Irrigation Systems, India
AT	Appropriate Technology, Uganda
BADC	Bangladesh Agriculture Development Corporation
BDS	Business Development Services
BRRRI	Bangladesh Rice Research Institute
CBO	Community Based Organization
CEAS	Centre Écologique Albert Schweitzer, Switzerland
CFAF	Franc Communauté financière d’Afrique, Financial Community of Africa Franc
CODAF	Coopérative de Développement Agricole, Elevage et Foresterie, Rwanda
CSO	Civil Society Organization
CWS	Coffee Washing Station
EPV	Export Production Village programme, Sri Lanka
FORWARD	Forum for Rural Welfare and Agricultural Development, Nepal
GBC	Gandaki Bee Concern, Nepal
GLC	Group Lending Concept
GLIS	Gudeballore Lift Irrigation Scheme, India
CPA	Credit Plus Approach
GPS	Gami Pubuduwa Scheme (Microfinance linked Rural Enterprise Development Scheme), Sri Lanka
GTZ	Gesellschaft für Technische Zusammenarbeit, German Cooperation Agency
HACCP	Hazard Analysis and Critical Control Point
IASL	Indian Agribusiness Systems Pvt. Ltd
ICT	Information and Communication Technology
IDEI	International Development Enterprise India
ILCA	Indian Land Ceiling Act
ISAR	Institute of Scientific and Agriculture Research, Rwanda
ISO	International Organization for Standardization
ISAP	Indian Society for Agribusiness Professionals
KUMCO	Kulakula Management Consultants, Uganda
MSE	Micro and Small Enterprise

NGCO	Nyakatonzi Growers' Cooperative Union, Uganda
NGO	Non-Governmental Organization
PCO	Project Central Office, Sri Lanka
PDO	Project District Office, Sri Lanka
P & I	Procurement and Input
PIM	Participatory Irrigation Management
RDD	Regional Development Department, Sri Lanka
Rs	Rupees
RWF	Rwandan Franc
SEAN	Seed Entrepreneurs' Association Nepal
SFLCP	Small Farmer and Landless Credit Project, Sri Lanka
SLEDB	Sri Lanka Export Development Board
SME	Small and Medium Enterprise
SMS	Short Message Service
TARANGO	Training Assistance for Rural Advancement, Bangladesh
TOT	Training of Trainers
UNADA	Uganda National Agro-Input Dealers Association
UNR	National University of Rwanda
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
VAHW	Village Animal Health Workers, Nepal
VDA	Village Development Advisor, Sri Lanka
VOCA	Volunteers in Overseas Cooperative Assistance, Canada
VSAT	Very Small Aperture Terminal

1. Introduction

1.1 BACKGROUND TO THE STUDY

In recent years the development of rural enterprises has increasingly attracted attention amongst the development community owing to the broadening of opportunities for the commercialization of smallholder agriculture. Despite this interest, there are several factors that continue to limit the capacity of farmers and rural entrepreneurs to make an effective contribution to sustainable and equitable economic growth. Many of these factors are well recognized and include inadequate economies of scale, the high risks associated with farming, lack of capital assets and infrastructure, limited access to markets and inadequate technical and business skills.

Donors and practitioners have gained significant experience in the organization and delivery of business development services (BDS) for small enterprise development. Information has been gathered on: i) how BDS markets operate; ii) methodologies for assessing BDS performance; iii) intervention strategies to develop these markets. However, the research base has largely been urban-centred and little work has been carried out on the provision of business services at farm level, particularly in remoter rural areas where markets are weak.

In contrast to off-farm activities, which tend to be more business like in nature, farming is extremely complex since it is both a business and a way of life. The nature of the farm household, as both a producer and consumer with multiple goals, requires close attention and more in-depth investigation. The provision of support services to farmers lies at the core of development efforts. Regardless of the rich literature on BDS that has emerged over the years, the topic of services and service provision for farmers in rural areas has not been well-documented and systematically appraised. It is hoped that the case studies contained in this document will contribute towards rectifying this gap.

1.2 OBJECTIVES OF THE STUDY

Case studies were selected from a range of rural development programmes in Asia and Africa in order to make comparisons and draw lessons. The objectives of the study can be summarized as follows:

- To highlight interesting examples of innovative service provision in promoting farm enterprise development in selected countries of Africa and Asia;¹
- To provide information relating to cost-effective support services to improve commercial viability and benefits for farmers and rural entrepreneurs;
- To conduct regional cross-country comparisons of the design, performance and impact of selected cases and draw lessons learned;
- To provide policy makers and programme managers with strategic recommendations for policy change and programme design.

¹ Micro-enterprises are defined as including on-farm, market-oriented primary production and post-production value adding activities. For the purpose of this study farm enterprises will refer to those activities that utilize the natural resource base. These include high value agricultural production enterprises that support primary production.

2. Study methodology

2.1 CASE STUDY PROJECTS

Research started in 2003 and the countries initially selected for in-depth case study analysis were India, Sri Lanka, Nepal, Bangladesh in the south Asian region, and Uganda, Rwanda, and Burkina Faso in the eastern and western African regions.² Local consultants were hired in order to document the cases. The case study evidence was used to support the information collected during an initial literature review. In the context of the overall study,³ field examples were not presented as complete case studies, but served as additional evidence to support the major findings. This Working Document, however, concentrates upon the evidence of the actual case studies and presents their findings in more detail.

The case studies described in this document broaden the scope of conventional microcredit-based development programmes to include projects that cover a range of BDS. As indicated by the project titles shown in Table 1, they encompass a range of subsectors linked to the rural economy.

Table 1. Case study projects

Country	Title
India	Creating new markets for the poor with Affordable Micro-Irrigation Technologies (AMIT) in Maharashtra: Case study of AMIT project of International Development Enterprises-India (IDEI)
	Commercial delivery of information services in the farm sector: Case study of the Indian Agribusiness Systems Pvt. Ltd. (IASL)
	Delivery of embedded services through contract farming: Case study of Pepsico in Punjab
	Community management of irrigation services: Case Study of Gudeballore Lift Irrigation Scheme (GLIS) in Andhra Pradesh
	Rationalizing the procurement supply chain through usage of ICT: Case study of ITC's e-Choupal
Sri Lanka	Experience of Small Farmers and Landless Credit Project (SFLCP)- Financial and non-financial support to develop off-farm and non-farm income generating activities
	The microfinance linked rural enterprise development scheme by a private Bank-Hatton National Bank's 'Gami Pubuduwa Scheme' (GPS)
	Export Production Villages (EPVs) programme
	Outgrower system of cut flowers (Anthuriums) supplier development for export in the north western province

2 Information was gathered through country visits to Sri Lanka, Uganda, Nepal, Bangladesh, Rwanda, Burkina Faso and India. Contacts with national resource persons were made and preliminary investigations were conducted on the case studies selected. The visits were made during the period November 2003 to June 2004.

3 See Occasional Paper No.18 'Business Services in support of farm enterprise development; a review of relevant experiences', FAO 2007.

Table 1. Case study projects (continued)

Country	Title
Nepal	Provision of veterinary services for small-scale local livestock farmers in the hilly areas
	Assistance to farmers for seed production: Experience of Seeds Entrepreneurs' Association of Nepal (SEAN)
	Development of Beekeeping by farmers in hilly areas
Bangladesh	A farmers initiative for production of seeds: Women farmers Company in the District of Gajipur
	Enterprise linked BDS initiative for seed production and marketing by a private company: Experience of Agri-Business corporation (ABC)
Uganda	Enterprise-linked BDS provision for cash crops farmers: Experience of support to cotton farmers
	Support programme to increase yields of intercroops: Experience of enterprise linked BDS services for rural maize producers in northern areas
	Support to develop innovative rural enterprises: Experience of supporting organized rural retail agro-inputs dealers in rural areas
	Development of rural consultancy practices model aimed at supporting micro and small enterprises in a rural district: A case study from the Northern Ugandan district of Lira
Rwanda	Provision of BDS to farmers through associations and cooperatives: Case study of coffee farmers cooperatives' production of fully-washed coffee in Maraba
	Private sector-led extension services to farmers in Rwanda ⁴ - Experience of Cooperative for development of Agriculture, livestock and forestry – CODAF in Ruhengeri Province
	Farmer-managed processing facilities and extension services to growers: Example of services by farmers through Union of Cooperatives of Paddy farmers in the district of Butare
Burkina Faso	Provision of direct services to promote production for export processing: BDS model for production of organic mangoes by farmers for exports processing in Burkina Faso

The case study findings reveal the existence of a wide variety of BDS schemes aimed at promoting farm enterprise development. They cover the full range of service providers and facilitators, including donors, governments, private companies, commercial banks, commercial farms and producer organizations. The characteristics of these projects vary markedly from country to country, and from case to case, in terms of: i) mechanisms through which services are delivered; ii) the sectors of intervention; iii) the institutional structures; iv) the nature and system of remunerations to services providers. Moreover, the perception and interpretation of the success of these projects also varies widely.

⁴ The notes for the three case studies in Rwanda were prepared in collaboration with Gaspard Aybisuje –Coordinator UNIDO, in Kigali and field visits in May 2004.

However, the findings described in this document have certain limitations and do not provide a detailed analysis of the failures and successes of the selected schemes. The information gathered has been limited to an appraisal of previously collected primary and secondary data, albeit supported by key informant interviews. Although constrained by the lack of reliable in-depth data, these preliminary findings do, however, suggest a strategic direction and practical guidelines for formulating policies and designing future business service programmes.

2.2 OBJECTIVES AND TARGET CLIENTS

The case studies deal with both commercial and development projects. A majority of developmental projects have the goals of: i) improving the supply of services to the community and/or household; ii) reducing unemployment and/or underemployment; iii) reducing poverty through income-generating activities; iv) empowering a particular group by improving technical and management skills; v) increasing access to information and skills training. Commercial projects on the other hand, are geared towards increasing the profitability of the farm enterprise, improving the efficiency of their operations/supply chains/procurement channels, and expanding their operations.

The objectives are not mutually exclusive and some of the projects aim to achieve all or at least many of them. The main areas of emphasis can be defined as: i) increased farm income and profitability; ii) information, technology and skills transfer; iii) farm-level organization for access to inputs, services and markets; iv) improved efficiency of the supply chain. In effect, while development projects have broader developmental goals, many of them have a commercial orientation and approach. Similarly, the commercial projects with a profit maximizing objective generate developmental benefits to those associated with them.

The programme and project interventions covered under the case studies have also been directed to a wide spectrum of clients. These range from better-off, retail input dealers with up to ten employees in a peri-urban setting of Uganda, to illiterate rural farm women in Nepal who cannot move freely beyond their farm boundary, but wish to add food preservation as part of the household 'portfolio'.

A detailed summary table of case study projects is presented in Annex 1, showing the types of services covered, income source, client type, enterprise focus and their main characteristics.

3. The Case Studies

3.1 INDIA

Creating new markets for the poor with affordable micro-irrigation technologies in Maharashtra, India – case study of AMIT project of IDEI.⁵

Background. Since the beginning of operations in 1991, International Development Enterprises India (IDEI), a registered Non-Governmental Organization (NGO), has used a market approach to rural development for enhancing the livelihoods of small and marginal farm families. It has established an extensive private sector network to supply affordable irrigation technologies and other services to farmers. This network includes 50 manufacturers, over 2 000 dealers, 4 500 village-level mechanics, 1 000 agri-input suppliers and 4 300 market traders. Over the years, IDEI has reached over 450 000 smallholders and has enhanced incomes by at least US\$150 per smallholder per annum.

Programme. To promote the concept of drip irrigation in the horticultural belt of Maharashtra, IDEI initiated a programme with support from the United States Agency for International Development (USAID), to introduce affordable micro-irrigation technologies (AMIT). IDEI viewed AMIT as having the potential to address the needs of small horticulturalists in semi-arid regions not served by treadle pumps or other micro-irrigation instruments.

IDEI selected 12 districts in Maharashtra for intervention. The total horticulture area not under drip irrigation in the 12 selected districts was about 150 000 hectares. It was estimated that of these, 75 percent were flood irrigated when water was available, but were not provided with the critical water input during the dry season. Since markets for horticulture output were well developed, the sale of produce and linkages with output markets did not pose an immediate constraint for promotion of drip systems. However, small and marginal farmers did not have access to drip irrigation for lack of divisible, affordable, small-sized drip irrigation systems. The MSEs either did not practice horticulture or even if they did, they simply flood irrigated when water was available. IDEI estimated that there were 115 000 MSEs who could potentially use drip irrigation and it expected to be able to reach around 25 percent of these over a 3 year period.

Programme approach. Adopting a facilitating role, IDEI entrusted direct service delivery to small commercial enterprises. Building on their earlier work in the state of Maharashtra, IDEI organized meetings with former BDS providers. Three assemblers, ten agri-input dealers and six nursery growers expressed their desire to work with IDEI again. In addition, IDEI also identified 68 assemblers/drip dealers, 101 agri-input dealers and 36 nursery growers and forged linkages between them. To expand its coverage, IDEI utilized local watershed NGOs as facilitators.

⁵ Based on IDEI (2003) Annual Progress Report: Reporting Period: October 1 2001 to September 30, 2002, International Development Enterprise, India, New Delhi.

To build capacity within the BDS providers, training sessions were conducted for NGOs, assemblers and drip systems dealers in micro-enterprise development and rural marketing. To develop markets for BDS, field staff initiated village-level meetings with the MSEs to increase their knowledge of drip systems. Agri-input dealers and nursery growers were linked into the system by involving them in training programmes, especially on horticulture best practices.

Short marketing campaigns were organized, with IDEI and a local-level BDS provider moving from village to village to promote the AMIT concept. Most of IDEI's demand creation activities were undertaken along with BDS providers to enable them to undertake activities after IDEI's exit from the programme. The accompanying BDS provider shared the cost of the activity by contributing time.

It was observed that MSEs were often unable to make a down payment for the installation of a drip irrigation system, but most were willing to use credit facilities. In the future, IDEI would like to experiment with supplying systems through the NGO-established self-help groups. These groups can extend credit to members for purchase of drip systems thereby increasing programme outreach. Several self-help group members have started coming forward as awareness and interest in these systems is increasing.

To cater to specific needs of smallholders, IDEI developed specific micro-irrigation tool kits. In the initial 18 months of the project, IDEI facilitated the adoption of 4 685 AMIT kits.

Programme outcome. As of March 2004, the AMIT project has been able to serve 21 266 smallholders with average net additional income of US\$322 per annum. BDS providers have been able to generate profits of US\$306 000 by selling AMIT kits.

Drip irrigation systems available in Maharashtra are generally large-scale, usually for an area larger than one hectare, and are subsidized to the extent of 50 percent by the state government. Limited subsidies from the state government have caused delays in the purchase of drip systems. IDEI has made an important contribution by creating a market for small, affordable and divisible drip irrigation systems for MSEs at a price approximately 20 percent lower than the subsidized price. One of the larger companies, seeing the potential for small systems, has now approached IDEI in order to supply components. They have also started selling components suitable for smallholders in Maharashtra and have recently launched a non-subsidized low priced system. As a result, the market for affordable drip systems has further expanded in the state.

Lessons learned/Contribution to BDS field. IDEI's AMIT project proves that a market-led, commercial BDS approach could yield significant and sustainable benefits to both providers and recipients. The drip irrigation market, prior to IDEI's intervention, was largely dominated by government-supplied, subsidized irrigation systems and only larger farmers with significant investment capacity could purchase them. IDEI has provided small and marginal farmers with divisible, affordable, small-sized drip irrigation systems which have enabled them to gainfully participate in the horticulture sector. By engaging profit commercial providers of BDS, IDEI separated the role of facilitator and provider, thereby providing sustainability and potential for the project activities to be expanded.

Commercial delivery of information services in the farm sector: case study of Indian Agribusiness Systems Pvt. Ltd. (IASL)⁶

Background. Information asymmetry is often regarded as one of the major market failures, especially in isolated and remote rural localities. Public sector extension has been operating in India since independence. Indian Agribusiness Systems Pvt. Ltd (IASL) was established in the year 2000 as a private for-profit company with an investment of US\$700 000. It was created with the objective of removing the information asymmetry prevalent in the agriculture sector.

Programme. IASL specializes in a particular type of service – provision of information and knowledge – tailored to meet the specific needs of the target groups which include small and marginal farmers, commodity traders, government agencies and NGOs. IASL primarily provides its specialized services through: i) publications; ii) online services; iii) consulting. Recently they have also diversified into media and video services.

Programme approach. Of the products offered above, farm publications (Agri-watch) are primarily directed towards farmers. Other services are utilized mainly by commodity traders and other stakeholders. Agriwatch Farm Weekly (Hindi and Marathi Edition) is a complete newspaper for the farming community and covers 18 different areas of interest. Efforts are made to produce content specific to farmers' requirements. This was launched in April 2002 and has a print run of more than 10 000 per week. Small towns provide the main sales and go mostly to farmers; typically lead farmers in the area. This group is followed by literate smallholders, who find its comprehensive information useful. IASL has cooperated with NGOs, kiosks owners and private sector organizations in order to expand the distribution network of Agriwatch.

Programme outcome. IASL's revenues in the first year of operations were only US\$ 68 000 and losses amounted to US\$ 0.36 million. The next year saw the revenues rise to US\$ 176 000, but IASL still lost around US\$ 0.21 million. In the third year of operations IASL moved from a daily in two languages to three weeklies and one monthly targeted at the rural sector in India. IASL has targeted a print revenue of US\$ 173 000 this year, with expenses not expected to exceed US\$ 152 000 which will mean an operating profit of US\$ 22 000. IASL thinks that retaining the publications is strategically important even though it does not expect a high level of profits from this part of its business. The main reasons for this conclusion are:

- The publications feed into the on-line and consulting elements, thus providing low-cost publicity for the profitable elements;
- They develop the customer base for the profitable services as the customers move from low price to the higher price point (US\$ 50-100) for Short Messages Service (SMS), e-mail and other services;
- The publications build IASL's profile and this promotes good relations with local government, etc.

6 Summarized from the following paper: Manaktala Shivani (2003) Information Dissemination: Business Development Service Approach – Case study of Agriwatch, International Development Enterprise, India, New Delhi.

IASL has prepared a major plan for expansion in the number of distributors for Agriwatch and has commissioned a survey of the agri-input dealers in 350 districts across the country. Forty percent of those contacted have expressed interest in distributing the weekly in their region.

IASL's next challenge is to go beyond Hindi and Marathi into the other vernacular languages. The six languages IASL has identified as critical are Bengali, Oriya, Telugu, Gujarati, Tamil and Kannada. These states have a large number of rural poor and IASL will be in a position to fill in the lacunae in the current knowledge dissemination system, up the service delivery ladder.

Lessons learned/Contribution to the BDS field. Usually public sector providers, by providing totally subsidized information services, dominate the formal rural information market. IASL has demonstrated a viable, commercial model of meeting the information needs of rural clientele without any subsidization.

Delivery of embedded services through contract farming: case study of Pepsico in Punjab⁷

Background. The momentum of the Green Revolution success in Punjab slowed during the 1980s because of stagnation in yields accompanied by increasing costs of cultivation. This was mainly the result of over-mechanization and increased labour and irrigation costs. By the mid 1980, it became evident that Punjab's wheat growers were getting lower net returns even after spending more on modern inputs. A committee appointed by the government, recommended diversification within farming, by moving away from a wheat-paddy rotation – to the extent of 20 percent of area – in favour of fruits and vegetables, fodder and oilseed crops. Diversification was intended to stabilize incomes and employment in the farming sector. Promotion of processing and marketing activities through contracting of farmers with processing units and big agribusiness firms was adopted as a key strategic thrust area to infuse dynamism into the agricultural sector.

The Indian Land Ceiling Act (LCA) does not allow agribusiness firms to own and cultivate land for their own raw material requirements. To overcome these difficulties, especially in procuring perishable commodities, the preferred option was to procure raw materials by contractual arrangements with primary producers. This contract farming arrangement also addressed the issues of input supply and output marketing.

Programme. In 1988, the Punjab Agro-industries Corporation invited Pepsico as a joint venture partner to procure and process certain fruits and vegetables. The intervention of the company was to enter into procurement and input (P&I) contract with farmers, under which it not only agreed to buy the specified quality produce from a contracted acreage at a fixed price, but also provided inputs such as seedlings on credit, and technical advice free of cost. Various equipment was also supplied free but on a returnable basis.

7 Summarized from the following paper : Singh Sukhpal (2001) A Case on Pepsi Contract Farming in Punjab: Lessons for Livelihood Promotion In Resource Book on Livelihoods Promotion (Eds. Mahajan Vijay, Dutta Shankar & Thakur Mitali), BASIX, Hyderabad.

Programme approach. The company selected contract farmers on the basis of; i) their ability to adopt new technology; ii) suitability of land; iii) assured irrigation; iv) financial position, and commitment and literacy level. The area under cultivation was decided on the basis of an estimate of yield per acre and whatever was produced on the contracted acreage was to be procured by the company at a pre-determined price.

The seedlings of tomato were supplied by the Company on part payment of 25 percent in advance. The balance was extended as a credit, which was deducted from the payment for the produce to the farmer. Farmers were given a set of equipment, free of cost on a returnable basis, either to a group of 5-10 farmers or for 50 acres of tomato crop.

During harvest, each farmer was given 30-40 crates. Quota slips were issued two days before the actual harvest. These slips specified quantities and dates on which farmers should deliver contracted produce at the factory. They were based on the date of transplanting and expected volume of produce, calculated well in advance, based on field information collected by the company. The trucks were partitioned with plywood to prevent crushing of the fruit. This reduced juice loss from 15 percent to 7 percent. The tomatoes were transported loose, as crate transport was not commercially viable. Farmers were paid by cheque within a week after delivery.

Besides introducing new seed varieties, the company introduced deep chiseling and a new method of transplantation. Deep chiseling involves breaking of the hard bed formed by tractors about two feet below the land surface. In Punjab, formation of hard-bed following the intensive cultivation after the Green Revolution had emerged as a major problem. Deep chiseling has resulted in better drainage, greater access to nutrition by the roots and resulting in a better yield, to the extent of 20-25 percent.

Information booklets on farm and non-farm techniques were printed and distributed by the company. These provided farmers with information on selection of fields, soil testing and fertilizer application, bed preparation, transplanting of seeds, irrigation, weeding, plant growth management, pest management, etc. New techniques of applying pesticide considerably reduced the volume needed and increased its effectiveness. The company extension workers were also constantly in touch with farmers to guide them. They also inspected and replaced defective plants at no cost. Demonstrations and training camps were also held regularly. They also promoted the locally relevant traditional techniques, for example, use of a local grass called '*sarkanda*' for protection of plants from winter and black ash for covering the soil to prevent crust formation and to give warmth to seeds.

Programme outcome. Introduction of contract farming with large agriprocessing companies, not only increased the net available income of the farmers involved, but also helped them acquire new skills and knowledge. It also helped build up a system of regular monitoring of crop conditions linked with appropriate expert systems for remedies. It increased the prevailing wage rates in the area, later countered by an influx of labour from outside the state. It also arrested the spread of hardpan in the area. Though contract farming can appear restrictive, as it invites competition among firms, it also opened up many new options for farmers.

However, this intervention required a large investment in plant and machinery, as well as the setting up of the extension and procurement system. Such large amounts of investment capital may not be available to most agencies. It should also be noted that this intervention involved only a few hundred farmers.

Lessons learned/Contribution to BDS field. Direct linkages between the producers and processors are increasingly being seen as a viable strategy for linking farmers with global food chains. Besides the sale contracts, farmers receive embedded services from the contracting company. To ensure ready, regular and quality supply of the desired produce, contracting companies have to make substantial investment in farm production. These investments take the form of technical trouble-shooting, information dissemination, advisory services, equipment leasing and other services; the cost of these services is usually borne by the contracting company.

Since contracting out requires huge investment, usually only larger firms can undertake such initiatives. Default on quantity and quality has been one of the most common problems for firms in contracting. It should be noted that though the government initiated this process of inviting private investments with the view to help the small and medium farmers, those who benefited were primarily large farmers.

Community management of irrigation services: case study of Gudeballore Lift Irrigation Scheme (GLIS) in Andhra Pradesh⁸

Background. Krishna River is one of the larger rivers of South India and serves over a million people for drinking, household use and for irrigation. The farmers in Andhra Pradesh started to use Krishna river water for irrigation on a large-scale in the 1980s, when the state government set up irrigation schemes along the river, each one covering several thousand acres. Andhra Pradesh State Irrigation Development Corporation (APSIDC) was the public sector entity responsible for conceptualization, construction, and management of irrigation schemes.

Programme. The GLIS project was designed by APSIDC in 1980 to irrigate 3 500 acres in three villages at the cost of almost a quarter of a million dollars. APSIDC covered the whole capital cost as well as any ongoing servicing charges and provided staff to man the project. The only charge that the farmers had to pay was the so-called water cess, which was intended to cover the cost of electricity. They did not have to pay any tax or other contribution towards capital or other costs.

The initial few years of the GLIS project were heavily subsidized by the state government and they even waived a water cess for a period of two years. Farmers were able to derive the benefits from the irrigation facilities of the project for two years. Later on, constant breakdown of pumps, laxity in maintenance of irrigation facilities and farmer reluctance to pay the water cess, all contributed to souring the working relationship between the farmers and project staff. APSIDC continued to subsidize the operations of the GLIS project in spite of non-payment of arrears by farmers. However, soon the pumps broke

⁸ Summarized from the following papers: 1. Harper, M. (2000) Public services through private enterprises: Micro-privatization for improved delivery, Vistaar Publications, New Delhi. 2. Raju K.V. (2001) Participatory Irrigation Management in India (Andhra Pradesh) International E-Mail Conference on Irrigation Management Transfer, June – October 2001, Institute For Social And Economic Change, Bangalore, India.

down, the electricity arrears continued to accumulate, the working relationship between the project staff and farmers further deteriorated and it became difficult for APSIDC to continue to manage the project. After rounds of failed discussions and unreliable supply of water to the farmers, APSIDC finally decided to wind-up the project in 1991.

After five years, in 1996-97, the state government handed over the GLIS to the newly formed Sri Lakshmi Venkateswara Lift Irrigation Society, which was fully owned by the 200 land-owning farmers of Gudeballore Scheme who had joined the GLIS scheme. The management of the project was also handed over to the farmers although the ownership of the assets continued to be in the name of APSIDC.

Programme approach. The strategy of management decentralization and ownership by the end users yielded rich dividends. After being handed over, the society formulated the procedures and management norms for running the lift irrigation scheme. A management committee, elected by all the members of the society, managed day-to-day operations of the scheme. As one of the first steps to revive the scheme, the society fixed the lease charges to be paid after harvest. To get the plant operating again, the land-owning farmers collectively contributed to the repair and electricity arrears to put the irrigation scheme back in operation. The irrigation project was thus functional again and for two consecutive seasons farmers got regular supplies of water. However, a decade of neglect led the pumps to be in a decrepit state and in need of replacement. The farmers decided to stall the supply of water until they could find finances for upgrading of the plant. In June 1998, with the help of an interest free loan of Rupees (Rs) 200 000, the society was able to get the pumps replaced and pay their outstanding electricity bills. Farmers now agreed on a standard irrigation levy of Rs 1 000 per acre per year.

By October 1998, the society was firmly established with proper records, bank accounts, regular member meetings, plus a decision to introduce monthly electricity rental rather than to allow the bills to accumulate for half a year. The state government agreed to replace three of the old pump sets with new equipment, costing Rs 1.1 million, the society was required to pay 30 percent of the total cost.

Outcome. Looking at the success of GLIS and many other similar projects, Andhra Pradesh state government initiated an irrigation reform programme with the objective of improving the sustainability and productivity of irrigation through transfer of irrigation management responsibility and authority to water users associations. PIM (Participatory Irrigation Management) supported by the World Bank, was responsible for passage of the Andhra Pradesh Farmer Managed Irrigation Systems (APFMIS) Act, 1997.

Adoption of the APFMIS Act in 1997 precipitated the following coordinated actions by the state government: i) creation of a farmer-government partnership in irrigation management and governance; ii) consolidation of irrigation management transfer to farmers; iii) re-organization of arrangements for maintenance and rehabilitation; iv) revitalized agricultural extension; v) new methods for cost recovery and financial sustainability; vi) a new participatory approach toward expenditure prioritization; vii) institutional reforms and capacity building. A total of 10 292 water user groups had been formed in Andhra Pradesh by May 1999, managing a total of 1 699 major irrigation schemes, 413 medium irrigation schemes, and 8 180 minor irrigation schemes.

Lessons learned/Contribution to BDS field. Management of irrigation projects requires substantial initial investment and traditionally these projects lie within the public domain. Irrigation is one of the most critical input/service for farmers, but ironically farmers have little say in the management of most irrigation services. The GLIS project demonstrates the benefits that accrue through commercial delivery of irrigation services in a decentralized manner, with ownership and equity residing with the end users. It also demonstrates that, when supported by a suitable policy and regulatory framework, large-scale replication and up-scaling is possible, thereby extending the benefits of regular and appropriate irrigation services to millions of farmers.

Rationalizing the procurement supply chain through usage of ICT: case study of ITC's e-Choupal⁹

Background. Agriculture traditionally has been one of the most regulated sectors of the Indian economy. Since independence, state legislation has brought heavy government intervention to agriculture, including control of land ownership, input pricing and regulation of product marketing. Produce could only be sold in government-recognized locations to authorized agents. Processing capacities, private storage, futures trading and transport were restricted by state regulation. Soybean is an important oilseed crop that has been exempted from India's Small-Scale Industries Act to allow for processing in large, modern facilities. Ninety percent of the soybean crop is sold by smallholders to traders who act as purchasing agents for buyers at a local, government-mandated marketplace, called a '*mandi*'. Farmers have only an approximate idea of price trends and have to accept the price offered to them at auctions on the day that they bring their produce to the *mandi*. Many believe that, besides the above mentioned factor, an unprofessional business environment has made the sector unattractive to modern companies and blocked their influence in rationalizing the market.

Programme. ITC is one of India's leading private companies, with annual revenues of US\$2 billion. Its international business division was created in 1990 as an agricultural trading unit; it now generates US\$ 150 million in revenues annually. The company has initiated an e-Choupal effort that places computers with Internet access in rural farming villages. E-Choupals serve as both a social gathering place for exchange of information (*choupal* means gathering place in Hindi) and an e-commerce hub. What began as an effort to re-engineer the procurement process for soy, tobacco, wheat, shrimp, and other cropping systems in rural India has also created a highly profitable distribution and product design channel for the company, an e-commerce platform that is also a low-cost service system focused on the needs of rural India. The e-Choupal system has also catalyzed rural transformation that is helping to alleviate rural isolation, create more transparency for farmers and improve their productivity and incomes.

Programme approach. The e-Choupal model has required that ITC make significant investments to create and maintain its own IT network in rural India and to identify and train a local farmer to manage each e-Choupal. The computer, typically located in the farmer's house, is linked to the Internet via phone lines or, increasingly, by a Very Small Aperture Terminal (VSAT) connection, and serves an average of 600 farmers in 10 surrounding

9 Summarized from following paper: Kuttayan, A. and Sachin R. (2003) What works: ITC's e-Choupal and profitable rural transformation, World Resources Institute, Washington DC.

villages within about a five kilometer radius. Each e-Choupal costs between US\$ 3 000 and US\$ 6 000 to set up and about US\$ 100 per year to maintain. Using the system costs farmers nothing, but the host farmer, called a *Sanchalak*, incurs some operating costs and is obligated by a public oath to serve the entire community. The farmers can use the computer to access daily closing prices on local *mandis*, as well as to track global price trends or find information about new farming techniques, either directly or because many farmers are illiterate, via the *Sanchalak*. They also use the e-Choupal to order seed, fertilizer and other products such as consumer goods from ITC or its partners, at prices lower than those available from village traders; the *Sanchalak* typically aggregates the village demand for these products and transmits the order to an ITC representative. At harvest-time, ITC offers to buy the crop directly from any farmer at the previous day's closing price; the farmer then transports the crop to an ITC processing centre, where the crop is weighed electronically and assessed for quality. The farmer is then paid for the crop and a transport fee. 'Bonus points', which are exchangeable for products that ITC sells, are given for crops with quality above the norm. In this way, the e-Choupal system bypasses the government-mandated trading *mandis*.

Programme outcome. Farmers benefit from more accurate weighing, faster processing time, and prompt payment, and from access to a wide range of information, including accurate market price knowledge, and market trends, which helps them decide when, where, and at what price to sell. Farmers selling directly to ITC through an e-Choupal typically receive a higher price for their crops than they would receive through the mandi system – on average about 2.5 percent higher (about US\$ 6 per tonne). The total benefit to farmers includes lower prices for inputs and other goods, higher yields, and a sense of empowerment. At the same time, ITC benefits from net procurement costs that are about 2.5 percent lower (it saves the commission fee and part of the transport costs it would otherwise pay to traders who serve as its buying agents at the mandi) and it has more direct control over the quality of what it buys.

In the *mandi* system, there was a mark-up of 7-8 percent on the price of soybean from the farm gate to the factory gate. Of this mark-up, 2.5 percent was borne by the farmer while 5 percent was borne by ITC. With e-Choupal, ITC's costs are now down to 2.5 percent. In absolute numbers, both the farmers and ITC save about US\$ 6 per metric tonne. The system also provides ITC with direct access to the farmer and to information on pricing, product quality, soil conditions and expected yields, enabling ITC to better plan future operations. The company reports that it recovers its equipment costs from an e-Choupal in the first year of operation and that the venture as a whole is profitable.

ITC gains additional benefits from using this network as a distribution channel for its products, and those of its partners and is a source of innovation for new products. For example, farmers can buy seeds, fertilizer, and some consumer goods at the ITC processing centre when they bring in their grain. *Sanchalaks* often aggregate village demand for some products and place a single order, lowering ITC's logistic costs. In mid-2003, e-Choupal services reached more than a million farmers in nearly 11 000 villages, and the system is expanding rapidly

Lessons learned/Contribution to BDS field. Direct interaction between the farmers and a corporate company has rationalized the procurement chain and has yielded a rich dividend to

both farmers and the company. Besides receiving higher incomes, farmers receive embedded services like market information, technical services and access to procurement of goods sold through ITC's distribution chain. The benefits to ITC are much greater in terms of cost saving, greater control of production, and access to wider rural markets.

E-chaupal's success is also remarkable in the view of it being a totally non-subsidized intervention and one totally conceptualized by a corporate entity. However, the initial investment required in setting up Information and Communication Technology (ICT) systems is substantial and might deter its replication by other smaller players. Nonetheless, this case study points to the fact that in weak and rural markets, embedded services, the cost of which are covered in the business transactions, seem to be one of the most viable strategies for enterprise development.

3.2 SRI LANKA

Experience of small farmers and landless credit project (SFLCP) - Financial and non-financial support to develop off-farm and non-farm income generating activities in Sri Lanka¹⁰

Background. Since the early 1990s, Sri Lanka's government policies gave increased importance to poverty reduction programmes through income-generating activities aimed at the rural poor. Under these programmes, equal importance was given to implementation of non-financial support services, in addition to financial support to create and develop micro-enterprises. In this connection, successive governments since the 1990s encouraged financial institutions, NGOs, and the private sector to provide more non-financial support services to complement financial services to create sustainable off-farm employment opportunities in rural areas.

Programme. The Small Farmers and Landless Credit Project (SFLCP) was a government-supported programme, implemented to assist farmers and landless to create and develop off-farm and non-farm income generating activities. The project offered a package of financial support and non-financial services to the rural poor. It was a donor funded initiative and was expected to develop into self-supporting, private sector-led micro-enterprises that would continue to access financial and non-financial services through formal financing institutions and service providers. The cost of the project was US\$17.9 million

Programme approach. The project used the Group Lending Concept (GLC) and Credit Plus Approach (CPA) (i.e. credit plus support services) as its main strategy for achieving its objectives. The activities of the project were implemented by the Regional Development Department (RDD) through a Project Central Office (PCO) and four Project District Offices (PDOs). A number of NGOs were admitted as partner/facilitating agencies to assist the RDDs interventions in:

- Retailing credit and developing a sustainable microcredit delivery system for the poor (Maximum US\$200);

¹⁰ References based on case study notes prepared by Rekha Hewalinee and field visits in Sri Lanka by Patrick Nugawela.

- Identifying target groups and developing them into bankable customers;
- Providing training for women to participate in income generating activities;
- Provision of vocational, entrepreneurial and financial management skills for the rural poor;
- Encouraging savings habits and thrift among the beneficiaries of support services, and
- Training and guidance to form self-help groups and to offer group guarantees for the loan collateral.

NGOs acted as the main intermediaries to reach the beneficiaries in diverse sectors such as agriculture (paddy and other crop cultivation); off-farm (coconut toddy and honey, copra/coconut oil, cashew processing, cinnamon peeling); small industries (non-farm and innovative rural enterprises such as bricks, garments, confectionery, carpentry, livestock: dairy, buffaloes and goat farming), and trade (trading, shops, etc.).

The NGO supported the development of income-generating activities by directly providing services such as:

- Training on group formation;
- Training in entrepreneurship, and management which included basic training on accounting practices and basic book keeping;
- Marketing support;
- Preparation of bankable project proposals, and
- Advisory services and information.

The services provided under the programme were limited to very basic levels such as self-help group formation, basic training on entrepreneurial skills and some advisory services and were not based on a direct fee. The services provided were part of a package of credit facilities granted to beneficiaries through a credit scheme.

Programme outcome. Project support by mid-2003, created 14 125 groups and mobilized a total group savings of Rs 157 295 723.¹¹ In addition 79 144 loans were disbursed, valued at Rs 947 890 640. The programme reported a loan recovery of 97 percent. It stated that about 80 percent of the beneficiaries had crossed the poverty line by increasing their income to over Rs 5 600, per capita per annum.

The services, such as training in technical skills, management capabilities, development of markets and products and information, were very limited and furthermore service provision was a subsidized NGO approach rather than a professional consultancy approach. The very general nature of services scattered over a large number of subsectors rendered enterprises supported under the programme uncompetitive. The programme itself did not give much emphasis to developing private rural consultancy practices. They were simply introduced as

¹¹ Rs- Sri Lanka Rupees- RS 100 = 1\$

a subsidized input to develop income-generating activities. Hence paying a fee for services provided to micro-enterprises was not a practice encouraged by the highly politically charged environment.

The financial delivery module of the same programme has been more successful and 187 self-help groups have been registered as corporate bodies with limited liability under the societies ordinance. At the end of 2002, the societies formed had issued share capital of Rs 9.8 million, had savings of Rs 12 million and had granted loans from their own funds of Rs 100 million. However, the sustainability of the individual units supported is still a question to be answered.

Lessons learned/Contribution to BDS field. The programme introduced a combined approach of credit and BDS delivery as a package to support the development of rural non- and off-farm micro-enterprises. As a result of the support services provided, a large number of micro-entrepreneurs have emerged. However, there is not much evidence concerning the sustainability of the enterprises or the service providers. Nonetheless, a large number of associations have been formed and it is envisaged that they will continue to facilitate access to both financial and non-financial services.

The microfinance linked rural enterprise development scheme by a private bank - Hatton National Bank 'Gami Pubuduwa Scheme' (GPS) – village awakening scheme in Sri Lanka

Background. Traditionally, micro-enterprises, particularly in the rural sector, are not considered attractive for financing by commercial banks. However, Sri Lanka has significant experience wherein banks have embarked on the provision of financial services together with a package of non-financial support services. The experience of the Hatton National Bank's model, known as the Microfinance linked Rural Enterprise Development Support Scheme 'Gami Pubuduwa Scheme' (GPS) is regarded as an interesting model of support to small business development.

Programme. 'Gami Pubuduwa Scheme' (GPS) is a model where a private commercial bank has embarked on the provision of financing, together with a package of non-financial assistance, to micro-entrepreneurs. The entire programme linked the potential and existing micro-entrepreneurs in the village with the Bank through business development advisors appointed by the bank. The programme attempted to create income generating micro-enterprise activities by rural youth, particularly in the off-farm sector. The main elements of the scheme comprised rural savings mobilization and promoting small businesses through a variety of services while extending them credit facilities. Presently, there are 98 village development units covering 26 villages.

Programme approach. The programme was implemented through Village Development Advisors (VDAs), appointed and paid for by the bank. The main role of the VDA was to understand the needs of the villagers and provide them with the necessary technical advice to develop and implement bankable small businesses. VDAs identified the farmers/villagers

who could be assisted to borrow and carry out small business. They also provided trouble shooting assistance and training to the entrepreneurs. Further, the VDA assists the village borrowers to ensure correct end-use of funds, by assisting in purchasing the necessary equipment, raw materials, etc., required for the production process. They also assist in obtaining external expert advice wherever necessary, particularly from field officers of the agriculture department, veterinary surgeons, extension workers, etc. VDAs would continue to follow-up with clients to assist them to grow their businesses.

The intervention of a field advisors employed by the bank to support potential entrepreneurs has facilitated the simplification of loan procedures. The VDAs are responsible for: i) identifying farmers who would become clients of the bank; ii) continuously monitoring the clients to ensure success with their business projects; iii) providing or facilitating access to different services for enterprise growth; vi) monitoring all repayments of loans. VDAs are expected to live with villagers, attend village social functions and emerge as village youth leaders.

Programme outcome. Through the scheme, approximately 27 000 rural micro projects have been financed over a time span of 10 years. Loans amounting to Sri Lanka Rs 800 million have been disbursed to 8 500 clients of which present outstanding amount is Rs 183 million. The scheme maintains a cumulative recovery rate of 97 percent. There are many cases where youths from villages working with the Bank have implemented sustainable small businesses that can be taken as specific case studies. However, the scope of the services provided by the bank paid advisers is rather limited and their interventions are conditioned by the need to recover the loans provided. The cost of the VDA is included in the cost of the Bank interventions as an embedded service and the clients pay the cost indirectly.

Bank-paid advisors in the field are considered an effective mechanism for credit screening, loan usage and loan recovery. However, the bank paid advisor represents a competitor to other private consultancy and service providers in the rural sector. The beneficiaries are not willing to pay to a private service provider when there is an indirect 'free' service available. Nonetheless, the bank approach is more business-oriented and the chances for sustainability of the assisted businesses is more than with the micro-enterprises assisted through a traditional subsidy based technical assistance project.

Lessons learned/Contribution to BDS field. The programme is designed and implemented by a private sector bank to develop a rural private sector. This programme is not subsidized by donor support and the commercial bank recovers the investment in VDA through credit screening, lowered transaction costs and a lower default rate. However, the generalized nature of BDS offered by VDAs is often not much appreciated or required by the enterprises. Furthermore, the impact of such BDS on enterprise performance is also dubious. Nonetheless, the role played by VDAs in the financial service intermediation is innovative and much-needed, with the potential for wide-scale replication. Since the cost of VDAs is embedded in the financial services costs, sustainability of such interventions are also ensured to a large extent.

Export enterprise linked Export Production Villages (EPVs) in Sri Lanka

Background. Through the development of export-oriented small enterprises in the 1980s known as Export Production Villages (EPVs), Sri Lanka pioneered the establishment of villages specializing in production for export. The conceptual framework of the EPV scheme combined elements of an 'export linked village small-scale producer' concept with those of grassroots participatory development. It was a holistic approach to rural export development, embracing production, marketing, financial intermediation and institutional development. It was based on the realization that there was a substantial potential for the development of rural products for export, provided the specific issues of production and export marketing were well understood and adequately addressed. It was a scheme centred on a new rural institution, the Export Production Village Company, that was linked with exporters of selected agro-based products.

Programme. The scheme was first launched in the early 1980s, as part of an integrated plan of action to achieve the government's policy objectives of rural export development. The scheme focused on supply development and support of national export diversification which was coordinated by the Sri Lanka Export Development Board (EDB). The first EPV was established in 1981 and the second in 1982. Based on the experience of these two, more than 20 new EPV villages were established in the 1980s. Although there was widespread enthusiasm and specific requests from district authorities for more EPVs, the pace of the programme was deliberately held back after 1984, until proper feedback could be obtained on the functioning of the existing EPVs.

The formation of the EPVs was carried out on a 'product sector' basis for three important reasons. First, Sri Lankan exporters specialized in narrow product sectors and were organized into association of exporters in different sectors such as fruits and vegetables, wood products and handloom products. Second, the strength of the producers themselves was in producing a narrow band of products. Third and directly related to the preceding two reasons, was the historical specialization of personnel of the Sri Lanka Export Development Board (SLEDB) in selected product sectors. The distribution of EPVs by category of product includes fresh fruits and vegetables (14), pulses and oil seeds (3), coconut fibre and other coconut products (5), palmyra products (2), cashew-nut processing (2) and component assembly (3).

Programme approach: an example of an EPV for processing cashew nuts for export. The processing of cashew nuts has been a traditional cottage industry in a few villages in the western province. Before the advent of EPVs, middlemen provided the raw nuts to processors who were exclusively women. The middlemen then purchased processed nuts from the women at the lowest price. The unorganized, household-level production methods resulted in poor quality and lack of uniformity. In one area, however, an NGO known as 'SAVODAYA' had introduced loans to enable processors to purchase raw cashews, along with organizing these women into production groups. The work of this NGO showed the potential for mobilizing cashew processors into EPVs.

The thrust of the EPVs for cashew nuts was aimed at removing existing problems and modernizing the industry. To achieve this objective it was felt that: i) middlemen needed to be eliminated; ii) the quality of the product needed to be upgraded; iii) new processing technology needed to be introduced. The village producers signed a supply contract with the exporter and formed a company known as 'Peoples Companies' in which producers had a profit-sharing arrangement. Various business development services were provided to the producers by private services and their cost was embedded into the purchase price of the product. Hence, the cost of BDS was indirectly paid for by the producers.

The support services to EPVs were provided through a variety of providers and facilitators. The conceptualization and linkages with enterprises and initial organization support was done through public sector institutions. These facilitated linkages with export-oriented enterprises and formal contracts were established between the producer and the exporting firm. A series of training programmes on various technical, management, packaging, quality assurance, export processing, accounting and marketing were organized through private consultants and public sector specialized agencies. In many cases, services provided were subsidized by the public sector and specific technical and marketing services were embedded in the transactions with the exporting firm.

Programme outcome. By the end of 1986, a total of 32 EPVs had been started, 11 of which have become defunct or dormant for a variety of reasons. The 21 EPVs that have continued to operate in the 1990s, have had mixed results regarding the achievement of their declared objectives. Overall, the experiment can be considered interesting and replicable. The failures can be attributed mainly to weak management, poor coordination between marketing and production, poor monitoring of quality and shortcomings in the initial product selection.

The EPV model was based on an exclusive linkage between the producers and the exporting company, usually one exporter. Hence, the entire EPV could be in difficulty whenever the exporting company faced adverse conditions. Many EPVs collapsed because of interruptions of support and purchases from the exclusive exporting firm. The EPVs were also highly dependent on political support, receiving free or subsidized services from public funds. Therefore, their success was heavily dependent on political support in the different provinces.

Lessons learned/Contribution to BDS field. The EPV model links producers with exporters and as a result employment creation at the village level was significant. EPVs also created several suppliers of market inputs for farm production. They offer an interesting model whereby private and public sector interactions facilitated the integration of primary producers into an export-linked business. However, heavy subsidies and political patronage have restricted the sustainability and up-scalability of this model.

Outgrower system for supply development of cut flowers (anthuriums) for export in the North-western province of Sri Lanka

Background. Enterprise-linked extension programmes to support farmers have been undertaken by exporting companies during the last two decades. The subsectors supported include fruit and vegetables, cut flowers, ornamental plants and food processing. These programmes are generally based on exporter-producer-farmer contracts to produce quality products mainly for exports. The exporter provides a variety of business services to farmers who are trained to produce the type of products needed for exports. Farmers are provided inputs, technical advice and training and are assured of a market. This production system is generally known as an enterprise linked outgrower system.

Private sector firms ensure efficient management of the programme. The system also mobilizes a number of service providers through the exporting firm or the supporting public sector institution, generally that responsible for extension. The banks also feel safe to lend to farmers through the exporting firm rather than lending directly to the farmers who find it difficult to provide collateral.

Programme. An innovative outgrower-based model is being developed for production of new varieties of ‘Anthurium’ flowers, with a partnership of small-scale outgrowers, bio-technology laboratories, exporters, local government and a specialized public sector institution for export promotion known as Sri Lanka Export Development Board – SLEDB. The main purpose of this scheme – which covers small-scale growers in the Kurunegala and Puttalam districts of the north-western province, is the production of cut flowers for export. The programme covers support services for cultivation and marketing of cut flowers produced by the outgrowers. The programme targets are to support 100 outgrowers to cultivate 1 000 plants each.

Programme approach. The model is based on a system that includes a package of financial and non-financial services provided through a number of private-sector service providers and public sector institutions. The support includes:

- SLEDB assisted the import of mother plants, about 12 varieties from the Netherlands, and their multiplication by a private sector bio-technology laboratory;
- One thousand plants were made available to each outgrower at the cost of Rs 60 per plant;
- SLEDB also provided financial assistance Rs 50 000 (US\$500) per outgrower to buy source plants (mother plants), which covered 50 percent of their cost. The outgrowers met the other investments costs such as inputs, construction of sheds, net houses, etc.;
- In addition, arrangements were also made by the SLEDB and the local government institutions on a cost sharing basis to access technical advice and training for growers;

- Growers were assisted to form a growers' association linked with an exporter to buy the export quality products and a network of local market buyers was created for the remaining flowers of second quality;
- Additional loans were arranged for growers to expand and a minimum financial assistance was provided on a monthly basis for maintenance of the plants for two years until the commencement of flower production;
- As the project does not generate an adequate net income for an initial two years, it is very difficult for outgrowers to finance expansion of their existing units. It is proposed to assist 30 of the best and successful entrepreneurs out of the existing 62 growers to expand their existing units.

The existing successful entrepreneurs, who are mostly from the Kurunegala district, are now planning to expand cultivation since they were able to multiply the planting material themselves. Some of these farmers are offering planting material for about US\$ 1 per plant to new growers.

Lessons learned/Contribution to BDS field. The training provided to growers is not free even at the initial stages. The beneficiaries have to pay a relatively large amount for training session. The initiative has created a market for input suppliers, specifically for the suppliers of plant materials. Some of the growers themselves have become suppliers for newcomers to the industry. This project targets the development of small-scale farmers through promoting production of non-traditional agricultural products for export through higher investments, selecting high value products, training in sophisticated farming systems such as net houses, and multiplication of hybrid plants. It is felt that this type of practice and product, though producing a high income, may not be suitable for adoption by large numbers of poor or traditional farmers.

3.3 NEPAL

Provision of animal services for small-scale livestock farmers in hilly areas of Nepal¹²

Background. Livestock provides food, manure and animal power in agriculture, a means of savings and income, and social status for most farmers in rural Nepal. It often constitutes a significant physical asset that contributes 20 percent of households' cash income in the hills and mountain areas. Ninety percent of the population's livelihood is based on livestock rearing. Major constraints to increased livestock productivity in the remote hills of Nepal are: i) limited genetic potential of the animals; ii) absence of health care services; iii) poor feeding and management practices combined with the lack of entrepreneurial attitude. There are major gaps in services available to farmers in the areas of animal health services, supply of inputs and improved breeds, and availability of adequate forage and fodder.

12 Note prepared with Ananta Ghimire, Rural Programme Nepal (RPN), GTZ.

Programme. The German Cooperation Agency, Gesellschaft für Technische Zusammenarbeit (GTZ), initiated a small-scale, but comprehensive, pilot programme in ten village development committees in Bhojpur district in June 1999, through an NGO named Forum for Rural Welfare and Agriculture Development (FORWARD) with expertise in the livestock sector. Initially, the pilot project aimed at provision of animal health care services, plus the provision of services to introduce new breeds and to increase the production of forage. Provision of animal health services were given particular emphasis, because there was a policy shift by the government of Nepal from being a direct service provider to one of undertaking a facilitating role while gradually suspending its subsidy to veterinary services.

Programme approach. Initially, the NGO responsible directly operated the veterinary service centre and trained Village Animal Health Workers (VAHWs). They worked at the veterinary service centre as apprentices. At the beginning VAHWs were paid at subsistence rate (at Rs3000/month/VAHW for 2 years) as trainees. After 2-3 years, operation and management of such local veterinary clinics was handed over to the Cooperatives/ Community Based Organizations (CBOs) and remuneration provided to the VAHWs was reduced to Rs2000/month). After the handover, FORWARD-supported cooperatives/CBOs contributed partially for the remuneration of VAHWs and other necessary technical matters.

FORWARD established a veterinary clinic centre in Dingla bazaar of Bhojpur district during August 1999 and medicines were also made available at the clinic. FORWARD technicians provided effective clinical services at the clinic and on-farm in emergency and serious cases. Because of the availability of medicines, quick and effective service, and awareness created through group training, farmers' attitude towards the treatment of animals improved.

FORWARD expanded its working area to four other sites by November 2001. For ensuring sustainability of services through community participation, a cooperative veterinary scheme was envisaged. After handing over the veterinary clinics to cooperatives, the VAHWs developed livestock resource persons within their respective communities. The VAHWs themselves were to take care of the cooperative animal health services centre under the norms developed by the respective cooperatives/CBOs.

Since their establishment, veterinary clinics have passed through different stages in their approach of management. While they were originally run directly by NGO staff and VAHWs, they subsequently worked under cooperatives/CBOs. In order to stimulate community participation and ensure sustainability of services, it was emphasized that the centres would operate on a commercial basis. The VAHWs are now responsible only for the operation of the clinics, while the ownership of equipment and medicine remain with cooperative/CBOs. VAHWs do not receive any kind of remuneration from programme or cooperatives/CBOs. Instead, they receive the following kinds of incentives as payments:

- A profit margin from the sale of medicines (for which farmers were paying the cost even from NGOs);
- Service charges (for diagnosis, tests);
- Payment for the services through the mobile veterinary camp;
- Payment of an incentive from a matching fund within the programme for a fixed period of 3 years.

The cooperatives/CBOs are responsible for preparation of rules and regulations for the operation of veterinary clinics. The veterinary clinics are managed on the basis of an operational and business plan prepared by cooperatives/CBOs in consultation with VAHWs, which prepare the operational and business plan for running of veterinary clinics.

Programme outcome. The programme was successful during the initial project because of cheaper medicines, quick and effective services provided by clinics, service at the farmer's door and awareness created through group training, group contact and personal contact with farmers. After the handover of clinics to the cooperative/CBOs, however, it was realized that there was a decline in the services provided. The following problems were pointed out in this period:

- Decline in the service of veterinary clinics was experienced caused by insufficient monitoring of the work of VAHWs;
- VAHWs were not very interested in working in this approach because of a reduction of incentives provided to them;
- The cooperatives were not able to provide extra incentives because of the lack of resource-generating activities;
- The institutional strength of the cooperative/CBOs was not sufficient to handle the clinics or their management;
- There is still a threat to the continuation of veterinary service clinics.

Lessons learned/Contribution to BDS field. This case study points to the problems being faced by programmes that aim to transform subsidized delivery into commercially profitable business services. Transforming NGOs/project employees into entrepreneurs is a daunting task, requiring a shift in mindset/attitudes. Any similar project will have serious sustainability problems when NGOs take up the role of provider rather than simply facilitating service provision by commercial entities.

Assistance to farmers for seed production: experience of the seed entrepreneurs' association of Nepal – SEAN in Nepal¹³

Background. Nepal has diversified agro-ecological zones with capability to produce many temperate types of seeds (eg. radish, cauliflower, cabbage, carrot, onion, etc.). The development strategy for the seed industry has been to substitute imports and promote exports. Initiatives are now taken by local seed producers to produce and market quality seeds in Nepal. The Seed Entrepreneurs Association of Nepal (SEAN) is one of the facilitators that have engaged in providing access to different services for farmers producing seeds.

¹³ Note prepared with the assistance of D.P. Adikari – General Secretary SEAN.

Seed production is more complex than crop production in the sense that it involves many agencies and is technically more complicated – hence the risk is higher. Therefore, seed production programmes need careful planning, with the involvement of all the stakeholders concerned with production, quality control and marketing. In the recent past as many as 15 NGOs in Nepal have been involved in facilitating access to services for vegetable and vegetable seed production.

Programme. Established in 1991, SEAN is an association incorporated as a non-profit organization with the following objectives: i) to organize private seed entrepreneurs; ii) to promote production, processing and marketing of high quality seeds; iii) to liaise and co-ordinate seed-related agencies; iv) to increase involvement of the private sector in a national seed programme. Across the country, SEAN has expanded its membership to 158 Nepali seed entrepreneurs engaged in production, processing and marketing of seeds in 35 out of 75 districts in Nepal. SEAN in collaboration and cooperation with various donor organizations, projects, etc., has organized training, workshops, seminars, policy discussion forums, international market study tours, etc.

Programme approach. SEAN has promoted the use of good seed of popular varieties in both staple food crops and vegetables by providing technical advice and ensuring the supply of source seed. Some of the services that it provides include:

- Quality control to regularize the production and marketing of seeds.
- Organization of annual seed production and marketing planning workshops. The key feature of the workshops has been the bringing together of farmers and traders so that farmers can offer the types and quantities of seeds that they are able to produce and traders can indicate their requirements.
- Establishment of agreement on quantities and prices for particular seed with the other traders in the market and make contracts and arrangement for source seed supply.
- Introduction of high quality seed production to hill farmers.
- Introduction of a group approach to production and marketing of seeds, which is now widely adopted by member farmers. Thus, the first stage of the programme now involves group formation.
- Training on group management, leadership and decision-making skills of farmers. Emphasis has been given to strengthen the capability of groups in marketing, including improved market information, linkages with traders and improved negotiation skills.

Programme outcome. SEAN has been working with 4 550 vegetable seed producing households (60 percent below poverty line) and 39 groups to increase the production and sales of vegetable seeds thereby improving the incomes of the households and private seed entrepreneurs in Nepal. During the last thirteen years, SEAN has been able to play an important role towards BDS market development by facilitating linkages among farmers, input suppliers, seed marketing companies and facilitating in transfer of seed production technologies, exchange of market information and market promotion activities.

Initially, supporting donor projects and government firms played a very significant role in arranging the supply of source seed. Later, with increased involvement of the private sector and changes in policy of government, the private sector has slowly taken-on the responsibility for producing and supplying source seeds on a commercial basis. Now, the SEAN Seed Service Centre ltd, supplies a substantial proportion of source seed requirements.

Lessons learned/Contribution to BDS field. SEAN is an intermediary association, being run as a business, formed by farmers to facilitate access to several types of business services. The association hires different service providers to provide services to members. It also plays the role of an effective intermediary to reach farmers and channel other support programmes for seed production introduced by other donors, NGOs, etc.

However, one of the main areas of concern in SEAN's experience is its limited capacity to carry out its own research and development to introduce good quality seeds to farmers. Research and development on seeds is mostly carried out by the public sector, which is slow and ineffective and it is not able to share tasks with private companies. In addition, SEAN has a limited capacity to ensure provision of after-sales services to member farmers, or to develop a consistent extension service system.

Development of beekeeping by farmers of hill areas in Nepal¹⁴

Background. In Nepal, there are more than 5 000 rural families involved in commercial beekeeping and its related activities, whereas it is estimated that around 20 000 families are involved in small beekeeping activities too. The beekeeping sector offers a potential market for different services. These services include, input supplies, quality improvements, equipment supplies, advisory services, marketing services, association development, etc. One of the pioneering establishments to promote Beekeeping in Nepal is the Gandaki Bee Concern (GBC) which facilitates a variety of business services to this sector.

Programme. The GBC was established in March 1990 with the objective of promoting beekeeping in Nepal, its motto is 'beekeeping for economic prosperity, employment, ecological balance and sustainable development'. The GBC now has more than 1 000 *Apis Melifera* and 500 *Cerena* colonies. It has two sister organizations in Nepal, one in Chitwan and another in Pokhara.

GBC provides a series of embedded services, such as training for human resource development through various beekeeping training programmes, advisory services, and manufacturing beehives and other beekeeping equipment. Beside its own honey production, GBC also purchases pure bee products (honey and bee wax). In addition, GBC is jointly launching beekeeping programmes with various NGOs and other line agencies in rural areas of Nepal. It provides modern bee farming technology services and inputs to farmers and offers a sustainable market for their products. It also assures quality honey at a reasonable price to consumers and provides international market access for natural Nepalese honey in general and Himalayan Rock Honey in particular. In addition, the GBC conducts research and development related to honey production by collaborating with related national and international agencies.

¹⁴ Note prepared in collaboration with Neeraj Singhal, Swiss Contact, Nepal.

Programme approach.

Step 1

Feasibility study. Before implementing a beekeeping programme, a feasibility study is carried out.

Step 2

Identification of prospective beekeepers. The second step of the project is to identify prospective farmers and existing beekeepers willing to start commercial beekeeping or to expand their existing operations.

Step 3

Technical and beekeeping management training. The GBC has a pool of experienced, qualified and specialized resource persons engaged in the beekeeping training programme. After identifying the prospective area and the beekeepers, the GBC imparts modern pragmatic technical beekeeping and management training. Besides general training, it also conducts refresher and advanced training, as well as training of trainers (TOT). Training is provided at a reasonable cost without seeking to make a profit on the activity.

Step 4

Other support. After the training, bee colonies and other beekeeping accessories are provided at a reasonable price. Technical supervision is also provided as and when required. Moreover, in cooperation with the clients, GBC conducts follow-up and monitoring of the programme.

Step 5

Buy back agreement. In order to assure a market for honey and wax, a buy-back agreement is arranged with the beekeepers. The GBC pays reasonable prices for quality-tested honey. Due to an assured honey market, the beekeepers can concentrate their activities on honey production. An assured honey market enables the beekeepers to concentrate their activities on honey production. Payment is made in two installments, 50 percent at time of delivery and the remaining 50 percent after a quality check.

Programme outcome. At present, the GBC provides direct and indirect services to more than 400 beekeepers in Nepal. It has conducted more than 80 sessions of modern beekeeping management training and trained more than 1 300 trainees. It has also promoted more than 700 beekeeping enterprises. The GBC was instrumental in establishing an international market for Himalayan rock honey and pure honey in Germany, Korea, Singapore and India. It has established a relationship with more than 500 pure honey suppliers/beekeepers, who regularly supply it. The GBC has arranged a pure honey buy-back agreement with more than 100 beekeepers.

Lessons learned/Contribution to BDS field. This is a programme that supports a large number of farmers to earn additional income in a number of regions. Payment for services is not direct, but is embedded as enterprise linked services and the costs to the enterprise for services provided is eventually recovered through buy-back arrangements for the final products. Generally, the beekeepers are willing to pay for the material inputs because of the above mentioned arrangement, but they are still reluctant to pay for quality assurance programmes.

3.4 BANGLADESH

A farmers' initiative for production of seeds: women farmers company in the district of Gajipur, Bangladesh

Programme. An initiative, by an organization of women farmers, for the production of seed paddy, was launched in the area of Kalakoir, Gajipur District. The name of the company is 'Kishani Ltd' (*Kishani* meaning women farmers). This company was launched by 15 women farmers with technical support of Bangladesh German Seed Development Programme (supported by GTZ and Bangladesh Agriculture Development Corporation -BADC). In addition a local NGO known as TARANGO, (Training Assistance for Rural Advancement), provides support to this group of farmers in the area of management and marketing. The objectives of the company include: i) involving women farmers in the seed production business; ii) production of quality seeds; iii) providing support or facilitating access to support services; iv) creating opportunities to increase farmers' income.

Programme approach. The company, together with the support of TARANGO, facilitates access to a series of services for farmers in the area. These include:

- Organizational support to two groups of farmers. One group is assisted to produce source seed to be used for seed production and the other group is assisted to produce seed paddy to be used in paddy production;
- Provision of training to contract farmers on production, seed processing and quality control, and seed marketing;
- Buyback of seed produced, for onwards sale to paddy farmers; and
- Training of company members on business planning, management, etc.

The company intends to extend its activities to vegetable seed production in the future, depending on the success of the seed paddy production programme.

Programme outcome. The sustainability of the services provided is yet to be confirmed. The company still depends on NGOs and other external support. The scale of operations and the services provided are still restricted. At present, the company provides embedded services, and expects to recover expenses through buy-back arrangements of seeds produced. It is still difficult to estimate the capacity of the supported farmers to pay for the services.

Lessons learned/Contribution to BDS field. This is a recent initiative started in 2003, hence it is too early to assess its success. Nevertheless, the experience is interesting because of the fact that this is a profit-oriented private company established by women farmers. The women themselves have taken the initiative to facilitate access to business services by their own members. The company itself is an innovative enterprise that will support farmers to carry out agriculture as a business.

Private enterprise-linked extension programme for seed production and marketing: experience of the Agri-Business Corporation (ABC) in Bangladesh

Background. Small-scale agribusiness development and agriprocessing is one of the main strategies of poverty alleviation in rural Bangladesh. Initiatives have been taken by a multitude of NGOs, peoples' organizations and the private sector. A number of private companies have initiated enterprise-linked extension systems to produce agriculture products through the development of outgrower systems. The systems developed by some private companies and also NGOs, have attracted traditional farmers, as well as new farmers. A company known, as Agri-Business Corporation (ABC) is one of the private companies that have introduced an interesting enterprise-linked extension system in the area of Dakha.

Programme. The ABC is a company formed by a group of experienced agriculturists in Bangladesh in 1997. It was formed initially to work with contract farmers to produce organic vegetables for supermarkets. Production activities were organized involving farmers in the area of Savar about 20 km from Dakha. Some of the vegetables supplied were exported through an NGO known as BRAC. This activity was discontinued because of the high costs of production of local vegetables and the company shifted its activities to production and marketing of quality seeds, engaging large numbers of farmers.

Programme approach. ABC provided non-financial support services such as advisory services, inputs, technical assistance on better cultivation methods, advice on application of fertilizer and insecticides, facilitation of access to extension services through the department of agriculture, etc. In addition, the company facilitates access to finance through banks. The production is done under a buy-back guarantee. The cost of these services is recovered under a purchase agreement (buy-back) for the related seed production. The company offers services for two programmes; maize seed and paddy seed production.

The programme initiated for maize seed production includes a collaborative programme for extension services with the department of agriculture, and a microfinance programme for farmers implemented through the Bangladesh Agricultural Bank.

In summary, the programme is made up of three main elements:

- The ABC company supply quality maize seeds, advisory services and other inputs to selected farmers and guarantee the buy-back of the production;
- The department of agriculture selects and motivates farmers for production of maize and links them up with the company;
- The bank facilitates access to loans for the farmers through the ABC Company for production of maize.

The production of maize is encouraged specifically in the area close to Dakha because of the market potential and the high transport cost to bring maize to Dakha from other areas. This programme encouraged newcomers to farming around Dakha who are not necessarily traditional farmers.

ABC also initiated another programme for production of paddy seeds through selected farmers. This programme too operates on similar lines to the maize seed production programme. This programme was launched jointly with the Bangladesh Agriculture Development Corporation (BADC) and Bangladesh Rice Research Institute (BRRI). The institute provides breeder seed (or source seed) to be used by seed producing farmers and BADC facilitate ABC to certify the seeds produced. About 100 farmers have been engaged in this programme to produce source/breeder seed for the last 3 years.

Programme outcome. About 50 000 farmers have been selected to work under these programmes by ABC in the Dakha region. In addition, a few hundred farmers are provided with support in the villages for paddy seed production. The recovery of costs of the services and inputs, since embedded, is largely dependent on a good harvest. In the case of Bangladesh it is common to experience natural disasters that destroy the crops. Hence there is a total dependency on a good harvest to recover service costs.

Lessons learned/Contribution to BDS field. The ABC is an interesting example of private sector enterprise linked to an embedded BDS programme to support contract farmers in seed production. The programme combines financial and non-financial assistance. The scheme also appears to operate effectively through joint collaboration between private enterprise, banks and government.

3.5 UGANDA

Enterprise-linked BDS Provision to cash crop farmers: experience of support to cotton farmers¹⁵ in Uganda¹⁶

Background. Uganda's cotton production sector, consisting largely of smallholder farm systems, was one of the leading foreign exchange earners in the country. However, over the past 20 years or so, there has been a considerable decline in cotton yields, which is generally attributed to poor agronomic practices and lack of extension services and other inputs. As a result, most of the ginneries either operate under capacity or they have closed down. Yet, it is recognized that cotton could be a key livelihood provider to thousands of farmers if they can increase production through improved agronomic practices. Though the market for cotton is weak at present, Uganda offers long-fibre quality cotton and therefore can still recover its lost market if production can be increased.

Programme. In order to revive the cotton sector a number of support programmes were introduced by several institutions backed by donors. Among others, an enterprise-linked rural business development growth model to support small cotton farmers was introduced in Northern Uganda during the year 2000 with the assistance of USAID supported SPEED project and other development partners. A local farmers' society, Nyakatonzi Growers' Cooperative Union (NGCU), was expected to supervise operations through an extension manager who coordinated field trips and ensured information access to all members involved in the programme. The main objective of this model was to increase the capacity of selected Ugandan cotton enterprises and to enhance cotton yield and household income.

¹⁵ This section is based on the work carried out and notes by Ralph Chaffee-Enterprise development advisor under the USAID supported SPEED project in Uganda.

¹⁶ Information for this was collected also in the field while the author was in Uganda as BDS advisor to a technical assistance project in 2003.

Programme approach. The NGCU is comprised of 62 farmer societies with an average membership of 249 and total membership is 15 000 farmers. It is one of the few unions that survived the turbulence that followed the liberalization of the cotton and coffee sectors in Uganda. The NGCU is primarily a ginnery, processing about 10 000 bales annually or 10 percent of the nations cotton production. The typical farmer/customer of the ginnery is a smallholder producing food crops for the family plus one or two acres of cotton. Yields are generally low at around 200 kgs per acre. Trials demonstrated that production can be increased by as much as four times by minimal additions of fertilizer and insecticides, and by planting with correct seasonal timing.

The model implemented is a market-driven, enterprise-linked extension system developed and implemented by a producer cooperative to link producers with commodity buyers while assuring the supplier customer loyalty and the buyer delivery of quality products. The services offered to producers were initially in the form of free advice organized by the cotton buyer. However, a fee of services provided is now embedded in the charges for processing, the cost of supplies and/or the price paid for products.

Anticipated project outcome. The programme has been 'kick started' with donor funds, but it is planned that the allowances paid to the society extension agents and the management of the programme will be part of the general operating expenses of the ginnery. The anticipated benefits from the programme include:

- Increased production and profits for farmers;
- Increased throughput of cotton for the gin with a resulting improvement in operating efficiency;
- A more reliable source of raw material for the gin;
- Development of loyalty to the gin amongst farmers who can now access reliable extension services, and
- Fully sustainable extension services that are paid by the users.

It is expected that, when the programme is operational, the cost of extension services provided to farmers will be no more than US \$1 per bale ginned or per farmer served.

Lessons learned/Contribution to BDS field. In Uganda, individual farmers have little or no voice in the market place. Export markets seek commodities in local lots of uniform quality to meet their needs, and relative large processors can only accomplish this by assuring themselves of a consistent supply of properly-handled raw materials. Enterprise-linked extension that binds growers to volume buyers tends to increase production cost, lower operating costs and improve market value.

The scheme has heavy donor support and involvement. The fees for services are embedded in the purchase prices of cotton. However, there is still the issue of payment of fees to extension workers after donor support is terminated. The main player, the NGCU has benefited from donor support for a long period. Hence the sustainability of this scheme is still a matter of concern.

Support programme to increase yields of intercrops: experience of enterprise-linked BDS for Maize producers in Northern Uganda¹⁷

Background. In addition to the main cash crops such as cotton, coffee etc., in Uganda, farmers grow different intercrops to feed their household and to earn additional income. Two USAID-supported projects (SPEED and IDEA) designed and implemented a second business-development support programme during the period 2002-2003, together with NGCU, to increase the production of one of these crops. This programme linked farmers' associations in Northern Uganda with extension workers to encourage farmers to grow maize and to attain high yields. Under this programme, maize demonstration plots were established with a selected number of farmers. The programme involved more than 600 farmers in the region.

Programme. In collaboration with the USAID-funded IDEA project, SPEED supported the establishment of 600 trial demonstration plots of maize at 62 society locations. These plots utilized improved agronomic practices with minimal additions of fertilizer and insecticides and strictly followed correct seasonal timing for planting. Local farmers provided extension services at these locations and NGCU supervised the operations through an extension manager.

Programme approach. About 60 site coordinators and two area coordinators were involved in the establishment of the maize demonstration plots. Three maize training workshops were conducted for site coordinators and collaborating farmers during planting, spraying and harvesting periods. (10 018 members of NGCU were trained on the maize programme by collaborating farmers.) Because of this programme, NGCU member farmers were expected to harvest 6 000 tonnes of maize. Furthermore, at the NGCU level, employment has been secured for 28 male and 3 female workers who normally would be laid-off during the non-cotton harvest season.

Programme outcome. Although there was a severe drought during the season, the maize demonstration plots were successful and 10 000 farmers viewed them. The lack of rainfall caused yields to be lower than anticipated, but there were plots with some maize to harvest, while the plots planted without inputs, were at a loss. Yields on the limited number of irrigated demonstration plots were, on average, three times the yields on irrigated plots without inputs. The ultimate indicator of success is that many of the agronomic practices used in the maize demonstration plots have been adopted. Another reason to consider the maize demonstration programme a success, is that it provided NGCU members with an alternative cash crop, one that can be grown in the season when cotton is not grown, thereby offering a double-cropping opportunity.

Lessons Learned/Contribution to BDS field. In summary, through the SPEED project's business intervention, coupled with the agronomic input from IDEA, the NGCU may soon become a major marketer of maize as well as a supplier of inputs to its members. The organization could become a 'bankable deal', attractive to lenders seeking sound business opportunities and could be a continuing catalyst in improving the lives and incomes of thousands of farmers through its extension and marketing system.

¹⁷ Source; based on information collected in the field in August 2003 by the Patrick Nugawela and discussions held with the NGCU and Staff of the SPEED project, including informal notes exchanged with Ralph Shaffee, Advisor SPEED.

Support to develop innovative rural enterprises: experience of supporting organized rural Agro-input dealers in rural Uganda¹⁸

Background. With the disengagement of the public sector in providing extension services, a variety of initiatives have taken place to provide comparable services to farmers. NGOs, donors, the private sector, economic interest groups, etc., have now started these activities. The services consist of a wide range of programmes, including training, advisory services, information, marketing and input supplies.

Programme. In Uganda, an interesting programme was executed by Appropriate Technology (AT) Uganda in the area of input supply through the organization of retail input dealers in rural Uganda. Under this programme, AT Uganda organized the rural, agro-input dealers – commonly known as stockists – under the name of Uganda National Agro-input Dealers Association (UNADA). Each district has one or more local branches made up of at least five stockists of agro-inputs. The members of this association undergo training on retailing agro-inputs provided by AT Uganda and other service providers.

The UNADA is still a new association, but shows potential for working closely with farmers and offering a series of services to and agro-inputs to micro-enterprises in rural Uganda. At present, the UNADA has 128 member stockists, grouped into 11 branches across Northern and Eastern Uganda.

Programme approach. AT Uganda is an NGO that plays the role of an intermediary to facilitate farmers' access to stockists for a variety of services. Some of those are as follows:

- Organization of and bringing together agro-input dealers and retailers;
- Training on association management and governance;
- Networking among agro-input dealers;
- Business development training of members;
- Information on agro-inputs, regulations, etc.;
- Fundraising for specific activities by the association.

AT Uganda is planning to support about 250 stockists within the next two to three years. This number includes 30 percent women entrepreneurs and 25 percent sales distributors of agro-inputs in the rural sector.

The UNADA on the other hand provides the following services to its members:

- Creation of micro-enterprises for agro-inputs and development of innovative micro-enterprises in rural Uganda;

¹⁸ Source of information – Discussions in the field in August 2003 and documents from AT Uganda.

- Development of entrepreneurial capacity and professionalism among agro-inputs retailers;
- Supplying agro-inputs at reasonable cost and increasing their access and demand;
- Facilitating access to credit by rural retailers;
- Reducing donor distortions in the agro-inputs sector;
- Improving farmer's access to agro-inputs.

Programme outcome. Retail dealers individually cannot purchase agro-inputs at competitive prices because of their small turnover. In this context, bulk purchase of inputs together can reduce the retail price and the role of the UNADA is important in this context. But the UNADA does not have the technical and financial capacity and physical storage facilities to handle such operations. Limited markets for agro-inputs, mainly because of poverty among rural farmers, is also a serious constraint for expansion of market of the retail agro-inputs dealers.

With the support of AT Uganda and the private sector foundation of Uganda, almost 100 stockists of the association have participated in training programmes related to association management and governance. These programmes were fee-based and participants duly paid for the training. This demonstrates the interest of rural micro-entrepreneurs to organize themselves, as well as their capacity to pay and access BDS.

Lessons learned/Contribution to BDS field. Creation and development of agro-input dealers in the rural areas is itself an innovative rural enterprise development activity. These retailers have an important impact in the farming community in rural Uganda through their provision of modern inputs; not only to subsistence agriculture, but also to farmers engaged in cash crop production.

Support to develop rural consultancy practices to assist micro and small enterprises in a rural district – A case study from the Northern Ugandan district of Lira¹⁹

Background. During the period 2001 to 2003, with the support of USAID, the 'SPEED' project supported the development of the local capacity of rural consultancy practices in two districts of Lira and Mbarara in Uganda. The purpose of this initiative was to develop BDS providers in rural areas in order to support the growth of rural MSEs.

Programme. In the Lira district, the BDS provider selected was originally a one-owner company known as KULAKULA Management Consultants abbreviated as KUMCO. This is a pilot programme and it is known as the 'Support Programme to Develop Rural Consultancy Practices in the District of Lira in Uganda'. This support programme was designed and implemented from July 2002 to the end of 2003. The supported consultancy firm continues its activities on a sustainable basis after the withdrawal of donor support.

¹⁹ This is a project implemented under the USAID supported SPEED project in Uganda during the period 2001 to 2003 under the supervision of its BDS advisor Patrick Nugawela.

Rural and micro-enterprises, particularly those operating in areas such as Lira, face a multitude of technical, financial, and economic constraints. There are not many BDS providers present in Lira. Therefore, providers such as KUMCO do not face much competition in the BDS market if they have the technical capacity to package appropriate offers for a reasonable cost.

Programme approach. Donor support to the KUMCO consultancy firm was initially for a period of six months from July 2002, in order to position it in the regional BDS market. The support provided included: i) financial support on cost sharing basis covering a part of consultancy fees of local consultants; ii) cost of essential office equipment and materials; iii) part of the administrative overheads of establishing the new business development centre; iv) direct technical assistance to strengthen professional capacity. In addition, the BDS provider was supported through:

- Assistance to carry out capacity assessment of the firm and the consultants working for the firm;
- Training of consultants on preparation of work plans and strategic development plans;
- Guidance to consultants on preparing communication and publicity materials;
- Guidance on identification of consultancy opportunities, designing, developing and packaging consultancy offers;
- Guidance to design and develop memoranda of understandings and contracts with clients,
- Guidance to cost consultancy fees from clients;
- Facilitation to train the consultants on association governance and management;
- Integration of the lead consultants of the two firms into the SPEED core group of consultants;
- Training staff on reporting, monitoring and evaluation of work plans and office management procedures.

The KUMCO established contacts for BDS with the beneficiaries directly or through sub-sector intermediaries. These subsectors include: horticulture, coffee, beekeeping, forestry, drip irrigation, rice, oil seeds, livestock, fishing, dairy products and cotton.

Programme outcome. The KUMCO was able to position itself as the major private sector institution owning a reliable database for the region. During the first year they succeeded in winning bids for training activities amounting to nearly US\$ 20 000 from local governments. and established a database of the service providers – about 25 providers. It also provided training to more than 300 micro-enterprises plus 1 374 agriculture clients. Three hundred and seventy micro-enterprises were assisted to open bank accounts and restructuring and

marketing services were packaged and delivered to two small enterprises. In addition, 11 agriculture-based associations and NGOs were identified in sectors such as: horticulture, coffee, beekeeping, tree planting, drip irrigation, pig farming, rice, oil seeds, fishing, dairy products and cotton growing. The KUMCO has now extended its market beyond micro and small enterprises, to activities such as association building and has designed training contracts for local governments, audit reports and business plans for technical schools, animal power utilization in farming, etc.

The market opportunities and range of services identified for consultancy practices are not limited only to MSEs. The potential market in reality extends to services required by a wide range of private and public sector institutions, donor funded projects, local government, etc. The KUMCO has been able to position itself in a very broad market for BDS, because of its enhanced capacity.

The KUMCO enters into a wide range of consultancy services and its efforts are spread over many different activities in order to generate revenue. The KUMCO has still a long way to go to fully develop its capacity and ability to be effective in the consultancy industry and to generate adequate revenue to be sustainable. Hence, focusing activities in selected areas is not that easy because the BDS provider needs to undertake any income-generating activity for its own survival.

Lessons learned /Contribution to BDS field. This model demonstrated the availability of a BDS market in the rural sector and showed how to capture this market through training and capacity building of rural consultants, development of products, and appropriate packaging of proposals in the market place. The programme demonstrated that small businesses, even very small ones, are willing to pay for services to which they can attach a value and for which they can see a positive financial result, as long as they are convinced of the ability and skills of the provider. A large number of small business clients, through their associations (RISBA), use the services of the KUMCO and pay a participation fee for short training sessions in accounting practices, stock management, record keeping, salesmanship, etc.

The opportunities for increasing demand for BDS in the rural sector are tremendous, even in an agriculture-based rural economy such as that of the district of Lira. However, rural consultancy opportunities do not yet provide adequate revenues to meet overhead expenses. Within a short period the KUMCO has now expanded its strength in terms of employees and activities, rented-out office space, office equipment, etc. This results in greater capacity to undertake a wider range of work, but also means additional overheads, a cost that it may not be possible to meet once donor support is terminated. The problem is not the market for BDS, but the absence of adequate capacity and skills to identify, design, develop and package appropriate products/services at a price acceptable to both market and clients.

3.6 RWANDA

Provision of BDS to farmers through associations and cooperatives - case study of coffee farmers cooperatives for production of washed coffee in Maraba, Rwanda²⁰

Background. Coffee is the main cash crop in Rwanda and represents more than 50 percent of total export earnings. About 470 000 Rwandan households are engaged in coffee production. Individual holdings are very small at around 150 to 200 trees per family. This case study refers to the operations of the support programme to coffee farmers linked to the pilot Coffee Washing Station, (CWS) initiated by the USAID-supported PEARL project in collaboration with the Canadian development agency, Agence Canadienne de Développement International (ACDI/VOCA), the National University of Rwanda (UNR), the Institute of Scientific and Agricultural Research in Rwanda (ISAR) and the ADAR project at Maraba in the district of Butare.

Programme. Maraba CWS was established in 2001 under the USAID-funded PEARL project and it aimed to process 80 tonnes of green coffee per year for export to a specialty coffee market in the United States. Sample products are tested and market contacts are established directly with a United States coffee importer. The initial investment of CWS was US\$ 60 000 using river water pumping installations. Supply of spring water and construction of water storage tanks increased investment costs to US\$ 80 000. The project intends to increase investment by another US\$ 20 000 to incorporate a parchment machine so that the station will become an integrated unit producing a quality product for immediate uptake by the market. Initial investments were shared among the stakeholders, 75 percent by PEARL and ACDI /VOCA projects; OCIR Café provided the machines and drying tables, while ISAR produced the designs and start-up study and coffee farmers participated in supplying building materials.

Programme approach. The washing station in Maraba is managed by a cooperative known as the 'Coffee Producers Association of Maraba', also known as cooperative 'ABAHUZAMUGAMBI'. Membership of the cooperative is about 450 farmers; each having about 300 coffee trees and annual estimated production in the area is about 500 tonnes of cherries. The daily management activities of the station are ensured by a manager who is also the executive secretary of the cooperative, plus five additional unit heads managing: i) the purchasing and selection of cherries; ii) pulping and grading; iii) fermentation and draining; iv) drying; v) storage. All six permanent staff members are also members of the cooperative. In addition, the station employs about 40 to 50 casual workers during the peak season.

Regular training and awareness programmes are held in order to sensitize growers regarding the importance of supplying quality cherries on time. In the beginning a major part of the cherries brought to the station were rejected. However, the situation has improved and farmers now understand that they get a better premium for supplies of quality coffee. The ADAR project provides support to train the station staff and association leaders on association management, plus on-the-job training to association management teams to oversee the production process.

²⁰ Information collected through two field missions to Rwanda by Patrick Nugawela in 2003 and 2004 and some notes prepared by Gaspard Aybuisije – Kigali.

The association has introduced a system of ‘certified farmers’ under which growers who have demonstrated the capacity to supply quality cherries are selected. Generally, members deliver the coffee directly to the station but limited transport is arranged to collect the cherries from some places to avoid delays. Members receive about Rwandan Franc (Rwf) 300 (US\$ 0. 63) per kg of parchment, whereas farmers supplying washed coffee to private companies get about Rwf 80 to 120 (US\$ 0. 17 to 25) per kg of parchment. Only cherries of an acceptable quality are purchased and the balance is returned to the farmer. The purchase-quality cherries are then treated to remove any bad cherries through a floatation process. The station has a small laboratory where samples of each lot of final dried parchment are tested for weight, humidity, etc.

All members open an account with a bank (Banque Populaire) where the association has negotiated a credit facility of US\$ 80 000. The association reports to the bank the quantity of coffee supplied by each member to the station and the price to be paid. The bank then credits the amount payable directly to members’ accounts.

Programme outcome. This type of CWS involves high investment costs that small farmers cannot afford by themselves. At the same time, they cannot manage the station on their own so paid professionals need to be employed. Though such units provide tremendous benefits to the associated farmers, high dependency on donor funds, sustainability and management standards continue to be major concerns.

Lessons learned/Contribution to BDS field. This Rwandan project offers an interesting experience on training of certified farmers to supply quality coffee, and a system of payment to producers through banks. Stakeholders and the producers involved in the industry believe that farmer associations should be strengthened to sensitize farmers to produce quality coffee. In addition, they intend to focus increasingly on development strategies to supply quality coffee to specialty export markets rather than depending fully on auction systems.

This type of unit can only operate successfully if member farmers are adequately trained to understand the need for consistent quality and adequate supply of cherries to the station. Training alone is not enough to convince farmers of the need for quality consistency. They must also understand that they will get a better price provided that they can ensure supply at required standards.

Private sector-led extension services to farmers in Rwanda²¹ - Experience of cooperatives for development of agriculture, livestock and forestry - CODAF in Ruhengeri province

Background. Private sector involvement in supporting the production and marketing of agricultural crops, other than large-scale cash crops such as tea and coffee is increasing in Rwanda. These crops include potatoes, fruits, vegetables and pyrethrum. The intervention of the private sector in crop production and marketing involves the provision of enterprise-linked BDS embedded in extension service. In this connection, a cooperative known as CODAF (Coopérative pour le Développement Agricole, Elevage et Foresterie) offers an interesting example of enterprise-linked extension services to producers of potatoes.

²¹ The notes for the three cases studies in Rwanda were prepared in collaboration with Gaspard Aybisuje –Coordinator UNIDO, in Kigali and field visits in May 2004.

Programme. The CODAF is a cooperative created in 1998 with 15 members, businessmen and agronomists. It operates as a private sector business organization specializing in the promotion of small-scale agribusiness, extension work and marketing of agriculture products; mainly potatoes and animal products. The CODAF is managed by a board of directors and employs about 35 people as administrative and field extension workers who provide support services to selected commercial farmers. It has its own transport facilities and storage capacity. Its annual turnover is around Rwf 64 500 000 (US\$ 32 000) earned through marketing of agriculture inputs (mainly seed potatoes and fertilizer) and marketing of products produced by farmers, mainly potatoes and livestock products.

Programme Approach. The CODAF works with 400 small-scale farmers and 50 associations of farmers in the provinces of Ruhengeri and Gisenyi in the North of Rwanda. It enters into informal agreements to work together, after which it provides extension services for which payment is made at harvest time. In addition, CODAF agrees to buy back the production of first quality.

In the case of potatoes, the CODAF finances in advance seed potatoes at the rate of 1 000 kg per ha. Farmers are provided with seed potatoes and at harvest they pay back the loan in the form of potatoes. The CODAF sells the excess seed potatoes in the open market and also distributes other inputs such as fertilizer, for which the cost is also deducted at harvest. In the case of livestock, operations are similar. The CODAF has its own breeding centre for pigs and supplies pigs on loan to members. Farmers then pay back 50 percent of the first litter of pigs.

CODAF is in the process of developing a microfinance institution for savings and credit. It also employs agronomists who ensure training and information to selected farmers. Training includes agriculture practices, use of inputs and storage of products. It also employs a veterinary worker to provide services and advice to associated livestock farmers.

Programme Outcome. The CODAF does not guarantee the purchase of the entire production of the farmers supported. It buys only first quality products and the remaining grades are sold in the open market at reduced prices. The operations of CODAF do not have a significant impact in terms of prices received by farmers, but they receive benefits in the form of the services provided.

Lessons learned/Contribution to BDS field. This is an example of an enterprise formed by private individuals that have conceptualized, designed and implemented a private enterprise-linked extension services model within specific agricultural subsectors. Farmers working with the enterprise are considered in the region as farmers doing agriculture as a business. The services offered by the enterprise are considered to be free, but are paid through the harvest as agreed, so all enterprise costs are recovered through a buy-back arrangement between producers and the enterprise.

Farmer-managed processing facilities and extension services to growers: example of services by farmers through the Union of Cooperatives of paddy farmers in the district of Butare, Rwanda

Background. Initially, paddy cultivation was introduced to Rwanda by the Chinese. Paddy is generally cultivated in the low lands or marshy areas of the region. Paddy farmers have now organized into cooperatives which formed a union of cooperatives (l'Union des Cooperatives Rizicoles de Butare) in 2003.

Programme. A rice mill was established by the government in the 1980s, but since 2003 management was handed over to the cooperatives union. The director of the rice mill is appointed by the union in consultation with the government as the ownership of the mill is still with government. The union is composed of seven cooperatives (Cyili, Akanyaru, Nyamageni, Mirayi, Akanyaru, Nyaruhogo and Ngiryiryi) with a membership of 6 345 farmers. The area under paddy cultivation is about 2 000 hectares. Besides managing the rice mill, the union facilitates access to a variety of services to member farmers. Since there are other private mills that compete with the union, it has to offer a competitive price to farmers.

Programme approach. The union has employed three agronomists as extension workers who visit the member farmers regularly and provide technical advice on cultivation methods, inputs applications, selection of seed paddy, quality improvements, pre and post-harvest technologies, etc. Training programmes on rice cultivation are organized and specific training on rice production practices is also provided by foreign experts through donor assistance.

The union has negotiated supplier credit and the cost of input supplies is recovered from the final payments to farmers for paddy supplied to the mill. The union has distributed inputs worth Rwf 37 000 000 from traders in the NKUBILI commercial centre in Butare. It also supports farmers to protect fields against erosion, floods, etc. Part of the cost of this infrastructural work is met by the union.

Programme outcome. This programme is an example where a large number of paddy farmers have organized themselves to take over the management of a government-owned mill. The farmers themselves have become shareholders of a processing plant and they are able to get a better price for their paddy. The union of the farmers has enabled them to pay for technical support services, infrastructural development work, etc. In addition, the union negotiates bulk supplies of inputs at lower prices than normal market prices to individuals.

Lessons learned/Contribution to BDS field. This is one of the many cases where users have taken-over management control of a former public sector entity. Decentralization and increasing users' stakes, have led to improved efficiency and benefits to the users. However, the long-term sustainability of such group/collective endeavours needs be studied in more detail. Collective endeavours are often ridden with conflicts and appropriate conflict resolution mechanism are often the key to sustainability. Nonetheless, such collective approaches are often more equitable and benefits from such approaches are more broad based and generate more social goods.

3.7 BURKINA FASO

BDS model for production of organic mangoes for export processing in Burkina Faso²²

Background. Mangoes are one of the main fruits produced in Burkina Faso and are produced in six provinces of the country. It is reported that there are more than 6 000 hectares under mango cultivation and the country's annual production is estimated to be about 46 725 – 65 625 tonnes per year. At present, farmers supply about 3 075 tonnes of fresh mangoes to drying units for processing for exports. This quantity is valued at 23 million Financial Community of Africa Franc (CFAF) Francs or US \$11.5 million. Dried Mangoes are exported to Europe (Switzerland, France United Kingdom, Germany, Italy, Austria, Belgium, and the Netherlands). Annual exports of dried mangoes is 180 tonnes with a value estimated at 684 million of CFAF or US\$342 million, while local sales of dried fruits are about 25 tonnes. The country has drying capacity in the form 25 semi-industrial drying units managed by private enterprises or women's groups. Two intermediaries or economic interest groups (CDS and NAFFA) specializing in exports of dried fruits operate in the country.

Programme. The CEAS (Centre Écologique Albert Schweitzer) is one of the NGOs working towards adding value to local mango production through production of dried mangoes for exports. It supports Small and Medium Enterprises (SMEs) in the field of agribusiness through:

- A package of appropriate technologies for processing of fruits and vegetables;
- Transfer of technologies by training of producers and processors;
- Advisory services for cultivation and processing;
- Guidance for quality assurance;
- Marketing support;
- Improvement drying equipment

Programme approach. Mangoes are supplied to local drying units managed mainly by women associated with export intermediaries. The CEAS, a consultancy bureau and service provider based in Ouagadougou, works with the farmers, exporters and processors to provide support services at different levels of the value chain of this subsector. The beneficiaries generally pay for the services provided. This is an interesting model where linkages are built between farmers, processors, service providers and export intermediaries to produce an exportable agriculture product and the services offered by the provider is remunerated directly or indirectly. The CEAS provides and facilitates the following services:

Cultivation practices for organic Mangoes

- Advisory services and training to farmers on cultivation, harvesting post-harvest mangoes;
- Training to maintain the plots;

²² Information for this note was carried out in collaboration with Fogue Koudahou – of Centre Ecologique Albert Schweitzer – CEAS and field visits to Burkina Faso in Nov 2003.

- Pest control through natural pesticides;
- Organization of producer groups;
- Awareness raising among farmers for organic products;
- Best practices or organic techniques of cultivation and promotion of demonstration plots;
- Maintenance of demonstration plots;
- Production of compost fertilizer;
- Facilitates access to finance for purchase of small implements of transport, construction of compost pits, etc.;
- Certification of organic cultivation production; and
- Establishment of sheds for storing of fresh mangoes and preservation until removed for drying units.

Drying of mangoes for exports

- Introduction of appropriate drying technology –improved dryer;
- Facilitation of Processors – drying units to buy organic mangoes;
- Facilitation to market products through NAFFA and CDS;
- Quality control;
- Training in drying;
- Best practices of hygiene;
- Follow up of complaints by exporters;
- Training on enterprise management;
- Introduction of HACCP;
- Purchase of inputs, packaging materials in bulk.

Further, the CEAS intends to support the cultivation of organic mangoes through increasing the number of demonstration units, introduction of new varieties, and by inspection and quality assurance. In addition, it also intends to extend services in the area of drying of mangoes for exports through: i) training for production of new products, (value-added products such as jams, fruit juice); ii) extension of the operational period of drying units to 10 months per year; iii) and introduction of ISO standards.

Programme outcome. The services provided intervene at cultivation level as well as processing and marketing levels. The service provider offers a package of services at all points of the value chain. In the case of production and exports of mangoes in Burkina Faso, several organizations, consultancy bureaus, women's groups, entrepreneurs associations and NGOs are engaged in providing BDS to an export-oriented sub-sector. The BDS provided is recovered by the providers through direct payments or through profit mark-ups generated through marketing the products.

Lessons learned/Contribution to BDS field. The BDS interventions in this case benefit farmers as well as processors and exporters. By taking a value chain approach within a sub-sector framework, this case study illustrates the value of appropriate synergetic interventions at each level of the whole process. CEAS's focused role as a facilitator in the mango sub-sector validates the benefits of sub-sector orientation wherein there is a clear demarcation between the not-for-profit facilitators and for-profit providers.

4. Findings and conclusions

4.1 SERVICE DELIVERY

The most common business services reflected in the case studies include training, advisory services, marketing, business management advice and technology development. A central role, in addition to service provision, is advocacy and political lobbying. While financial services are often crucial they are treated as a separate line of delivery through rural banks and microfinance institutions.

The case study projects cover a variety of modalities for service provision. Though there is often overlap in the roles played by the providers, they can be classified into four broad categories: i) public sector providers; ii) private providers; iii) NGO providers; iv) cooperative or membership-based organizations. Each institutional provider has its own characteristic features and rationale for service delivery.

The choice of delivery mechanism often poses questions regarding the most appropriate service delivery organization. On the one hand there are cases that reflect a traditional public sector, 'supplier-led' approach that assumes that service providers are in the best position to determine the services demanded by clients. Alternatively, there are private sector commercial initiatives that promote contract farming and deal with specific subsectors. Other cases reflect a demand-led response with the goal of creating and developing a functioning market for service provision by promoting commercial transactions between suppliers and consumers.

The most noticeable public sector initiative among the case studies selected was the SFLCP in Sri Lanka. This project was financed and executed by the RDD, Sri Lanka. Similarly, the EPV also in Sri Lanka, provided public sector business services through the establishment of a national development board, the SLEDB. In the Ugandan and Rwandan projects, the donors played a major role in directly promoting business services from the outset of the project. In this case, although government did not provide all the business services directly, the effect was similar to other public-sector/donor programmes, in distorting the local markets for business services.

In seven of the selected cases, the private sector was the dominant direct provider of business services although most commonly, financial support came from donors. The private sector-led projects and programmes, managed to gain government support whilst avoiding government interference. The private sector provided services embedded in regular business transactions and the profit motive and the entrepreneurial nature of the provider ensured sustainability and growth potential.

Provision of business services by NGOs increasingly has become a popular mode of service delivery. The export processing project for dried mangoes in Burkina Faso is an example where the NGO provided business services, input supplies and marketing advice, to promote crop production and exports. The NGO based projects demonstrated a higher level of success than delivery through the public sector, largely because of their decentralized operations and commercial outlook. The cases of IDEI and AT Uganda proved that the NGOs could act as effective facilitators and help develop markets for business services, especially where weaker markets existed. Whilst there were large numbers of business services that were not lucrative enough to attract private providers, NGOs have stepped in to fill the void. However, there are also drawbacks. The NGOs, in these cases, were largely dependent on donor funding for their operations and in spite of claims of sustainability, were not able to continue delivering business services after donor withdrawal. In principle, direct delivery by NGOs also hampers the growth of commercial providers and limits the expansion of service provision. The veterinary service provided by an NGO called FORWARD in Nepal is a good example of this problem, as uptake and delivery of services were adversely affected when the donor withdrew its support.

In a number of the case studies, services were provided through membership associations. These offered the advantage of being close to small farmers, thus better representing their interests. Seed producers in Nepal, cotton growers in Uganda, coffee and paddy growers in Rwanda, vegetable growers in Bangladesh and paddy farmers in India, were all organized in this way by the members themselves in order to increase production and market access. They were seen to work effectively to facilitate access to extension services, donor assistance, technical support and financial services for the benefit of their members. They now need to develop a strong sustainable support base to generate more income and to manage themselves as businesses. However, some of the member organizations, particularly those in Africa, lacked the managerial and technical capacity to be effective. Membership was not clearly defined and there were low levels of accountability. Amongst the smaller membership organizations there were a dearth of professional staff. Moreover, the financial basis of the organizations studied was fragile. Members sometimes failed to pay their dues and cost recovering fees were rarely charged. These weaknesses have detracted significantly from their ability to be business-like in their work, so as to ensure longer-term sustainability.

It is noticeable that the case study projects largely chose to deliver the range of required services themselves, rather than enter into relationships with specialist providers. For example, the commercial linkages projects (Pepsico, India; seed entrepreneurship, Nepal and seed production, Bangladesh) even provided credit directly. There were, however, exceptions that worked particularly well. The two Sri Lankan projects formed partnerships with local agencies to deliver complementary services and provided them with finance and training. The ABC project in Bangladesh drew on governmental technical assistance for some of its training sessions and arranged credit access through the Bangladesh Agricultural Bank and retail agro-input dealers. In Uganda, the project developed networks of stakeholders.

The cases also revealed an emerging trend towards the use of facilitators as intermediaries between service providers and clients. In the case study of Hatton National Bank's GPS in Sri Lanka, recruits from village communities played the role of facilitator between the bank and clients. In Bangladesh, the ABC itself fulfilled this facilitation role. The role is also increasingly being filled by farmer associations, as found in Rwanda's CODAF's cooperative and Nepal's SEAN association.

In many of the cases, however, the roles of facilitation and service delivery are undifferentiated. The same organization performs both the supplier role of offering services directly to farmers and the facilitator role of encouraging individuals and enterprises to supply services to farmers. This has been found to cause a conflict of interest among competing service providers, as facilitators usually have a development agenda while service providers are commercially minded. Combining these roles can, therefore, lead to ineffective programmes and inefficient use of funds.

If facilitators are publicly funded, they should ideally disappear as the market develops and more permanent commercial actors take over their functions. The finding conforms to the 'best practices' experienced by BDS practitioners in other parts of the world and most evidence suggests that a clear distinction is needed between the two roles.

A distinctive feature of the cases is the leading role that the implementer (government, private sector and NGOs) played in most phases of project design and execution. This is not to say that other stakeholders can't play an active role. The IDEI, for example worked with assemblers, agro-input dealers and nursery growers in India. In Sri Lanka and Nepal, farmers' groups were involved in an umbrella organization to take over many of the functions that the implementing agencies played. Nonetheless, the level of participation of stakeholders was generally low, particularly in more remote rural areas. Small-scale farmers are often unable either to identify potential economic opportunities, or to initiate the various interventions required to exploit them. In these situations the role of NGOs, as intermediaries, is pivotal in fulfilling these functions.

The case studies also suggest that there may be an important on-going role for NGOs and private sector companies, even after the project has formally ended. This is generally the case where further external inputs are required in identifying new economic opportunities. For example, IDEI has an important long term role to play in identifying and developing new micro-irrigation technologies, and acting as an intermediary between private manufacturers and distributors. The long term profitability of these companies is likely to depend, to a significant degree, on the success of ongoing research and development efforts. Similarly, in Sri Lanka, the EPVs coordinated by the SLEDB are continuing to explore new market niches on behalf of their farmer clients. These efforts will become progressively more important as government support diminishes. In more remote rural areas there appears to be an ongoing role for support organizations, and this has become a common feature amongst these types of case initiatives, where successfully removing one bottleneck frequently reveals the existence of others that need to be addressed.

4.2 SERVICES PROVIDED

The range of services provided in the different case studies also varies markedly. The private sector-led cases suggest that market information of a specialized nature is appreciated by commercially-minded farmers and was more likely to be purchased as a private good. Private companies regard information delivery as a business necessity in order to build a reliable supply base. Pepsico and ITC (India) both provide a wide variety of information services to their farmer clientele and ISAP (India) focused on market and specific technical information, disseminated through its farm publications.

The most common form of business service, however, is management training and extension. Farm commercialization requires skilled and experienced extension workers trained in business management. The case study findings suggest, however, that staff available to NGOs, and newly-established business service providers, generally lack practical experience and the specialized expertise necessary to provide effective management advice. Moreover, there tends to be a gap between extension workers and market-oriented farmers, a situation commonly found in the more remote rural areas. Advisory services have traditionally been technology/production-oriented and inadequate attention has been given to commercial, market-oriented farming. The main role of some of the projects studied was to provide farmers with information sources and key informants, useful resource people, potential customers, suppliers and collaborators as well as advice and technical support on how to deal with them.

The United States funded Lira project, Uganda, developed rural consultancy practices through training local consultants. The project was successful in establishing a local business service consultancy firm and getting it to operate on a sustainable basis. The development of an indigenous rural consultancy industry was regarded as a necessary prerequisite to develop the market for BDS. The case study suggests that training and technical assistance is required to strengthen the capacity of service providers to: i) analyse the demand for services; ii) design appropriate service-based packages; iii) prepare training programmes to assist service providers to deliver effective services. This was, however, a solitary initiative and most projects only concentrated on building capacity amongst their own staff and farmers. Formal training programmes for other actors along the supply-chain were rarely conducted.

The cases show that independent stand-alone business service providers offering a single service are likely to be less effective than those providing a package of services, particularly through 'interlocking-market' linked service models. Beekeepers and seed producers in Nepal, cotton growers in Uganda, potato farmers in the North of Rwanda, and the ABC company working with seed producing farmers in Bangladesh, all offer an integrated range of services to support small businesses in rural areas. In each instance, the service providers had a commercial stake in service delivery and the uptake of services by clients that affected their profitability.

The sale of farm produce is at the heart of private sector service provision. The case study findings show that the nature of the product and the market to which it is expected to be sold, are important factors determining the degree of collaboration between small farmers and larger-scale commercial entities. Some primary products are highly perishable (milk, fruits and vegetables) whilst others are also seasonal (vegetables, fruits). Highly perishable crops which do not have alternative markets require a much closer level of collaboration. The characteristics of agricultural products directly impact on the potential for the provision of sustainable commercial services. Clearly, financial sustainability of business services is more likely amongst higher-value cash crop farmers, particularly when market outlets are secured.

The case studies indicate situations where contract farming and agribusiness linkages have been developed. In the majority of cases private commercial entities initiated the linkage and provided a broad range of commercial services to outgrowers (input supplies, technology and finance). In some cases, formal contracts were made between small farmers and commercial entities. However, the existence of contracts did not automatically guarantee the development of successful linkages. The evidence shows that this 'interlocking market' model works well for farmers in the provision of business services. When farmers are well informed and have other choices, and service suppliers or traders are competing to purchase outputs, then interlocking markets through service providers are more likely to benefit them.

As noted previously, weak markets for support services are a characteristic of remote rural areas. However, hidden from the view of the donor and the executing agency is a range of indigenous, small-scale, informal and embedded services, albeit often difficult to identify, access or understand. The case studies reveal no attempt to investigate the availability of hidden services lying within the informal sector. This was a major failing, but a useful reminder that service provision in weaker areas presents an extremely complex challenge.

Appropriate procedures are needed to identify these informal services and to incorporate them into any developing business service system. Acquiring information on this hidden sector is a precondition for the design of service delivery mechanisms that incorporate these traditional practices. The information is also essential to ensure that the design of new interventions does not damage already fragile market environments.

The projects documented in this report suggest that many new market opportunities cannot be exploited without access to the financial resources required for purchasing equipment and raw materials. Several case studies show strong synergies between finance and business services. In Sri Lanka, the agricultural production activities (paddy, cash crops, livestock, fish drying) that farmers adopted, as a result of the training provided to them, were essential to enable them to repay loans received. In the Sri Lankan EPV project, ornamental plants, cut flowers and credit were seen as necessary elements of the package of assistance required for producers to move into new areas of activity. The commercial banks in Sri Lanka initiated a combined programme for the provision of bundles of financial and

non-financial services to support rural development. The programme aimed at establishing income generating activities in rural areas through financial and non-financial support from the Hatton National Bank in Sri Lanka, which increased the loan portfolio of the Bank.²³ In this programme, the linkage between business services and rural finance is a necessary prerequisite for cost recovery. The fee for services is not directly paid and the service charge is included indirectly through the loan scheme. Such systems can only be advocated if there is evidence that high repayment rates can be maintained and this depends on the profitability of the enterprise, and the monitoring and supervisory systems introduced. Indeed, a core reason for creating a business service unit within the Sri Lankan projects was to increase the outreach and repayment rates of the credit component of its programme.

The trend over the last decade has been to decouple business services from rural finance in order to create a simple, direct and effective relationship with clients. The limited capacity of service providers, and their frequent inability to deliver a broad range of services effectively, would seem to justify this view. However, as indicated previously, the cases suggest that farm enterprise development is likely to be more effective when finance and business management services are delivered together. While rural finance is necessary to stimulate enterprise development, management advice and market information are also needed to ensure success. Moreover, in many rural markets, business and financial services providers are often the same (middlemen /traders/input dealers). Even in the case of modern contract farming, financial services are often provided through the commercial venture. From the viewpoint of cost recovery through embedded services, the two types of service should not be separated. The fundamental issue is how to re-link the provision of business services with rural finance in such a way that the advantages of specialization are maintained.

In some of the cases, management training had an impact in creating a demand for finance. Farmers became interested in expanding their business opportunities. Particularly in the peri-urban belt with access to markets, programmes that combined business services with financial services were observed to be more successful. One good example is the rural enterprise development support scheme in Sri Lanka implemented by the Hatton National Bank. In general, there is a demand by farmers for combinations or 'bundles' of services, and initiatives that provided this support stood the best chance of creating successful and sustainable farm enterprises.

4.3 SUSTAINABILITY AND IMPACT

In those cases where attempts were made to ensure efficiency and effectiveness of services, many positive effects accrued, more clients were served with the same resources and the cost of services was reduced. The study shows, however, that concerted actions to achieve cost reduction did not occur on a wide scale, although the more successful service providers did improve working procedures. Some services were subcontracted, while others were given to farmers' groups with a view to simultaneously reducing costs and reaching a larger number of clients. Service providers also need to be aware of the benefits that can be generated by controlling costs and providing quality services.

²³ The microfinance linked rural enterprise development support Scheme by a private Bank – Hatton National Bank 'Gami Pubuduwa Scheme' – GPS.

In seven of the case studies, sustainability was pursued primarily through market mechanisms. In only two of the studies, there was no clear long term role for the market highlighted, as in neither case could the market sustain the services provided. In the small farmer and landless project in Sri Lanka, full cost recovery was not possible for the training and business advisory services. Similarly, the provision of advisory services in the Rwandan coffee project could not be handled on a commercial basis. Newly created farmers' organizations were seen as the best mechanism for meeting the ongoing need for these services.

Services introduced during the project period by public sector institutions were often turned over to private suppliers after demand for them had been clearly demonstrated. As noted above, most of the projects succeeded in establishing market linkages and so the various players could be expected to continue to interact in profitable ways on termination of project support. For example, in the case of PepsiCo in India, the EPVs and cut flower projects in Sri Lanka, and the beekeeping enterprise development in Nepal, the development of marketing services within the projects stimulated other commercial providers to deliver similar services.

Small horticulturalists in India have paid for drip irrigation services directly; however in most cases indirect means of payment are involved. A common practice is to pay for extension/advisory services through the sale of produce assured through contract farming or covered by voluntary member associations.²⁴ Potato growers and small livestock farmers in Rwanda paid for services through sales to the CODAF. These experiences confirm that even the smallest farmers will agree to pay for services once they are convinced that they can increase income. These embedded cost of service provision occurred in 14 out of 22 case studies. In many cases, enterprises had buy-back arrangements that permitted them to recover the cost of services through sales. Where interventions were initiated by private firms it was usual for the full project cost to be recovered through embedded transactions.

The African case studies of enterprise-linked services (cotton growers, maize growers, paddy growers) are examples of projects that received considerable donor and government subsidies. Although sometimes necessary at the time of project inception, the provision of free business services cannot be sustained in the long-term. Furthermore, a non-profit supplier is always likely to 'crowd out' any private sector suppliers who are forced to charge for their services. In such situations, supply becomes a monopoly and this opens up opportunities for the exploitation or neglect of clients.

While business service delivery through NGOs was often subsidized, commercial providers were able to build upon their example. In the Lira district, Uganda, for example, donor support was provided to kick-start the development process and consultants were used to provide supporting services. On the withdrawal of the donor, the consultants continued to deliver services, but on a cost-fee basis. Similarly, amongst the EPVs and cut flower growers in Sri Lanka, the public sector initially provided both technical assistance and subsidies. Later, however, direct linkages were developed between farmers and commercial market agents. The same picture exists among seed producers in Nepal, the animal health service programme in the same country, as well as the agro-input dealers in Uganda, all of which were originally supported by donor subsidies.

²⁴ Cotton producers in Uganda, seed producers in Nepal, CODAF- potatoes and animal products marketing in Rwanda, cut flowers in Sri Lanka, etc.

The findings show that direct payment for business services by small farmers is not yet an established practice. Many farmers, particularly in low income settings, have considerable difficulty paying for business services. The ability to pay depends largely on the profitability of the farm enterprise concerned and the type of service provided. Marketing services, technology services and veterinary services have tended to be in greatest demand and clients for these services have shown a greater interest to pay. At the other end of the spectrum, individualized technical assistance services and training seem to be the least attractive. Farmers tend to be more willing to pay for tangible services (e.g. new post-production technologies, market access, and rural finance) than for those providing a more general knowledge and information input, probably because the added value from tangible services is more direct and visible. The issue is further complicated by the degree of accessibility of services to different types of farmers (subsistence, emerging commercial and fully commercial). In rural areas, closer to markets, there is broad recognition of the importance of the payment principle.

In areas where markets were weak, all projects involved some form of subsidization of business services. However, an incremental stepwise approach to cost recovery was adopted in some of the projects. In many cases the degree of subsidy was deliberately reduced over time. One reason for this strategy is that farmers need time to adjust to paying for services that were previously provided free. In some cases, particularly with respect to management training, a demand for the service often needs to be created before farmers are ready to pay for it. While farmers may feel that they need a service or may even use a service if it is provided free of charge, this does not represent an effective demand for that service.

The evidence from the cases suggest some income gains, although there is little evidence concerning enterprise growth or the generation of hired employment. The limited impact can partly be explained by the short time horizon of the projects and their focus on farm-family based enterprise development. Some of the cases suggested that farmers have difficulty in mobilizing sufficient capital to expand their farm enterprises. The 'interlocking-market' schemes assured farmers a secure market outlet, input provision and in some cases, financial assistance. The evidence of these initiatives suggest that the more up-market the programme the greater is the possibility of it becoming sustainable.

Yet there is also evidence that interventions did not reach the lowest levels of the income spectrum. In rural areas where markets are weak, the business enterprises promoted tended to be relatively simple and low-cost, with little scope to add value. Often the most critical external support needed is rural finance to ensure enterprise development and growth and to realize economies of scale in buying inputs and marketing produce. However, in many situations rural finance for enterprise expansion was not available.

The findings show that business services cannot be provided in exactly the same way for the wide range of clients that include a mixture of small and medium-scale commercial farmers, rural entrepreneurs and subsistence farmers cultivating small fragmented plots. Initiatives to support the more vulnerable farmers could consist of combinations of private business service providers and public sector support, the balance depending on the ability of

the client to pay for services provided. This model encourages cross-subsidization between better-off clients and the more vulnerable. The approach calls for strategies and methods of entrepreneurship development that are both effective and efficient in using scarce public funds.

All of the projects paid considerable attention to both the development of human resources and the growth of institutional capacity to sustain the impact of their interventions. Some projects invested considerable effort in building the capacity of cooperatives or farmers' associations, to minimize the cost of service delivery. This modality was adopted in the case study of NGCU in Uganda; seed production in Bangladesh; the CODAF in Rwanda and the SEAN and animal health services in Nepal. A challenge facing project interventions is to build capacity without destroying self-reliance. To a large extent, the case studies have shown that this challenge is extremely severe. In some cases, donor interventions designed to build capacity within service delivery organizations have simply resulted in increased dependency on external assistance. Such dependency not only detracts from sustainability, but has also been shown to kill initiatives in membership organizations, self-help and dependency are natural opposites.

Finally, most of the projects used as case studies undertook important strategic re-orientations at some point in their life. The Community Management of Irrigation Services project in Andhra Pradesh is a typical example. It was initially heavily subsidized by the state government, but the planned irrigation scheme failed. The project was then handed over to a society owned by the farmers themselves, although ownership of assets remained under the control of the state corporation. Likewise, the SLEDB in Sri Lanka initially assisted in importing mother plants for the production of cut flowers, but then started to provide financial assistance to outgrowers for the purchasing of source plants. In Nepal, the FORWARD initially provided animal health services, improved the production of forage and organized the multiplication of improved breeds. At a later stage, a policy shift by government-led to the suspension of direct service provision and the adoption of a facilitating role, accompanied by the gradual elimination of subsidies for veterinary services. In addition to maize, the ABC in Bangladesh now markets several other crops and is planning to diversify further. Each of the case study projects started with only one product, mainly in order to capture the benefits arising from focused specialization. In each case, the impetus to diversify came from a desire to increase turnover, generally with a view to increasing cost-effectiveness and promoting the prospects for financial sustainability. The commercial viability of the service providers all appear, to various extents, to have been dependent on this broadening in the range of their activities.

As pioneering projects, there was clearly a strong element of action research in most of the case study initiatives. Moreover, given the relative complexity of their aims, with interventions on various fronts, it is perhaps not surprising that projects of this type periodically need to be re-orientated. Given the fact that action research and evolutionary design have been so important to the success of the projects reviewed in this report, the obvious question posed is whether and how commercially-delivered business services can incorporate them into their operations.

Annex I – Key aspects of case study projects

Project	Services		Income source	Clients	Enterprise focus		Characteristics
	Financial	Non-financial			Primary products	Micro-enterprise	
India: Creating markets for micro-irrigation technologies		Irrigation services	On farm	Smallholders	Horticulture		Commercial delivery of micro-irrigation kits Sustainable supply chain
India: Commercial delivery of information services		Market and technical information	On farm	Marginal farmers Government agencies NGOs	Commodities		Customized information Delivery through multiple channels
India: Contract farming by Pepsico	Input credit	Technical advice Buy-back arrangements	On farm	Contract farmers	Tomato		Embedded services
India: Community management of irrigation services		Water supply	On farm	Water user groups	Commodities		Decentralized management Ownership of the users User fee for services
India: Rationalizing the procurement supply chain		Price and Market trend information	On farm	Farmers	Soybean Tobacco Wheat Shrimp		ICT application for farmers Embedded services Provision of alternate markets
Sri Lanka: Experience of small farmers and landless credit project	Savings Microcredit Monitoring of loan repayment	Enterprise development training Financial management skills Self-help group training/ guidance Marketing support Advisory services Market and production information	On farm Off-farm	Women Small farmers Landless	Paddy Cash crops Dairying Buffalo Goat farming Poultry farming Pig production Fish drying	Coconut toddy and honey Coconut fibre Copra/ coconut oil Coconut charcoal Cinnamon peeling	Group lending Credit plus Bricks Garments Carpentry Batik Mat weaving Blacksmiths Handloom Bag manufacture Cart/ bicycle repair Cashew processing

Project	Services		Income source	Clients	Enterprise focus		Characteristics
	Financial	Non-financial			Primary products	Micro-enterprise	
Sri Lanka: Microfinance linked rural development support scheme	Rural savings Microcredit Preparation of bankable proposals Monitoring of loan repayment	Enterprise development training Advisory services Training in technologies, entrepreneurship and management Information on quality standards and market information	Off-farm On farm	Rural youth	Commodities		Microfinance through private commercial bank VDAs employed by the bank as facilitators
Sri Lanka: Export Production Villages	Rural credit	Supply of inputs Packaging of products Training on processing and quality assurance Accounting and small enterprise management Marketing support Formation of companies Linkage formation	On farm Off-farm	Farmers	Fresh fruit Pulses and oil seed Vegetables Cut flowers Ornamental plants	Coconut fiber and other products Palmyra products	Export-oriented production through the development of EPVs Sub-sector approach Public sector institutions facilitated links with private sector exporters
Sri Lanka: Cut flower export scheme	Financial assistance	Input provision Technical advice Training Market outlets Mother plant multiplication by tissue culture	On farm	Small-scale growers	Cut flowers		Subsector approach Farmer-exporter contracts SLEDB
Nepal: Animal health services for small scale livestock farmers		Animal health services Services to introduce new breeds Technical assistance to increase forage production Livestock marketing Establishment of a veterinary clinic Medicines Training in technical and management aspects of livestock production	On farm	Seed growers	Commercial vegetable seed production		Vegetable seed for export Facilitated by the SEAN Facilitate linkages between farmers and private seed companies

Project	Services		Income source	Clients	Enterprise focus		Characteristics
	Financial	Non-financial			Primary products	Micro-enterprise	
Nepal: Seed entrepreneurship		Sources of inputs Market study tours Linkage formation among farmers, input suppliers, seed marketing companies Market information and market promotion Group production and marketing training and technical assistance	On farm	Seed growers	Commercial vegetable seed production		Vegetable seed for export Facilitated by the SEAN Facilitate linkages between farmers and private seed companies
Nepal: Beekeeping enterprise development		Input supplies Quality improvements Equipment supplies Marketing services and export promotion Advisory services Training in beekeeping Links with manufacturers Research and development Buy-back arrangements	On farm Off-farm	Small-scale farmers	Honey production	Beehive manufacturing inputs	Sub-sector appraisal GBC is the principal service provider Provides embedded services
Bangladesh: Seed production company		Support to two groups of farmers (to supply foundation seed; to produce seed paddy) Training to contract farmers (production, processing, quality control, marketing) Training in business planning Buy-back arrangements	On farm	Women farmers	Paddy seed Vegetable seed production		Women farmers company supporting farmers for the production of seed paddy Local NGO provides support to farmers groups
Bangladesh: Agri-Business corporation	Linkages for access to finance through Bangladesh Agriculture Bank	Technical assistance in maize and rice production Provide quality maize seeds Advisory services Buy-back of produce	On farm	Small-scale farmers	Maize production Rice production	Small-scale agribusiness development Small-scale agriprocessing	Private sector initiated extension systems Outgrower schemes: Agribusiness Corporation

Project	Services		Income source	Clients	Enterprise focus		Characteristics
	Financial	Non-financial			Primary products	Micro-enterprise	
Uganda: Cotton enterprise development		Cotton growers demonstration plots Extension services through NGCU Linkage with cotton buyers Cotton processing services	On farm	Cotton producers	Cotton	Ginnery	Implemented through Nyakatonzi Growers Cooperative Union (62 farmer societies)
Uganda: Intensification of rural maize producers		Establishment of demonstration plots Improved practices and technologies Training workshops Marketing: joint venture agreements		Small-scale farmers	Maize production		Implemented through Nyakatonzi Growers Cooperative Union (62 farmer societies)
Uganda: development of retail agro-input dealers		Training in agro-input retailing and management Advisory services Marketing and market information Input supplies and information on regulations Networking among agro-input dealers Business development training	Off-farm	Entrepreneurs		Agro-input supply	Input supply through the organization of retail dealers (UNADA) AT Uganda is an NGO that supports UNADA
Uganda: Micro and small enterprise development	Linkages with MFIs and commercial banks	Capacity assessments Management Training Market linkage training Feasibility studies Retail trade of books, stationary, etc. Advice on contract preparation		Micro and small rural entrepreneurs			BDS provider was a one owner company known as KULAKULA Management Consultants CBOs and CSOs and business associations are intermediaries for BDS provision.

Project	Services		Income source	Clients	Enterprise focus		Characteristics
	Financial	Non-financial			Primary products	Micro-enterprise	
Rwanda: enterprise development-coffee farmers	Negotiated a credit facility	Training to supply quality cherries Training on management and prevention of coffee diseases Quality certification Transport and logistic support Information and buying centres timely supply of inputs Business development plans	On farm Off-farm	Coffee farmers	Coffee	Processed and washed coffee	Maraba coffee washing centre, managed by a cooperative "Coffee Producers Association of Maraba"
Rwanda: cooperative for development of agriculture	CODAF finances seed potatoes Supply of pigs on loan to farmers Microfinance for savings and credit	Informal agreement linkages Buy-back of produce Extension services to farmers Provision of pigs (breeding centre) Training and capacity building (production/ marketing) Marketing of produce	Extension services Storage Transport facilities Marketing of seed potatoes and fertilizer to farmers Marketing of potatoes and livestock products	Progressive farmers Farmer	Fruits and vegetables Potatoes Pyrethrum Livestock		Business services embedded into extension services CODAF cooperative offers examples Sub-sector approach
Rwanda: farmer managed processing facilities		Advisory services Supply of inputs Maintenance and protection of paddy fields Technical training	On farm Off-farm	Small-scale farmers	Paddy		Cooperative union (consisting of 7 cooperatives) Farmers took over the management of a mill and are shareholders of a processing plant Subsector CEAS a consultancy bureau provides services
Burkina Faso: Production of export processing		Development of a package of appropriate technologies Training of producers and processors Advisory services for cultivation and processing Guidance for quality assurance Marketing support Research and development to improve drying equipment	On farm	Emerging commercial farmers	Organic mango for export Dried mango for export	Dried mango for export	

