

Scope for Federation of Watershed Associations

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Introduction

With the much-acclaimed green revolution strategy losing its punch, as highlighted by a near total stagnation of the crop yields, dry land farming is receiving increasing attention as part of the strategy meant to boost agricultural output. Dryland farming, confined to 92-million hectares in India, contributes 45 per cent of the country's foodgrain production. Basically, dryland farming involves crop cultivation in the regions receiving less than 115 cm of rainfall a year and with no assured irrigation.

The Green Revolution has been the cornerstone of India's agricultural achievement, transforming the country from one of food deficiency to self-sufficiency. While recognising the impact of the Green Revolution in imparting dynamism to the agriculture sector, it must be recognised that the Green Revolution remained restricted to the well-endowed irrigated areas of the country. It is expected that future agricultural growth would largely accrue from improvements in productivity of diversified farming systems with regional specialization and sustainable management of natural resources. Effective linkages of production systems with marketing, agro processing and other value added activities would play an increasingly important role in the diversification of agriculture.

Significantly, the productivity range of dry land depends on the behaviour, timing and volume of the monsoon. Further, being impoverished and deficient in plant nutrients, dry land has failed to attract sufficient investment and modern technological inputs. The tragedy of dry land farming is further heightened by the total indifference of agricultural research institutions to its needs. Perhaps, the conspicuous negative feature of the dryland farming zone is widespread unemployment, underemployment and out migration.

Conservation of water and checking soil erosion is central to the attainment of economic as well as financial sustainability of dry land and agriculture. Integrated watershed development programme is the major policy instrument for achieving this goal. The importance of watershed development as a strategy of agricultural and overall rural

development in rainfed areas has been recognized in India for the past several decades.

In January 2000, the Ministry of Agriculture and Ministry of Rural Development agreed to common approach and principles for the development of watershed programme. An interesting principle agreed to is a provision for:

- farm productions systems for land owning families, and;
- livelihood support systems for landless families.

These two principles emphasize that productivity enhancement and livelihood improvement of the poor should be simultaneously started along with the start of the work programme. As much as 27.5% of the watershed budget was recommended to these two activities.

An improvement in drinking water situation and raising of ground water level as a result of implementation of watershed programme has enabled farmers to save their kharif crop during dry-spells in the rainy season and raise some crop in the succeeding seasons. Village institutions have an important role in contributing to farm production and livelihood support system. However, their linkages to the outside world in order to augment their production potential and value addition of their produce need to be strengthened in order to realize full benefit of watershed development programme. Diversification from watershed treatment activities to productivity and value enhancement is an opportunity that has to be addressed to realize the full benefit of watershed development programme. This is **watershed plus**.

Rationale for Federations of Watershed Associations

Each Watershed development (WSD) project (one project per 500 hectares of land which usually covers one village) leaves behind one watershed association (WA) whose only responsibility is maintenance of the physical structures created during implementation phase. These associations are registered bodies and by the end of

WSD project, each WA has on an average Rs 1,25,000 as Watershed Development Fund (WSDF). After setting apart minimum essential provision for maintenance of the assets on public lands, the watershed development fund created in each of the WSDF can be a valuable source for a credit corpus from which user groups and self-help groups can take loans for productivity and livelihood activities. The repayment of loan along with the interest will add to the size of the corpus. If this idea materializes, the villages that get benefit of watershed programme will have ever increasing funds of their own for undertaking development activities that will be raising income and employment in these villages.

Availability of better quality seeds and other agriculture inputs at right time along with region specific extension services becomes quite crucial to agriculture productivity enhancement. Over the years, farmers have been depending mainly on traders and their relatives for information regarding better agriculture inputs and practices.

The public extension system came under increasing criticism regarding its suitability on effectiveness and efficiency grounds. Gradual limitations on government finances and emergence of new extension arrangements offered by the private and voluntary sector have accelerated the process of limiting the role of government in extension.

Village institutions, the valuable social capital created during watershed development, are building blocks of off-farm and on-farm livelihood enhancement. A federation of watershed associations comprising 10 to 15 watershed associations can be an institutional model, which will club all such village institutions, and could cater to the input and other needs of 1500 to 2000 farmers. The existing public extension system largely relies on field staff of government and is highly top-down, leaving little scope for localized planning and action. There is hardly any interaction between researchers and the farming community. Federation, as a local institution can help bridge the gap between the agricultural research stations and the farmers and can cater to region specific requirements of farming community. Organizing these villagers will enhance

their bargaining power, facilitate collective actions and help them face the uncertainties of agricultural production.

There have been some changes in policy framework that takes into account the importance of enhanced linkages among village community and outside world. It has been felt that delivery of services to the village community through public agencies have not yielded the desired level of results. This is reflected in the new Agriculture Extension Policy of Ministry of Agriculture Government of India, which accepts that the rainfed, drought prone areas have largely suffered due to inadequate research and extension. It emphasizes that future agricultural growth would largely accrue from improvements in productivity of diversified farming systems with regional specialization and sustainable management of natural resources. Effective linkages of production systems with marketing, agro processing and other value added activities would play an increasingly important role in the diversification of agriculture.

Salient Features of New Agriculture Extension Policy

Department of Agriculture and Co-operation of the Ministry of Agriculture, Government of India, has proposed the new Agriculture Extension Policy for the country. As of today, this policy has been accepted by the Planning Commission of India and is being piloted in six states of the country.

The new Agriculture Policy aims to meet the holistic needs of agriculture production in a sustainable manner through extensive reforms in agricultural extension services. As quoted in para 2.5 of the Policy framework for agricultural extension, GOI “ By the early 1990’s and the completion of the third National Agricultural Extension Project, there was growing recognition that the T & V extension approach needed to be overhauled in meeting the technology needs of farmers during the 21st century. First, it was recognized that extension should begin to broad base its programmes, by utilizing a farming systems approach. For example, attention should be given to the needs of farmers in rainfed areas, and to diversifying extension programmes into livestock,

horticulture and other high value commodities that would increase farm incomes. Secondly, to support and strengthen the farming systems approach, issues of financial sustainability, farmer participation in programme planning, research – extension linkages, marketing and value-addition would have to be concurrently addressed. Present day agriculture is defined by key concepts of stability, sustainability, diversification and commercialization. There is need for reorientation of the philosophy of extension from technology transfer mode to technology application.”

The new Agriculture Policy provides an opportunity to the private sector by making available the public funds for extension services. The actors in private extension services include NGOs, farmer associations, para-professionals or private corporate bodies. The ability of the NGOs to mobilize communities into Farmers organisations/ Farmer Interest Groups/ Watershed Associations has been recognized in the new extension regime. As mentioned in the para. 3.3.3.6 of the Policy framework for agricultural extension “Extension services are contracted out and out-sourced to NGOs at the block level in some states. In some cases, NGOs may substitute public extension services. NGOs are also supported directly by the central government in undertaking extension work. Of the 261 KVKs in the country, 86 are managed by NGOs. An environment in which private investment in technology generation and transfer is more attractive is proposed to be created in the new agriculture extension framework”. Thus the key components of the extension policy framework are:

- Policy reforms through promotion of demand driven and farmer accountable extension.
- Institutional restructuring through promotion of multi – agency extension services and strengthening research – extension - farmer linkages.
- Management Reforms through supporting of NGO and Community based private extension services.
- Mainstreaming women in agriculture.

Background of the Study

Consolidation and stabilization phase of watershed programme.

The first two years of the "Pilot project on consolidation and stabilization of people's initiatives for enhanced resources" sponsored by SRTT has helped in sensitizing the watershed associations of 5 project villages of each PIA to address the post watershed development issues. The essential interventions in this programme are capacity building of WAs/ Farmer Groups, enhance productivity of resources through facilitation from resource centers, demonstrations and spread of sustainable agriculture practices such as integrated nutrient management and integrated pest management.

The intervention in the project villages brought out that a major improvement in promoting profitable agriculture can be made through linking the farmers with authentic input and information sources. The access to information sources like research stations, progressive framers/organisation etc. is taken care of through workshops and exposure visits organised in the project and outside by the Sajjata Sangh. However, for access to authentic input sources, value addition of products and collective bargaining there is need to organise atleast ten or more watershed associations (as 5 WAs of the 5 project villages is not a viable unit to conduct input supply activities) into a federation.

In this context DSC had submitted a proposal to Sir Ratan Tata Trust (SRTT), Mumbai for providing initial support for forming and supporting federations of watershed associations.

In this context SRTT had asked DSC to carry out a study of some of the existing federations focusing on their financial viability and to understand the nature and extent of support being provided to the federations by NGOs that promoted them. This would help SRTT in deciding the period of support that needs to be extended to these federations.

Sample of Study

For the study, three federations were selected based on the activities being carried out by these federations. They are:

Table-1: List of Federations and promoting NGOs

Name of the Federations	Promoting NGOs	Activities
Panchal Gram Samarthan Sangh, Chotila	AKRSP (I)	Input Supply
Ankur Vanvasi Vikas Sangathan, Gajargota	AKRSP (I)	Input Supply
Vasundhara Vriksha Vanvadi Jalsinchan Vikas Sahkari Mandali, Lachhakadi	DHRUVA (BAIF)	Processing and Marketing of Horticulture products

Focus of the study

In this background, three federations have been visited to understand and draw out learnings from their:

- functioning,
- activities,
- benefits
- financial performance and viability
- nature of support being provided by the promoting NGOs and public systems

Some Examples of Federations promoted by NGO's

Panchal Gram Samarthan Sangh, Chotila

Introduction

AKRSP (I) has been working in Sayla and Chotila talukas of Surendranagar district for last 17 years. Surendranagar is one of the major drought prone areas of Gujarat. Every third year people face drought, which affects livelihoods of the communities. The poor quality of soil and water also result into lower productivity of crops. In such circumstance if good quality seeds and fertilizers are unavailable, people face hardships.

Recognizing the input needs of the farmers, AKRSP (I) started the input supply program where AKRSP (I) staff were involved at all stages of work like demand collection, linkages with the input supply companies, purchase and distribution of inputs to the farmers. Farmer's over dependency on AKRSP for their input needs necessitated for an institutional arrangement wherein the farmers themselves handled administration and management of the input supply programme. A series of workshops and meetings were arranged in order to set up a proper structure. In this context in 1996, Panchal Gram Samarthan Sangh, Chotila was formed and was registered under the Societies Registration Act in June 1999.

Membership

Currently federation has a membership of 16 village level institutions. All these village institutions are from the AKRSP's operational area. In 1996, the total farmer members availing input supply was 745 that increased to 1,200 by 1998-1999. Drought in the following year lowered the number of members attached to federation to 900, which gradually increased to 1,203 by 2001-2002.

The membership to the federation is however, open to other village institutions or groups that fulfill the following criteria:

- The village institutions (VI) or groups should be dealing with input supply
- Their VI should have a good recovery record for the past three years
- The VI should be from the Chotila Block
- Recommendation of the existing committee of the federation

Membership Fee

The village institutions have to pay a one-time entry fee of Rs.100/- and a membership fee of Rs. 1,000/-.

Structure

The different 'mandals' of the villages, like *Gram Vikas Mandals*, *Mahila Vikas Mandal* and *Watershed Associations*, are the lowermost tier of the federation. These mandals have been federated to 'Village Institution', which in turn represents the village in the federation. Every active village institution nominates two members as representatives to the federation. These member representatives constitute the committee of the federation that elects the chairperson and the vice-chairperson of the federation. The committee along with the chairperson and the vice-chairperson is the decision making body of the federation.

A secretary who is a paid employee of the federation manages the day-to-day activities of the federation.

Activities

Federation is primarily engaged in input supply and capacity building of the member village institutions. The inputs that are being marketed through the federation are; seeds, pesticides and organic fertilizers. Every village institution collects the input requirement from its members and places an indent before the federation. Based on the total demand for a particular input, federation places the order to different suppliers. The working capital required for the purchase of inputs is taken in advance from the village institutions. The village institutions arrange the advance money from the members or takes loan from local banks against their SHG savings.

Federation has also started a retail counter at Chotila that sells inputs to members as well as non-members.

The capacity building activities of the federation includes:

- Skill development of secretaries of village institutions,
- Support to village institutions in establishing linkages with the banks and input supply agencies,
- Support in administration and legal matters of the village institutions.

Apart from these, the village institutions are also assisted in maintenance of accounts and audit. Federation charges an audit fee of Rs. 150/- from each member village institution.

Financial Performance

Federation has been making profits ever since it started its operations. The annual turnover of the federation and the number of members using input supply facility of the federation over the years is presented below:

Table-2: Turnover of the federation

	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002
Turnover	13,10,000	17,25,000	13,47,000	14,57,000	22,33,000
Members availing input supply	1,070	1,200	932	1,054	1,203

There have been some variations in the turnover of the federation and this is mainly related to the number of members availing its services, which in turn depends on the rainfall in that particular year. Since sale of inputs is the main source of income for the federation, its income and scale of operation is completely dependent on rains.

The various sources of income of the federation are commission from the input supply, audit Fee, sale of stationery and membership fee. Whereas, the expenses of the federation is in terms of salary of the secretary, office rent and other administrative expenses.

A part of the commission charged from the sale of inputs is passed on to the member village institutions. The executive committee based on the margins on the inputs that is

being offered decides the percentage distribution of commission. The federation retains the commission received from the counter sale of inputs.

The major contribution to the income of the federation is the commission earned on sale of chemical pesticides. The table below presents the earnings of the federation from various inputs.

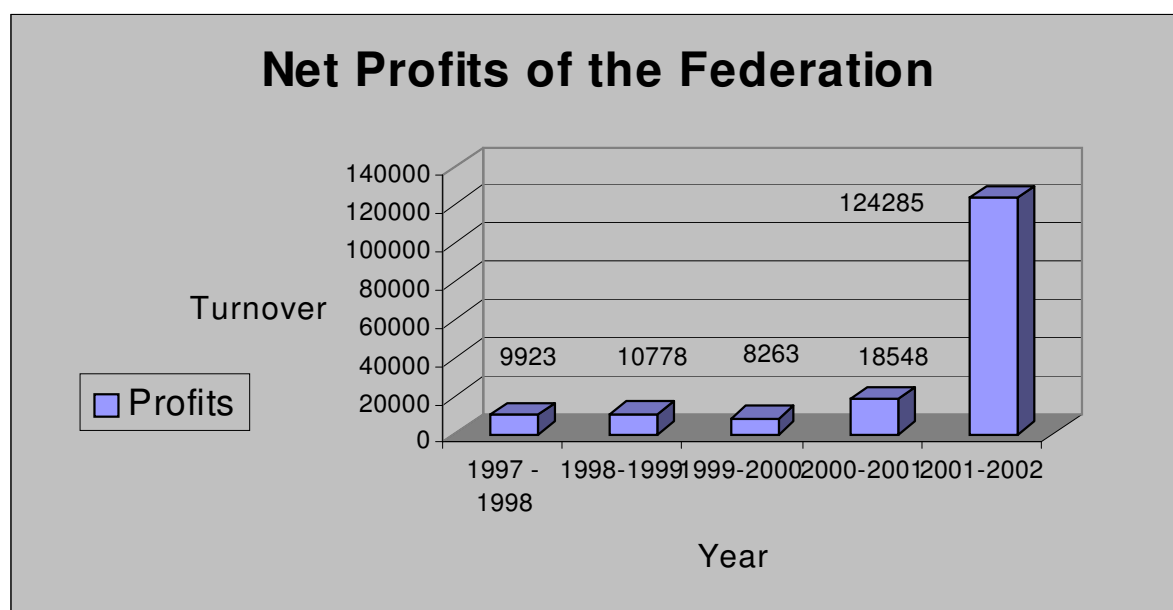
Table-3: Sale and Purchase of some of the inputs during 2001 –2002(Figures in Rs.).

	Purchases(including closing stock of previous year)	Sales	Closing Stock	Realizations
Seeds	11,05,000	11,34,000	16,000	13,000
Pesticides	6,25,000	7,19,000	35,000	59,000
DAP	1,58,000	1,63,000	-	5,000
Urea	1,27,000	1,32,000	-	5,000

Source: Annual Report 2001-02

The net profit of the federation over the years is presented below:

Fig-1: Net Profit of the Federation



(Source: Annual Report 2001-2002)

During the financial year 2001-2002, federation made a profit of Rs. 1,24,000/-. Other incomes of the federation during this period were very negligible. It earned Rs. 287/- and Rs. 165/- from entry fee and audit fee respectively. The sharp rise in the net profit of the federation in 2001-2002 is mainly attributed to the sale of inputs through its retail counter. However, the expenses for the same period were 63,000/- Rs. During this period it also received an administrative grant of Rs. 19,000 /- from AKRSP(I).

The accumulated profit taken to reserves of the federation as on 31st March 2002 was Rs. 16,67,000. The profit earned is invested in bank deposits.

Observations

Federation was started with the objective of providing quality seeds and other agricultural inputs to the farmers at right time through their village institutions. However, not all member village institutions are availing these services of federation. During 2001-2002 only twelve (out of a total of sixteen) village institutions bought inputs from the federation.

Scale of operation is quite crucial to the long-term sustainability of the business. The federation has to therefore, increase its customer base by involving maximum number of members as well as non-members. The retail counter of the federation, started in 1999, has to some extent helped in attracting non-members and increasing its turnover. The federation retains the income arising out of the retail sales.

Samantbhai, Secretary of the federation, informed that one of the reasons for low involvement of members is that the payments for the inputs have to be made in advance to the federation. The village institutions provide credit to the members against their SHG savings. The amount of credit is sometimes not enough to cover cost of all the inputs. Therefore, farmers then buy inputs from other traders who offer credit for the whole season.

Federation is promoting organic farming through use of IPM systems and organic manure. It also sells organic fertilizers prepared by the women's group under the brand name 'Shakti'.

The data available for the last three financial years shows wide variations in the income of the federation. The trade profit of the federation shows wide variation. From the financial year, 1999-2000 to 2000-2001 there has been an increase of about 31% in the trade profit. Whereas the growth in trade profit from 2000-2001 to 2001-2002 is around 192%. During the same period the growth in the number of beneficiaries availing input supply has been 12% and 14% respectively. Since there are still some village institutions that are not availing the input supply facility of the federation, there is lot of potential for growth in the sales and the income of the federation.

Support from AKRSP(I)

The federation has been receiving monetary as well as advisory support from AKRSP (I). Before the federation was formed, all these activities were carried out under the AKRSP (I) programmes. The federation was assisted in developing contacts with the agencies dealing with inputs and establishing linkages with banks. Periodic capacity building support was provided to train the functionaries of the federation and the committee members of the village institutions to carry out administrative work. Apart from this, a financial support towards meeting the salaries of the secretary and the input organizer was also extended by AKRSP(I) for initial five years. Agricultural extension services are part of the AKRSP (I) programmes. The member VIs of the federation is from the AKRSP (I) programme areas, federation gets indirect benefits from these activities since it does not have to invest in providing these services to its members.

The federation has been receiving financial support from AKRSP (I) towards meeting the salaries of secretary and input organizers. The support was envisaged for five years and has been stopped from the financial year 2002-2003. The amount of financial support against the financial performance of the federation has been presented below:

Table-4: Financial breakup for the last four financial years (Rs.)

	1998-99	1999-00	2000-01	2001-02
Gross Income including AKRSP assistance	NA	62,000	61,000	1,87,000
Gross expenses	NA	54,000	43,000	63,000
Profits	11,000	8,000	18,000	1,24,000
Financial support by AKRSP(I)	14,000	15,000	7,000	19,000
Profit /loss less support from AKRSP(I)	(3000)	(7,000)	11,000	1,05,000

Source: Annual Reports

During the financial years 1998-1999 and 1999-2000, if the financial support had not been provided, the federation would have incurred losses. Since the financial year 2002-2003, AKRSP (I) has withdrawn the management grant to the federation.

Ankur Vanvasi Vikas Sangathan, Gajargota

Introduction

AKRSP (I) has been active in Bharuch district since 1985. One of the major challenges for AKRSP has been the sustainability of the village institutions with which it was working. As a part of AKRSP's strategy to ensure that the village institutions develop their capacity to manage developmental activities on a sustainable basis, Ankur Vanvasi Vikas Sangathan (AVVS) was established in 1995 in Dediapada block of Bharuch district. The organisation started as an umbrella federation for the different forms of village institutions promoted by AKRSP(I) in this area. The federation came up with the following major objectives:

- To coordinate activities related to village development at the request of the member village institutions
- Capacity building of members through information dissemination, training and providing other services
- To work for member equity and gender equality in all its activities

Federation has focused itself to a small area covering activities not confining to NRM only but other activities like economic development and human resource development which are vital to development of village.

Membership

Federation started with a membership of nine village institutions, which included seven gram vikas mandals and two lift irrigation societies. Currently there are twelve member village institutions attached with the federation that includes nine gram vikas mandals, two lift irrigation cooperative societies and one tree growers cooperative society.

In order to get membership of the federation, every village institution has to pay a one-time entry fee of Rs. 100/- and a membership fee of Rs. 1,000/- to the federation.

Structure

Three members, two male and a female of their respective committees represent each of the village institutions in the federation. Together these 33 members form the general body of the federation. From among these, an executive committee of 13 members, with chairperson and vice chairperson governs the functioning of the federation.

In order to carry out routine activities, federation has employed a secretary who looks after the accounts and assists the chairperson in carrying out routine functions of the federation. Federation has also employed input organizer who assists in the purchase and sale of outputs by the federation.

Activities

The federation, as defined by its mandate, was started to cater to the developmental needs of the member village institutions. Some of the activities that are being carried out by the federation are input supply, agricultural output marketing, procurement and distribution of office stationary to member institutions. Capacity building of village institutions is also one of the activities that are being carried out by the federation. Agriculture input supply has been the main stay of the federation's activities right from its inception. Apart from the member village institutions, farmers from non-member villages also access these inputs from the federation. Among non- members, 1031 farmers from 81 villages took benefit of federation's input supply during the financial year 2001-2002. This is for the first time that the number of non-member beneficiaries exceeds the number of member beneficiaries who benefited out of federation's input supply activities.

As a part of its capacity building initiative, the federation conducted twenty-six training programmes during 2001-2002 covering various issues involving 852 participants. Some of the areas covered under these training programmes are leadership, equity, gender, accounts, micro planning etc. These training programmes are being conducted with a support from AKRSP(I).

Federation does not directly engage in marketing of produce but respective village institutions are carrying it out. Federation provides support to these institutions in terms of establishing contacts at market places and providing information regarding the prevailing market prices. Federation also plays a role in arranging transportation facility by entering into contract with transporters for carrying agriculture produce to market yards.

Financial Performance of the federation

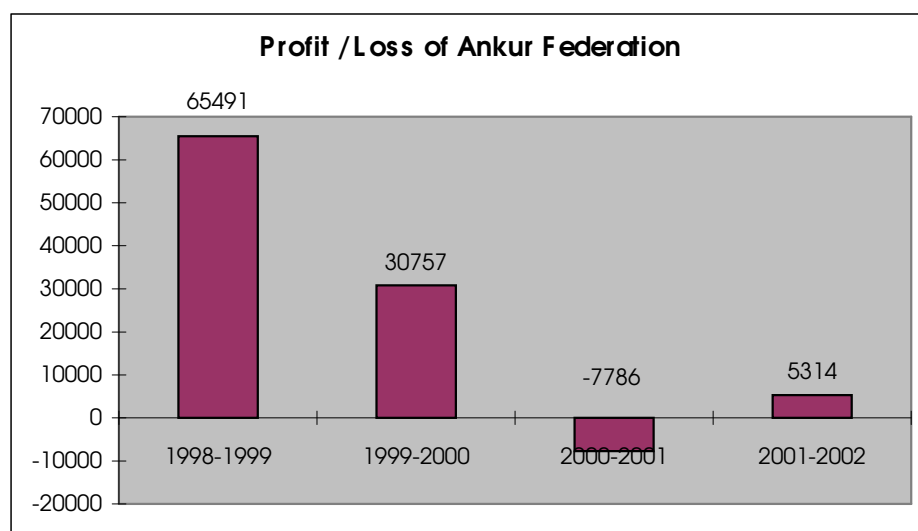
The total turnover of the federation has increased almost by two and a half time since it started its operations, where sale of seeds add maximum to its turnover. During 1997-98 the total turnover of the federation was Rs. 10,59,000 which dropped to rs. 7,46,000 in the following year thereafter it has gradually increased to Rs. 10,87,000 by 2001-2002.

Income from the sale of inputs and commission on it is the main source of income for the federation. Whereas, salary and other administrative expenses constitute the major expense heads of the federation.

During the financial year 2001-2002, the total income of the federation from various sources including the interest earned was Rs 59,979. Whereas the total expenses during the same period was Rs 57,841. Major part of the expense is incurred on the salary of the Secretary and input organiser, which approximately amounts to Rs.29,000. During this period, federation received a grant of Rs. 3,176 from AKRSP (I).

The profit / loss of the federation during the past four years is presented below:

Fig-2: Profit and Loss of Ankur federation



Except for the financial year 2000-2001, the federation has been making profits but the margin of profit has been gradually decreasing. The main reason behind this is the occurrence of drought that has affected the sale of inputs.

Observations

Federation started with an objective to coordinate activities related to village development at the request of the member village institutions. However, over a period, economic development of members and the village institutions became the mainstay of the federation. The supply of agricultural inputs through the member village institutions and capacity building of members has become the main activities of the federation. Federation not only services its members but non-members also take the input services of the federation. During 2002, farmers from ninety-three villages were covered through the sale of inputs.

The organizational framework, operating through village institutions, gives federation an advantage over other input suppliers. The extension services in terms of training programmes for the farmers and the village institutions and dissemination of information regarding agriculture practices helps retain its member base.

Federation also assists the member village institutions in marketing their produce by informing them of prices prevailing in different markets and also helping them establish linkages with the traders in marketing yards.

Within seven years of its operation, the total turnover of the federation has increased by around 155%. The successive drought years since 1999 have affected the income of the federation because of its dependency on sale of seeds. The gradual increase in profits, after a slump in 1998-1999, has been achieved through involving more non-members from non-member villages of the region.

Support from AKRSP

AKRSP has been actively supporting the federation from organizing members to providing linkages to outside agencies for procurement of inputs. The capacity building of farmers, committee members of the village institutions and the federation were is still being conducted with the technical and managerial support from AKRSP. When the federation was new, the AKRSP also provided the surety to financial institutions for credit facilities. The federation has been receiving management grant from AKRSP (I) in order to meet the salaries of the secretary and the input organiser and another grant to meet the expenses related to the meetings organised by the federation.

Table-5: Financial breakup for the last four financial years (Rs.)

	1998-99	1999-00	2000-01	2001-02
Gross Income	1,38,000	98,000	74,000	63,000
Gross expenses	73,000	67,000	82,000	58,000
Profits	65,000	31,000	(8,000)	5,000
Financial support by AKRSP(I)	81,000	10,000	14,000	3,000
Profit /loss less support from AKRSP(I)	(16,000)	21,000	(22,000)	2,000

The management support, which was envisaged for five years, has been withdrawn from the financial year 2000-2001 however AKRSP still provides grants to meet meeting expenses of the federation. Input supply and sale of stationery have major contribution towards the income of the federation.

Vasundhara Vriksha Vanvadi Jalsinchan Vikas Sahkari Mandali

Introduction

DHRUVA, an associate organisation promoted by BAIF Development Research Foundation has been promoting horticulture based development programme in the tribal villages of Navsari, Dharampur, Kaprada and Dang districts in south Gujarat. Wadi, which means fruit orchard, was first introduced in the Vansda area of Valsad district to enhance the livelihoods of the tribal poor in the year 1982.

By 1985, around 6000 wadis had been established in 31 villages of Vansda taluka. The volume of production from 30,00,000 forest trees and a yield from 2,00,000 mango trees in the coming years, necessitated a prompt attention for establishment of appropriate market linkages. During this period, Government of Gujarat introduced a number of schemes and subsidies with the specific intent of promoting and strengthening the cooperative movement. Under these circumstances and after taking into consideration all the benefits of forming a cooperative, BAIF introduced the idea of establishing a wadi farmer' s cooperative. In all, 42 wadi participants from 15 villages came forward to form the '*Vasundhara Vanwadi Jalsinchan Vikas Sahkari Mandali*' and were registered as a cooperative society.

In order to help wadi owners to cope with the glut situation, the committee members of Vasundhara along with the management team from BAIF took a decision for processing mangoes into mango pulp. Later mango pickling was added to its product range that further helped it to even out market fluctuations. Currently these products are sold in bulk packages as well as consumer packs under brand name ' Vrindavan'. The processing unit maintains strict hygienic conditions and maintains a quality control laboratory. The unit has got FPO license in the name of DHRUVA as the plant is housed at its premises.

Membership

Over the years, the membership of Vasundhara cooperative has increased manifold. With an initial membership of 42 wadi participants from 15 villages, the total membership increased to 2,523 wadi participants from 38 villages in 2002.

For the membership of the Vasundhara cooperative, priority is given to wadi members and the person should be from the operational area of the cooperative. There is a membership fee of 50 Rs. / share and an admission fee of 1 Rs. / share.

Structure

Members of the Vasundhara Cooperative constitute the management committee and the sub committees. The management committee comprises President, Vice-President, nine committee members and one representative each from DHRUVA, HDFC bank (lending institution), Forest Department and Registrar Cooperative Societies. Three sub-committees- purchase committee, wastage control committee and loan sanction committees, assists the management committee in the functioning of the cooperative.

Honorary manager, honorary secretary and a fifteen-member staff team manage the overall operations of Vasundhara.

Till 2000, Vasundhara cooperative was dealing directly with individual members that created inconvenience in reaching out to the members. Cooperative along with DHRUVA then decided to have Gram Vikas Mandalis (GVMs) that will take handle regular meetings, extension services, credit and savings at village level. Till date, 18 GVMs have been constituted and each of these GVMs has a separate committee that manages its operations.

Activities

From collecting to selling minor forest produce and paddy, the activities of Vasundhara has moved on to mango processing and marketing the same. The Vasundhara cooperative had outlined a number of objectives that would help the cooperative in working for benefits of its wadi members. Initially the cooperative made efforts for the

collective sale of paddy and minor forest produce. Efforts were also made to provide wadi farmers with new improved varieties of seeds to increase the agricultural output. Cooperative also implemented some schemes for the development of water resources. During the construction of wells, there was a sizeable demand for bricks. To meet this demand, the Vasundhara cooperative established a brick kiln to cater to the demand of bricks in the surrounding areas. This endeavour of the cooperative did not meet with much success.

A credit scheme named Abhyuthan Yojana with a tripartite agreement between DHRUVA, Bank of Baroda and Vasundhara cooperative was launched in 1996-97. A member of Vasundhara can avail a loan up to Rs. 10,000/- through Abhyuthan Yojana. Under the agreement, DHRUVA would provide technical guidance for required agricultural inputs and management support. By the end of financial year 2001-2002, nine hundred members from 12 villages were benefited out of this scheme.

Some of the major activities of Vasundhara cooperative are:

- Techno-managerial services for wadi improvement
- Credit and input supply
- Purchasing mangoes
- Processing and marketing mango pulp
- Processing and marketing of pickles
- Marketing cashew

The cooperative buys mangoes from its wadi members and other farmers of this region. The cooperative enters into an agreement with the farmers to procure mangoes from them at a pre-agreed price. Taking into account the price mangoes in previous years, the purchase price of mangoes is decided for the season. In case prevailing market price of mangoes goes higher than the agreed price, the cooperative passes on the price differentials at the end of the financial year. When the market prices are below the agreed price, the payments are made at the agreed price, thereby providing a cushion for the farmers against market fluctuations.

The processing plant of Vasundhara started in 1989 with a hired manually operated mango-pulp extraction machine and approximately 2MT of *Kesar*, *Rajapuri*, *Langada* and *Alphonso* varieties of mangoes were processed. In 1993 with assistance from Tribal Sub Plan, a processing unit was set up at Lachhakadi. Pulp and pickle processing was done at this processing unit only. The small processing unit did not have adequate space for collection and storage of huge quantities of mangoes. Apart from the storage, there were also the problems related to space for cutting and storing, availability of manpower at one central place and supervision of these activities. After exploring various alternatives, the Vasundhara committee members and members of the BAIF staff arrived at a decision of setting up small sub units in a few villages. This arrangement greatly benefited the wadi farmer who now unloaded his wadi produce at the sub unit closest to his village thereby saving on transportation costs. The problem of manpower was easily solved with the employment of local youths, who in turn found seasonal employment at their doorsteps.

The cooperative does marketing of its products through distributors located in 13 different cities of Gujarat. Cooperative also has a retail counter at its premises. Apart from this, there is a direct sales arrangement for institutional buyers. Some of the prominent institutional buyers are Apna Bazar, Mumbai, Amul, Nilon's and Bedekar. The cooperative is also tying up with some of the exporters in Mumbai for exporting its products under its own brand to the Middle East and European markets. Out of its total sales counter sales account for 5%, institutional sales 12% and sales through distribution chain accounts for balance 83%.

In order to reach rural and urban poor consumers, cooperative has come up with an innovative small one rupee package of pickles. This packing size has been well accepted by the consumers and has contributed in the expansion of market base of the Vasundhara cooperative. Sale of mango pulp and pickles over the last four financial years is being represented below.

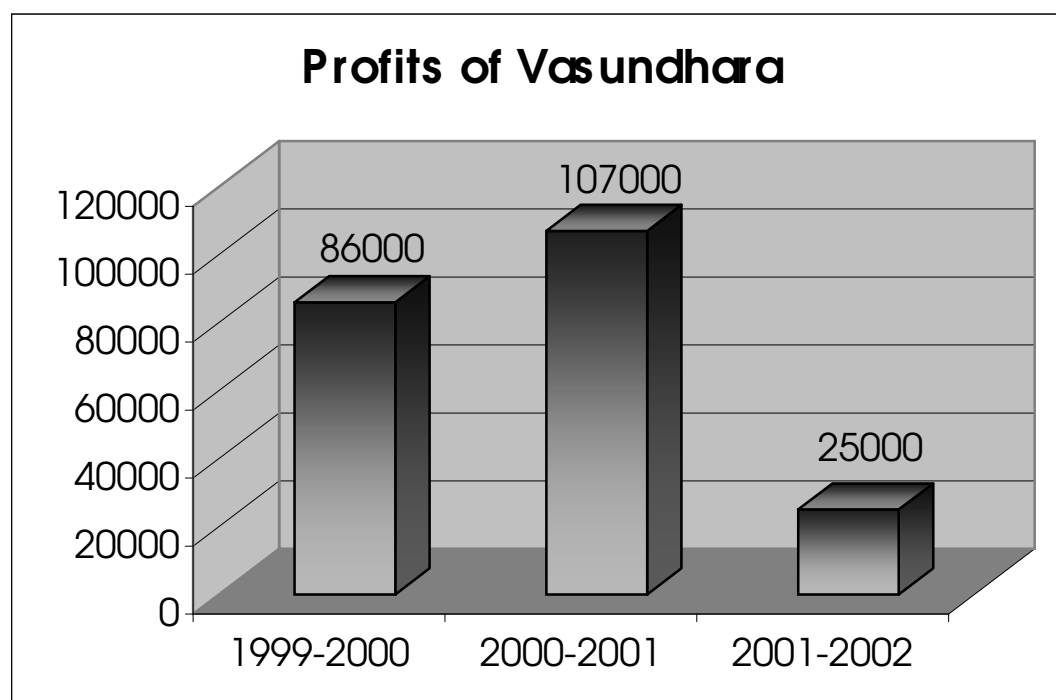
Financial performance

Vasundhara cooperative has been making profits every year since the financial year 1993-94. During 1996-97, the total turnover of the cooperative was Rs.19,50,000 which increased to Rs.88,33,000

During the financial year 2001-2002, Vasundhara cooperative's income from various sources amounted to Rs. 19,94,000. Some of the major expenses of the cooperative were on account of salaries amounting to Rs. 3,68,000, interest payment on loans amounting to Rs. 3,55,000 and depreciation amounting to Rs. 3,00,000.

The net profit of the cooperative during the last three financial years is presented below.

Fig-3: Profits of Vasundhara



Observations

As the Wadi programme was initiated by DHRUVA, it has been actively supporting the cooperative, in terms of technical expertise and capacity building of members and the staff of the cooperative. Processing of food products and its marketing requires professional manpower. DHRUVA has been providing services of trained food technologist and a professional with marketing background employed on its payroll, to the cooperative. Besides, DHRUVA also helps the cooperative in establishing linkages with banks and other financial institutions.

The total turnover of the cooperative in the last seven years has increased by almost 380%. The annual turnover during the financial year 1994-1995 was Rs. 18,24,000 which increased to Rs. 88,33,000 by the financial year 2001-20002. The increase in turnover has added to the profitability of the cooperative and is mainly because of enhancement in the processing capacity, product diversification and continuous focus on retail and institutional sales. The enhancement in processing capacity was done with assistance from Tribal Sub Plan. In 1993, Tribal Sub Plan gave a revolving fund of 2,00,000 Rs. for setting up a new processing unit. In the same year, it received an order of brined mangoes from Apna Bazaar, Mumbai, which remains a major institutional buyer of the cooperative's products. Mango pickling was started in 1994 and in terms of value, it contributes maximum to the income of the cooperative.

As compared to its competitors, the investment of the cooperative in distribution chain, advertising and promotions is negligible. All the sales of the cooperative are on cash basis, whereas, other players offer a minimum of one month of credit sales to the distributors.

Out of the total profits earned, 25% goes to the reserves and surpluses, 20% goes to building fund, 5% to charity fund and 2% to education fund. Every shareholder of the cooperative gets a dividend of 12% per share i.e. Rs. 6/- per share. The balance amount is then distributed into mango reserve fund, relief fund, exposure visit fund, development fund, dividend equalization fund etc.

On 31st March 2002, the share capital of the cooperative was Rs. 1,30,000 and the reserves and surplus fund was Rs. 2,95,000/-.

Support from DHRUVA

The wadi programme was started by DHRUVA and the need to fetch better prices for mangoes resulted in to the formation of the cooperative. DHRUVA has been supporting the cooperative in establishing linkages with external agencies. DHRUVA has also deputed some of its professional staffs to the cooperative to help in processing and marketing of products.

Cooperative has been getting assistance from DHRUVA in approaching to banks and other financial institutions for its credit needs.

Table-6: Financial breakup for the last three financial year

	1999-2000	2000-2001	2001-2002
Gross income	6,74,000	17,29,000	19,94,000
Gross expenses	5,88,000	16,22,000	19,69,000
Operating Profit	86,000	1,07,000	25,000
Financial Support	Nil	1,99,000	1,80,000
Profit / Loss without support	86,000	(92,000)	(1,55,000)

Since 1993-1994 cooperative has been able to meet its expenses out of its income. There has been negligible financial support from DHRUVA, except for the financial years 2000-2001 and 2001-2002. During the financial year 2000-2001, the cooperative had taken loans from Tribal Sub Plan Vansda and HDFC amounting to 24,44,000 for construction of store-house and in 2001 -2002, Rs. 15,50,000 from HDFC bank and NABARD for providing credit support to members and for purchase and processing of mangoes. The interest amount payable during this period has affected the net profit of the cooperative. Therefore, DHRUVA provided financial support to the cooperative to meet salary expenses during this period.

Learnings

Agriculture or agriculture-related activities are the mainstay of the livelihood for rural people. Lack of economic opportunities and access to resources contribute to poverty. One of the strategies to help them emerge from poverty is to organize them so that they:

- (a) Manage their own assets more effectively;
- (b) Gain access to services, inputs, credit, and markets; and
- (c) Have more effective say in decision-making processes that affect their livelihoods.

Helping producers organize, facilitates collective action, helps coping uncertainties of agricultural production and augment their income levels. They perform a 'bridging' function that organizes the relationships between the group and the outside world.

Individual poor farmers, with little or no collateral, have to depend on market relationships to supply inputs and finance as well as to sell output. Often this means that transactions costs are in excess of the potential benefits of the transaction, and therefore there is market failure. Solutions have to be found in organisation forms connecting to farmers, which are based on a degree of hierarchy.

The federations studied, provide them a better linkages with the customers of their services. It also creates a sense of ownership among members as decisions are not unilateral but every village institutions gets an opportunity to express their views regarding the functioning of these federations. Regular meetings at VI level and annual general meeting reinforces these views.

The village level institutions of Ankur and Panchal federations help members in getting the inputs as demanded by the members and various other groups like SHGs, , provide credit to the members for purchase of inputs from the federations. This way different institutions within the village work in coherence providing strength to the federation.

In case of Vasundhara, members enter into a contract with the cooperative to sell their produce at a pre-agreed price that is calculated by taking into account prices of mangoes prevailing in the past three years. This way members are assured of a fixed price and the cooperative for a fixed amount of raw material i.e. mangoes.

The federation has given the members advantages of collective bargaining. In the absence of federation, the farmers of the region were not assured of the quality of inputs that they were buying. They were also exploited by the trader's lobby, which adjusted prices based on demands. With the intervention of federation, farmers are at least assured of better quality inputs at reasonable prices. The price of inputs prevailing in the local market has become quite competitive. This is benefiting other customers of the region too.

The same is happening with regard to marketing of produce being done by Ankur and Vasundhara. Because of the volume that they offer to the traders, federation is able to command better prices of the produce than the individual farmers.

The intervention of Vrindavan is quite prominent as it has been over the years successful in stabilizing the prices of mangoes at Vansda market yard by procuring mangoes directly from farmers at market yard, whenever prices start falling.

Financially, these federations have been able to cover their expenses after a period even though the financial support from the promoting NGOs was withdrawn. These organisations need financial as well as managerial support for initial five years or so. During this period, capacity building support and extension education helps increasing the customer base of these institutions. Support during this period helps federation to increase their scale of operations, which has a direct correlation to their profitability. As far as the supply and market of inputs are concerned these organisations have become self-sustainable.

These farmer associations are an important "interface" that can mediate the relationship between the concerns of research and extension agencies and the indigenous knowledge, innovative capacity, and expectations of farmers.

The need for initiating farmers associations in crops has been well recognized and it is proposed by the ministry of Agriculture (MoA) to use NGOs to organise farmers into groups. The idea is to encourage farmer's groups to organise different types of services for themselves, including input supply, credit and or technical services and marketing arrangements – activities that would increase their productivity and incomes, while decreasing their dependence on government (ICAR, 1998).

Extension being an education is meant to bring about changes in knowledge, skill and attitude of the clients that requires a continuous effort over a period. Over the years, the promoting NGOs, AKRSP and BAIF, have been providing support to these federations with regard to educating farmers about better agricultural practices that can enhance their productivity. The result of these services has been translated into better inputs being demanded by the farmers. Federations act as a platform for dissemination of indigenous knowledge and environment friendly agriculture practices for which the capacity building support is being provided by AKRSP and BAIF, the promoting NGOs.

National Centre for Agriculture Economics and Policy Research (NCAP) through a study in 2000, made an attempt to compare the performance of the organisations engaged in agriculture extension. The study was done in three states, Maharashtra, Rajasthan and Kerala. The findings of the study regarding extension performance of the organisations are:

Table showing ranking of organisations based on extension performance

S. No.	Organisation	Overall ranking
1.	DOA	2
2.	Directorate of Extension	7

3.	KVK	6
4.	Farmer's Organisations	2
5.	Producer's Cooperatives	3
6.	Research Institutes	-
7.	Seed Companies	6
8.	Fertilizer Companies	3
9.	Agri-Business Companies	5
10.	NGO	1
11.	Commodity Boards	6
12.	AIR	4

NGO's, farmer's organisations and DOA have been ranked high in providing extension services in this study. Government has also realised the importance of involvement of NGOs in efforts to strengthen the research – extension delivery system. In 1994-95, a pilot Central Government Scheme of agricultural extension through voluntary organisations was launched and is being implemented on pilot basis by involving 14 NGOs from eight states. Experience has been encouraging both in terms of physical targets and in integrating NGO efforts with those of the main extension system (DAC, 1996). The number of NGOs is proposed to increase to 50 covering more States in the ninth plan. In Rajasthan on pilot basis, few AAO circles have been handed over to NGOs to carry out extension work.

The need for a private extension system arose mainly because of the failure of the public extension system as reported by the working group on extension for the formulation of IX Five Year Plan that described agricultural extension services as follows:

- Largely in the public sector, other operators remain at the periphery without clear policy enunciation or institutional support;
- Operate largely in an interpersonal mode of select contact farmers (largely men) without planned and optimum utilization of the media and other modes;

- Low level of involvement of farmers in technology development and dissemination process;
- Substantially top-down leaving little scope for localized planning and action;
- Upward looking, therefore generate uniformity rather than specificity and focus on farm and rather than substance;
- Staffed by functionaries with low morale, low knowledge level and low incentives with limited exposure to recent developments in communication technology.

The major challenge before the extension system is in serving the rural majority, subsistence farmers, the landless producers and the women, who have so far remained at the periphery of extension services. This can be addressed to some extent through active support to non-governmental organisations, farmers associations, co-operatives and other rural organizations.

The three federations that were studied are still dependent on their promoting NGOs for providing extension services. In order to be viable with regard to extension services, they need to draw on public funds for these services.

The experience of private extension system in different countries, brought up during an international email discussion on Agri-Extension hosted by Agren in 2003, highlights that public funds can be used to support (fully or partially) extension delivery by private agents. It will help provide a more responsive and accountable extension service and that it will empower farmers to be able to seek out and evaluate relevant advice. Experiences at least in the developing countries, seem to indicate that significant public funding will continue to be important for the near future. The challenge will be to institute this type of reform in an equitable and efficient manner.

A widely agreed conclusion of the same discussion was the considerable amount of time and experimentation required for the evolution of any comprehensive privatization of extension and hence the crucial need for more experience, evaluation and analysis from the field to help guide the process.

Conclusion

The study of three federations facilitated by the three NGOs highlights the fact that:

1. The federations were successful in providing timely agriculture inputs and credit to the member farmers. The members were also assured of quality of agriculture inputs being supplied to them.
2. Members were assured of a getting a fixed price for their produce through the marketing services of the federation thus acting as a cushion against market fluctuations.
3. The federations act as a platform for skill development of the members. Such extension services by the federation gives it an advantage over other input suppliers hence helps in retaining its member base.
4. The federations require financial as well as managerial support for the initial period of five years or so for its business activities. For the other benefits like agriculture extension services the federation will need support from external agencies on regular basis.