Including the Excluded: A Pro-Poor Bel Fruit Juice Making Enterprise in Nepal

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ITTO, RECOFTC, Forest Trends, RRI
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I believe that this powerful case study will be beneficial for other community-based enterprises, practitioners, researchers, policy makers and people who are genuinely interested in bringing lower poor people into organized business to improve their livelihoods. I would be happy if you could use this report to show poor people how they can get out of their poverty trap through being involved in business as small-scale entrepreneurs.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CBE</td>
<td>Community-based Enterprise</td>
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<tr>
<td>DFO</td>
<td>District Forest Office</td>
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<tr>
<td>FUG</td>
<td>Forest User Group</td>
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<tr>
<td>FECOFUN</td>
<td>Federation of Community Forestry User Groups Nepal</td>
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<tr>
<td>HMGN</td>
<td>His Majesty’s Government of Nepal</td>
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<tr>
<td>ITTO</td>
<td>International Tropical Timber Organization</td>
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<tr>
<td>NR</td>
<td>Nepali Rupees (US$ 1 = NR 70 in August 2005)</td>
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<td>NSCFP</td>
<td>Nepal Swiss Community Forestry Project</td>
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<td>NTFP</td>
<td>Non-timber Forest Products</td>
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<td>RECOFTC</td>
<td>Regional Community Forestry Training Center for Asia and the Pacific</td>
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Summary

Community forestry in Nepal initially went through an institutional development process where grass-roots level institutions called community forestry user groups (FUGs) were formed with full entitlement over their forest resources. After more than a decade, large areas of community forest have been rehabilitated and are now well stocked. Following on from this, several community-based enterprise initiatives have recently emerged where the poorest households operate as separate sub-groups and where the private sector has been brought into partnership to establish and manage the enterprise.

This case study concerns a bel fruit juice making enterprise. Bel (Aegle marmelos) is a wild fruit found in dry, low rainfall, southern aspects up to 700 m altitude. It is culturally very important in Hindu communities and is one of the best medicinal plants in Ayurvedic medicinal system.

The Tamakoshi Bel Juice Processing Company was established four years ago based on a pro-poor model aimed at helping poor people to get into the business and to create incentives for them to protect the forest resources and move out of poverty. An investment of NRs 1 million (US$ 1 = NRs 70) was organized around three groups of shareholders. One group consists of 10 FUGs within one watershed who own 30% of the shares. Another group consists of 60 of the poorest households from among these 10 FUGs who also own 30% of the total shares and the private sector holding 40% of the shares forms the third category. The company governance structure allows for all these shareholder groups to be represented with roles, responsibilities and rules for raw material collection, processing, marketing, record keeping, and dividend distribution all being clearly written.

Over the four years of its operation, the company has increased its production from 2,000 bottles in the first year to 24,400 bottles in 2005. The business is seasonal with processing taking place from April to June every year. Bel juice contains high levels of natural medicinal substances, this being one of the reasons why there is a large demand for it in local markets and in nearby cities enabling the company to achieve a 40% profit margin in 2005.

The bel trees are well protected in community forests and their density has increased over time. The protection has also allowed for regeneration of other species and this has led to positive environmental impacts.

Shareholders receive financial benefits in proportion to their investment. The poorest people benefit in three ways: firstly, through dividends from their shareholding capital; secondly, as members of their respective FUGs, through the share of dividends going to FUG funds; and thirdly, through employment in the company.

There are now further examples where community members and private shareholders have started up their own small enterprises based on this initial experience. Community members are starting to be recognized as entrepreneurs and are finding leadership positions in business organizations and networks. Despite these successes, there are still a number of outstanding issues including the lack of entrepreneurial skills, and weak marketing strategies and planning. However, the pro-poor enterprise model could be a significant way forward for forest sector business that achieves both poverty reduction and environmental goals. Certainly it has demonstrated that poor subsistence communities can be transformed into entrepreneurial groups.
1. Introduction

“We have received rights over the forest that we have protected for generations; we have been using it for our daily requirements but now we also want our forest to feed us with food and help our children to go to school.”

So responded Sarashwoti Sarki when asked about her desire and expectations from the Tribei Community Forest User Group to which she had recently been elected as an executive committee member. She recognizes that community forestry has given group members entitlements over their forest resources resulting in improvements in forest condition and generating a huge amount of surplus production. However, she understands that despite improvements to forest resources, the living standards of forest-dependent people have not yet been raised, nor livelihood opportunities for people enhanced. These are issues she would like to address.

People are searching for ways and means to process forest resources to create income and employment opportunities to break out of their poverty trap and move beyond purely subsistence-level existence. To do this requires viable business enterprises with the owners following responsible business principles that recognize social and environmental concerns as a core part of their operations. If even large-scale private businesses founded on corporate philanthropy find it hard to abide by these responsible business principles, then what is the realistic solution to Sarashwoti’s dilemma?

The Tamakoshi Bel Juice Processing Company is an example of entrepreneurial innovation that tries to answer Sarashwoti Sarki and other communities who are looking for livelihood opportunities through the use of the forest resources that they now own and have been managing for some time. The company was established four years ago based on a pro-poor model that aims to help poor people get into the commercial sector thus creating incentives for them to protect the forest resources. The company structure has accommodated 10 FUGs, 60 identified poor households from these 10 groups, plus private sector investors. This public-private partnership is becoming a successful model for the establishment of community-based enterprises (CBE) in rural communities.

This case study about the Tamakoshi Bel Juice Production Company aims to share its pro-poor model, lessons learned and experiences gained with other community-based forest enterprises, practitioners, academics and professionals. Information was gathered through visits to the company and field sites, interviews with shareholders and review of their documents and records.

2. Decentralized forestry and forest-based business in Nepal

Nepal has three major geographical regions, namely Terai, Middle-hills and High Mountain1 all of which have important forest areas. Forest type in these varies from tropical high timber production forests in the Terai to Alpine forests in the High Mountains that produce valuable non-timber forest products (NTFPs).

According to the Forest Act of 1993, there are a range of legal categories of forest ownership and management. The three main ones include government, community and private forests. ‘Government’ forests are national forests that remain under government control and include much of Terai’s forest. Private forests are scattered across the country in small patches, whilst community forests are those which have had their management devolved to local institutions across the country called Forest User Groups (FUGs) under Nepal’s community forestry program. Under this program, communities have

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1 The Terai is mostly flat land located in the south of Nepal with high value tropical sal forest. It is highly fertile and the population density is high. High Mountain is the region generally above 4,500 m above sea level, 70% of which is snow covered all year and has temperate forests producing non-timber forest products and high value medicinal plants. The Middle hills lie between these two and have subtropical and temperate forests important for both wood and non-wood products.
entitlement to the forest resources they are managing under their own indigenous management systems. Community forestry is Nepal’s biggest forestry program under which 14,000 FUGs have been formed involving about 1.4 million families as members. About 1.3 million ha of forest land has been handed over as community forest to these FUGs so far (DOF, 2004).

FUGs are most concentrated in the Middle-hills which covers 68% of the country’s total area and where forests tend to be patchy and surrounded by settlements. People living near the forests and who have traditionally been using them are considered to be members of the FUGs. FUGs are legally registered with the government and each one prepares a scientific forest management plan.

**Communities and forest resources**

Forest is an integral part of rural life in Nepal providing fuelwood, fodder, organic compost, food, medicine, building material and local employment. A wide range of forest products including about 700 species of flowering plants are recorded as being commonly used by local people. Forest ecosystems are integral to hill farming, providing nutrients for crops and stabilizing soils. It has been estimated that about 3 ha of forest land are required to maintain the productivity of 1 ha of agricultural land (Hill, 1999). Similarly, Nepal’s main source of energy is fuelwood, which accounts for more than 70% of total energy consumption and is particularly concentrated in rural areas. Food supply from forest is also important and it has been estimated that 50% of vegetables consumed by indigenous people in rural areas come from the forest.

**Decentralizing forestry**

Rural communities historically have a long-standing association with the forest resources they use and manage for their everyday needs. Recognizing the strength of this system, the government of Nepal has developed its community forestry policy over last past three decades. The Master Plan for the Forestry Sector was prepared in 1989 highlighting the importance of the community forestry program, and operational manuals and implementation guidelines have been subsequently prepared. Donor communities have also given the program high priority and it has been implemented all over the country since 1990.

The Forest Act (1993) and Regulations (1995) guarantee autonomy for FUGs enabling them to practice decision making and equitable benefit sharing concerning their community forests. Traditional decision-making systems and indigenous management practices are widely used by FUGs that now operate to satisfy a broad range of needs for their communities. This includes providing services related to elections (democracy), judiciary, social security, education, gender, environmental, economic, community development and human rights protection (Pokharel et al., 2005). They have also formed a national federation that is active in safeguarding community interests at national policy and political levels. Although there is no direct legal connection between FUGs and the local government units (Village Development Committees), they do have strong informal ties to link them. As a result, despite the present autocratic regimes and the civil war situation in Nepal where democratic processes have been suspended, FUGs continue to practice local-level democracy and are the only local democratic institutions in the country at present that follow democratic principles and values consistently (Pokharel and Paudel, 2005).

Community forestry has gone through three distinct stages in Nepal (Figure 1). First came the local-level institutional development process where FUGs are facilitated to develop their own constitution and regulations. On average, FUGs have about 100 households as members and manage about 75 ha of community forest. Next, came the forest resource rehabilitation and regeneration stage where FUGs prepare their community forest management plan outlining the activities to be carried out. The general objectives of FUGs are to satisfy the basic subsistence requirements of community members as well as to produce forest products for commercial sales. Thirdly, a most important stage in community forestry is resource utilization and income generation from the development of forest-based enterprises. Although this is still at an early stage, a few FUGs have now started to run such community-based enterprises and small-scale businesses.
As a result, whereas community forestry was originally thought of as a means of supplying subsistence forest products, of getting community participation in forest protection and where many government bureaucrats, environmentalists, development activists and community leaders still see the achievement of environmental objectives as being the main rationale for community forestry, new initiatives that allow communities and the private sector to come together to manage effective businesses based on NTFPs to support local livelihoods economically are now being established.

Business in NTFPs in Nepal

Business in NTFPs has a long history in Nepal. A hundred and sixty tree and NTFP species are recorded as being traded at present (ANSAB, 2005). These are mainly timber, medicinal, aromatic, fiber and edible fruit species. The NTFP trade is large and complex, and is mainly controlled by traders from Kathmandu and India (Edwards, 1996). Markets for NTFPs lie in India and Europe, and it is difficult to find real official data about quantities traded or their economic values. NTFPs are normally traded internationally in three forms: (i) raw, (ii) semi-processed, e.g. essential oil, paper and medicinal herbs and (iii) finished products, e.g. paper products, herbal oil, herbal tea, natural drinks and juice, and Ayurvedic medicines.

There are generally a number of middlemen involved in the trade between the NTFP harvester and the international exporters. These are not organized as enterprises but as ad hoc businesses without a transparent operating system. This has allowed illegal trade, corruption, over-exploitation of resources and cheap labor to flourish.

Several government institutions deal with the NTFP trade and community-based enterprises (see Box 1). Although good statistical data about the trade have been hard to find and are sometimes contradictory, Figure 2 gives some indication of the NTFP trade and associated revenues, and shows a doubling in the value of the trade over the past five years.

The royalty on NTFPs collected by government is about 5-10% of the selling price. Officially recorded quantities are said to represent about 50% of the actual quantity that goes to India whilst the officially recorded quantities going to other countries are said to be close to the real figures (as mentioned in different studies). More then 85% of raw NTFPs go to India and from there they travel to other countries in processed or semi-processed forms.

Community-based forest enterprises

The history of community-based forest enterprises is short, since until recently all forest resources were owned by the state and were largely exploited by government-owned corporations or selected private business agencies that were given privileged monopolies of extraction by government bureaucrats. To do this, the government set up a complex system for governing forestry business that encompassed harvesting, transport and processing of forest products. Despite this unpromising start, community-based enterprises have gathered momentum in Nepal because of increasing demands for NTFPs in national and international markets. Local communities have started to generate products that are beyond their subsistence requirements, and communities are recognizing the potential for such small enterprises to lift subsistence communities out of poverty. The types of products now being produced through community-based enterprises are shown in Box 2.
Community-based enterprises function differently in different places. They may be registered as companies, cooperatives or other forms of business. Small businesses that produce goods mostly for local consumption or that process raw materials for final producers tend not to register at all with the government making it difficult to find up-to-date and accurate national data about the numbers and trends of community-based forest enterprises in Nepal.

The Department of Cottage and Small Industries is the authority for registering small-scale and community-based enterprises in Nepal. They keep separate records for those enterprises that use agricultural and forest resources as raw materials. A senior official at the Department guessed that about one quarter of the total number of registered enterprises, i.e. about 300 of a total of 1,331 registered enterprises, might be community-based and run (Table 1). However, a more detailed study conducted by Subedi et al. (2002) specifically identified 66 community-based enterprises in the forest sector.

Table 1: Number of small-scale agriculture and forest based enterprises registered in Nepal

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</tr>
</thead>
<tbody>
<tr>
<td>No. of registered enterprises</td>
<td>81</td>
<td>164</td>
<td>91</td>
<td>193</td>
<td>206</td>
<td>263</td>
<td>201</td>
<td>132</td>
<td>1,331</td>
</tr>
</tbody>
</table>

(Source: Department of Cottage and Small Industries)

Forest tenure and enterprise regulatory systems

Forest land ownership in Nepal is clear and well-defined. All forest land which is not privately registered belongs to the government. The government may then hand over certain forests to communities in the form of community forest but this implies ownership and management of the forest resources and products only – not the actual land which remains with the government. In the case of private forest, owners have rights to use and sell land at their own discretion.

A number of policy and regulatory controls affect the development of community-based forest enterprise development in Nepal. These include the Forest Act (1993) and its associated Regulations (1995), and a whole series of Acts and Regulations for registration of private companies and cooperatives; taxation, and customs; as well as national policies for NTFPs, environmental impact and poverty reduction. However, the regulatory and policy framework tends to focus on control and regulation rather than encouraging and enabling community-based enterprises. This type of discouragement comes from a history of bureaucratic inefficiency and a legacy of previous controls over forest resources.

With increased community controls over forest resources and with growing demands for natural products, a few attempts have been made to support development of community-based forest enterprises. As a result, despite the lethargic and regulatory official environment, there has been some progress. Two main driving forces have contributed to this. Firstly, experiences with community driven initiatives, their level of interest and capacity for small-scale business coupled with the formation of robust and functional FUGs have encouraged policy makers to support community-based enterprises. Secondly, the large quantities of forest resources that have been generated as a result of community protection and management are recognized as having real potential as the basis for
national and international businesses. At the same time it is being realized that communities are specialized in sustainable resource management, an important factor to the continuity of such enterprises in the longer-term, and that the private sector is experienced in running efficient businesses. An appropriate model to combine and capitalize on these two areas of expertise is therefore through community-based enterprise development – a strategy which in principle can achieve a win-win situation.

3. Bel juice production – setting up a pro-poor enterprise

Community locations and social structure
The company and the participating FUGs are located in the catchment of the Tamakoshi River about 200 km west of Kathmandu. The settlements are scattered, and the villages and forests lie in the rain shadow of the Mahabharat mountain range which runs from east to west, south of the cluster of communities. Because much of the monsoon rain is blocked by the mountains, rainfall is low compared with the upper mountain areas. Productivity of the sloping land is poor but there are irrigated paddy fields near the river that are more productive. More then 90% of the population depends on subsistence agriculture as their main source of livelihoods, although fewer then 40% of the families have food sufficiency from their agricultural production. To supplement their agricultural income, some family members are employed in local schools, offices, construction sites, and local businesses such as juice production, NTFP collection, tea shops and as porters. Seasonal migration to cities for employment also brings in income for these families.

A total of 1,200 households with a population of 7,350 make up the 10 FUGs that participate in the Bel Juice Production Company (Table 4). The communities are diverse in many ways with caste, economic class, gender, education and geographical remoteness as the major differentiators. The social influence of caste is still very high in the region. Larger landholders are invariably better-off then the low caste, poor, landless people. Women are dominated by men’s decision-making and controlling power within families and in communities. However, over the past 10 years, there have been tremendous positive changes in caste and gender equity with community forestry playing a lead role in this. Table 2 illustrates the community structure of the 10 participating FUGs. It shows that the largest group of people living in these settlements is middle caste plus a significant number of lower caste people who are mostly identifiable as the poorest households.

<table>
<thead>
<tr>
<th>No. of FUGs</th>
<th>Total households</th>
<th>Total population</th>
<th>Total forest area (ha)</th>
<th>Mean forest area per FUG (ha)</th>
<th>Mean no. of households per FUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher caste</td>
<td>Middle caste</td>
<td>Lower caste</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>472</td>
<td>640</td>
<td>88</td>
<td>1,200</td>
<td>3615</td>
<td>3735</td>
</tr>
</tbody>
</table>

(Source: Constitutions, Operational Plan, Meeting minutes, and interviews of 10 FUGs)

Community forests and FUGs
The 10 FUGs are of different ages – some having revised their 5-year Operational Plans twice are at least 10 years old. They differ in size and forest area, but their community structures, planning processes, decision-making systems, operational activities, socio-economic conditions and living standards are fairly similar. They are all registered with the District Forest Office (DFO) and as such are legally entitled to manage and use their allocated community forests. Their institutional functioning mechanism, decision-making processes, benefit distribution system, representation and leadership, roles and responsibilities, and membership mechanisms are clearly explained in their respective constitutions, which they prepare with consensus of members during a general assembly. Every member of the FUG has to participate in the general assembly where they have the right to speak and raise their concerns. Once a group is registered as an FUG they have to prepare a 5-10 year
Operational Plan describing every activity to be carried out in the community forest. Box 3 lists the regular activities that are being carried out by these FUGs.

### Box 3: Regular activities of 10 participating FUGs

1. Identification of group members; boundary delineation of forest; forest resources assessment for annual harvesting.
2. Preparation of constitution and operational plan; election of executive committee; definition of roles and responsibilities of general members and leaders.
3. Implementation of silvicultural operations, e.g. thinning, pruning, singling, cleaning, plantation (five older FUGs).
4. Harvesting and distribution of subsistence forest products, e.g. fuelwood, timber, leaf litter, fodder.
5. Holding meetings and assemblies for decision making about leadership, conflict management, product distribution, income generation, community funds, and if required for amendments to the constitution and operational plan.
6. Well-being ranking for identification of the poorest families in order to use community funds to assist them with income generation activities, e.g. grants, or interest-free loans.
7. Use of community funds for community development activities, e.g. school buildings, hiring school teachers, drinking water supply and community centres.
8. Forest protection including special management activities for bel trees.
9. Purchase of shares in Bel Juice Processing Company and taking part in company activities.
10. Coordination with other FUGs, local governments, DFO, private companies and NGOs.

### Bel trees and bel fruit

The bel tree (*Aegle marmelos*) (stone apple or wood apple) grows in relatively dryer forest areas with southern aspects. The community forests managed by FUGs participating in bel juice production all have suitable conditions for production of bel with steeply sloping, south facing, dry and gravelly sites. Bel trees grow to moderate size (up to 10 m high) and require high light intensities to grow in tropical and sub-tropical climates up to 1,000 m above sea level. Bel trees are found across Asia from Pakistan to Sri Lanka and Indonesia. The tree is resistant to drought, low pH, and insect and fungal damage compared with other wild fruits, and has an unpalatable deciduous foliage. The fruit is golden in color with a hard outer shell varying in size between 5 and 10 cm diameter. The fruit pulp is soft, sweet and fragrant with 10-15 seeds inside each fruit.

Bel fruit contains high-value chemical compounds including alkaloids, coumarone, steroids, mucilage pectin, sugar, and tannin whilst the leaves produce an essential oil. The fruit has high nutritional value containing tonics, vitamins, carbohydrates, proteins, fats and a range of medicinal substances. In Ayurvedic medicine, it is believed that bel is a brain tonic, that it can increase longevity, and is a source of eternal power. Juice, jam, candy, sweets and other food products can all be made from the fruit in addition to a range of Ayurvedic medicines. No substance poisonous to humans has been found in bel fruit.

In Nepal, bel has important cultural and religious values. It is considered as a symbol of Shiva, the greatest Hindu God. Every year during July and August, about 10-15 tonnes of bel leaves are used for worship in Pashupatinath Temple in Kathmandu alone. By tradition, young girls of the Newar ethnic community in Nepal are married to undamaged bel fruits before their menstruation starts as a symbol of their future husbands.
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**Setting up Bel juice Production Company**
Selling bel fruit for religious and domestic consumption is an old tradition. Making and drinking bel fruit sorbet during the hot summer is commonplace in the Tamakoshi River belt. After the formation of FUGs in the area, discussions began to be held to find the best options for income generation and creation of local employment through the use of forest resources. Such discussions were facilitated by the Nepal Swiss Community Forestry Project (NSCFP), a donor-funded project, as well as the DFO, and the Federation of Community Forestry User Groups (FECOFUN).

Since bel fruits were being produced every year in huge amounts from community forests, each FUG started collecting and selling their fruit in local markets. However, it was soon realized that there were only limited benefits from this, particularly as there was competition between the FUGs for the limited local market for the fruit. As a result, initiatives were taken to establish a juice production enterprise, a unique product type, and one that could accommodate all the FUGs including the poorer families, (Boxes 4 and 5). The scope of the enterprise was therefore to move beyond domestic consumption and local markets for bel to processing and national markets that would provide full time employment and economic dividends to shareholders (Figure 3). The enterprise has always taken a pro-poor entrepreneurship approach with the private sector as an active business partner in the company. NSCFP, DFO and FECOFUN all actively supported development of the enterprise over the first two years.

<table>
<thead>
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<th>Box 4: Steps and activities carried out to set up the juice production enterprise</th>
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<tr>
<td>1. 10 FUGs were visited to assess their interest and Bel fruit availability</td>
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<td>2. Cluster workshop amongst the 10 FUGs to develop the concept of the enterprise and agree on a model</td>
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<td>3. Well-being ranking and governance coaching to FUGs</td>
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<tr>
<td>4. Identification of private investors</td>
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<tr>
<td>5. Share distribution to shareholders</td>
</tr>
<tr>
<td>6. Company registration, preparation of business plan and operational guidelines</td>
</tr>
<tr>
<td>7. Juice production and enterprise development training</td>
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<tr>
<td>8. Establishment of factory, production design and market survey and linkages</td>
</tr>
<tr>
<td>9. Marketing of the products</td>
</tr>
<tr>
<td>10. Review and scaling up of production capacity</td>
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</table>

There were numerous conceptual and operational discussions and debates about the modality of the company whilst it passed through different stages of its development. Wider public opinion focused on the need to make the enterprise broad-based so that participation of the poorest households would be possible. At the same time experience showed that establishment of a large enterprise required well-organized communities or groups experienced in commercial activities (Scherr et al, 2004). In this regard long-established indigenous communities organized into FUGs were in a relatively strong position in terms of resource management and social enterprise. However, it was felt that there was also a need to bring the private sector on board to make the business run smoothly and be more competitive.

Four major driving forces led finally to the adoption of a public-private partnership model for the enterprise.

(i) Communities were already **organized and ready** for setting up a business so that they could earn money from their forest resources

(ii) The **quantity of bel fruit** available was huge, and at the same time there was a growing demand for bel products in local and Kathmandu markets. This enterprise was the first in Nepal producing bel juice.

(iii) A number of **external facilitating organizations** provided their support to establish the company and to achieve its environmental and poverty reduction objectives. Their support was for identification of poor households; formation of a network of FUGs; bringing in the
private sector; technical and entrepreneurial training to participating individuals; registration and management system development; and financial support for buying share in the company for the identified poor households.

(iv) Processing required **simple technology**, hence the initial investment was low and the profit margin comparatively high from the start. This allowed illiterate poor people to become directly involved in the processing in the factory.

**Institutional structure of enterprise**

The registered name of company is Tamakoshi Forest Products Processing Company Private Limited (Bel Company in short). As the company has accommodated various types of entrepreneurs and communities, its ownership structure is quite large. The company’s final ownership structure includes three shareholder groups, whose ownership breaks down into the following percentages:

- 10 Community Forest User Groups (30% shares)
- 60 poor households identified from the 10 FUGs (30% shares)
- 6 private entrepreneurs (private sector) (40% shares)

The structure of the company is illustrated in Figure 4. The Bel Juice Company’s shareholder structure aims to benefit the local communities, especially the poor, whilst leveraging the experience and business leadership of private entrepreneurs. NSCFP provided financing for the 60 identified poor households to become 30% shareholders in the company. However, these poor households now have the same full benefits and rights as the other shareholders.

The pro-poor representation incorporated into the ownership structure of the enterprise is a new concept that seeks to employ and empower the poorest members of the community through their active involvement in the enterprise. The pro-poor model emphasizes the concept of poor community members becoming entrepreneurs so that they can develop the means to lift themselves out of poverty. A significant change in the pro-poor model compared with previous enterprise models is a strong focus on economic growth and profit as prime drivers rather than supplementary income or wages (Box 5).
Box 5: Why include the poor in the enterprise? How is this enterprise pro-poor?

Pro-poor entrepreneurship recognizes the limitations of previous approaches relying on income generation and self-employment that have not resulted in significant improvement in poor people’s lives.

If poor people are trained to become entrepreneurs, they can then lift themselves out of poverty through a change in their livelihood strategy from one which previously relied on wage income or sale of raw natural products to one which relies on economic growth and profits as prime drivers. It is not necessary for poor people to have an innate gift for entrepreneurship as had previously been thought. To do this, poor people need to be part of the ownership structure of the enterprise.

A recent analysis of enterprise development opportunities for low income producers, showed that situations where there are opportunities for trade in NTFPs with high national or international demand, where there are strong community organisations, where few domestic substitutes are available and if sustainable management of wild resources is possible, offer the greatest market opportunities for the poor (Scherr et al., 2004).

Community forestry therefore offers an ideal institutional and resource base for this approach. FUGs where poorer members are identified can be externally supported for more equitable outcomes rather than if support is provided from outside the FUG institution. This is because the elite members of the FUG are also identified and supported, and not allowed to capture benefits and/or manipulate outcomes. The Bel Juice production company, with its pro-poor model, offers benefits to poor households in four major ways:

(i) They get partial/full time employment for fruit collection and in the juice processing factory.

(ii) They receive a dividend based on their shareholding, if the Company is profitable.

(iii) They receive a dividend based on their FUG shareholding, if the Company is profitable, as they are also members of the FUG.

(iv) They may also receive productivity bonuses and wages if working in the processing factory.

Aims of the enterprise

The major rationale for the company is to establish a public-private business that is pro-poor (involving FUGs, poor households and private entrepreneurs) for processing and marketing NTFPs so that:

• Economic and livelihood opportunities for poor families are enhanced by generating employment opportunities and by involving them as shareholders
• Forest resources are sustainably managed (especially for valuable NTFPs)

There are also a number of overlapping objectives between the company and the concerned FUGs, since both institutions aim to:

• Improve environmental protection of community forests
• Stimulate local economic activity
• Create new opportunities to assist the rural poor
• Provide higher tax and royalty revenues for local FUGs

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• Stimulate local economic activity
• Create new opportunities to assist the rural poor
• Provide higher tax and royalty revenues for local FUGs
• Promote gender equity in rural communities

4. Driving mechanisms - the internal governance of the company

The company has developed a number of rules, regulations and systems to make their internal governance more effective and inclusive. A number of organizations helped them to develop their systems of operation and make the business effective from its conception. With the help of these inputs and on their own initiatives, they have formulated a governing body, an executive committee, sub-committees, a record keeping system, a shareholding mechanism and a benefit distribution system. As a result, the company structure is quite large and complex necessitating clear internal operating systems to make it functional.

External support providers

Apart from the three major shareholding groups (FUGs, identified poor and private entrepreneurs), a number of organizations actively supported the company. It has been found that this type of business model allows external agencies to come together and concentrate their support in a way that achieves their own development objectives. For example, the company is being supported by organizations that have purely environmental objectives as well as organizations that have a strong social agenda (social inclusion), see Table 3.

Table 3: Support provided to the Bel Company by external organizations

<table>
<thead>
<tr>
<th>Organization</th>
<th>Objectives</th>
<th>Type of support provided</th>
</tr>
</thead>
</table>
| Federation of Community Forestry User Groups (FECOFUN) | • FUGs are their members  
• Advocacy for FUGs rights and their welfare  
• Good governance in FUGs  
• Services to FUGs | • Hosted all initial discussions and meetings  
• Helped FUGs with well-being ranking  
• Offered a common facility centre initially  
• Governance coaching for FUGs to strengthen their institutional capacity  
• Market linkages in Kathmandu |
| District Forest Office (DFO)              | • Technical support to FUGs  
• Forest protection for environmental objectives | • Formation of the initial cluster of FUGs  
• Registration and moral support  
• Technical support for Bel resource assessment |
| Nepal Swiss Community Forestry Project (NSCFP) | • Improved livelihoods of rural poor in the remote areas  
• Sustainable resource management  
• Change subsistence communities into entrepreneurs through the forest product business  
• Good governance at all levels | • Conceptualization of pro-poor entrepreneurship approach and development of methodologies  
• Financial support for workshops, meetings and training  
• Financial support to buy the 30% shares of the company for 60 identified poor households  
• Inventory methodology for resource assessment  
• Operating guidelines, methodology and monitoring |
| District Development Committee            | • Local government  
• Poverty reduction fund  
• Political endorsement | • Organization management training  
• Local marketing  
• Utility facility (electricity and water) |
| Small and Cottage Industry Office         | • Enterprise development  
• Registration  
• Services to small enterprise | • Registration of juice processing factory  
• Enterprise development training  
• Food processing training |
| District Chamber of Commerce              | • Entrepreneurs are members  
• Welfare of entrepreneurs | • Local marketing and linkages  
• Membership of the company |
Shareholding mechanisms and distribution
Shares are now distributed according to the company’s ownership structure. After settling all costs and benefits from previous years and estimating that the overall cost of juice production in 2005 would be about 1 million NRs, in 2004 the company decided to issue 10,000 shares each worth NRs 100. Although the shares are distributed according to the ownership structure of company, there are variations in the arrangements between individuals, FUGs and private entrepreneurs. Table 4 explains the share distribution system in the company and among the three shareholding sub-groups.

Table 4: Share distribution in the company (10,000 shares worth NRs 1 million)

<table>
<thead>
<tr>
<th>Shareholder groups</th>
<th>Share value</th>
<th>Distribution within group</th>
</tr>
</thead>
</table>
| 10 Forest User Groups | 3,000 shares @ NRs 100 = NRs 300,000 | - Funds vary between FUGs. Some have larger forests and more diversified income sources (e.g. membership fees, sale of products).  
- FUGs used their fund to buying shares. They also use their fund for other planned community development activities.  
- The money that FUGs could raise to buy shares varies from NRs 10-50,000 per FUG depending on their fund size.  
- The decision to buy shares was taken in a general assembly of company members and in assemblies of individual FUGs.  
- Some FUGs, which do not have enough cash can buy shares by supplying bel fruits to the company. |
| 60 identified poor households from 10 FUGs | 3,000 shares @ 100 NRs = NRs 300,000 | - NSCFP paid the company for 3,000 shares to be distributed equally to 60 identified poor households. The share capital provided to every household equals NRs 5,000.  
- The number of identified poor households in FUGs varies from 4 to 10. Well-being ranking exercises determine the number in each FUG.  
- NSCFP’s money is part loan and part grant to the poor families. To manage this money there is a tri-partite agreement between NSCFP, the company and the FUGs.  
- The assumption is that the poor households will themselves become entrepreneurs in three years’ time. Every individual has to pay back 70% of the initial capital (i.e. 70% of NRs 5,000) in third year (2007 in this case). The remaining 30% will come from the FUG fund. This money will then be used to buy shares for the second layer of identified poor households (those slightly better off than the first) who were not supported previously.  
- Family are not allowed to sell their share within three years’ time since there is a tendency for poor people to sell capital assets to meet immediate needs. Once they have paid back 70% of the total, then the remaining 30% plus any other shares they may have bought with the dividend benefits they get annually, become their own to use at their own discretion.  
- This model helps to increase the number of poor families that are shareholders – at least doubling it every three years. Each FUG has a list of families to be supported (poorest first). |
| Private entrepreneurs | 4,000 shares @ NRs 100 = NRs 400,000 | - 6 entrepreneurs who felt a social responsibility and had understanding of FUG dynamics and the pro-poor model were invited to take part in the company.  
- They have divided the total share capital and bought individually.  
- As the production capacity of company increases from year to year, it will sell more shares to other private entrepreneurs but not exceeding 40% of the total shares. |

The company has decided to continue to increase its capital investment by NRs 1 million every year for three years. To do this, 50% of the dividends will be converted into shares for every existing shareholder, and for the remaining amount required, the company will sell more shares to interested
existing and new entrepreneurs. FUGs are encouraged to buy more shares from the company to maintain their ownership structure. It is calculated that ownership by the identified poor group will be maintained at 25% at the end of the third year under this arrangement.

**Enterprise management structure and decision making**

For implementation of company activities and for decision making, the company has four major structural units functioning at different levels. These are the General Assembly; Executive Committee; the management team in the factory; and sub-committees (Figure 5).

The main governing body of the company is the General Assembly also known as the Board of Directors. This has 33 members representing all the shareholder groups. Every FUG elects one man and one woman to represent it in the company. Similarly, there is one representative from the identified poor households in each FUG. This gives a total of 10 men plus 10 women FUG representatives plus a further 10 from the identified poor households. The remaining three members are from the private entrepreneurs. FUGs have the freedom to recall their representatives and select new ones if they wish. The General Assembly meets every 6 months regularly and special meetings can be convened if required. The General Assembly formulates working procedures, production targets, share distribution, and endorsement of costs and profits. It also endorses decisions taken by the Executive Committee concerning routine works and marketing. The Executive Committee prepares the agenda and presents the company’s progress reports at the General Assembly. Representatives make linkages between the company and the respective groups to ensure that decisions made are properly communicated. In addition, representatives of FUGs and of the poor are responsible for ensuring a regular supply of raw material.

The Executive Committee is elected by the General Assembly with all shareholder groups represented. Their terms and conditions are developed by the General Assembly and their tenure is for three years. Amongst the nine-member Executive Committee, four are from the FUG representatives, two from identified poor households and three from private entrepreneurs. To be elected to the Executive Committee one has to be the member of General Assembly. The Executive Committee is responsible for overall management of company activities including: raw material collection and purchase; processing; transportation; marketing; representing the company in other fora; coordination with support organizations; record keeping and accounts; calling for General Assemblies; and other routine and managerial work. Executive Committee members are not paid a salary, but they get subsistence allowances if they have to travel outside the factory for fruit collection or marketing.

The Management Team is the main part of company for efficient and quality production. The team consists of a production manager; marketing assistant and company laborers. The management team works under direct supervision of the company chairperson and production unit in-charge selected from the Executive Committee. The production manager and assistant are employed for six months and laborers get partial employment for 4-6 months per year. As the company expands and juice production from other wild fruit species begins, there will be arrangements for the required laborers to work throughout the year.

Finally, there are sub-committees for implementation of specific tasks in the company. Three informal sub-committees have been formed: financial and record keeping; marketing; and fruit collection and resource management. At present, the financial and marketing sub-committees are managed by the same team. Each sub-committee is headed by a selected member from the Executive Committee with other members selected from amongst General Assembly members. Sub-committees help to assign specific roles and responsibilities to individuals for important company activities.

Three members from the Executive Committee (chairperson, treasurer, plus one member) operate the bank account. Overall cash management responsibility goes to the production-in-charge and the production manager. There is a strong link between decisions made by FUGs and the company’s production management. FUGs have their own regular assembly every six months, and once a year all FUGs gather together in their cluster where company management is on the agenda. Representatives
from the Executive Committee are invited to these meetings to facilitate the discussion. For the distribution of dividends, every FUG has the right to decide how they will use it.

The whole management structure and decision-making system has been found to be effective for the success of company. Although decision-making definitely takes more time than in an enterprise owned by one or two individuals, effectiveness is higher in this model, which makes the business more sustainable, inclusive and ensures that resources are properly managed. Effective leadership, efficient and transparent communication, clear division of roles and responsibilities, regular meetings, and proper record keeping are all crucial elements of the model.

Local employment generated

The company has generated significant local employment opportunities especially for the identified poor people. Construction of the factory, fruit collection, transport, juice processing, packaging, marketing, and office management are some of the main employment generating activities. Although the company started preliminary production four and a half years ago, the first two years mainly involved selling fruits and organizing training for processing and quality control. Production for the external market started three years ago involving 20 people for one month. As previous trainees they could produce 1,000 bottles of juice and 200 packs of jam in that time. Table 5 gives comparative employment figures for 2004 and 2005. The juice production season ends in June every year so it has been possible to give employment figures for 2005 here.

Table 5: Local employment generated by the company (female numbers in brackets)

<table>
<thead>
<tr>
<th>Activities</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employed number</td>
<td>Income (NRs)</td>
</tr>
<tr>
<td>Factory construction</td>
<td>16</td>
<td>30,000</td>
</tr>
<tr>
<td>Fruit collection</td>
<td>20 (12)</td>
<td>5,240</td>
</tr>
<tr>
<td>Transport</td>
<td>5</td>
<td>4,000</td>
</tr>
<tr>
<td>Juice production</td>
<td>20 (12)</td>
<td>5,400</td>
</tr>
<tr>
<td>Production management</td>
<td>2</td>
<td>12,000</td>
</tr>
<tr>
<td>Total</td>
<td>56 (24)</td>
<td>40,640</td>
</tr>
</tbody>
</table>

Table 5 shows the major contribution of the company to local employments even though this is still seasonal. 50% of the juice processing laborers also collect fruits, usually doing this in the morning and bringing the fruit they have collected to the factory when they arrive for work, thus earning wages from both jobs. Almost half of the workforce is female and all of them are from identified poor families. The juice production season is a slack period for farmers when other employment opportunities are limited. The total wages going to identified poor families are considered to be very high compared with other economic opportunities. For example, NRs 222,604 was spent in 2005 for their labor – this is almost 75% of their share values (i.e. NRs 300,000). In addition to employment, since they are also owners of the company, their social status and dignity are also enhanced.

5. Economics of the enterprise - financial costs and benefits

The company maintains very clear and up-to-date financial records of all expenditure and revenue. Since January 2005, the company has initiated a new financing mechanism for collection of premiums from shareholders, for dividend distribution according to its ownership structure. All costs and benefits of previous years have been settled, and according to these new arrangements, expansion of the company’s production will take place over the next three years. This section explains the details of costs and benefits for every step of juice production starting from factory construction to marketing of the final products.

The initial investment
Originally, the company collected the required amount of money in proportion to its ownership structure at the beginning of every production season and distributed the net profits at the end. Until the end of 2004 this was possible since total production was fairly low (2,000 bottles) compared with in 2005. However, under the new financial arrangements, starting from the beginning of 2005, the company distributed 10,000 shares to the shareholders and collected 1 million NRs.

The company began factory construction three years ago. During the first two years they bought the machinery and utensils required juice processing and at the end of 2004 rented a piece of land with storage facilities for five years and constructed a processing factory building together with equipment and furniture.

### Table 6: Summary of fixed capital of the company (fixed cost investments)

<table>
<thead>
<tr>
<th>Fixed cost items</th>
<th>2003 (NRs)</th>
<th>2004 (NRs)</th>
<th>2005 (NRs)</th>
<th>Total (NRs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building construction</td>
<td>-</td>
<td>30,000</td>
<td>52,123</td>
<td>82,123</td>
</tr>
<tr>
<td>Furniture</td>
<td>-</td>
<td>-</td>
<td>23,264</td>
<td>23,264</td>
</tr>
<tr>
<td>Machine/equipments</td>
<td>7,230</td>
<td>3,168</td>
<td>25,419</td>
<td>35,818</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,230</strong></td>
<td><strong>33,168</strong></td>
<td><strong>100,806</strong></td>
<td><strong>141,205</strong></td>
</tr>
</tbody>
</table>

The costs of training, skill development and company registration were born by NSCFP so they do not appear under company expenditure. Since the land is rented for five years, the company has decided that the total fixed cost (i.e. NRs 141,205) divided by five will go towards annual operational costs as depreciation. For example, NRs 28,241 will be added to the annual production costs for calculating the total cost of production. Additional purchases over the next years will be treated in the same way.

### Costs of fruit collection and purchasing

The company buys fruits from the collectors at the factory. The purchase price includes collection and transportation costs. As the various community forests lie at different distances from the factory, the company has different fixed rates for each FUG. One laborer can collect 50 kg of fruits in three hours and the average two-way travel time with the fruit is three hours. This means that six hours are required to sell 50 kg of fruits earning about NRs 190. Collectors collect fruits from their own FUG which helps by keeping records of the fruits collected. As the quantity of fruit available is huge, the company has divided the quantity of fruit that each FUG can sell, so that all FUGs are able to supply a certain quantity. As a result, the company has to buy fruits from the furthest FUG and pay the higher rates for this (due to the longer transport distance) even though fruit is actually available in required quantities nearer to the factory.

To make collection more efficient and cheaper the company is implementing concept of satellite collection centers at various places. If the pre-processing for pulping can be done in these centers it will reduce transport costs. At present, the company pays NRs 3.86 per kg of fruits to the collectors, plus a further NRs 2 per kg to the FUGs giving a total cost for raw material of NRs 5.86 per kg for the company.

### Table 7: Costs associated with the purchase of bel fruit in 2005

<table>
<thead>
<tr>
<th>Amount of fruits (kg)</th>
<th>Price paid to FUGs (NRs)</th>
<th>Labor charge (NRs)</th>
<th>Total cost (NRs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,977</td>
<td>13,956</td>
<td>26,940</td>
<td><strong>40,896</strong></td>
</tr>
</tbody>
</table>

Table 7 shows that NRs 13,956 went to FUG funds from the sale of fruits during 2005. This would not have been possible without having established the company. 77 individuals from 60 identified poor families were involved in fruit collection earning NRs 26,940 in 2005, their involvement varying from a one-off supplier to regular collector. Most individuals used fruit collection as an additional job to supplement their income.

### Converting fruit into juice – the costs of processing

The juice production technology is very simple and requires only simple tools and machinery (Figure 6). Most people are able to learn the techniques for quality juice production within a week. Good
quality juice production requires proper mixing of water, fruit pulp, sugar, and preservatives in a given formula. Hygiene, airtight and attractively labeled bottles of a handy size; and good tasting juice are the key elements for the successful marketing of bel fruit juice. The juice production technology is similar to that for other fruits, therefore the same manpower can be used for other fruit processing – an activity that the company is planning for next year.

The company pays NRs 200 per day to the skilled laborer for processing. On average 15 laborers are employed to produce 200 bottles (750 ml) of juice. The juice production season starts in early April and continues for three months allowing all the laborers to be employed full-time for this period. The company tries to involve all the trained people from previous trainings on a rotational basis. A total of 45 people were employed in 2005 – all of them were from identified poor families.

Table 8: Cost of juice processing in 2005

<table>
<thead>
<tr>
<th>Cost items</th>
<th>Cost (NRs)</th>
<th>Total production</th>
<th>Cost per bottle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juice bottles (27,750)</td>
<td>198,750</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottle transportation to site</td>
<td>41,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processing labor charge</td>
<td>156,474</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel</td>
<td>14,596</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preservative chemicals</td>
<td>25,970</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar</td>
<td>286,211</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packaging and labeling materials</td>
<td>81,205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottle lids and aprons</td>
<td>17,300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing and transportation</td>
<td>45,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rent of land</td>
<td>16,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation of the fixed cost</td>
<td>28,241</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management cost</td>
<td>13,233</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>924,680</strong></td>
<td>24,451 bottles of juice</td>
<td>The cost of processing is NRs 37.82 per bottle</td>
</tr>
</tbody>
</table>

The company has contracted two dealers in Kathmandu for marketing the juice. The dealers buy in Kathmandu at NRs 65 per bottle and their retail price is NRs 80. This has saved the company time on marketing and the costs of advertising. The company has a showroom at the factory site to supply local markets and more than 3,500 bottles are sold locally, completely replacing other soft drinks such as coca-cola.

**Profit from the enterprise**

Apart from social, economic, environmental and employment benefits, the company has made healthy profits compared with other businesses. Table 9 illustrates this.

Table 9: Total cost of production and profit margin in 2005 (NRs)

<table>
<thead>
<tr>
<th>Cost items</th>
<th>Total costs</th>
<th>Total production (bottles)</th>
<th>Unit cost (NRs)</th>
<th>Unit price (NRs)</th>
<th>Total sales (NRs)</th>
<th>Total revenue (NRs)</th>
<th>Profit per unit (NRs)</th>
<th>Total profit margin (NRs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit collection</td>
<td>40,896</td>
<td>24,451</td>
<td>39.49</td>
<td>65</td>
<td>24,451</td>
<td>1,598 million</td>
<td>25.51</td>
<td>632,739 (40%)</td>
</tr>
<tr>
<td>Juice processing</td>
<td>924,680</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>965,576</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Note: depreciation cost and marketing cost are included in processing cost)
Compared with 2003, there has been a tremendous increase in the quantity of production and in profits in 2005. Total revenue in 2003 was NRs 67,072 compared with NRs 1,564,000 in 2005 with the profit margin increasing from 21% in 2003 to 40% in 2005. This is an exciting trend, since the scale of production has increased by 20-fold during the third year of operation (Box 6).

However, the company has realized that a number of improvements could be made to reduce the production cost and increase efficiency that would lead to increased profitability of the enterprise. These include:

- Satellite collection centers – buying from cheaper places
- Replacing glass bottles with plastic to reduce transport costs
- Using machinery for pulping and mixing to increase efficiency
- Using specialized skilled manpower for certain work rather than rotational employment
- Purchasing bottles and other materials in advance from sellers to reduce the price by 30%

### Box 6: Bel juice production potential

**Bel fruit**
- One kg of bel contains 4-6 fruits
- Bel fruit has 70% pulp and 30% bark
- 3 bottles of juice can be made from one kg fruit
- An average bel tree can produce 40-50 kg fruit

**Future potential**
- About 7,000 kg of fruit were used making for 25,000 bottles of juice in 2005.
- The harvestable amount of bel fruit in 10 community forests is about 139,900 kg.
- If all fruits were used 419,700 bottles could be produced and @ NRs 65 per bottle NRs 27.2 million could be earned.
- If the profit margin is 30% the total profit would then be NRs 8.2 million per year.
- 30% of the profit goes to the poor. This equals NRs 2.5 million per year.

### 6. Impacts of the Bel Juice Production Enterprise

Clearly, the profitability of juice production is high and the financial profits distributed amongst shareholders are remarkably good. Profit making is on an upward trend as the company gains professionalism and experience, therefore enhanced production capacity will lead to some economic and social changes for shareholders and the communities. As well as financial profits, the company has generated environmental, social, and economic impacts in the FUGs directly involved as well as in surrounding villages.

**Environmental impact**

Environmental impacts include the conservation of forest bio-diversity through sustainable forest management. There are both qualitative and quantitative impacts in forest condition. 10 FUGs are now managing 714 ha of forest sustainably. The degraded forests are being rejuvenated now that local people have the incentive to protect species that in the past were considered as unwanted. Bel trees, that had started to be used for fuelwood and for making ploughs in the past, are now being conserved since the company has started buying the fruits. Similarly, other species such as amala (*Emblica officinalis*), harro (*Terminalia* spp.), barro (*Terminalia chebula*) that are not used by the people at present are also conserved and managed as a result of the learning from utilizing bel fruit. People have realized that these species can generate livelihood opportunities in the future. A recent forest inventory showed that regeneration of fruit tree species is three times more numerous in 2004 than it was in 2000. Controlled grazing, weeding and fire control by FUGs have helped to regenerate forests.

Kalpana Majhi, a poor FUG member realized that the numbers of pests and ants in her agricultural crops had gone down as the density of bel regeneration increased. She feels that bel leaves have anti-pest properties that assist in the establishment of natural regeneration of other species in the forest (Box 7). Other impacts include the protection of bel trees on the private lands, and the environmental effects of the improved tree cover in both community and private forests such as increased flows from ground water sources and improved honey production – all of which farmers attribute to the improved forest management for bel production.
Economic impact
The economic impact generated through the profits of the company is remarkably high and it is encouraging other communities to initiate similar businesses.

Money now enters villages following the initiation of juice production by the company. Significant sums go to FUG funds – both from fruit sales and shareholder dividends. These are used for community development and other income-generating activities focusing on poorer families.

Almost NRs 300,000 went to poor households for their labor in 2005, which would have not been available to the villages otherwise. With increased entrepreneurship knowledge, poor families are starting to use their windfall to generate multiple sources of income by investing in household level enterprises (see Box 7) including such things as making small furniture, and collecting mushrooms, vegetables and honey. This has helped to diversify household earnings and reduce vulnerability. Some of the poorer households confirmed that if the company’s profit and production continue to grow at present rates, they will be free from debt in one or two years.

Social impact
Entrepreneurial interventions and the economic activities of the company in the village have brought tremendous positive social changes for local people. Social impacts are best reflected in FUG governance and representation, behavioral changes in the communities, living standards of the poor, and health and hygiene. More specifically the following (mainly qualitative) impacts were observed:

- Levels of participation of poor and women in decision-making process have increased. More than 50% of major positions are taken by identified poor and/or women.
- Poor households can now speak out in the community and can unhesitatingly put forward their views.
- FUG governance has improved. FUGs are gaining institutional strength and feel they are following principles of equity and social justice.
- Health and hygiene of the community have improved. People involved in the company are neater, cleaner and wearing better clothes.
- People are getting time to attend meetings and assemblies and participating more fully in these.
- Education opportunities for children from poorer families are improving. Almost all have joined the local school.

Box 7: The Story of Kalpana Majhi
Kalpana Majhi, 30 years old, became a widow seven years ago when her husband died of high fever. The superstitious society accused her of being a witch and of killing her husband. As a result, without children or husband, Kalpana, had a most difficult and socially deprived life.

Ampani FUG selected Kalpana as an identified poor person to take part in the juice production company. That event changed her course of life and gave her hope for the future.

She took part in general assembly of FUG, and was then selected for the governing board of the Bel Company where she spelled out her name for the first time in front of the people. Later, she was trained in entrepreneurship development and fruit juice processing and is also a member of the processing sub-committee.

Nowadays she regularly collects bel fruits, brings them to the factory, works as a laborer for processing, and takes part in managerial decision-making. When the bel season is over, she produces juice from mango, makes candy from ginger and amala, and produces mushroom and other vegetables earning about NRs 4,000 per month. Kalpana says:

“The enterprise re-opened my home, provided hope of life, and gave me a means of survival with dignity. These days I take part in meetings and my voice is heard. Those who never turned their head to me in the past now reply to my Namaste (hello). The entrepreneurial initiation became God’s gift for me.”
• The other development initiatives, FUG activities and local governments are becoming pro-poor focused as a result of the company’s activities.
• Local eating places and shops report that consumption of coca-cola has been replaced by bel juice.
• Poor people are getting better access to their subsistence needs.

The demonstration effect of the company is spreading to nearby villages and other business initiatives. There are now already three other companies established with knowledge, experience and inspiration from the bel juice enterprise including a paper production enterprise, an essential oil enterprise and nettle fibers manufacturing – all adopting the pro-poor entrepreneurship model. The 10 participating FUGs have established a network that is now used for various different development purposes. FUG members and entrepreneur facilitators from other places have been visiting the company that is becoming a model for the development of pro-poor business with environmental and social responsibility.

7. Policy environment - enabling conditions and regulatory control

Despite the positive impact of this community-based enterprise, the overall policy environment in Nepal is still not conducive for growth and expansion of community-based enterprises in general. Such enterprises have to function and are regulated under the traditional legal framework which is designed for private sector companies where a feudal social structure and corrupt bureaucracy usually serve the interests of rich and powerful business communities. There are no specific and separate legal back ups or protection privileges for community-based enterprises. Since they have to go through the same channels and legal procedures, they find it difficult to compete with rich national and multi-national companies because of the high transaction costs.

Whilst the sustainability of a business like Bel Juice enterprise using a natural product is guaranteed by the establishment of a pro-poor enterprise involving people who live near the forest resources (Nurse and Paudel, 2004), bigger private companies who deal with natural products have often failed to achieve environmental objectives (through over-exploitation) and by failing to bring back the benefits to local resource-dependent people. Therefore, some specific changes that would improve the enabling environment for such pro-poor enterprises to flourish are likely to address some of the issues resulting in unsustainable natural resource management in Nepal too.

Regulatory mechanisms
The overall attitude of bureaucrats and government policy towards business and enterprises is more one of controlling rather than fostering their growth. Business is often seen as being unimportant in a traditional society where subsistence livelihoods predominate. For example, although FUGs are entitled by law to sell their forest products on their own (taking into account the sustainable management of their forest resources), DFOs impose a series of ad hoc and powerful controlling influences over harvesting and transportation of forest products. Government staff are often traditional bureaucrats with vested interests in perpetuating their controlling powers and at the same time, seeking opportunities for personal financial gain.

The Bel Juice Production Company has followed the following regulatory procedures to establish itself and to produce and sell juice in the market:

• Each FUG carried out an inventory of forest resources to identify the actual quantity of bel fruit available in their community forest as a legal requirement for the DFO and to get the DFO’s recommendation for registration of the company.
• The first ad-hoc company board was formed and constituted, and company regulations and business plans were first prepared and applied for registration with the Company Registration Office in Kathmandu by using the services of a hired legal advisor.
• Since there is no separate provision and regulation for community-based enterprises, the company is registered under the Private Company Act. This means that the company board has to present
various additional documents because the Company Registration Office does not have specific guidelines for the process of registering a community-based enterprise.

- FUGs are allowed to issue collection and transport permits to their members since the processing factory is located in the same district. If the fruit has to be transported to another district, then the DFO would have to issue the transport permits. Similarly, the DFO has to issue permits that are examined at the various check-posts on the route for the transport of juice to the markets, and payments for bribes is a problem the company has faced many times.

- The company obtains a certificate every year from the Department for Food and Beverage Quality Control before marketing the juice.

- Community-based enterprises are understood by many government people as co-operatives rather than as competitive business organizations. This makes them reluctant to give export and marketing permission since the export of goods to India produced by cooperatives is not allowed.

- Enterprises are exempt from paying income tax for first five years of production. This applies to community-based enterprises and cooperatives which produce goods from NTFPs as raw materials. There must be community involvement to get this privilege; however, value added tax (VAT) which is usually 10% of the selling price has to be paid. Similarly, shareholders are liable for tax on the income from profit dividends issued by the company.

**Critical enabling conditions**

NSCFP has been promoting the community forestry program and pro-poor enterprises in the Manthali area for the past 15 years. FUGs are institutionally strong and have been able to manage their forests with support from the project or other agencies active in the district. In this case, the regular support of the project has been critical for identifying appropriate means of assisting poor people to become entrepreneurs through the development of this enterprise. In many ways, this has become a widespread characteristic of donors and development agencies, which have begun to value the importance of enterprises for achieving pro-poor development objectives, decentralized forestry, market demands and good governance.

In addition, a number of specific enabling conditions have been critical, including:

(i) Availability of sufficient natural resources that have a high market demand. The religious, medicinal and economic values of bel fruit inspired communities, the private sector and the facilitating project to come together to set up a business creating a win-win situation for all involved.

(ii) Forest policy in Nepal gives highest priority to community forestry and its main goal is poverty reduction through sustainable utilization of forest resources with the involvement of local people. The Master Plan for the Forestry Sector, current 10\textsuperscript{th} 5-Year plan and Poverty Reduction Strategy Paper have all stressed the need to make the forest sector more income-oriented to ensure the involvement of the private sector.

(iii) Unless local communities and poor people are actually involved in entrepreneurial initiatives and competitive local businesses, they cannot break away from a subsistence livelihood. This realization has helped to bring all stakeholders together to set up a company to achieve this.

(iv) Financial resources were available to the shareholders who were then able to use them for furthering the operation of the Bel Company. In this case, FUGs had their own funds; private sector investors were looking for profitable and long-term business opportunities for their funds; and NSCFP was prepared to put up the capital to pay the shares for the identified poor families as a revolving fund, to support its poverty reduction objectives.

(v) Despite some policy gaps, the overall interest of the government in establishing community-based enterprises in the forest sector (e.g. by giving tax exemptions) has empowered and encouraged people set up such enterprises.

(vi) Strong and effective local-level leadership has been necessary to conceptualize and implement the pro-poor entrepreneurship model. The well-established community forestry program in Nepal has created a cadre of local leaders with skills and ideas to take this idea forward.
Policy constraints and issues
The company has faced a number of constraints to efficient and competitive running of the enterprise. These range from those that affect local-level fruit collection and transport to those that influence national and international marketing. A general problem has been the lack of any specific rules and regulations to support community-based enterprises.

Forestry law has provided for an appropriate village-level institutional set up to promote FUG formation and sustainable forest management. However, they do not clarify the detailed points about the industrial use of forest products by the communities. Whilst there are legal provisions for the regulation of the timber and NTFP trade, this applies mainly to contractors and government managed forests. Similarly, government business policies are more oriented towards the private industrialists rather than community-based industrial production, which has been dealt with under the cooperative system which is not necessarily a competitive business model. Apart from these general policy gaps, some specific constraints affecting the Bel Juice enterprise include:

(i) Release orders for transportation of juice need to be issued by DFO. If the DFO is not supportive, then barriers to efficient operation are created. Similarly, at checkpoints and stops, bribery-seeking (common in the contractor-based business model) has important negative impacts.
(ii) Company registration is a lengthy and tedious process. Companies must appear in Kathmandu to be registered – hiring a legal advisor was an effective means of doing this, although with a cost.
(iii) Enterprise registration needs a recommendation from the DFO. There is a legal regulation that a forest product processing factory should be located more than 3 km from the nearest forest.
(iv) The company must renew its registration every year and for that purpose it has to prepare a number of documents in a very time consuming way.
(v) The government Quality Control Department is located in the capital city, Kathmandu. This means that bringing samples of every batch of produce is time consuming and expensive. The government does not offer to do on-site checks and monitoring.

Apart from these external constraints, other internal company issues have been affecting the efficient and profitable operation of the enterprise:

(i) The company lacks professional entrepreneurship knowledge at all levels and types of shareholders, although this situation is improving.
(ii) The company requires better scientific knowledge about fruit harvesting, for example, what is the best method to take out the fruits, how cutting is to be organized, etc.
(iii) In the absence of well-described roles and responsibilities for all those concerned with the enterprise, there is possibility for future conflicts that could jeopardize its future.
(iv) The company needs to improve the efficiency of its management systems and develop skills for greater diversification of products to give it a more competitive marketing position.

8. Opportunities and ways forward
The establishment of the company has been an important breakthrough in blending together development and business objectives for the purposes of sustainable forest management and poverty reduction. As a result, forest resources are being managed sustainably and poor people have been able to improve their living conditions and find more diversified livelihood opportunities. Although the majority of shareholders were new to business, often illiterate, and frequently poorly treated in their communities, they have been able to gain entrepreneurial skills and knowledge. Under their leadership, the enterprise is finding a range of opportunities for community development. The model of bringing on board the private sector seems to be one that is replicable for other situations in Nepal.

The company offers various lessons for other communities and professionals. It demonstrates that pro-poor approaches and structures can be very effective for the establishment of community-based enterprises especially for natural products. Similarly, it shows that community-based enterprises can
create significant amounts of local employment and deliver resources directly to them rather than having to wait for so-called trickle-down effects to justify the presence of bigger companies for the development of poor people. The community-based enterprise has increased the ownership of people over the whole system of business and forest resources showing that a high level of inclusion and fairer business is attainable through community-based enterprise. Moreover, the model of Bel Juice enterprise reveals that such a public-private partnership can be very effective in bringing a business orientation to unskilled rural communities.

However, the experience of the Bel Juice enterprise has also shown that there are many issues that need to be addressed when considering setting up new community-based enterprises in Nepal and elsewhere. Finding compatible, sympathetic and yet competitive private investors is difficult. Private entrepreneurs do not normally consider social inclusion and equity in their business dealings and on the first approach by a community-based enterprise, their reaction is likely to be negative. Similarly, the management structure of the company is comparatively larger and more complex than it would need to be for a simple business enterprise. This makes decision-making a time consuming process and not all decisions that result will be rational. Complexity reduces the competencies of individuals and makes it essential to develop clear mechanisms for efficient and effective decision making. A well prepared business plan and clear marketing strategy that have been developed through a transparent and consensual approach would be important contributions to this, although again are time-consuming to prepare. As a result, community-based enterprises tend to be production-led rather than market driven – producing what they can rather than what the market needs.

Despite its inherent problems, the Bel Juice Production Company has already brought numerous and important opportunities for its shareholders. For the future, the company is likely to increase its production levels by at least four-fold. This will continue to have both direct and indirect economic impacts on the people, especially the poor. The growing reputation of this model of community-based enterprise is leading to its replication across the country. Already a group of seven FUGs have adopted the same model for the production of Nepali paper in another district. Their turnover is already double that of the Bel Juice enterprise, and they have been able to accommodate the number of identified poor households as shareholders.

It can be concluded that if the contemporary development discourse could encompass community-based entrepreneurship more widely into its interventions using pro-poor and public-private enterprise models, then communities especially the poor, can be transformed into competitive entrepreneurs lifting them out of poverty whilst ensuring the important elements of social inclusion and sustainability.
9. Charts and Figures

Figure 1: Institutional Development of Community Forestry User Groups in Nepal

- Development of local institution (FUG formation)
- Creation of forest resources (forest management)
- Forest resource utilisation for business (CBED)

Figure 2: The value of non-timber forest products traded from Nepal

<table>
<thead>
<tr>
<th>Year</th>
<th>India</th>
<th>Overseas</th>
<th>China</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999/00</td>
<td>13209457.14</td>
<td>372042.86</td>
<td>28957.14</td>
<td>13610457.14</td>
</tr>
<tr>
<td>2000/01</td>
<td>13378114.29</td>
<td>3825471.43</td>
<td>201971.43</td>
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<td>50657.14</td>
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<tr>
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<td>9213085.71</td>
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<td>28604157.14</td>
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<td>5809585.71</td>
<td>356242.86</td>
<td>30128057.14</td>
</tr>
</tbody>
</table>

(Source: Department of Forest and Department of Custom)

Figure 3: Three stages of enterprise establishment

- Domestic consumption of fruits
- Sale in local market
- Basic income
- Fruits and domestic juice sale in local market
- Bigger in quantity
- Basic income/IGA
- Juice production for the national market
- Company registered and own logo and brand
- Fulltime employment and benefit dividend to shareholders
Figure 4: Structure of the Bel Company
Figure 5: Operational hierarchy for the Bel Juice Company

Figure 6: The production process
**Bel Fruit Juice Production Process**

<table>
<thead>
<tr>
<th>Collection</th>
<th>Weighing and storage</th>
<th>Bottle cleaning and drying</th>
<th>Pulping from fruits</th>
<th>Juice preparation</th>
<th>Bottling and labeling</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Company requests each FUG for fruits to be collected from their forest.</td>
<td>• The fruits are weighed and stored in a shaded place.</td>
<td>• The empty glass bottles are boiled for two hours for sterilization and cleaned using water with anti-septic powder.</td>
<td>• Bel fruits are broken up using sharp knives.</td>
<td>• The stirred pulp is mixed with water and seeds are filtered out.</td>
<td>• The prepared juice is bottled using pouring machines.</td>
</tr>
<tr>
<td>• Identified poor household collect fruits and bring them to the factory.</td>
<td>• Damaged and green-coloured fruits are separated from the good ones.</td>
<td>• Inner pulp is taken out and kept in clean vessels (using gloves).</td>
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<td>• Preservatives and edible colours are added according to a formula.</td>
<td>• Bottling machines are used to seal the lids.</td>
</tr>
<tr>
<td>• Collectors and FUGs get paid directly by the company.</td>
<td>• Fruit can be stored for a maximum of one week.</td>
<td>• The bottles are dried in the sunlight and cleaned with cotton.</td>
<td>• Pulp prepared in one day is mixed using a mixer.</td>
<td>• Sugar is added according to different tastes, and stirred.</td>
<td>• The printed labels are stuck on to the bottles.</td>
</tr>
</tbody>
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- Sugar is added according to different tastes, and stirred.

- The prepared juice is bottled using pouring machines.
- Bottling machines are used to seal the lids.
- The printed labels are stuck on to the bottles.
- Bottles are packed and stored.
References