

Value Chain Development

Lessons Learnt from the Medicinal and Aromatic Plants (MAPs)
Sub-sectors, Nepal



The Inclusive Development of the Economy (INCLUDE) Programme is a joint Nepali-German initiative under the guidance of the Nepal Ministry of Industry and with Technical Assistance by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, acting on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ).

Published by
Inclusive Development of the Economy Programme (INCLUDE)

Narayani Complex, Pulchowk, Lalitpur
PO Box 1457, Kathmandu, Nepal
T: +977-1-5555289
F: +977-1-15521712
E: include@giz.org.np
I: www.includenepal.org

Commissioned by



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Prepared by:
Mr. Keshav Raj Acharya

Editor:
INCLUDE

Design
Kazi Studios

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Contents

INTRODUCTION	1
MAPs Sector in Nepal – An Organic Way for Development.....	2
The Approach - Value Chain Development.....	2
THE CASE STUDIES – INSIGHT INTO PRACTICE	7
Case 1 - Ginger	8
Case 2 - Essential oil	11
Case 3 - Chiuri	14
BUSINESS CONDUCIVE ENVIRONMENT	17
LESSONS LEARNT	19
CONCLUSION AND RECOMMENDATION	21
REFERENCES	22



Introduction

The Inclusive Development of the Economy (INCLUDE) Programme is a joint Nepali-German initiative under the guidance of the Ministry of Industry (MoI), Government of Nepal. Technical assistance to the programme is provided by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, which acts on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). INCLUDE works to enhance competitiveness within the private sector and to foster socially inclusive economic growth. It helps to build entrepreneurship and to develop selected value chains. It supports public-private dialogue at the district and central level. To achieve these tasks, the programme takes into account the special needs of disadvantaged groups, including women. Currently, the programme's intervention efforts are concentrated in the districts of Kailali, Surkhet, Dang, Banke and Pyuthan.

Medicinal and aromatic plants (MAPs) rearing, beekeeping and dairy farming have a prominent impact on natural resource management and on the socio-economic upliftment of rural inhabitants. The five INCLUDE Programme districts show potential in these plants and products. Following detailed studies in each programme district, efforts in these sectors are supported by INCLUDE. It has adopted the “Value Chain” framework to help identify and manage activities in creating value for MAPs as well as other sub-sectors such as honey and dairy.

Ginger, essential oil and chiuri (butternut) products are chosen for value chain development under the MAPs sub-sector. Ginger and essential oil are in high demand in international markets, and up-scaled and processed chiuri butter promises regional market potential.



MAPs Sector in Nepal – An Organic Way for Development

The diverse climatic and topographic variations have endowed Nepal with a rich biological diversity. The country has more than 7,000 species of agriculture and forest-based flora. At least 700 forest based biodiversity species have been identified as having medicinal properties, of which more than 100 species are traded commercially, without any value addition, mostly in Indian markets. At present, two development regions of the country (Mid-Western and Far-Western) collectively contribute to more than 85% of the total herbs collection in Nepal (GIZ, 2011). Some other agro-based species like ginger and turmeric have medicinal properties too. Traditionally, they have been cultivated by farmers in the districts or villages. These products are also traded in India following the same trade channels as of the medicinal herbs (JABAN, 2013). The Nepal Trade Integration Strategy (NTIS) has identified MAPs, including essential oil and ginger, as highly potential among 19 sectors for trade promotion (NTIS, 2010).

The MAPs sector is not only full of potential but faces challenges as well. Sustainability is the major challenge facing the sector. Ecologically, the resources are being depleted day by day due to unsustainable harvesting. Economically, farmers have not been able to reap the benefits because of a lack of processing facilities and value addition opportunities within the country. Socially, marginalized people, mostly the poor and women, are deprived from using these resources.

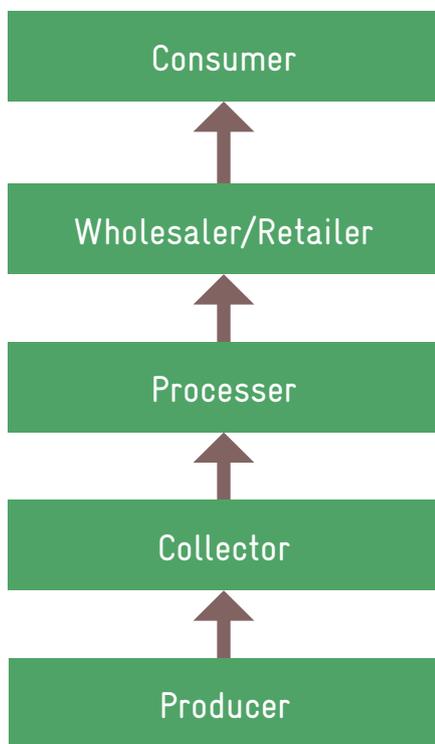
As consumers today are increasingly drawn towards organic and natural products, the demand for MAPs continues to grow globally. More than 95% of the commercially used herbs are wild, organic and natural (GIZ, 2011). In recent years, farmers have begun to cultivate such medicinal herbs. In order to create sustainable supply chains, environmental-friendly management systems have been applied in these cultivation efforts with a focus on organic production. For better business opportunities, producers today seem to be inclined towards organic certification.

The Approach – Value Chain Development

A Value Chain (VC) is a sequence of related business activities or functions, from the supply of specific inputs for a particular product to primary production, processing, sales and distribution to final consumption (GTZ, 2008). A value chain describes the full range of activities that are required to bring a product or service from conception, through the different phases of production and delivery, to consumers, and final disposal after use. From the institutional perspective, a value chain can be defined as the organizational arrangement linking the producers, processors, traders and distributors, and coordinating their functions (Kaplinsky and Morris, 2000; cited in Chaudhary et.al, 2011).



Figure 1: Generic View of Value Chain Actors involved in MAPs Value-Chain Development



A value chain generally includes three or more of the following: producers, collectors, processors, distributors, brokers, wholesalers, retailers and consumers. The partners within the value chain work together to identify and reach the objectives. They are willing to share risks and benefits, to invest time, energy and resources so that their relationship works. Thus, the value chain concept is regarded

as actor-oriented and is considered very effective in tracing product flows, showing value-adding stages, and identifying key actors and the relationships with other actors in the chain (Schmitz, 2005)

The ValueLinks (VL) approach, developed by GIZ, was used for designing the projects. This approach structures the process of value chain development into a systematic sequence of twelve modules that are organized according to the project cycles. These modules are clustered into four areas: setting project boundaries, chain analysis and development of strategy, implementation of interventions and monitoring. It is important to note that the ValueLinks approach demands the immediate involvement of relevant stakeholders, and especially value chain actors and supporters. It has been assumed that ValueLinks improves the quality of analysis and the effectiveness of implementation.

At the outset of the process (module 0), the VL approach involves deciding whether to engage in value chain promotion, and, if decided thus, how to combine it with other development approaches. In the first step (module 1), a value chain based on a set of criteria is selected for promotion. Next (module 2), a thorough value chain analysis is carried out. It comprises VC mapping and VC economic analysis. Based on the findings, a value chain upgrading strategy (module 3) is determined. Module 4 presents detailed approaches to be observed when facilitating value chain development. Modules 5-10 are devoted to optional approaches by which the value chain upgrading can be implemented. Modules 5 and 6 deal with business linkages, module 7

with strengthening services for value chain actors, module 8 with options for financing the value chain development, and modules 9 and 10 with the business environments, including quality standards. Finally, module 11 involves monitoring the impact on the projects, and managing better results. The following diagram shows the modules of the ValueLinks methodology:

With regard to the case studies, expert studies were conducted, and discussions with local as well

as regional stakeholders and meetings with key actors were held to identify the competitive MAPs sectors. It is important to mention that the value chain approach used is strictly (market) demand oriented – in contrast to input oriented approaches. The selection of the most competitive products was based on pre-project assessments. Ginger in Pyuthan, essential oil in the lowlands of Surkhet, and chiuri in the remote hilly areas of the same district were identified as competitive sub-sectors.

Figure 2: ValueLinks Modules adopted for interventions in projects: ValueLinks Manual, GTZ, 2007

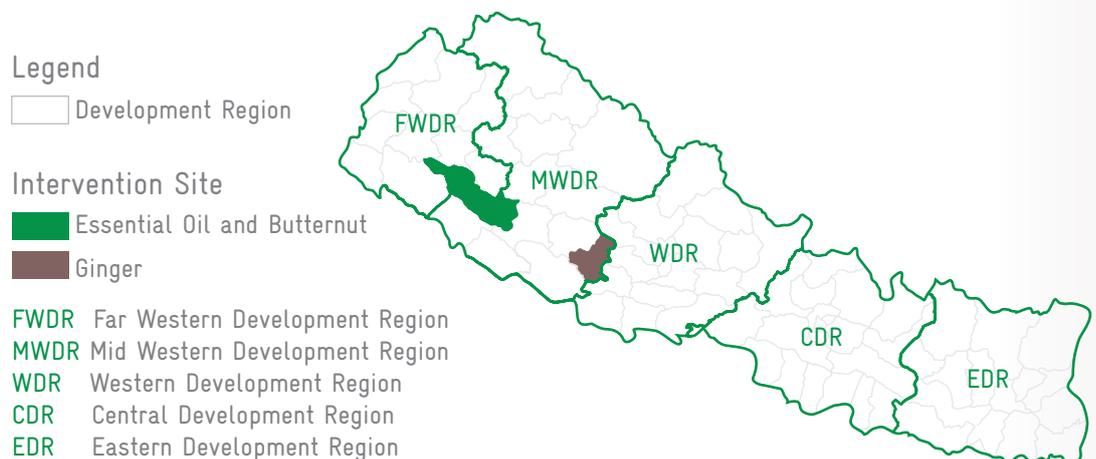
Value Links Modules							
Setting project boundaries		Chain analysis and strategy		Implementation		Monitoring	
0	Deciding to engage in Value Chain Promotions	2	Analysing Value Chain	5	Strengthening the private business linkages	11	Monitoring and managing impact
1	Selecting a Value Chain for promotion	3	Determining the Chain upgrading strategy	6	Engaging in public-private partnerships		
		4	Facilitating the Chain development process	7	Strengthening services in Value Chains		
				8	Financing value chains		
				9	Introducing social ecological & product quality standards		
				10	Improving the business environment of Value Chain		





The Case Studies – Insight into Practice

The following cases explore the success and the hindering factors in the interventions made in the field through various working modalities. An inclusive economic growth was targeted, and three different modalities, based on the analysis of the actors and supporters of the chain, were applied. The case studies help in comparing the effectiveness of the interventions in the local context.





Case 1 – Ginger from Pyuthan

Ginger (*Zingiber officinale*) is an agro-based product. It is an important spice crop, traditionally grown in the mid-hill areas of Nepal. It is identified by the Nepal Trade Integration Strategy (NTIS) as one product among the 19 major sectors having the potential for trade promotion (NTIS, 2010). Ginger contributed to 1.3% of all the exports in the fiscal year 2013. Its export value then was about Nrs. 509 million (TEPC, 2014). It is estimated that over 66,000 households in the five development regions of the country cultivate ginger. Due to its high value, it has a greater impact on smallholder farmers. Globally, Nepal is third in ginger production with about 10.7% of the world's share (FAO, 2011). Nepal exports ginger to India, mostly in fresh form. It also exports *sutho*, the traditionally dried form of ginger, in lower quantity. In recent times, organically certified ginger, though in negligible quantity, is exported to European markets.

This case study on ginger is from Pyuthan, a district in the Mid-Western development region. Discussions with stakeholders were held at the district headquarters for setting up the boundaries and selecting the sub-sector for value chain promotion. Participants sought support in the ginger sector. They also suggested a tentative action plan. The programme then identified a local cooperative for

the value chain development of the ginger sub-sector. Airawati Multipurpose Cooperative Limited was chosen as the partner to perform the interventions. The cooperative was established in 2003 (2060 BS) with the objective to support its member farmers in ginger cultivation and to provide better market linkages for their products. During the time of establishment of the partnership, the cooperative had 350 shareholders (33% female). Many farmers in the district have been involved in the cultivation of ginger.

At the time the project started, the production was basically in subsistence level. Limited business development services were provided to the farmers. The cooperative had just started to provide farmers with some loans received from the self-reliance fund at the Nepal Rastra Bank. However, the institutional capacity of the cooperative in the proper management of resources was not robust. In addition, the area lacked a collection centre. The farmers almost entirely depended on seasonal traders, mostly from outside the district. The farmers were compelled to sell their products at the price fixed by the traders. The cooperative was also insufficient to provide farmers with appropriate business development services to support the commercialization of ginger farming and the development of this sector.

Major Interventions

Activities targeting the production

1. Support for ginger seed production
2. Commercial ginger farming training
3. Vermin compost training
4. Technical support for commercial ginger farming

Activities targeting to strengthen the capacity of the cooperative

1. Market study
2. Product diversification and candy-making training
3. Cooperative management and value chain development training
4. Enterprise development
5. Cooperative education and book-keeping training
6. Financial management and policy formulation training
7. Enterprise development training
8. Buyer-seller meeting

Project Description

After the value chain analysis, major interventions were jointly designed with the cooperative and other stakeholders, including the District Agriculture Development Office (DADO). The major objectives identified for the intervention included enhancing efficiency of the cooperative in managing collective marketing, increasing value addition of ginger and its products and capacity building of farmers for commercialization of ginger. To meet these objectives, the interventions were categorized into two broad groups: (1) targeting the production, and (2) strengthening the capacity of the cooperative for the establishment of structured market linkages for the products. Interventions with the cooperative started in April 2010.

In the three years of the partnership, INCLUDE confined its support to strengthen the capacity of the cooperative in the domains of product collection and marketing. Major interventions included training in processing, product diversification, exposure visits for market exploration, installation of solar dryers, establishment of a collection centre and upgrading the outlet, training in commercial ginger farming as well as advisory services to the cooperative. The cooperative mobilized its own resources to raise awareness and to outsource its resources in support of its member farmers. The cooperative offered its support to the producers not only in increasing the quantity of their production but also in providing business development services. In addition, farmers have been trained in technology interventions for post-harvesting as well as value addition and have received support in product diversification. The cooperative has upgraded its collection centre and started to run its own outlet in the local market place. In financial terms, INCLUDE contributed

Nrs. 2,225,650 while the cooperative mobilized Nrs. 1,798,550 from its internal resources.

Impact

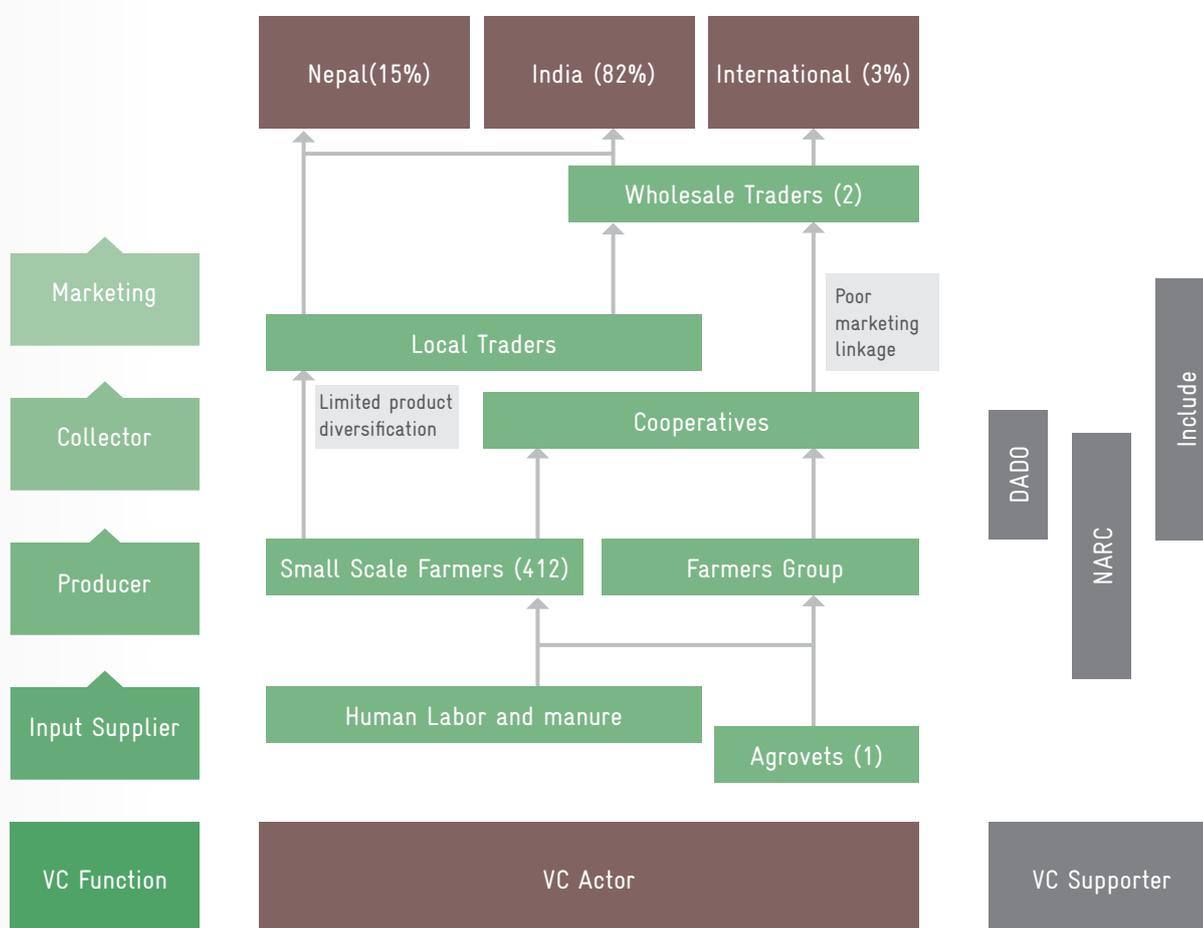
The institutional capacity of the cooperative as well as the production capacity of farmers has improved in course of the three-year partnership. The cooperative has increased its outreach from 350 to 538 members, which includes 198 (37%) female members (*AMCL, 2013*). The representation of women has increased gradually. The collection centre run by the cooperative is providing better market options not only for ginger but also for most of the other products produced by the farmers. Members of the cooperative as well as other residents of Dhungegadhi and Hansapur Village Development Committee (VDC) of Pyuthan district bring their products to the collection centre in order to sell them. The collection centre received more than 60% of the total ginger yields from these two VDCs. In the year 2012, the cooperative collected about 37,315 kg of fresh ginger, including 9,333 kg of organic ginger by default as well as other diversified products like dry ginger, squash, candy and Imli. The annual turnover of the cooperative increased to more than Nrs. 1mio. and the annual net profit for 2012 was Nrs. 160,795. Prior to the partnership, annual profit of the cooperative was only Nrs. 30,502.

The cooperative has been recognized by stakeholders, including the District Agricultural Development

Office (DADO) Nepal, as the leading service provider for ginger products in the district. The cooperative has established a good relationship with other development agencies, especially with the USAID-funded Nepal Economic, Agriculture, and Trade (NEAT) project, and the UNDP-funded Micro-Enterprise Development Programme (MEDEP). Recently, the division cooperative office at Dang district recognized the cooperative by awarding the best prize for its works. Following the cooperative's successful repayment of the first-term loan, the Nepal Rastra Bank has released the second-term loan under the rural self-reliance fund. Now, the cooperative has been mobilized more than Nrs. 5mio. in the form of loans to its members.

For the first time in this area, the cooperative has introduced mother rhizome harvesting technology to the farmers. This technology is widely popular among the farmers in eastern parts of Nepal but remains new to this region. This innovative technology has supported the farmers to make extra earnings during the off-season time of their businesses. The cooperative has also established a sustainable market linkage with a private company named Annapurna Organic Agriculture Industry. Recently, the cooperative started to initiate organic certification of ginger to tap market opportunities at the international level where demand of ginger continues to grow.

Value Chain Map of Ginger in Airawati Pyuthan





Case 2 - Essential oil

Essential oil is concentrated hydrophobic liquid, extracted from trees, plants or shrubs, and their flowers, roots and bushes. It contains volatile aroma compound found in plants. The oil is extracted usually by means of steam distillation. In Nepal, essential oil is being extracted from naturally growing plant species as well as from some exotic cultivated plants. In the high mountain areas, it is extracted from naturally grown plants such as wintergreen, rhododendron and junipers. In the lower altitudes, some exotic plants like mentha (menthol mint), lemon grass and chamomile are widely cultivated and their oils are commercially extracted. Essential oil, along with MAPs, is also identified by the NTIS as one of the important products for trade promotion. Most of the essential oil is exported to the EU, India and the USA. Only 0.05% of the globally exported essential oil is of Nepali origin (GIZ, 2011).

After identifying the sub-sector for the value chain development, INCLUDE conducted a detailed study on the possibility of cultivating medicinal and aromatic plants. It also assessed the need for value addition interventions in the district of Surkhet. The study recommended the area of Babiychaur and Bidyapur VDCs, in the western part of Surkhet, as potential areas for cultivating commercially viable medicinal plants like lemon grass, citronella, chamomile, mentha, asparagus, and turmeric. The essential oil produced from plants has a high demand in national and international markets. With a robust promotion, it can fetch higher prices. However, it had not been cultivated in the project area mainly

because distillation units were not available.

Following the provisions of the sub-sector, INCLUDE identified local partners to jointly plan and implement the interventions. Two cooperatives, Namuna Grameen Agriculture Multifaceted Cooperative Limited and Bidyapur Multipurpose Cooperative Limited, were selected. Their selection was essentially based on the assessments of their interest in the project and their institutional capacity for implementation. Both cooperatives were multipurpose in nature and none of them had previous experience of supporting MAP cultivation.

Project Description

The partnership between the cooperatives and INCLUDE started in June, 2012. Before implementing the project, a detailed analysis of the value chain was conducted at the cooperative level. The major objective identified was to support the farmers in the production, collection, processing and marketing of MAPs and to enhance the institutional capacity of the cooperatives. To achieve the objective, different levels of intervention were identified, such as increasing the production and strengthening the capacity of the cooperatives in collective marketing.

The major interventions involved supporting the cultivation of lemon grass (*Cymbopogon citratus*) within the community forest area and the cultivation of mentha (*Mentha arvensis*) and chamomile (*Matricaria recutita*) in the farming areas during winter, and following paddy harvests instead of growing wheat during that season. For that purpose,

Major Activities

Activities related to supporting the Supply Chain

1. Multipurpose Nursery
2. MAP Cultivation Training
3. Sustainable Harvesting Training
4. Organic Farming Training
5. Field-level Technician Support
6. Distillation Unit Establishment Support with an operator

Activities related to Institutional Development

1. Cooperative Management and Value Chain Development Training
2. Cooperative Education
3. Book-keeping Training
4. Buyer-Seller Meet

each of the cooperatives installed a distillation unit with the arrangements of an operator with support from INCLUDE. Cultivation training was offered, and through the cooperatives, farmers were provided with seeds for cultivation. Each cooperative was given the support to establish a multipurpose nursery for a sustainable supply of planting materials in the future. The cooperatives arranged the properties to establish the distillation unit and the multipurpose nursery. They mobilized local residents for the cultivation of essential oil in their respective areas. Each cooperative mobilised Nrs. 375,000 for the partnership.

Impact

Due to uncertainties regarding the viability of growing herbal species in the region, it took time to mobilize the local people for the cultivation work. A delayed monsoon in 2012 also hampered the cultivation work. Both cooperatives completed the plantation of lemon grass in August, 2012. Both partners had rather poor yields of lemon grass.

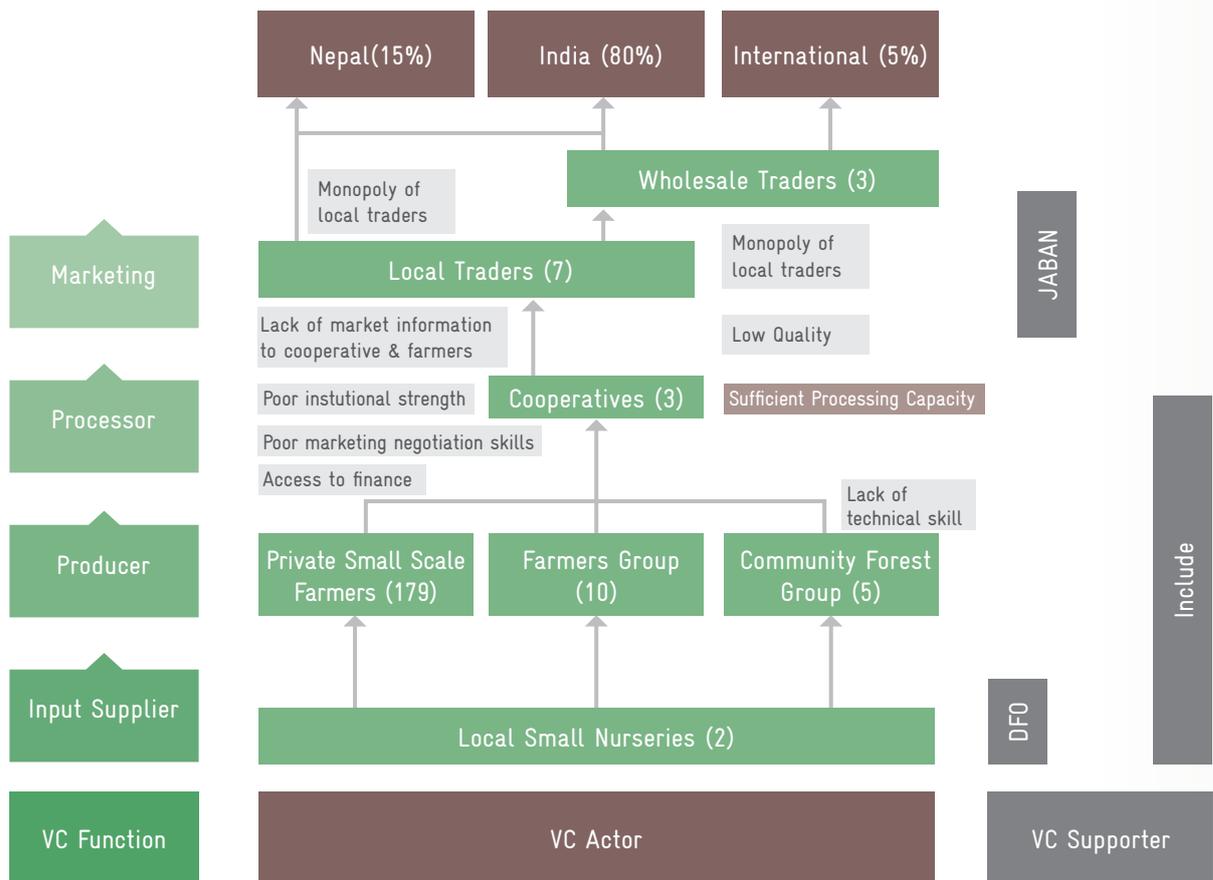
The low success rates in the cultivation of lemon grass exerted negative motivation on the local people towards other MAPs cultivations. The cooperatives' role was limited to that of an intermediary; they were not the actors doing the cultivation themselves in the fields. The work of cultivation was highly dependent on individual farmers. INCLUDE confined its technical input to the cooperatives, however, at the local level, there was no technical expert available to train the farmers.

At least six hectares of chamomile cultivation is necessary to run the distillation unit in its full

capacity, but the cultivation in both areas covered less than two hectares. Hence, only 3.6 kg of chamomile oil could be extracted from Babiyachaur and 0.9 kg of oil could be extracted from Bidyapur.

Currently, farmers are cultivating mentha in their fields. Mentha cultivation is satisfactory in Bidyapur however, a lack of irrigation has troubled members of the Namuna Grameen Multipurpose Cooperative since the Mentha plant needs considerable moisture in the soil and frequent irrigation is necessary for its proper growth. Inspired by the new initiation, the Ministry of Education (MoE) began a three-month vocational training called "Herbal Workers Training" that targets the youth in the area. Altogether 88 individuals (69% females) participated in the training. Most of them are cultivating essential oil-producing plants in their fields, particularly mentha. The farmers have now acquired better know-how in essential-oil cultivation. With support from INCLUDE, the Namuna Grameen Multipurpose Cooperative has arranged a full-time field technician who assists the farmers of both cooperatives. These renewed efforts have helped to motivate local inhabitants towards MAPs cultivation. Planting materials are produced in the multipurpose nurseries run by both cooperatives. Likewise, the collection centres have helped in the collective marketing of the products. The trained people and the increased institutional capacity of the cooperatives to run the MAPs-related activities could be potential assets to run the business in a sustainable manner in the future. Yet, these VDCs in Surkhet still need some more time to fully implement the interventions and to show robust results.

Value Chain MAP of Essential Oil in Surkhet





Case 3 – Chiuri

Chiuri (*Diploknema butyracea*) is a medium-sized tree (up to 20m) that is native to Nepal. It is abundantly found in the mountain areas, between 300 to 1,500 metres above the sea level. Chiuri trees are found in about 40 districts, more often in the Far-Western and Mid-Western mid-hills. They have become sparser in the eastern parts of the country. Today, there are an estimated 5.6 million chiuri trees in fruit-bearing stage in the country with the potential to produce 37,245 MT of butter and 17,825 MT of honey. Evidently, in terms of the resources available, there is huge potential to produce chiuri butter as well as honey in the country (MEDEP, 2010). The seeds from chiuri trees produce fatty, thick oil that is mainly used as vegetable butter in rural areas. The fatty oil is also marketed as edible phulwara ghee in some niche markets in India. While the production potentiality of chiuri butter in Nepal is high, the use of chiuri in manufacturing herbal soaps in the local level, so far, is rare.

A couple of bottlenecks have been identified in the value chain of chiuri butter. The major ones among them are (a) identifying technology for high quality commercial oil expelling and (b) exploring the markets for processed oil. The expelling of chiuri oil is done in a traditional fashion, and this practice remains confined to local areas. The method is tedious and has the capacity for rather low yields. It takes the whole day to peel just 100 kg of chiuri.

To commercialize its production, there is the need to adopt modern technology for faster and more efficient processing. The butter of chiuri has typical physical properties. It melts quickly, even when the surrounding temperature is little over 35°C. Due to this condition, ordinary oil expellers are not effective in expelling oil from the chiuri seeds.

The second bottleneck identified occurs at the market level. The consumption of chiuri oil is mostly confined to rural areas where many poor people cannot afford animal ghee and high-value vegetable oil, such as mustard and sunflower oil. Chiuri butter is not easily available in urban markets and many people there still remain unaware about the use of chiuri as edible oil. Similarly, religious shrines like monasteries and temples could be alternative, unexplored markets. The butter, purely made of plant products, could be used for lighting butter lamps. Wider market access and supply will also help to cut down the import of inferior palm oil in the country.

As a partner to tackle the challenges in this sector, Deuti Herbal Udhyog (DHU) was identified. DHU is a Private Cooperative Partnership (PCP) industry, established in October 2012 with the objective to conserve process and market chiuri. It is a profit-oriented company which provides business services and quality products to the community in close co-ordination with different line agencies. It is registered at the Small Cottage & Industries Office, Surkhet.

Major Activities

Activities related to supporting the Supply Chain

1. Sustainable Harvesting and Quality Control Training
2. Drying House Preparation Training for Cooperatives
3. Technology Identification Support for DHU

Activities related to Institutional development

1. Cooperative Account Management and Book-keeping Training
2. Social Inclusion Training
3. Operational Guidelines preparation for cooperatives & the DHU
4. Buyer-Seller meet

Project Description

The partnership for the chiuri value chain development was started in November 2012. Ten different cooperatives are being supported by INCLUDE to purchase the share of Deuti Herbal Udhyog. DHU is providing technical consulting services to the shareholder and producer groups in the area of non-timber forest products (NTFPs) marketing, trainings and business counselling as well as research and development.

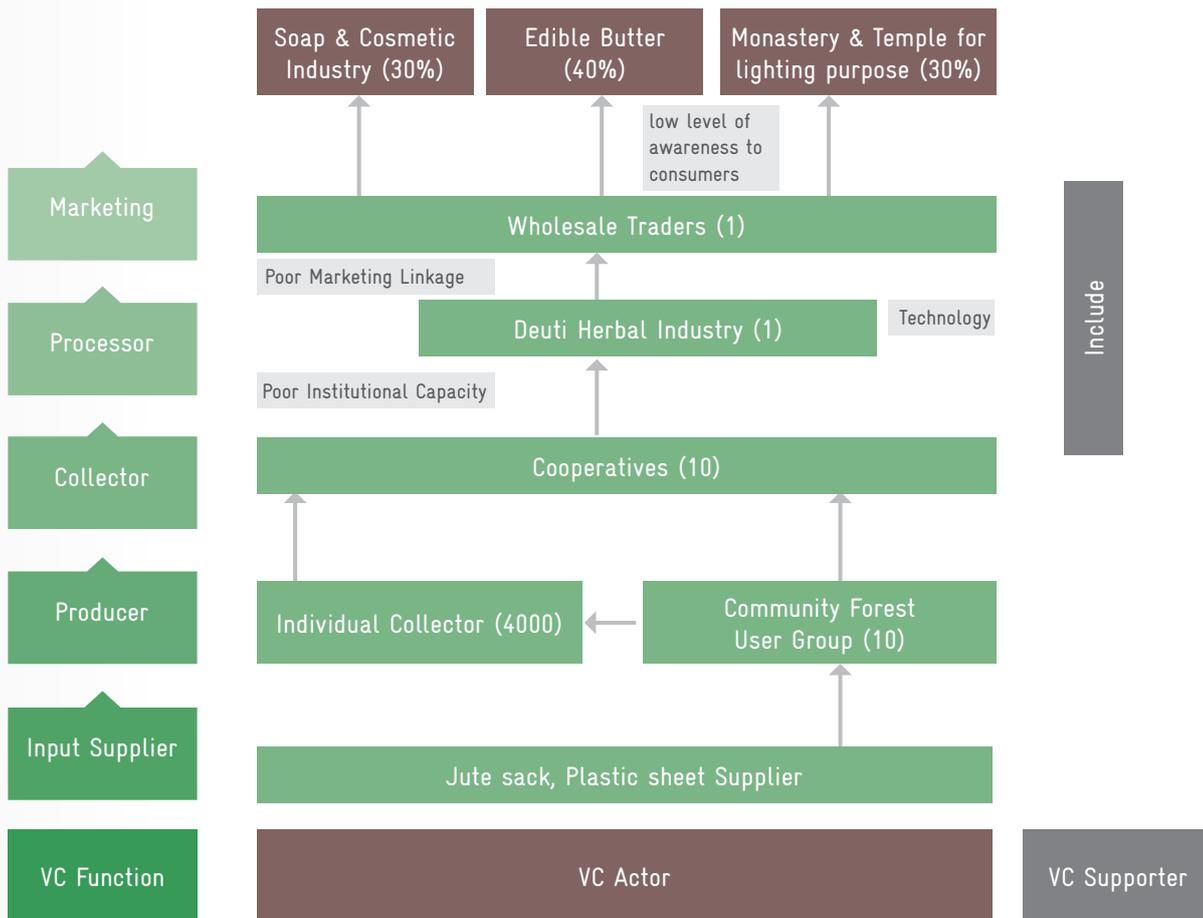
Technical support to DHU is being provided by INCLUDE to explore technology for the processing of chiuri butter. It is also offering support in the institutional capacity building of DHU and of the participating cooperatives as well as providing support in the sustainable harvesting of quality chiuri seeds. Another area of intervention is the exploration of markets for processed butter and oil cake. The oil cake could be used as an organic fertilizer in cultivated lands. Under the institutional capacity building measures, necessary training on sustainable harvesting of chiuri seeds and the construction of a drying house to assure quality of seeds are being implemented. The governance structure of the cooperative is also being strengthened by upgrading the transparent accounting system of the cooperatives and DHU itself, which will increase the acceptance among the stakeholders.

Impact

Since February 2013, the cooperatives have bought shares of the industry. DHU has identified oil expellers for purchase from India. These expellers have been set up and have started to expel the chiuri butter from the plants. During this time, the beginning of the season for chiuri to ripen, the cooperatives provided collection and drying facilities to the farmers and the industry received quality seeds for processing. The processing business started in September 2013. The business directly benefited the 26 shareholders of DHU and indirectly benefited about 4,000 individuals who gained additional income through the opportunity to sell their products as well as through the dividend provided by DHU through their respective cooperatives.

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VC Map of Chiuri (Butter nut) in Surkhet





Business Conducive Environment

A conducive environment is important for the sustainability of value chains. Major constraints faced by essential oil producing farmers are a lack of reliable input suppliers, a lack of structured marketing systems, a lack of market and price information mechanism and insufficient technical and human resources for cultivation and processing of such plants. The planting materials are mainly being imported from India through illegal channels. No certification mechanisms or other quarantine clearance for these imports are implemented. On the other side, no government agency in Nepal is responsible for providing proper planting material.

To increase the value addition of MAPs products technology, transfer is a crucial intervention. Appropriate technology helps to increase the efficiency of the production process and opens new options for processing and product diversification. To date, there is no service provider who covers the field of technology transfer; farmers do not have access to sufficient information about technology trends, quality requirements or market prices. Those few farmers aware and willing to invest in appropriate technology are therefore facing the risk to procure technology which does not fulfil their needs, often imported from India for high prices.

Furthermore, prices for most of the MAPs are highly dependent on the Indian market.

Till now, there is no agency responsible for price information and price prediction. The government's policy and support on the local level does not favour the farmers to engage in the MAPs related business. Farmers have to pay taxes even if their production originates from their own land. The farmers have to pay for transit permits, even when transported within the district. Such barriers are hindering factors for the establishment of fair prices and the bargaining capacity of the collectors. As most of the products are being exported to India with negligible value addition, non-tariff barriers enforced by the adjoining states of India are hindering cross-border trade of medicinal herbs. It becomes even more critical when the product is perishable in nature like fresh ginger. Quality deterioration is possible if the product is stored for more than one week inside the trucks while waiting for the import permit from the Indian quarantine office.

Collaboration among all actors in a value chain is a key element to overcome the challenges described above. That counts for the role of traders and retailers as well. What can be observed is the reluctance of both traders and retailers to enter into long-term contractual partnerships with the respective value chain actors, thereby playing an unfortunate distorting role in the VC. There is the need for collective action to build trustful relationships among the various stakeholders – for the benefit of all.



Lessons Learnt

The value chain development of the MAPs sub-sectors is a new area for support in the Mid-Western and Far-western development regions. The support for ginger is running in its third year while it has only been less than a year that the other two products are being supported. Essential oil production is an innovative project in the local context. The modality for the chiuri value chain development is innovative not only in terms of the investment modality but also with regards to the commercialization of this “hidden treasure”, even in the national context.

In the ginger sector, the interventions in the last three years have brought about some noteworthy changes. During this period, one cooperative has been established as a leading provider of ginger-based business development services in the district. The cooperative has now scaled up its business not only to include collective marketing but also to initiate

innovative organic farming practices. The focus on improving the collection facility and on the institutional development of the cooperative as the nucleus of the value chain development intervention has had some positive impact on increasing production and establishing a sustainable market linkage. Such a focus has also motivated farmers to maintain the quality of their products for better market opportunities.

The essential oil sector has faced certain challenges from the beginning of the business. There seems to be a mismatch between choosing the cooperatives as partners and focusing on the interventions for production. The cooperatives are not the actual actors carrying out the cultivation work, but they are only the supporters. They could best serve in the role of catalysts, helping with the production by providing processing facilities and marketing opportunities to the

farmers. As the case study showed, the essential oil business initiative was lacking in these features. The cooperatives ought to have mobilized the farmers to produce the products for sustaining the whole value chain, keeping in mind that the weakest link of the chain was the production. The cooperatives were not fully successful in gaining the trust of the farmers (including their members) in undertaking the innovative business, even though inputs were provided for the production. One of the lessons learned is that motivation of producers comes in relation to the successful upward linkages in the value chain; consequently, cooperatives are well advised to invest in a proper market strategy. Challenges faced by the cooperative managers in this regard are related to service provision in sustainable and efficient production as well as in marketing and market research/linkages. Improvements in both areas seem to only be materialized with sustainable support structures.

The lessons learnt from the ginger and essential oil cultivation have guided the value chain analysis and formulation of the upgrading strategy of the chiuri sub-sector. This sector has a high-resource potential in the region.

The initiative had positive influence on the value chain development due to INCLUDE's focus on processing, enhancement of the capacities of cooperatives to run the improved collection centre, and involvement of participants in the joint investment modality. However, the capacity of the cooperative still needs to be improved, not only for providing business development services to the producers but also by setting up a strong relationship with the relevant actors involved in the value chain. In principle, the partners within the value chain shall work together in order to improve the sale. They need to share risk and benefits, to invest time, energy and resources. The relationship between the partners involved in the MAPs sector was not found harmonic in nature. The traders were rarely found to be interested to share the risk of the producers through leveraging the investment for sustaining the production whereas producers felt cheated by the traders for not getting fair prices for their products. This conflict of interest has exerted negative pressure on the sustainability of the whole supply chain.





Conclusion and Recommendation

Value chain development interventions, using the ValueLinks approach, for the medicinal and aromatic plants sub-sector, have shown that the interrelationship among different actors is poor in connection to most of the products in Nepal. In the case studies described above, there was not a harmonic, trustful relationship between producers and market players. Mostly, farmers felt that the traders were not providing fair prices for their products; and traders were found to be reluctant to provide real market prices for MAPs products. Furthermore, traders were not willed to enter into a partnership with the producers in order to strengthen the supply chain. This has negatively affected the sustainability of the whole value chain. If the market linkages are strengthened and business development services are made available, the production capacities of the farmers could be upgraded. For instance, in the case of ginger, the development of an assured market linkage and the availability of technical and financial services provided by the cooperatives have motivated farmers to produce quality organic ginger. However, the opposed situation was observed in the case of essential oil, where farmers were initially found hesitant to be involved in the production business due to a lack of marketing linkages of their products and poor access to market information.

A value chain can be seen as an enterprise that starts with the producers and ends with the consumers. Throughout the chain there are many actors from both the public and the private sector who directly and indirectly influence the whole supply chain. The functioning of this alliance is important because if one of the parties in the chain is weak, the whole venture can be affected and may even collapse. The development

interventions to strengthen the different actors of the alliance are the key issue for its success. Such an alliance could be strengthened through the capacity building of producers' cooperatives, associations and market players for providing business development services to the actors. Direct financial and/or further input-support provided to any segment of the chain often ends with failure after the completion of the support. Rather than providing direct support to the actors, a focus on the institutional strengthening of the business service providers is a sustainable solution for upgrading value chains. The value chain support has to focus on the interventions in business development services as well as on the right to information about the market value of the products. Traders could contribute to the sustainability of the supply chain through providing access to market information system and joining hands to bear the risk with the producers. It is important to understand value chain development as a market driven approach instead of input driven. When producers can trust that their products have an assured market, farmers are automatically motivated to increase their production, not only quantitatively but also in terms of their marketable quality. Tariff and non-tariff barriers should be addressed by the public sector for creating an enabling environment for value chain development. Strengthening the alliance among the actors and supporters through public-private dialogue and through continuous advisory support for institutional strengthening to both public and private actors is recommended for further interventions of value chain development in the medicinal and aromatic plants sub-sector.

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Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Inclusive Development of the Economy Programme (INCLUDE)

Kathmandu Office:
Narayani Complex, 4th Floor
Pulchowk, Lalitpur
P.O. Box 1457, Kathmandu, Nepal
T: +977-1-5555289
F: +977-1-5521712
E: include@giz.org.np
I: www.includenepal.org

Nepalgunj Office:
P.O. Box 69, Rambag 17
Nepalgunj, Banke
T: +977-081-527740
F: +977-081-521655
E: include.npj@giz.org.np

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