

## Chapter I A case of apples in the Himalayas

### The story of a successful social business

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#### **Position of small and marginal farmers in India**

Small farmers in India continue to be among the poorest in the world. Yet, their importance in ensuring sustainable economic development and food security cannot be underestimated. Indian agriculture is largely characterised by small and marginal holdings, accounting for 83% of the operational land. Despite their collective high number, individual farmers face many challenges which limit their options. While growing perishables would in principle be a profitable undertaking, a large number of small farmers grow low-value crops such as wheat, sugarcane and rice. Their 'choice' is based on several factors, including: no guarantee of minimum support price for fresh produce, risk of crop failure due to unpredictable climatic conditions, lack of storage facilities, price volatility, lower price realisation due to spoilage. In general, small farmers lack integration into value chains.

Marginal and small apple farmers in India are often unable to escape the powerful grip of, and are dependent on, middlemen, informal lenders and other intermediaries. Financial institutions are hesitant to develop financial products that consider the entire value chain. Existing loan and grant schemes seem to be patching solutions rather than structural ones. So, the position of small and marginal apple farmers in India remains dire. Two things often contribute directly to the poverty of small apple producers in India: absence of collective efforts for marketable volumes in order to reach economies of scale; limited bargaining power in competitive markets due to insufficient storage facilities and therefore holding capacities.

#### **Main challenges for apple growers in the Himalayas**

Due to its bio-sphere, the Himalayan region in South Asia is blessed with unique, healthy and organically grown fresh as well as dry products, such as fruits, vegetables, special grains, spices, herbs, and medicinal plants. These precious (and often rare) products are in high demand, both nationally and internationally. However, farmers are not able to optimally benefit from this situation for several interrelated reasons:

- *Slow delivery to consumers:* In India, the traditional practice of production, storage, transportation and distribution of apples is fragmented, which results in poor-quality supply to consumers who then prefer to buy imported apples. For example, an apple farmer starts to harvest apples on his farm on a Monday and continues until the weekend. With family support he is able to pick less than half a truck-load on the hilly terrain. From the farm, the harvest is transported on a donkey or human back to the road, where the other half truck-load will arrive from nearby farmers. After a week the truck (owned by a transporter) carries the apples to an auction place in a city, where a broker will settle the auction price and sell the truck-load to various buyers

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who deliver the produce to retailers. The produce will subsequently reach consumers only two weeks after picking.

- *Absence of infrastructure*: Farmers have small, fragmented pieces of land on the slopes of hills. After retaining produce for their own family consumption, very little remains for sale on the market. Dry commodities can be stored, but for the proper storage of fresh produce cash crops there is insufficient knowledge, and a lack of cold supply chain facilities, with government, businesses and consumers. Not enough has been invested in infrastructure and technologies for quality grading, storage, processing and distribution chains.
- *Absence of a professional value chain*: A professionally managed value chain of these fresh products is completely absent. Multiple layers of middlemen and processing parties control the process of produce reaching the market, which is run purely on commission basis. In this business model, many issues are not taken into account, including the risks that are taken by apple farmers, product development, quality control.
- *Improper handling affects quality*: The unique qualities of the products are severely affected by improper handling and packaging, inadequate transportation, humidity, eating by animals such as rats, infestations of insects, (anaerobic) micro-organisms like fungi, and oxidation. The fact that products are often sorted and transported along with other commodities, that affect their flavour and fragrances, also negatively impacts them.
- *Absence of technical assistance*: Individual small farmers do not receive any technical assistance on how to improve quality and quantity of their produce.
- *Dependency on intermediaries*: the individual small and marginal apple farmers do not have direct access to the market, but are dependent on intermediaries such as transporters, input suppliers and auctioneers.
- *Absence of farmers' organisations*: There are some attempts to organise farmers in collectives. However, organisations that focus on the common good and on social cooperative spirits are rarely seen in remote villages and mountain habitations, due to prevailing individual interests and divisions influenced by middlemen.

## **The Apple Project**

In view of the above-mentioned challenges, the Non-Governmental Development Organisation (NGDO) Shri Jagdamba Samiti (SJS), an organisation with vast experience in working with marginal and small apple farmers in the Indian Himalayas, and Stichting Het Groene Woudt (SHGW), a social investor<sup>2</sup> from the Netherlands, decided to start working together. They formed a social business consortium in 2007, aiming to support small and marginal apple farmers in the Himalayas to escape their dependence on middlemen, informal lenders and other intermediaries. SJS and SHGW attracted Fresh Food Technology (FFT, with offices in the Netherlands, India and Poland) and Context, international cooperation (Utrecht, the Netherlands) as partners in the consortium.<sup>3</sup> The consortium has become commonly known as the Apple Project.

### *The consortium partners*

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<sup>2</sup>A Dutch family foundation that acts as the social investor in this particular case.

<sup>3</sup> Ref: <http://sjsindia.org/>; <http://www.fftcompany.com/>; [www.contextinternational.cooperation.org](http://www.contextinternational.cooperation.org)

Realising that poverty and indebtedness hinder social development of small and marginal apple growers in the Himalayas, SJS had already been implementing some projects in cooperative-based agricultural value chains. The projects were all founded on the understanding that collectives of small farmers are crucial to generate enough marketable volume. However, these collectives have generally had limited success in the scaling up of business, multiple commodity trading and distribution and branding in consumer-led marketplaces. As a result, the cooperatives have remained dependent on external aid and finances, which has led to political interferences with management and control, to the detriment of the farmers.

The Dutch social investor SHGW was looking for opportunities to invest in agricultural value chains with producers. This social investment should lead to eventual ownership transfer to the farmers involved in the value chain, based on easy terms of repayment. SHGW understood that most of the existing investment schemes in India are designed by government departments as quick financial reliefs in order to secure farmers' votes for incumbent political parties. These schemes offer no options for structural or rigorous reforms in agricultural production, value chain development or distribution networks, and hence do not structurally support the small and marginal apple farmers.

FFT is a Dutch technology provider specialised in building controlled atmosphere storage and cold chain infrastructure. The company conducted a survey of apple marketing in India, in order to examine the possibilities of selling their long-term storage technology to farmers (as they do in Europe to big farmers). In traditional practices, fruit traders only come into the picture when farmers bring their produce to the market. FFT realised that working with small farmers would not be possible without an intermediary business venture (i.e. farmers collectives such as those being organised by SJS) to take the risks of collecting, sorting and procuring the storage-quality apples.

Context, international cooperation, is a social business specialised in providing business development support to social entrepreneurs. The organisation facilitated a social entrepreneurship mapping exercise of the above three partners in New Delhi in 2007. The consortium members subsequently jointly diagnosed the challenges and frameworks for social business development for an apple value chain with farmers collectives in the Indian Himalayas. Based upon the principles of civic driven change and Social Return on Investment, stakeholder deliberations were organised with the support of Context, international cooperation in the period 2008 to 2015.<sup>4</sup>

### **Background: By-passing the power of *mandis***

Since the start of the Apple Project in 2007, SJS, SHGW and FFT have been working together with other local and international consortium partners to improve the well-being of small and marginal apple farmers in the states of Himachal Pradesh and Uttarakhand. The Apple project in Uttarakhand was and remains based on the realisation that the main reason for

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<sup>4</sup> Context, international cooperation provided support with regard to these two subjects. Regarding Civic Driven Change reference may be made to Fowler & Biekart, 2008 and Fowler & Biekart 2013; with regard to SROI reference can be made to De Greve et al., 2013.

marginalisation of small apple farmers in a market-oriented agribusiness is the dominance of *mandis* (local market place). Mandis are chains of well-organised intermediaries, who control the entire process from regulatory aspects, credit supply for farm inputs, transportation and marketing of produce, to the auction of the produce brought by individual farmers. The Apple Project focused on an alternative marketing strategy to replace the *mandis*. It strives to create a model of business-driven, decentralised, independent and small-scale production with coordinated arrangements for sorting, grading, storage and marketing. This is done by providing technical, managerial and investment support. Key factor is the organisation of the small and marginal farmers into collectives, which enable them to jointly improve their position and collectively move up in the apple value chain. This collective feature of the business model saves individual farmers time, distributes risk, maintains price assurance, pursues damage control and saves on handling costs such as storage and transportation. The principle of collectiveness is taken one step further in the Apple Project, by working towards ownership by the farmers of businesses.

With this new approach, the Apple Project attempts to advance the involvement of small and marginal farmers as business partners in value addition businesses. These businesses are adding value in several ways, such as setting up eventually farmer-owned joint venture companies for sorting, grading and timely picking and supplying of fresh apples in the farmers areas; and setting up storage, grading and packing facilities at a centralised place. In so doing, the Apple Project - supported by (social) investors - seeks to address the gaps in the traditional supply chain. These gaps include disenfranchised growers, low productivity, poor quality of produce, omnipotent intermediaries, lack of proper storage facilities, and lack of trust and synergy between the different players in the value chain. The Project creates a robust ecosystem that brings together five key aspects of the apple value chain – the product, the farmers, the investor, the market and the entrepreneur. The Apple Project's key difference from other farmer-led value chains is the partnership between the newly created producer (farmer) collectives and the entrepreneurs in the management of the value chain. While the producers manage the supplier base, food business entrepreneurs manage the necessary value additions to the product. This business-based model of a consortium balances two schools of thought: maximisation of producer's income which leads to enhanced family incomes leading to improved welfare in terms of habitat, food security, health and educational opportunities for children; and maximisation of fair profit for eventually farmer-owned companies.

In short, the Apple Project aims to increase and strengthen the bargaining capacity of small apple farmers in India and to increase their income level substantially, by:

- *Organising*: Creating formal farmer organisations that will jointly handle, sell and/or process their apples;
- *Providing*: Providing these farmer organisations with appropriate financial means and equipment to allow them to collect, sort, pack, pre-cool and handle the apples in a professional manner;
- *Marketing*: Arranging that premium apples can be sold to the long-term storage, whereas medium grade apples go directly to the market and inferior grades (and other fruits) are used for producing juice;
- *Owning*: Using the profits generated through the legally registered companies to make premium payments to the supplying farmer groups; repay the

investors in the companies; gradually transfer the full economic ownership of the companies to the farmers.

The main socio-political purpose of this intervention is essentially to change the local power balance in the apple value chain in favour of small and marginal apple farmers.

### Organisational set-up

#### Box I.1: The four tiers system of the Apple Project

Level	Entities
First tier	(1) <i>Farmer trusts</i> at six collection points. These are organisations that are fully owned and managed by apple farmers themselves. These farmer trust are the co-owners of (2) <i>farmer joint venture companies</i> (that are set up at collection point level) together with <i>Annamrit</i> (the farmers-owned investment company) (see further on).
Second tier	(3) <i>Central controlled atmosphere storage facility company</i> (4) <i>Processing units</i> such as the apple juice processing factory. These are joint venture of the farmer trusts and Annamrit but managed by professionals.
Third tier	(5) <i>Marketing, sales and branding company</i> for forward and backward linkages, which is also a joint venture of the six farmer joint venture companies (first tier) and Annamrit. This company is also managed by professionals.
Fourth tier	(6) <i>Annamrit</i> which is the farmers-owned investment company that is to replace the social investor from the Netherlands (SHGW) and to attract social capital. Annamrit is owned by the farmer trusts (at the first tier), the central controlled storage company and processing units at the second tier.

#### *First tier: Collection points*

By December 2008, SJS was entrusted to coordinate the Apple Project. Currently, SJS has set up six collection centres in six different locations of Uttrakhand<sup>5</sup>, which are functioning as joint venture companies of Annamrit farmers and participating farmer trusts (which are self-organisations of farmers). Approximately 300 to 500 farmers from 10 to 30 villages are associated with one trust in one single location, based on the watershed, culture and connectivity. These trusts function as mutual benefit entities. Members supply their entire yearly harvest to their joint venture company at the prevailing market prices. The area-specific and value chain-based farmer trusts are formed to experiment with a hybrid business model in agricultural value chains. All joint venture companies collect the participating farmers' produce from their farm gate. All are equipped with a production extension and quality advisor (who is a full-time field staff member), a grading and pre-cooling facility and a refrigerated van for transportation of quality fresh fruits to markets and storage facilities.

<sup>5</sup> In Dhari, Pissaon, Purola, Chausal, Jhala and Dharali.

Thus far, 4,200 farmers have been registered as primary suppliers, partners and eventual owners of the businesses of the joint venture companies. The collection centres' facilities to sort and pre-cool apples have a capacity of 500 Metric Tons (MT) in one harvesting season (August to October). As indicated earlier, in the beginning, 100% of the investment required for infrastructure creation, transport and quality improvement was made by the social investor from the Netherlands (SHGW). It was projected that the farmers would fully repay this investment upon sufficient profit generation by the joint venture companies in due course. Based on these repayments, proportionate ownership was promised to be transferred to the farmer trusts.

#### *Second tier: Central storage company and processing units*

In addition to the storage and sorting facilities at collection point level, one central controlled atmosphere storage facility has been constructed at a central place.<sup>6</sup> This has a capacity of 1,200 MT to store apples longer, so they can fetch better prices by selling them off-season. All collection point centres sell their storable apples to the central controlled atmosphere storage company. Non-storable quality apples are sold directly to the market, as well as to the juice processing unit. The apple juice processing unit is created as an employment opportunity for female farmers. In this unit 1,200 women are organised in a women trust for processing the fruits into fresh juice and other processed items.

#### *Third tier: Marketing, sales and branding company*

As indicated in the diagram, at the next (third) level a marketing, sales and branding company has been set up. The companies at the second and third tiers are managed by professionals, in order to secure full economic benefit in competitive market situations.

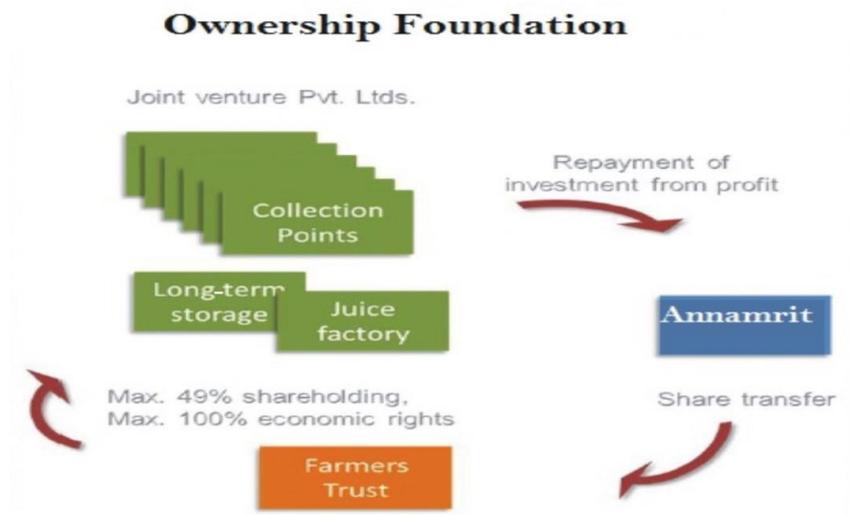
#### *Fourth tier: Investment company (Annamrit)*

Initially SHGW – who has the risk-taking capacity - was sole owner of the business in order to secure the long-term business interests. Following the idea of promoting eventually farmer-owned agricultural value chain businesses, the entity Annamrit was launched in January 2015. Annamrit is a farmers-owned investment vehicle that will thus gradually take over the role of SHGW. The goal of Annamrit is to build a strong partnership between producers (farmers, the growers of *Annam* (food)), entrepreneurs (for collection, packing, distribution and value addition businesses to food supply chain), development cooperation organisers (coordinators and co-operators in food value chain) and investors (financers for storage, packing, quality control and handling of foods). The main role of Annamrit is to attract social investors to build the food value chain with a focused approach of producing, storing, collecting and distributing the pure and healthy food which should be as beneficial as *Amrit* (nectar).

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<sup>6</sup> In the village Nogaon.

**Diagram I.1: Relationships between main actors in the Apple Project**



Source: the author.

**The main purpose: systemic change through partnership model**

The vision behind the Apple Project is to set in motion a self-perpetuating model that can be applied throughout India, for the benefit of small-scale farmers. An important aspect of the model is furthermore that the cost of the technical assistance, the bridging funds and equipment that are being provided under the project, are to be recovered from the additional income that farmer companies are able to generate, alongside regular government subsidies for commercial companies managed by professional managers. Second important aspect is that apple farmers themselves become the legal owners of companies within the Apple Project. Both aspects are drivers towards systemic change.

Schematically the differences between a Cooperative model, Private sector model and Partnership (hybrid) model can be summarised as follows:

**Diagram I.2: Differences Cooperative- , Private sector -and Partnership (hybrid) model**

	Cooperative model	Private sector model	Partnership model
<b>Main aim</b>	○ Sustain production and improve farmer income	○ Optimize profit, secure continuity at minimum cost	○ Optimize profit for benefit of farmers, secure continuity and growth through increased production
<b>Value drivers</b>	○ Farmers income maximisation	○ Profit maximisation for shareholders	○ Profit maximisation for farmer benefit & rural prosperity
<b>Daily control</b>	○ Farmers have direct control over the appointed management. Conflict between short-term interest of farmers and long-term interest of the company.	○ Investors have direct control over appointed management. Maximizing profit for dividend to investors. Social and environmental sustainability are inferior	○ Farmers together with investor/private sector partner, oversee daily management: balance the short-term interest of farmers with long-term sustainability of the business
<b>Strength</b>	<ul style="list-style-type: none"> <li>○ Backward linkages with farmers</li> <li>○ Economic benefits go to farmers</li> <li>○ Focus on increased production</li> <li>○ Financial risks (partly) covered by government programs</li> <li>○ Focus on single product value chain</li> <li>○ Conventional practice of producer collective</li> <li>○ Few successful examples to replicate</li> <li>○ Strong backward linkages with farmers</li> </ul>	<ul style="list-style-type: none"> <li>○ Strong drive for innovation &amp; leading in market</li> <li>○ Strong drive to diversification</li> <li>○ Partnerships with market players &amp; other companies</li> <li>○ Driven by competitiveness in open market</li> <li>○ Focus on quality &amp; reliability of supply</li> <li>○ Ability to diversify</li> <li>○ Best adopted by private investors</li> <li>○ Well organised consumer linkages through market outreach</li> </ul>	<ul style="list-style-type: none"> <li>○ Farmers treated as equal business partners</li> <li>○ Strong linkages with farmers as suppliers</li> <li>○ Driven by profit maximization for premium, capitalization and investments</li> <li>○ Fair procurement prices &amp; premium distribution</li> <li>○ Strong need for innovation, latest technologies &amp; efficiency</li> <li>○ Involvement of multiple stakeholder &amp; use their individual competencies</li> <li>○ Synergy between farmers, businessmen, investors and knowledge institutions</li> <li>○ Easy diversification, based on local production and market connections</li> <li>○ No political or gov't interference</li> <li>○ Competitive in open market</li> <li>○ Full value chain approach</li> </ul>
<b>Weakness</b>	<ul style="list-style-type: none"> <li>○ Limited forward linkages to market</li> <li>○ Limited competition in open market</li> <li>○ Limited diversification</li> <li>○ Limited partnerships with other cooperatives</li> <li>○ Little investment in product development and R&amp;D</li> <li>○ Government support/interventions political interference</li> </ul>	<ul style="list-style-type: none"> <li>○ Weak linkage with farmers</li> <li>○ Limited concerns for social and environmental sustainability</li> <li>○ Rely on suppliers in any step of value/supply chain</li> <li>○ Less attention to social and environmental development</li> </ul>	<ul style="list-style-type: none"> <li>○ Potential conflict among partners: lack of understanding of each other &amp; conflicting agenda's</li> <li>○ Risk of partners to fall back to their old practices/values</li> <li>○ Finding investors as a new financial product</li> <li>○ Who will/can carry financial risks?</li> </ul>
<b>Value drivers</b>	○ Farmers income maximisation	○ Profit maximisation for shareholders	○ Profit maximisation for farmer benefit & rural prosperity

Source: the author.

The partnership business models - with collaboration between corporate sector agencies and non-profit sector actors - opens up opportunities to finance the cold chain for fresh produce and other agricultural produce. The partners that collaborate in the Apple Project can be categorised into four groups:

- *Producers collectives* - particularly the farmer groups organised in farmer trusts or any other legal form at the six different locations;
- *Inclusive development actors* - particularly knowledge/training institutions, government and (international) development agencies;
- *Business partners* - experienced and socially conscious entrepreneurs to manage and operate the business activities in a competitive market;
- *Financial supporters* - social investors/banks and government agencies to invest in ventures with a focus on economic profits as well as social impact.

The actors involved are mutually supportive and complementary in terms of expertise, experience, networks and access to external resources. These actors, collectively referred to in this chapter as the 'Social business management consortium', should obviously have a shared vision on social, political and economic objectives as prime driver to participate in this approach.

The interdependent structure of the model aligns all these entities and the stakeholders to work towards a single mutually beneficial goal.

### **The business principles of the Apple Project**

To overcome the problems mentioned in the beginning of this chapter, the Apple Project initiators conducted a quick assessment of the commodity availability and market potential, appropriate technology requirements for value addition, and added value products' market demands, and designed a business model for the Apple Project with the following characteristics:

- i) *Apple collection points*: Logistics, collection, sorting/grading, packaging, storage and processing units are centrally located in the production areas. The apple collection points market and sell their products directly to the centrally located long-term storage company set up for further collective value addition by all the farmer trusts, to the juice processing facilities and to retail chains and/or consumers. To save the individual farmers time, and to avoid transportation costs and exploitation by intermediaries, they only sell their produce to collection point companies (which are jointly owned by their collectives) based on a transparent price build-up formula. According to this business model, the value addition (profits) made will be used to strengthen the businesses, repay the investment and pay premiums to the supplying farmers. The local apple collection points thus form the backbone of the Apple Project.
- ii) *Adhere to food quality standards*: To protect the unique quality of the products and avoid losses (in terms of quantity and quality) the products are handled (at collection point) according to accepted food quality standards. In this manner, the products are optimally conserved and protected against humidity, insects, development of micro-organisms and animal attacks. Moreover, the shelf life of the products is drastically extended, as optimum humidity levels are observed, so no oxidation will occur and qualities like flavour and fragrance are preserved.
- iii) *Internet-based tracking system*: A cloud-based farmer database has been installed that enables tracking of apples from trees to consumers, right from the flowering days till final harvest, storage and distribution. This system helps the entire chain to establish themselves as good-quality apple brands in the market. It also assists in a transparent multi-stakeholder consultative process for fair distribution of returns with shared risk.
- iv) *Branding*: A separate marketing and public relations strategy has been developed, in order to brand and market the products as coming 'directly from the Himalayas'.
- v) *Link with research institutions*: Farmers have been connected to and trained by research organisations and technical support programmes in order to improve the yield, so consumers can experience the conserved, original flavour and fragrances of these special products.
- vi) *Market information*: The farmer trusts are providing the farmers with information<sup>7</sup> to get fair prices for their produce and to connect them to existing schemes and facilities for more socio-political benefits for the member farmers and grower communities.

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<sup>7</sup>The farmer database (maintained in cloud-based ICT software) provides information about land holding, family income, number of trees, input application data, harvest of crops as per quality and quantity to the government development schemes, research institutions, development cooperation organisations and local bodies.

- The additional income generated by the farmer's family is then used to access better health and education facilities, for improved habitat, et cetera.
- vii) *Collective action*: The joint activities of the farmers and their families and communities within the apple value chain, enhance more collective action in other spheres of life as well, to establish social, economic and political changes, such as political attention; shared ideas for enhanced income; better utilisation of additional income for children's education, women's health and cultural festivals.
  - viii) *Controlling external influences*: Since the inception of the idea to organise the farmers collectives as mutual benefit trusts of participating farmers (instead of as self-help groups and producer cooperatives), the partnership approach worked with cooperative contribution of all the actors. This means that external influences are kept out and farmers are getting the economic returns as premium and dividends.
  - ix) *Win-win farmers and social investor*: Once the farmers showed their ability to form mutual collectives with enough produce to gain better bargaining positions in the market, they were invited to join the mutual benefit trusts of producers and joint venture companies formed with the investors to add value to the produce and to share the added value mutually between the investors and farmers. The practice soon highlighted the win-win situation for all the partners and allowed them to move further up into the value chain, to storage and distribution networks.
  - x) *Governance*: All the partners agree on the price build-up of produce (which should not be lower than the prevailing market price) at the beginning of the harvest. This is done in order to ensure reasonable prices to participating farmers; increments and minimum salary payments of operational staff and management team; service charges for organising and supporting institutions such as SJS and Context, international cooperation; to run the business in competitive markets. They further discuss the outputs and returns in an Annual General Body Meeting at the end of the harvest season and at the half-yearly consultation after sales of apples from the central storage facility, to decide on the additional premium payments to farmers, bonus remuneration to employees and/or repayment of investors' money based on the added value to the produce in the entire chain.
  - xi) *When returns are lower than expected*: In case a year falls below the expectation of financial return, the investor is firstly requested to postpone the repayment, then employees' additional bonus and premium payments to farmers are not taken into consideration. The minimum salaries or prevailing prices of produce are paid as a priority to ensure the family income for the farmers, so they can better prepare for the next harvest and maintain the quality of life with dignity.

The above process creates sufficient trust and risk-sharing abilities among the stakeholders to understand their own gains and dues, either economic or social, in achieving a shared vision of their social business. So far, it has been practiced as a concept of co-creation of blended value<sup>8</sup> (multiple values) for all partners in Annamrit.

The major activities and their rationale can be summarised as follows:

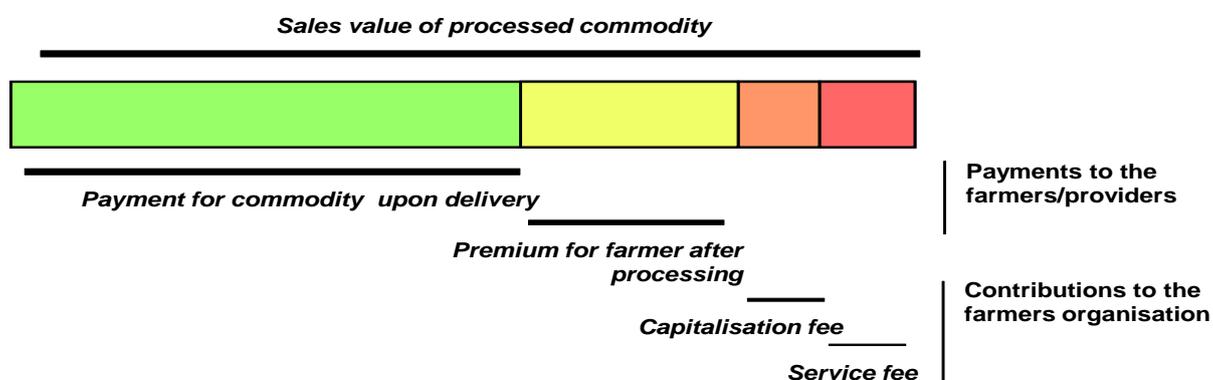
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<sup>8</sup> The concept of blended value is further explained in chapter II of this volume.

### Box I.2: Value addition by the Apple Project

Gaps in the traditional supply chain	Value added by the Apple Project
Small and marginal producers with poor quality and low yield.	Farmer associations and farmer trusts are set up to collectivise individual apple producers at village and area level to: <ul style="list-style-type: none"> <li>- organise access to knowledge institutions and social business support organisations such as SJS and Context, international cooperation which mentor and advise the farmers throughout the cultivation process and season to increase yield and understanding of the multi-stakeholder role in a social business;</li> <li>- Organise access to seeds, fertilisers and technology to increase quality of yield.</li> </ul>
Exploitative intermediaries who buy produce from growers at arbitrary prices.	Joint venture companies are set up to procure from individual growers, with: <ul style="list-style-type: none"> <li>- a participative process with producers to determine fair market prices to purchase commodities;</li> <li>- collection centres to procure all farmers' produce from individual growers;</li> <li>- a marketing company to connect farmers to distant markets.</li> </ul>
Foods being sold locally in distress by farmers and in season when prices are low because of poor storage facilities.	Decentralised and central storage facilities are set up to cater for the demand for food throughout the year with regular supplies at consistently good quality at fair prices.
Poor transport infrastructure resulting in wastage.	Chilled transportation facilities owned by the farmer joint venture companies.

Diagram I.3: distribution of revenue



The profit that the business makes is allocated for three purposes:

- a. Repayment of the investment to the social investor (i.e. SHGW);

- b. Capitalisation of the company for further growth;
- c. Premiums to supplying farmers, in addition to purchase prices, which may be used for enhanced family welfare.

## Major outcomes and impact of the Apple Project

### Box 1.3: Outcomes and impact in four interrelated areas

The Apple Project achieves results in four interrelated areas:

- *Financial capital* – the ability of participating farmers and operational team to save money, enhance liquidity and investment in expansion and replication.
- *Social capital* – the expansion of networks of participating farmers and relationships that support them to improve their bargaining capacities for better prices of produce and to obtain a dignified position for producers in the buyers' market. Moreover, the enhanced economic position of the participating farmers improves the socio-economic position of the farmers and their families in general very considerably.
- *Knowledge capital* – the access to information and technical/technological know-how that is necessary to succeed in the markets and grow quality crops.
- *Material capital* – the capacity to build assets that generate wealth and welfare in the long term throughout the apple value chain.

### Financial capital

The financial capital of the supplying farmers, operational team and social investors has increased as the farmers are getting advance payments for inputs and farm labour from their own joint companies. This is possible, because they have committed themselves to supply their produce to the joint companies at prevailing market prices. Hence, their access to financial resources has increased. Additional premium payments from the added value of produce provide the involved farmers with an opportunity to invest in the joint companies with the perspective of co-owning them. The joint companies have also locally created employment opportunities for the full-time techno-managerial staff and part-time packing labourers. This saves the staff and labourers having to search for employment opportunities in faraway places (such as New Delhi) and having to migrate. It also enables them to save on costs of living, so they can start new businesses in their own (green and less-populated) areas. This enables many farmers to diversify their sources of income.

### Social capital

The main social goal of the above described business model is that it serves the interests of small and marginal apple growers through a democratic member-controlled entity, which delinks votes from shareholders from political and religious interests. As a result, larger numbers of apple farmers are joining the Apple Project. Since the inception of the project in 2007, it has grown by more than tenfold. The project began with 300 farmers and is now working with 4,200 farmers. The number of villages involved has increased from 12 to 140. Having a collective voice helps the farmers to represent themselves when key decisions are being made by policy makers and politicians. The employees of the trust and joint companies

(who come from local villages) and the farmers established a team spirit with business rigour. This has enabled them to explore opportunities for positioning themselves well, and in moving up the apple value chain, and it contributes to the broader objective of import substitution.<sup>9</sup>

In general, the self-respect of individuals in entities that are collectively run and owned has increased substantially through peer learning. Particularly women groups have shown this through their participation in groups and village meetings by raising issues for the benefit of their children, themselves and also for the community at large. This shows that, apart from the economic benefits, the bargaining power has increased step by step both socially and politically.

### **Knowledge capital**

The technical knowledge of the producers has increased by participation in trainings, exposure visits, conferences, et cetera. Farmers have strengthened their knowledge regarding better farming practices such as right time picking, quality improvement of produce and how to control supplies as per market demand. This extended reach and infrastructure availability improved their bargaining power, market positioning and decision-making in the price build-up. The joint venture companies understand the value of having the farmers on board for regular and sufficient supply of produce, and to establish themselves in the market as trusted and consistent quality suppliers. The co-creation increased the self-confidence of the employees and the farmers at the same time, and enhanced their learning about produce supply, value addition through multiple utilities and building brands as quality produce. This has improved the farmer's risk-taking capacity and has minimised external influences on their investment decisions.

### **Material capital**

The participating partners in the Apple Project have shared ownership in the six joint venture companies at collection point level. Each unit at local level has a grading and pre-cooling shed, pre-sorting machine, refrigerated truck and primary testing equipment. At secondary level, three other joint venture companies own the central controlled atmosphere storage, a juice processing unit and copyrights on the tracking software of the apple value chain.

The hybrid model is structured in such a way that the farmer trusts eventually own the joint venture companies at the second and third tier. The farmers will co-own the assets that will continue to generate wealth in the long-term. The farmers collectives already own the majority shares in the collection point companies. They also fully own the controlled atmosphere storage company, by having generated sufficient profit in the business to repay the investment by the social investor (SHGW).

The Apple Project has been invited by planners and policy-makers in government to replicate the concept for government, IFAD and World Bank supported projects in other regions of Uttarakhand. It is important to understand here that previous government interventions with

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<sup>9</sup> No longer need to import high quality apples from abroad.

a cooperative concept also created an asset base for value addition, but the ownership always remained with the administrators appointed from the top. The farmers consider those structures as 'outsider businesses' rather than their own and these cooperatives become dependent on aid and subsidies, rather than realisation of surplus from the market. For example, in the sugar cooperatives in India the farmers are dependent on government and politicians, leading to unpaid debt of both the producers and cooperatives. This resulted in an unrealistic market-oriented business, ultimately leading to many farmer suicides and closure of cooperatives.

#### **Box 1.4: Social Return on Investment of the Apple Project**

As part of the regular business performance measurement, in 2014 a Social Return on Investment (SROI) analysis was carried out by staff members of SJS, together with apple farmers and other relevant stakeholders. Staff members of Context, international cooperation provided support with regard to this analysis.

The essence of this SROI exercise can be captured as follows<sup>10</sup>: *'Before introduction of the project, farmers picked their apples and sold directly to the market through middlemen. Now farmers collect their apples and bring them to a collection point, where apples are cleaned, graded and stored. In the new constellation, farmers receive more money for their apples immediately as well as a share of the profit later on. They do not need to purchase packing material anymore as this is provided by the collection point. In the present situation, the farmer has more options than before. Earlier they were dependent on the middlemen only. The risk of the farmers is reduced in the process. People get more employment even in the off-season. Now farmers feel motivated and start investing in apple production again.'*

Women added the following components: *'Earlier we did not know about the use of the apricot. Before we produced oil from the stone of the apricot. Now we are trained and have started to produce juice, jam and pickle of the apricot, so that we have got better social life, schooling for our children and better health. We got good employment. Now we are self-dependent and feel more confident'*.

In conclusion the SROI study says: *'In view of the above, and based on informal interviews and interactions with farmers the key elements of Theory of Change of the Apple Project can be summarised as follows. Before the apple farmers did not receive a good price for their apples due to indebtedness to middleman and money lenders, who provide a certain risk reduction for the farmer but at the same time the farmers were bound to sell their apples to them at prices which were not always competitive. The present programme tries to change this vicious circle of poverty by implementing the overall strategies of purchasing of apples at collection point (A, B and C grade) from the farmers at the prevailing market price. B grade apples are sold directly to the market; C grade apples are (will be) sold to the juice factory. Grade apples are transferred (sold) to the Long Term Cold Storage which is owned by the farmers and located at a central point. Technical assistance (trainings, fertilisers, hand-on support) is provided by collection point and associated companies to the apple farmers.'*

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<sup>10</sup>The quotes are taken from the SROI analysis report. Pundir, S. et al., 2013.

*Moreover, the centre manager and extension officers support farmers (men and women) to organise themselves in groups such as Farmer Committees, Farmer Trust Joint Venture Company (collection point), Women Committees, and Women Trust. The emergence and functioning of these bodies is being supported by SJS and has strengthened the resilience and bargaining capacity of the small and marginal apple growers and their families considerably. By increase of their income the households of the apple farmers are (in principle) better positioned to spend money on basic social services such as health and education. The programme does not provide any systematic support with regard to resource utilisation at household level but has an indirect impact on the social welfare of farmers and their households.'*

## **Major lessons that may be learned from the Apple Project**

### *Step 1: Analysis and feasibility*

As a first step, those who initiated the Apple Project needed to understand what potential and interest the farmers had to move up in the value chain, based on the commodities or resources they have. Several questions then need to be asked: What forms of processing of produce can add value to the final product and how viable are these options? How much value can be added based on the prevailing local market rates? What technologies are available and how much (capital) investments are required? Are all the various levels of processing (primary, secondary, et cetera), likely to be economically viable by themselves? And, most of all, what is the willingness of individual farmers and farmer groups to participate in collective action by organising themselves – and how can they be supported and guided in this?

This kind of quick scan should give good insights into the potential of the various value-addition options that can be explored jointly by the organising team and the farmers. For these options, a more thorough assessment of the practical and socio-economic feasibility needs to be made. Given the amount of uncertainties and potential threats that surround these initiatives normally (often in remote, underdeveloped areas), this is not an easy exercise and needs to be undertaken with practical knowledge about the local circumstances, as well as a good understanding of the value addition chain of the commodity involved. What technological options are available and how can the eventually farmer-led company distinguish itself in the market with this technology?

In this context, it is important that *all* assumptions and choices that form the basis for the feasibility study, are well substantiated with source references (preferably based on verifiable historical data). In this manner, the feasibility study can also be a good management tool during implementation (among others to update and actualise assumptions to the prevailing (expected) circumstances).

In addition, the assumptions in the feasibility study should at least be assessed for a 'worst', 'best', 'realistic', and 'conservative' scenario. Based on this feasibility study, an overall risk analysis can be made to gain insights into the financial consequences of these scenarios. Apart

from the financial risks, a thorough assessment of other factors that may jeopardise the anticipated business in due course (e.g. openness of the market, subsidies, price inflation, harvest losses, farmers' continued participation and involvement, et cetera), should complete the risk assessment. By categorising these factors according to the influence the operational management of the farmer-led company may have on them<sup>11</sup>, the risk assessment can be used as a management tool during operation as well. The traditional practices can also be assessed for economic feasibilities, but to assess social and political realities and making assumptions based on them is always difficult. Moreover, there is always a chance to fall into the trap of patching solutions, populism and attractive announcements without providing empirical evidence and a long-term vision.

At its start, the Apple Project was not labelled as a development sector project, nor a hard core financial investors business or a politically influenced local area development. Based on time allowed for the partners to engage in mature discussions and analyses through SROI studies, regular stakeholder consultations, learning from CDC workshops, et cetera it evolved into a process. The feasibility developed into a balancing act between social and economic returns for all the four partners. They contributed their best within the limits of their knowledge and expertise for a common good for all (including themselves).

### *Step 2: Securing financial, entrepreneurial and material resources through sound investment plans*

Based on the above feasibility study, a team of entrepreneurs developed an investment plan for the social investor(s) and banks, in order to secure sufficient capital investments. Besides the social investor and the banks, other funding options were explored, e.g. subsidies related to promotion of rural development or relevant clusters; export/import subsidies; grant support from development organisations; soft-loans from development banks, et cetera. Important to include in the investment plan is the working capital requirements during the operational phase, including costs involved for community organisation of farmers. Particularly for new companies without a financial track record, it may prove difficult to secure regular loans from (local) banks.

The farmers collectives should be an integral part of investment plans to secure sufficient produce for future business and risk management in case of low yield, and of plans to address the challenge of securing the livelihood of all participants while waiting for the next harvest.

A socially conscious investor is generally the most difficult partner to find and involve. In a social business, such as the Apple Project, the main challenge is to combine two different financing approaches: conventional business financing and a grant-making welfare project approach. These are two different approaches to investment, i.e. maximising shareholders' money and the safeguarding and securing of financial needs and rights of people at the bottom (the farmers). Within the Project both were taken into account. In this particular case the investment in assets is owned by investors who receive a suitable interest until full transfer of ownership to the farmers-owned entities can take place. The businesses' goodwill or brands are owned by the farmers or producers from the start to ensure co-ownership. The

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<sup>11</sup> Whereby a distinction may be made in issues that are under the control of the farmers; where farmers have direct or indirect influence; where farmers have an interest but no direct control or interest.

business management team and organising Non-Governmental Development Organisation (i.e. SJS) will stay on to build bridges.

*Step 3: (Legal) organisation: To register the entity (farmers) under legal institution*

Once it is clear which business is feasible and capital can be secured, the legal organisation of the initiative is to be arranged. The legal organisation should well integrate the key principles on which the initiative operates. In the Apple Project attention was and is being paid to among others:

- *Legal representation farmers*: Anchoring the farmer interests as prime objective through legal representation;
- *Safeguarding business rigour*: Business rigour is achieved through professional management and oversight; Board of Directors (BoD) is to reflect the professional disciplines alongside (minority) farmer representatives. BoD is to appoint the company's management, which is to report to the BoD;
- *Institutional coherence*: Alignment of the Articles of Association of the farmer trusts with the Articles of Association of the joint venture companies;
- *Ownership*: Long-term, gradual ownership transfer arrangement from the social investor to the farmer-owned companies is to be anchored in shareholder agreement;
- *Interests of the social investor*: The interests of the (social) investors are to be guaranteed, e.g. through representation in BoD;
- *Continuity*: Make provisions in case one or more groups of farmers are to discontinue (e.g. when not supplying enough produce or some other malfunction): the continuity of the company should not be jeopardised;
- *Allocation of profit*: Profit of the company is to be allocated for repayment of the investment to the social investor, capitalisation of the company and premiums to supplying farmers in order to enhance their families' welfare;
- *Incentives*: Sharing of the economic benefits with the farmers (like premium payments) is to stimulate sufficient supply of good-quality produce.

Organisational and institutional development has to be well taken care of within the existing legal framework. The above presented four-tier system needs to be adopted towards eventual farmer ownership through mutual benefit trusts of producers (farmer trusts). As a business entity, the joint venture companies are operated and managed by business professionals and co-owned by investors and producers as an investment vehicle to secure the repayments and re-investment in a perpetual way. The social organisers and knowledge partners like SJS and Context, international cooperation play a facilitating, supportive and bridging role as and where required.

*Step 4: Design, construction, team-building and start-up*

In the design and construction phase, when the emphasis is on creating the necessary infrastructure, the best available technologies and suppliers are to be sourced. This is preferably done under supervision of one single responsible party with a proven and verified track record. Clear contractual agreements and payment conditions should secure an efficient construction of the infrastructure, to be realised within the allocated budget and timelines.

At the same time, a professional team of qualified staff is to be recruited (from management, finance, quality control to operational staff), that is able to run the company upon completion of the infrastructure building. This team is not only expected to operate the business in a professional and profitable manner, but also to understand (and cope with) the complexity of a *social* business that is focused on the creation of blended value. Challenges include in particular achieving both financial and socio-political objectives and involving and reporting to all stakeholders concerned: from farmers to the (social) investors.

The key points to be addressed are:

- *Role of farmers*: The role of the farmers should be clear and the management should make optimum use of (the leaders within) these groups;
- *Win-win approach*: Look for solutions that work for all partners, not just the company;
- *Operational manager*: The operational manager cum director is responsible to the Board of Directors at all times;
- *Board of Directors*: The Board is to have a pro-active supportive role to the company, particularly in the start-up phase: the experience, expertise and networks of board members should be utilised optimally;
- *Procedures and protocols*: Robust procedures and protocols are to be in place for all critical work flows of the company. Particularly on the financial side, the sufficient safeguards should be in place for maximum transparency, control and reporting to all stakeholders, including the farmers;
- *Mission drift*: Mechanisms should be in place to avoid so-called 'mission drift', i.e. bias towards either the financial or social purpose of the social business.

## Conclusion

Over the past few decades, India has liberalised its markets to take advantage of the benefits of a globalising economy. However, the benefits have not accrued equally to all citizens of the country and have largely remained restricted to certain sections of the population. In fact, the consequences of a globalising economy agitated against the interests of a large number of poor and marginalised people, such as small and marginal apple growers in the Himalayas. In an agrarian economy like India's, any assessment of the transfer of benefits at the grassroots level must focus on the change brought about in the socio-economic conditions of small and marginal farmers. In remote rural areas of the country, the situation is particularly grim for these farmers. Local power structures, born out of asymmetric socio-cultural and economic arrangements and concomitant politics, play a major role in determining economic activities in rural areas where farmers are heavily dependent on, exploited and misled by money lenders and middlemen. Although India is positioning itself as a worldwide leading economic power, it is still home to one-third of the world's poorest people, concentrated mostly in its rural areas. The growth potential of rural India however, is enormous with an increasing concern about food security and increasing food prices. The new social business approach, which is outlined in this and other chapters of this book, could well capitalise on the immense potential of rural India and break through the inefficiencies of the current rural production-trade relations.

Despite the fact that significant efforts are made by the central and state governments for small and marginal farmers in the country, numerous problems continue to exist that bind farmers to a cycle of poverty and deprivation. While agricultural production has been on the rise in India, it has not translated into enhanced income for the producers of food grains. Critical factors in this have been lack of organised access to markets; absence of appropriate technologies; dearth of awareness about actual prices in the market; lack of financial support; dominance and exploitative behaviour of middlemen and other intermediaries; limited access to capital due to policies that are not in favour of small and marginal farmers. The recent increase in farmer suicides in India also indicates that agriculture is a challenging livelihood option for many people in rural India. With a large proportion of India's rural population engaged in agricultural activities, it is important to strengthen the socio-economic position and bargaining capacity of small and marginal farmers through innovative models of development.

The vision behind the Apple Project - as described in this chapter - is to set in motion a self-perpetuating model that can be applied throughout India, for the benefit of small-scale farmers. Important aspect of this model is that the cost of technical assistance, bridging funds and equipment provided under the project is to be recovered from the additional income that farmers' companies are able to generate, alongside regular government subsidies for commercial companies. The Apple Project India in Uttarakhand is changing the mindsets of farmers and protecting them from the exploitation of middlemen and other intermediaries. It has not only organised farmers into organisations or joint venture companies, but has provided them with infrastructural, technological and storage options for their produce. Moreover, it has supported them with an innovative solution through which they can sell their produce in an organised way directly to the consumers and at better prices. The outreach of the project has steadily been increasing and has been augmented by enhanced infrastructure. Joint companies-enterprises make important contributions to employment and income generation in states like Uttarakhand. They have key roles in the production, processing and distribution of fruits and vegetables and are central actors in developing sustainable agricultural value chains.

The main difference in this new approach is that the farmers, along with socially conscious corporate partners and investors, become equal business partners. There is no external governance or political influence. Instead, the company is run by a professional management and professional board to secure business rigour, profitability and continued focus on socio-political objectives and hence the long-term interest of the company is secured. Similar to the cooperative model, the farmers have full rights to the economic gains of the company, though they have no direct control over the daily management, which is in the hand of professionals who report to the Board of Directors of the joint venture companies. It is a win-win situation for both investors and farmers. The economic benefits of the company are ploughed back to the participating farmers, mostly in the form of premiums over their supply (based on quantity and quality), while the investments made by the social investor are fully repaid on commercial terms, for reinvestments in new social ventures.

**Box 1.5: farmer speak**

'We are not mere farmers; we are respected as real business partners'.

'We can produce anything, but we need farmers as owners to sell it for us'.  
'We do not want to work together for only two or three years: we want to be part of this forever'.  
'Working together saves us time, money and a lot of work. Most importantly, we do not have the stress of negotiating with middlemen anymore'.  
'Farmers as owners have brought stability and progress to our village. The cooperation is crucial for the future of this place'.

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[www.contextinternational.cooperation.org](http://www.contextinternational.cooperation.org)

[http://sjsindia.org/;](http://sjsindia.org/)

<http://www.fftcompany.com/>