Value Chain Analysis Series No. 3

Value Chain Based Approach to Micro-Enterprise Development

Value Chain Analysis-Incense Sticks

Micro-Enterprise Development Programme (MEDEP)

(MEDEP-NEP/08/006)

Dhobighat, Lalitpur

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Foreword

The Micro-Enterprise Development Programme (MEDEP) is a nationally executed project implemented by Ministry of Industry (MOI) with the technical and financial supports of the United Nations Development Programme (UNDP). The programme is funded by UNDP with additional support from the Australian Agency for International Development (AusAID). MEDEP which is now in its Third Phase (2008-2010) primarily aims at improving the livelihoods of low income families those living below the absolute poverty line through promotion of micro-enterprises and employment generation. The target groups of the programme are Women, Socially Excluded such as Dalits, Indigenous Nationalities (Adivashi-Janajatis), Religious Minorities, Unemployed Youths, People Living with HIV and AIDS (PLHA), Injecting Drug Users (IDUs) and Ex-Combatants Discharged from Maoist Cantonments. MEDEP has been working in several commodity sub sectors based on market demand, local resource potential, and needs and demands of target groups. The program is currently active in 36 districts, with total beneficiary number exceeding 50,000. There has been a significant contribution in enhancing the income levels of participating entrepreneurs.

The MEDEP approach in value chain is in the process of internalization although the programme has been active in development of enterprises involving several commodities and products for last ten years. MEDEP primarily focuses on creating and sustaining micro entrepreneurs through their integration into the value chains and upgrading activities. In this context MEDEP initiated Value Chain Analyses of six selected commodities / products (*Allo*, Dhaka, Incense sticks, Orange, Lapsi, and Chyuri / herbal soap. These study reports are being finalized and disseminated by posting in the MEDEP website for the benefit of all chain actors and stakeholders. Incense making has been promoted as one of the important enterprises for the poor families as it requires very little initial investment and basic skill training. The incense sticks manufacturing enterprises have been beneficial to a large number of bamboo stick makers and also to micro-entrepreneurs who produce unscented or "blanks" for further value addition. Some entrepreneurs have successfully integrated the process up to scenting, packaging and marketing. Incense enterprises use powder extracted from *Kaulo* tree (*Michilus odoratissima*) as resin based binder that is abundantly available in Nepal. Considering the fact that the share of domestic production currently is just about half of the total market size estimated at close to Rs. one billion, there is a significant potential for this sub sector to extend the benefits to a larger number of producers. We are hopeful that the study will be useful to all value chain actors, and stakeholders in the Incense sticks sub sector to develop intervention strategies for the identified weaknesses and constraints at different levels of the value chain. Finally, we would like to offer our thanks to Dr. Bhimendra B. Katwal, Value Chain Development Consultant for taking the lead to complete this study, all field staff of MEDEP particularly APSO Udayapur, and APSO Bardibas for their support in data collection and for the stakeholders especially the participants in the Incense Value Chain Workshop held at Janakpur and final sharing workshop at Kathmandu for providing their valuable inputs and suggestions on the report.

Lakshman Pun, Ph.D.
National Programme Manager
MEDEP
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Dhundi Raj Pokharel
National Programme Director
MEDEP

Contents

ACRONYMS

BDSPO	Business Development Service Providing Organization
CFUG	Community Forest User Group
CSIDB	Cottage and Small Industry Development Board
DCSI	Department of Cottage and Small Industry
DDC	District Development Committee
DEDC	District Enterprise Development Committee
DFO	District Forest Office
DMEGA	District Micro-Entrepreneurs' Groups Association
DoF	Department of Forest
FECOFUN	Federation of Community Forest User Groups Nepal
FHAN	Federation of Handicraft Association of Nepal
FINGO	Financial Intermediary NGO
FNCCI	Federation of Nepalese Chambers of Commerce and Industry
ILO	International Labour Organization
LFP	Livelihoods and Forestry Programme
MDG	Millennium Development Goal
MEDEP	Micro-Enterprise Development Programme
MEG	Micro-Entrepreneurs' Group
MFI `	Micro Finance Institution
MLD	Ministry of Local Development
MoAC	Ministry of Agriculture and Cooperatives
MoFSC	Ministry of Forest and Soil Conservation
MoI	Ministry of Industry
MoEST	Ministry of Environment, Science and Technology
NEDC	National Entrepreneurship Development Centre
NMEFEN	National Micro-Entrepreneurs' Federation Nepal
OVOP	One Village One Product
RADC	Remote Area Development Committee
RMDC	Rural Microfinance Development Centre
RSDC	Rural Self-reliance Development Centre
RSRF	Rural Self-Reliance Fund
SCC	Savings and Credit Cooperative
SIYB	Start and Improve Your Business
TEPC	Trade and Export Promotion Centre
UNDP	United Nations Development Programme

Chapter-1

Selection of Value Chains for Promotion

1.1 Selected Commodities and Products for Promotion of Value Chains

Nepal is one of the poorest countries in the world with an estimated 31% of the population living below the poverty line. The importance of creating employment opportunities for its growing labour force in the context of poverty alleviation need not be overemphasized. Consistent with the Government's high emphasis on Poverty alleviation (10th Plan/PRSP, Three year Interim Plan) and the MDG of reducing the poverty level population by half between 1990 to 2015, the Micro-Enterprise Development Programme (MEDEP), with the support of UNDP has been working to improve the livelihood of poor families through entrepreneurship development. Micro-enterprises are increasingly gaining importance in the context of poverty alleviation in Nepal as in other countries. Recently GoN has come up with ***Micro Enterprise Policy 2064*** to facilitate the growth of micro enterprises following the norms and definition of the Policy.[1] MEDEP programme currently is active in 36 districts with direct beneficiaries' number exceeding 50,000 (over 65% being women). On an average incremental annual income per participating entrepreneur has been estimated at US$158 (representing an increase of 282% over base).

MEDEP has been working in several commodity sub-sectors based on market demand, local resource potential, and needs and demands of target groups (standard MEDEP approach of identifying the intervention area). It is now recognized that MEDEP needs to emphasize on a value chain based approach that provides a systematic basis to achieve significant sub-sector level impacts. *Value chains encompass the full range of activities and services of market actors required to bring a product or service from its conception to its end use and beyond*.[2] Value chain analysis helps identify the participants at specific functional levels such as primary producers, processors, product makers, retailers, exporters etc including the identification of strengths and weaknesses at each stage. Such analysis provides a sound basis to design and implement intervention strategies that will contribute to develop the sub sector to its potential

[1] The Policy defines "Micro-enterprise" as any industry, enterprise or other service business, based particularly on agriculture, forest, tourism, mines, and handicrafts, which meets the following conditions:

I. In the case of a manufacturing industry, enterprise involving the investment of fixed capital of not exceeding two hundred thousand rupees, except house and land, and in the case of a service enterprise, an industry, enterprise involving the investment of fixed capital of not exceeding one hundred thousand rupees,
II. The entrepreneur himself or herself in involved in the management,
III. A maximum of nine workers including the entrepreneur are employed,
IV. It has annual turnover of less than two million rupees,
V. If it uses an engine or equipment, the electric capacity of such engine or equipment is less than five kilowatt (The recent **Industrial Policy 2067** has increased it to ten kilowatt)

Provided that notwithstanding anything contained above, any industry or enterprise which manufactures liquors, cigarettes or other tobacco products or for the establishment of which approval has to be taken will not be considered as micro-enterprise.

[2] Value Chain Program Design: Promoting Market Solutions for MSMEs, Action for Enterprise

level, increase value addition, and to achieve a significant increase in the number of target beneficiaries.

The Scoping Study for MEDEP Phase III (Bajracharya 2007) has emphasized that one important dimension where MEDEP needs to focus its orientation is to ensure business growth through value chain analysis. Value chain approach is yet to be fully internalized. To gradually internalize value chain approach ten most potential commodities / products were identified, of which six were selected for detailed studies beginning from the middle of 2009.[3] These are *Allo*, Dhaka, Incense / Agarbatti, Sweet Orange / Orange, Lapsi, and Chyuri / Herbal soap.

MEDEP has recognized value chain development as an appropriate approach to strengthening of selected commodity sub sectors. The commodity value chains targeted for promotion were selected based on available information from secondary and primary sources from field offices, and partner organizations followed by an assessment of market demand, resource potential, and needs and demands of target groups.

The process of value chain selection basically considered the following factors:[4]

- Market demand/growth potential including unmet market demand
- Potential to increase income at rural level
- Opportunities for market linkages (internal and external)
- Potential for employment generation
- Outreach in terms of number of small enterprises
- Potential for value addition
- Trade potential / competitiveness
- External environment (e.g. government policies, taxes etc.)

1.2 Value Chain Analysis-Concept and Framework

On a conceptual level the following Fig-1 shows the different layers in the value chain framework. The value chain actors including both the direct chain operators (input suppliers, producers, processors, wholesalers, retailers, and exporters) and service providers (sector specific

[3] Ten identified priority commodities / products are:

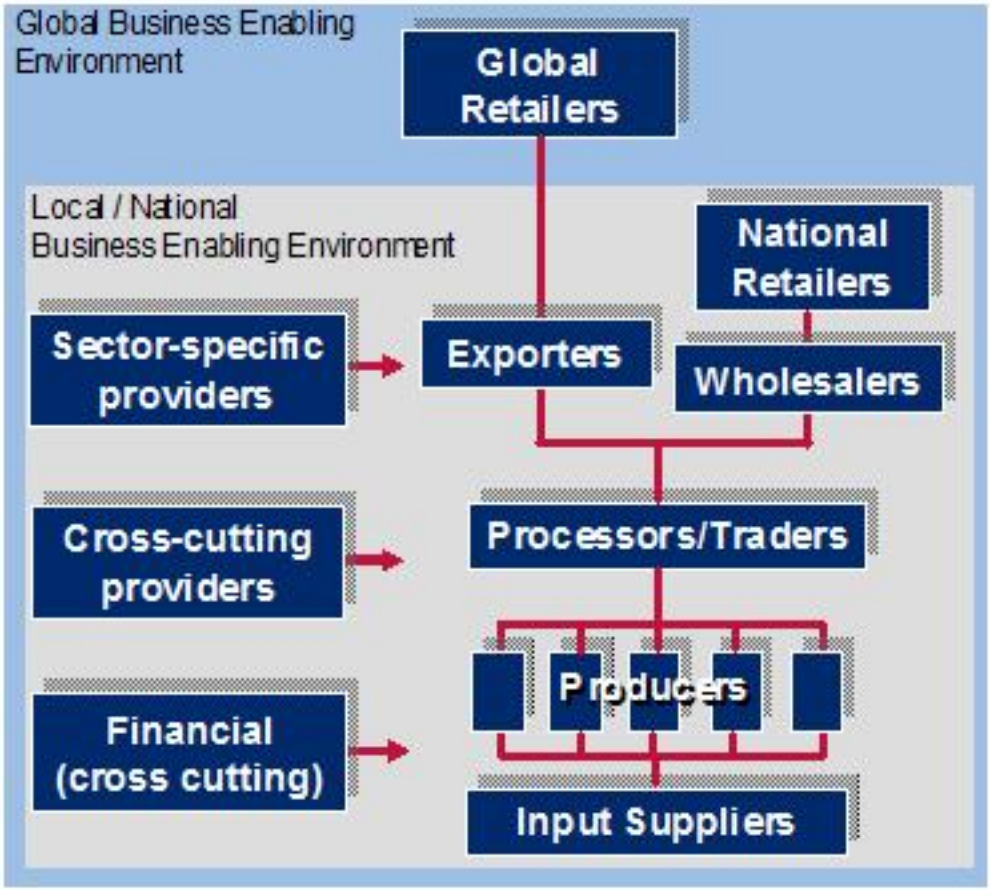
1. *Allo* (Himalayan nettle)
2. Ginger
3. Dhaka fabric
4. Honey
5. Herbal soap
6. Lokta (Nepali Paper)
7. Incense sticks
8. Bamboo products
9. Lapsi
10. Orange (Sweet Orange and Mandarin)

Refer to Annex-2 for basic information on the value chains currently supported by MEDEP.

[4] This closely follows the criteria used by GTZ to select sub sectors for value chain promotion (GTZ, 2008).

and cross-cutting services) operate within a local or national business enabling environment. In an increasingly integrated world the global business enabling environment especially with respect to export commodities becomes quite relevant. These may be the factors related to tariff and non-tariff barriers to trade including regulations on quarantine, sanitary and phyto-sanitory (SPS) requirements etc that influence the way the particular value chain functions.

Fig-1: Value Chain Framework



Source: MLinks-VCA\Chain Analysis-microLINKS Wiki.htm

Value chain analysis provides a basis to identify the chain actors and the weaknesses at each of the functional levels to help in designing appropriate interventions for strengthening the target value chains. How relevant is value chain analysis from the point of view of poor small producers? In the context of small producers chain upgrading can be achieved in the following two ways (Bolwig et al., 2008; Riisgard et. al. 2008).

Strengthening value chain coordination around the production node:

Value chain coordination is strengthened either by vertical integration in which an actor performs several functions in the value chain, or through contractualization which simply indicates use of contracts as a mediator of exchange between chain actors. Chain actors can cooperate and enhance fruitful exchanges between them (**Vertical contractualization**). Similarly, actors in the same position of the value chain can cooperate over such matters as input

provision, bulking produce for easy access to markets, identification of potential buyers, as well as product certification (**Horizontal contractualization**).

Upgrading in the production node:
The common forms of upgrading in the production node include improvement in product quality, improved efficiency of production process, increasing volume of production, improving timing of supply, and compliance with mutually agreed upon industry standards.

1.3 Methodology

The study and the findings are presented based on a combination of primary including participatory methods and secondary sources of information.

- Review of Secondary Information / data on Incense/Agarbatti sub-sector
- Interaction workshop with sub-sector value chain actors/stakeholders at Janakpur on 11 August 2009 for participatory Value Chain Mapping, SWOT Analysis, identification of constraints and possible solutions.
- Field survey with entrepreneurs and traders-Udayapur, Dhanusha, Sindhuli, Butwal (key informants, enterprise surveys)
- Information from Market survey in Kathmandu (NORMS)
- Sharing findings in Central level workshop (22 November 2010) to solicit comments and suggestions from stakeholders on the presentation of findings.

The report has been finalized incorporating the inputs and comments from participants at the central level sharing workshop held at Local Development Training Academy Hall on 22 November 2010.

Chapter-2

Incense Sticks Value Chain

2.1 Incense Sticks Types and Production Process

Incense sticks that produce fragrance on burning are very common items mostly used in religious ceremonies in Nepal. There are basically two types of incenses: Indian and Tibetan, with the following basic characteristics:[5]

Indian incense can be divided into two categories: Masala and Charcoal. Masala incenses are made by blending several solid scented ingredients into a paste and then rolling that paste onto a bamboo core stick. These incenses usually contain little or no liquid scents (which can evaporate or diminish over time). Charcoal incenses are made by dipping an unscented "blank" (non-perfume stick) into a mixture of perfumes and / or essential oils. These blanks usually contain a binding resin that holds the sticks' ingredients together. Most of charcoal incenses are black in colour.

Tibetan incense refers to a common style of incense found in Tibet, Nepal, and Bhutan. These incenses have a characteristic "earthy" scent to them. Ingredients vary from the familiar such as cinnamon, clove, and juniper, to the unfamiliar such as kusum flower, ashvagandha, or sahi jeera.

In Nepal relatively the Indian type charcoal based incenses dominate in terms of total consumption as well as production. However, Tibetan type incenses are also produced and used especially by Buddhist communities. The focus of the present incense value chain analysis will be on the Indian type or so called Charcoal incense.

Incense sticks are produced by hand rolling a mixture of kneaded charcoal dust and Jigit (*Kaulo* dust) which acts as the resin based binder on bamboo sticks (7-10 inches in length). For finer finish the stuffed bamboo sticks are rolled on flat wooden boards and are left to dry in the sun. In terms of weight, about one kg bamboo sticks may hold , 0.5 kg *Kaulo* powder and 1.5 kg of charcoal dust to make 3 kg of blank incense as semi-finished “blanks”. The “blanks” after drying are dipped into a mixture of DEP / White oil and scent (compound). Usually 10 litres of DEP is mixed with 1 liter of scent for dipping the “blanks”. The final process involves packaging into plastic wrapper and printed packaging material.

2.2 Value Chain Actors: Functions and Participants

Inputs supply:
The main inputs and ingredients used in incense production are:

[5] This section draws from: http://en.wikipedia.org/wiki/Incense

- Bamboo sticks
- Resin based binder (Jigit / *Kaulo*)
- Charcoal dust
- Diethyl Phthalate (DEP)[6]
- White Oil[7]
- Compound (Scents)

Incense making enterprises use inputs that are locally available such as bamboo sticks, Jigit or *Kaulo* powder as binding agent, and charcoal powder in addition to the imported inputs such as *Di-Ethyl Pathlete* (DEP), White Oil, and Compound (Scents). There are traders based at major commercial centres such as Birgunj and Biratnagar that import, keep in stock and supply the imported inputs such as DEP and White oil.

One of the main ingredients used in incense making is the resin based binder obtained from the bark of *Kaulo* tree (*Michilus odoratissima*) which is abundantly available in the Mahabharat range of Nepal between the altitudes of 900-1,300 masl. The tree can be up to 40-60 feet tall with the girth of 6 feet. One tree yields up to 50 kg of bark which when dried will yield 12.5 kg of dried bark for industrial processing.[8]

Most of the *Kaulo* harvested from forests is exported to India in unprocessed form. In 2066/67 1,788 MT of *Kaulo* were exported from Nepalgunj, the main centre for NTFP trade in Nepal (Table-1). About 20 NTFP/herbs traders based at Nepalgunj are the main actors in *Kaulo* trade. The main production areas in mid and far-west Nepal are Surkhet, Dailekh, Dang, Sallyan, Dadeldhura, and Doti.

In recent years incense entrepreneurs have started to process *Kaulo* using locally available resource to make Jigit powder by establishing processing units with small grinders and are becoming important actors in input supply.

Table-1: Export of *Kaulo* (*Michilus odoratissima)* from Nepal

Year	Quantity (MT)
2064/65	1,719.95
2065/66	2,322.36
2066/67	1,788.58

Note: Includes export from Nepalgunj only.
Source: Jadibuti Association of Nepal (JABAN), Nepalgunj

[6] Diethyl phthalate or DEP is a phthalate ester. It is used as a plasticizer in plastisols (for example in toothbrushes, textile paint, food packaging and toys) and as a solvent. (http://en.wikipedia.org/wiki/Diethyl_phthalate).
[7] White Mineral oil is derived from crude oil, however its high degree of refinement dictates the properties it takes on. White mineral oil, often referred to as white oil, is crystal clear, odourless and can be found in a variety of different viscosities. White oil is either derived from one of two of base oils, naphthenic or paraffinic. (http://wiki.answers.com).
[8] Primary Study on *Kaulo* in Western Mahabharat Range of Sindhuli District, 2064 (in Nepali). Grameen Arthik Sasaktikaran Samaj, Sindhuli

As shown by the calculation based on interviews with herbs traders the exporters are earning a margin of Rs. 12.40 per kg of *Kaulo* bark. The price at collectors' level is about 42 percent of the final price (Rs. 60/kg).[9]

Price (dried bark) at collectors' level: Rs. 25 per kg
Add royalty: Rs. 10/kg
Add DDC tax: Rs. 1.0/kg
Add transportation cost: Rs. 2/kg
Add load/unload cost: Rs. 2.6/kg
Total cost to border: Rs. 40.6/kg
Add export duty (customs): Rs. 1.0/kg
Add transportation cost to Gaya (India): Rs. 6/kg
Total cost: Rs. 47.60/kg
Price received by Exporter: Rs. 60/kg
Exporter's margin: Rs. 12.40/kg

DEP, white oil and compounds are imported from India mainly from Gaya in Bihar state, a major centre of Agarbatti/Incense manufacturing. DEP is relatively expensive having longer lasting quality compared to white oil and used in higher quality incense whereas white oil has short lasting period and is used in lower quality incense.

Cost of packaging is also high but cost effective if printed in bulk. For example, average cost per packaging box ranges from Rs. 2-3 depending on quantity printed. Many smaller producers are using packaging materials provided by large manufacturers with buy back relationships.

Incense / Agarbatti manufacturing:
The chain actors involved in manufacturing incense both "blanks" and scented and packaged incense operate in different scales of production from very small (micro-entrepreneurs, cottage industry) to large organized manufacturing units located in cities like Biratnagar, and Birgunj.

Table-2: MEDEP Promoted Micro-entrepreneurs (Incense)

Status	No of Entrepreneurs	Sales (Rs.)	Profit (Rs.)
Active	787	120,197,606	97,257,175
Semi Active	413	20,321,766	15,820,165
Inactive	942	46,528,158	35,113,340
Total	2,142	187,047,529	148,190,679

Note: Cumulative till September 2010 (Source: MEDEP-GSI/MIS)

[9] Based on interview with herbs traders at Nepalgunj. Origin point is Jajarkot for *Kaulo* collection and destination point is Gaya, India via Nepalgunj.

There is lack of reliable data on the number of operating units, total production capacity, and output levels. There are over 1,000 incense producers active in the sub-sector that is promoted by MEDEP as micro-entrepreneurs (Table-1). The number of small incense producers may be several times higher than this figure since in just two districts in the Terai, Bara and Parsa it is estimated that over 3,000 families are involved in incense making. The small producers are supplying to more than 20 incense manufactures at Birgunj who after packaging market these incense under their own brand names such as *Narayani, Janaki, Himal, and Bageshwori* etc. Bara district alone in one year produced 600 tons of Agarbatti.[10] MEDEP promoted micro-entrepreneurs are also linked with large manufacturers supplying the "blanks" for further value addition. Many of the potential entrepreneurs receiving skill training from MEDEP have turned into piece rate workers with one lead entrepreneur who has developed contractual relationship with large incense manufacturers / packagers (an example of sub-contracting at work). One incense entrepreneurs in Sindhuli employs 52 women workers most of them trained by MEDEP who on an average earn Rs 140-175 per day making 4-5 kg of incense.

Value addition by large producers involves scenting the incense sticks, packaging and marketing. There are probably around 100 small/medium/large organized incense manufacturers located at major urban centres such as Biratnagar, Birgunj, Janakpur, Kathmnadu, and Butwal. In Biratnagar alone 46 registered incense manufacturing units are reported to be in operation some of them having daily output level of 40-60 kg and employing 15-25 workers.[11]

The marketing system consists of networks of dealers in major market / urban centres who operate on the basis of commission from manufacturers. The retail traders range from small grocery shops to large department stores and supermarkets. There are also traders (mostly Kathmandu based) who sale attractively packaged high quality incense sticks to tourists from specialized tourist shops and also export to overseas countries.

Providers of Support Services

District Offices of DCSI / CSIDB are mainly responsible for promotional activities, and registration of industry as per the Industrial Enterprises Act 2049. The district offices also provide skill training of one week duration to incense makers. There are a total of 27 district level offices of DCSI and the remaining 48 districts are covered by CSIDB.

The Business development service providing Organizations (BDSPOs) promoted by MEDEP as service providers are involved in implementation of MEDEP programme at the local level with a comprehensive package that includes social mobilization of poor households by selecting target beneficiaries, provision of entrepreneurship training based on ILO- Start and Improve Your Business (SYIB) package and short-term skill training to incense entrepreneurs. Helvetas-Elam programme has also supported incense making enterprises by providing skill training to mostly women entrepreneurs in selected districts. The DMEGAs are providing services to micro-entrepreneurs to improve packaging of products and enhance market access through the retail sales outlets (*Saugat Grihas*).

[10] Kantipur, October 26, 2009
[11] Kantipur, October 26, 2009

The hand rolled incense making has become popular as small enterprises and cottage industry especially with the work of MEDEP to promote incense making as micro-enterprise. However, the service providers are not providing the follow-up services such as linking to markets and enhancing competitiveness in a highly competitive industry. As a result failure/ d rop out rates in incense making is relatively observed to be high.

2.3 Value Chain Map

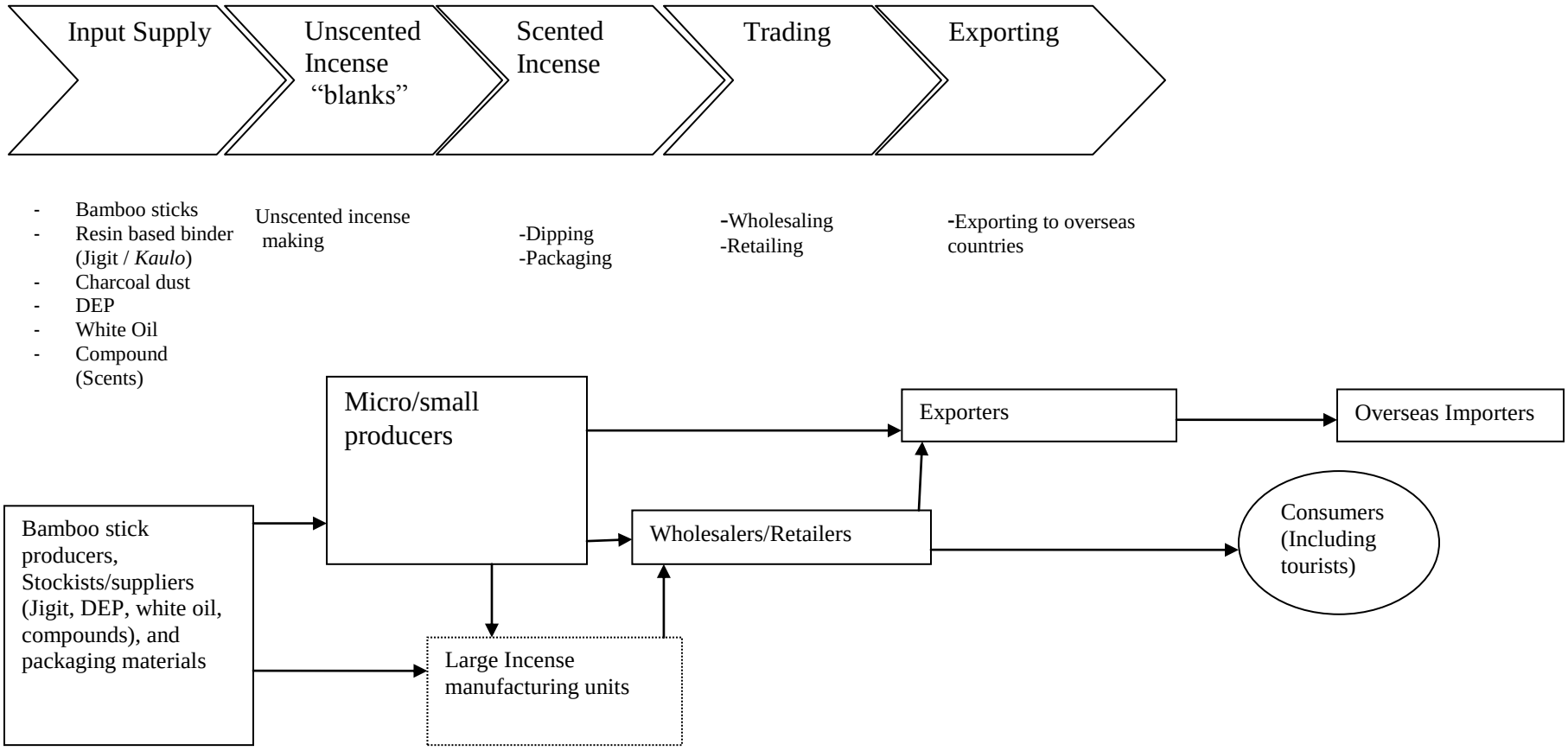
The value chain map generally represents the micro level with possible inclusion of the chain actors at meso level. The basic functions along the value chain and those performing the specific functions or the chain operators are mapped for simple representation of the specific value chain. Value chain map helps understand the functional levels of the chain and the operators associated with the levels including the linkage at different levels of the chain, thus facilitating the analytical study of the chain with such visual representation.

In addition to chain operators at micro level there are also providers of support services that do not deal directly with the product as the chain operators do but provide useful support services and are classified under the meso *level* of the value chain. These include agencies that basically provide the support services benefiting the whole value chain including the common interests of all the value chain actors.

The chain enablers are basically government agencies or public sector agencies responsible for shaping the policy environment, as such are classified as the *macro level* of the value chain and are not depicted in the value chain map as chain actors.

The incense value chain map at the micro level is presented in Fig-1. The Map includes the actors performing the functions of input supply, making unscented and scented incense sticks, trading, and exporting.

Fig-2: Value Chain Map: Incense



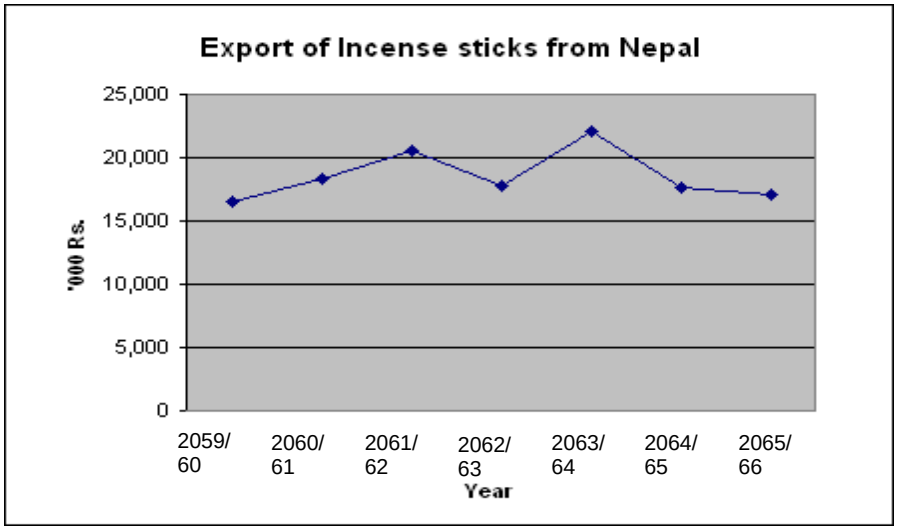
2.4 Market Analysis

The market for incense is estimated at close to Rs. one billion with domestic brands sharing about 50 percent.[12] Nepal is a net importer of incense as it imports huge quantities of incense sticks from India particularly to meet the surge in demand during the main festival season in October-November (*Dashain*, *Tihar* and *Chhath* festivals).

The local market for incense is dominated by brands imported from India. The Indian products are available in wide variety in terms of quality especially at higher quality levels with variety of fragrances. Wide variety of incense sticks are available with prices ranging from Rs. 5 to Rs 45 per packet. The most common brands are within the price range of Rs. 10-25 per packet containing 20-35 sticks.

Export:
In 2065/66 Nepal exported Rs 17 Million worth of incense sticks to over 15 mostly European Countries (Table-3). The trend in export of incense sticks from 2059/60 to 2065/66 is presented in the Fig-3. In recent years a declining trend is observed from the peak level reached on 2063/64 (with export exceeding Rs. 29 Million).

Fig-3: Export of Incense Sticks from Nepal



[12] Nepal Agarbatti Sangh (in Kantipur daily 26 October, 2009)

Table-3: Export of Incense by Destination (2065/066)

Country	Amount (Rs)	Percent
Russia	2,430,391	14.2
Taiwan	1,775,973	10.4
USA	1,672,493	9.8
Germany	1,586,279	9.3
UK	1,267,204	7.4
Japan	585,660	3.4
France	1,331,608	7.8
Canada	495,417	2.9
Italy	745,621	4.3
Tibet (China)	427,500	2.5
Spain	840,296	4.9
Switzerland	448,482	2.6
Australia	482,816	2.8
Ukraine	448,946	2.6
Netherlands	358,486	2.1
Czech republic	333,513	1.9
India	123,923	0.7
Others	1,788,446	10.4
Total	**17,143,054**	**100.0**

Source: FHAN (www.nepalhandicraft.org.np)

Import

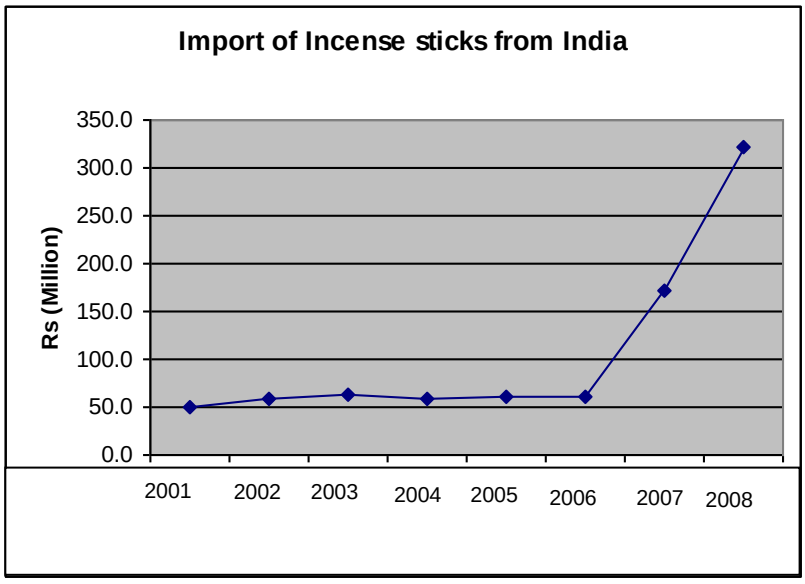
Nepal is a net importer of incense sticks as the level of import is much more higher compared to the export. Nepal imports large quantities of incensed sticks from India to meet the demand mainly during the festival season September-October (*Dashain*, *Tihar* and *Chhath* festivals). The official statistics show that Nepal imported Rs. 322 million worth of incense sticks from India in 2007/08. The comparative import figure for the year 2006/07 was Rs. 171.2 million (Table-4). However, the actual import figure from India is likely to be much higher than that shown by official records due to informal border trade. According to some incense manufacturers imported incense sticks from India constitute more than 50% of total incense sticks sold in the country.

Table-4: Import of Incense from India

Year	Million Rs.
2000/01	50.5
2001/02	59.2
2002/03	62.6
2003/04	58.8
2004/05	61.0
2005/06	61.8
2006/07	171.2
2007/08	322.0

Source: Source: Nepal Rastra Bank, Quarterly Economic Bulletin,
Vol. 43, No. 1&2. Mid-October 2008-mid-january 20009

Fig-4: Import of Incense from India



Prices

The incense sticks are available in different sizes from small 7 inches length to 10 inches long incense sticks. A wide variety of incense sticks are available both locally made and imported from India with prices ranging from Rs. 5 to Rs 45 per packet. The wholesale prices range from Rs. 3 to Rs. 42 whereas the retail prices are in the range Rs. 5 to Rs. 45 per packet containing between 10-60 sticks (NORMS 2009).

The market functionaries are wholesalers/dealers who distribute the incense from manufacturers on commission basis to the retailers. About 10 % commission is taken by the dealers. A simplified example of the common incense stick retailing for Rs. 10 per packet bundle is given below to illustrate the margin at different levels.

Table-5: Margin Earned by Dealers and Retailers of Incense

Market Functionary	Price/bundle (12 packets)	Margin (Rs.)
Producer/manufacturers	96	-
Dealer	105	9
Retailer	120	15

The import export pattern of incense shows that there is huge potentiality for expanding local production capacity for import substitution.

2.5 Gross Margin, and Profit Analysis

Small bamboo stick making enterprises have proliferated around incense manufacturing units supplying the bamboo sticks that has virtually substituted the import of bamboo sticks from

India. These family run enterprises make monthly earning up to Rs. 5,000. The selling price of bamboo sticks is Rs. 35 per kg. The net profit per kg is calculated to be Rs. 5 (Table-6)

Table-6: Net profit from Bamboo sticks making enterprise

Particular	**Cost (Rs)**
Cost of bamboo (for 1 kg stick)	*Rs. 17.5*
Labour cost	*Rs. 12.5*
Total cost	*Rs. 30.0*
Selling price (1 kg)	*Rs. 35.0*
Net profit per kg	*Rs.5*

Note:
1. One bamboo pole costs Rs. 70 and produces 6 kg sticks
2. Labour cost: Rs 100/day
3. Based on interview with entrepreneur at Jamunibas, Bengadawa VDC, Dhanusha dist.

Incense making enterprises are classified into two categories making of unscented "blanks" and scented incense after completing the process of dipping in compound for the desired aroma. On an average a person makes about 5-7 kg of "blanks" in one day. The women workers make between Rs. 150-175 in one day working on piece wage basis with rates ranging from Rs. 25-35 per kg of "blanks". The gross margin and profit analyses with respect to production of "blanks" and scented/packaged incense are presented in Table-7 and Table-8 respectively.

Table-7: Gross Margin and Profit in making "blanks"

Incense	**Unit**	**Qty.**	**Price (Rs.)**	**Total (Rs.)**
Sale				
1 kg	Kg	1	70	70
Materials				0
Sticks	Kg	0.33	35	11.55
Jigit	*Kg*	0.17	70	11.9
Coal dust	*Kg*	0.50	25	12.5
Red powder	*Kg*	0.05	35	1.75
Labour cost	Kg	1	25	25
Total cost				62.7
Gross margin				7.3
less depreciation				0.83
Profit				6.47
Gross Margin (%)				10.43
Profit (%)				9.24

Table-8: Gross Margin and Profit in Packaged Incense

Unit=1 dozen packets

Incense	Unit	Qty.	Price	Total
Sale	Doz.pkts	1	96	96
Materials				0
"blank" incense	Kg	0.26	63.25	16.45
DEP	Lte	0.05	240	12
Scent	Lte	0.005	1,500	7.5
Packaging material	Pc	12	2.75	33
Labour cost	Doz.pkts	1	3	3
Total cost				71.95
Gross margin				**24.06**
less depreciation				0.08
less admin. Cost				0.43
less repair and maintenance				0.04
Profit				**23.51**
Gross Margin (%)				**25.06**
Profit (%)				**24.48**

Note: Based on integrated production unit with grinding (*Kaulo* and charcoal), production of "blanks", dipping, and packaging
Price list of inputs provided in Annex-3

The analyses show that significantly higher value addition is possible through the additional processes of dipping and packaging which yield higher return in terms of gross margin (25%) and profit (24.5%) compared to production of "blanks". Hence, it pays to gradually add up value with integration of dipping and packaging even for small scale units that are not integrated in terms of own production/processing facility of *Kaulo* and charcoal as these two ingredients can be easily procured from processing plants or dealers of inputs. Packaging is relatively costly for micro/small entrepreneurs as their requirement for packaging materials is small which leads to higher per units cost of packaging materials. One possible solution is to organize the small producers and market their product under collective packaging/branding strategy. The collective branding strategy works in situation of product quality standardization requiring lot of mentoring efforts from the marketing agency that holds the right to the collective mark.

2.6 Competitiveness Analysis

The market for incense sticks / Agarbatti is highly competitive as there are number of large manufacturers, small producers, and importers in the domestic market estimated to be of the size of Rs. 100 crores. The local manufacturers are becoming more competitive as the local supply chain of inputs especially *Kaulo* (Jigit) and bamboo sticks has improved in recent years. Presently, local producers are mainly using imported DEP/White oil and scent (compounds), the

other main inputs such as *Kaulo* (Jigit), charcoal dust, and bamboo sticks are available locally. The locally produced incense are at a disadvantage in the quality of packaging materials used vis a vis imported products from India, as it is relatively costly.

A marketing study conducted by NORMS for MEDEP analysed the competitiveness in terms of different attributes of incense produced by micro-entrepreneurs (present parameters) and market demanded parameters using spider diagram (Diagram 1 and 2). Incense produced by micro-entrepreneurs need improvement on availability and pricing to be competitive in the market. Regarding the market demanded parameter the producers have to focus on quantity, availability, pricing, packaging and perception.[13]

[13] Ranking of parameters: Quality (2=low; 3=Moderate, 4=Good); Quantity (2=limited supply, 3=moderate supply, 4=Good supply); Availability (2=Only in few stores, 3=In selected stores, 4=In major stores); Pricing (2=High price, 3=competitive price, 4=price less than competitors); Packaging (2=less appealing, 3=Moderate appealing, 4=good appealing); Perception (2=Low, 3=Moderate, 4=Good).

Fig-5: Incense stick-present parameters

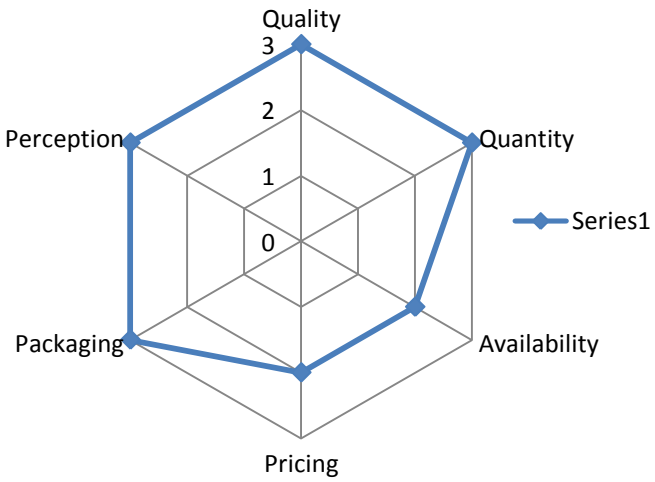
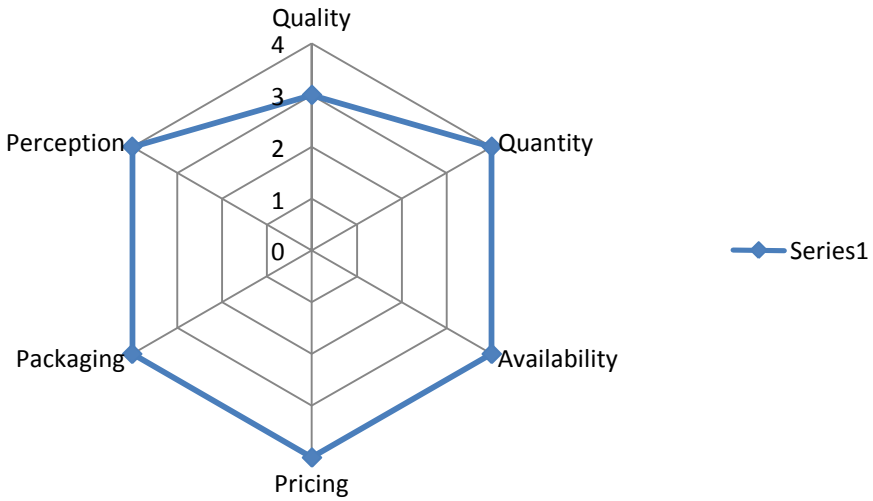


Fig-6: Incense stick- market demanded parameters



2.7 SWOT Analysis

In the SWOT analysis of incense sub-sector value chain the participatory workshop came up with certain strengths, and weaknesses which are basically internally managed factors as well as the external factors including the opportunities and potential threats. These are summarized in the following Table-9.

Strength: Incense making is based on simple production techniques (hand rolled) to suit even the resource poor micro-entrepreneurs with less than Rs. 5,000 of investment required to start with. Moreover, it makes use of locally available raw materials such as *Kaulo* or Jigit powder, a resin based binder extracted from the bark of *Kaulo* trees that are abundantly available in the mountain areas of the country. Most of the *Kaulo* extracted by collectors is exported to India by herbs traders in raw or unprocessed form with only a small fraction processed locally and utilized by the incense industry. Bamboo sticks and charcoal dust two other inputs that are also locally available. Incense enterprises depend on imported DEP / white oil and scents for dipping in the "blanks" to produce the desired aroma.

Weakness: The main weaknesses noted are related to poor quality of products (shedding problem, poor packaging materials used), low profit margin especially in production of unscented/unpackaged "blanks" and lack of appropriate grinding technology resulting in poor quality of *Kaulo* powder that has high dipping rate (oil absorption) which increases the cost of production.

Table- 9: Strength, Weakness, Opportunity, and Threat (SWOT)

Strength	• Simple production technique to suit small producers • Availability of inputs/raw materials used in production
Weakness	• Poor quality of products • Low profit margin especially in the production of "blanks" • Poor quality of processed *Kaulo* powder (high dipping rate)
Opportunity	• Availability of fragrances derived from locally available aromatic plants as substitute for imported scents (compounds) • Linking with large produces/packagers • Huge unmet (from local production) market demand • Export potential (niche products)
Threat	• Unsustainable harvest of *Kaulo* • Import by traders through informal channels (open border) • Competition from imported incense

Opportunity: The opportunities are immense as there is the potential to use fragrances derived from locally available / processed aromatic plants as substitute for the imported scents. There is the opportunity for small producers to link up with large producers for final packaging, and marketing through their well established networks. As Nepal is a net importer of incense the opportunity from the point of view of unmet demand (from domestic production) is obvious. Furthermore, there is the opportunity for export as niche product (such as Tibetan incense using Natural herbs from the Himalayan region).

Threat: There are two main threats identified one of which is related to the environment due to the unsustainable harvesting practice of *Kaulo.* The middlemen / traders procuring *Kaulo* bark as well as the collectors in the mountain districts have scant regard for the sustainable harvest of *Kaulo* bark which might pose a serious threat in terms of its sustained supply in the future.

Another potential threat to domestic incense industry is the competition from imported incense sticks from India. Import of incense from India by traders through informal channels (bypassing the customs) taking advantage of the open border is a matter of concern for the domestic incense industry. Moreover, the valuation system at customs for import of finished and "blank" incense also works to the disadvantage to domestic producers and packagers. The customs valuation for *Agarbatti* is at the rate of Rs. 0.10 per stick, whereas for raw incense it is Rs. 30 per kg.[14] Thus the rates are obviously highly undervalued since the selling price of raw incense or "blanks" is Rs. 65-70 per kg in the country.

[14] Kantipur, October 26, 2009

Chapter-3

Role of MEDEP in Incense Sticks Value Chain

3.1 Number of Entrepreneurs

Incense making constitute an important part of MEDEP supported enterprises. A total of over 2,000 micro-entrepreneurs were initiated into incense enterprises in 28 districts. However, over 40 percent of incense entrepreneurs are reported as either currently inactive or dropped. Incense making seems to be one of the enterprises having a high dropout rate among MEDEP promoted enterprises. The common reasons for observed high drop out rates are small margin in operations, lack of access to finance, weak marketing linkages and high cost of inputs affecting the competitiveness vis a vis incense imported from India.

3.2 Upstream and Downstream Linkages

Despite the reported high drop out rate several micro-entrepreneurs have successfully graduated into the level of small / medium producers. Such successful entrepreneurs have been employing people who were provided skill training by MEDEP as piece wage workers. Thus a change in status from self-employment (as entrepreneur) to wage employment has also taken place. In Sindhuli one graduated entrepreneur is currently employing 52 women workers on piece wage basis most had received skill training provided by MEDEP.

The upstream linkages are also significant. One entrepreneur in Dhanusha has successfully linked with over 300 micro-entrepreneurs who are supplying bamboo sticks and "blanks" for additional value addition by scenting and packaging. Some entrepreneurs are also linked with large manufacturers and packagers based at Janakpur and Birgunj supplying the "blanks" for further value addition and marketing through the established network.

3.3 Supports in the Incense Sticks Value Chain

MEDEP provides entrepreneurship training based on ILO-SIYB modules adapted to the condition of illiterate beneficiaries. Entrepreneurship training is followed by skill training of usually one week duration. The entrepreneurship and skill training programmes are implemented through local BDSPOs.

The upstream linkages to input suppliers has been strengthened through the establishment of processing plants as common facility centres to supply the main ingredients used in incense making using locally available resources such as charcoal dust and Jigit powder. This has clearly helped strengthen the Incense value chain.

The details of the MEDEP supported processing plants are presented in Table-10. The total output last year was approximately 6 MT of *Kaulo* and 8.3 MT of coal dust. It is evident that there is a high underutilization of the processing capacity. Technical problems such as lack of proper matching of grinder and motor are cited as the main problems in low capacity utilization.

Table-10: Processing Units promoted as Common Facility Centres (CFCs)

Location	Year Established	Processing capacity (kg/hour)		Output (kg)		Contribution (Rs)		Total investment (Rs)
		Kaulo	Coal	*Kaulo*	Coal	MEDEP	Community	
Satpatre, Kamalamai -5, Sindhuli	2006	5	10	1,000	2,000	25,750	3,000	28,750
Bardeutar, Kamalamai-6, Sindhuli	2008	15	30	2,500	5,000	22,000	92,160	114,160
Jaljale, Udayapur	2008	20	60	2,350	1,355	19,500	5,000	24,500
Bagaha, Udayapur	2006	18	50	0	0	19,500	2,000	21,500
Basaha, Udayapur	2007	18	50	0	0	19,500	0	19,500
Total		76	200	5,850	8,355	106,250	102,160	208,410

Note: Data represent cumulative figures till October 2009

The programme links micro entrepreneurs to Micro-Finance institutions (MFIs) to help them access credit. Such links continue to be weak due mainly to lack of coverage of many of the remote areas within MEDEP programme districts by MFIs. MEDEP has supported the establishment of 130 cooperative societies of which 5 have successfully linked with RSRF for access of funds. The formal link through ADB/N that existed during Phase-1 of MEDEP was discontinued after ADB/N withdrew from micro-finance sector in 2005 resulting in reduced access to micro credit funds to members of MEGs. As a consequence the new MFIs with whom MEDEP has now entered into partnerships are charging interest rates between 18%-24% which are higher than that previously charged by ADB/N. The access to micro-finance is relatively better in Tarai districts especially close to district headquarters.

In marketing a total of 31 sales outlets at district level, regional level, and at central, level (*Saugat Grihas*) are operating to facilitate marketing of products produced by micro entrepreneurs although with limited capacity. Facilitating micro entrepreneurs to participate in trade fairs and exhibitions has helped improve market networking.

MEDEP has recently initiated the process of designing attractive packaging materials for collective branding of incense produced by micro-entrepreneurs to be marketed by *Saugat Micro Promotion Pvt. Ltd. (SMPPL),* a company owned by micro-entrepreneurs through their national umbrella organization NMAFEN.

Chapter-4

Value Chain Constraints

4.1 Incense Sticks Value Chain Constraints

The incense value chain has immense potential to grow and impact on the livelihood of poor people. Incense making requires very simple skill and small initial investment to start with and can be carried out at household level with the possibility of gradually scaling up. However, there are several constraints that have resulted in a significant number of start-ups to die down in a short span of time as has been observed in the case of incense making micro-enterprises.

The value chain constraints especially from the point of view of micro-entrepreneurs are elaborated below in terms of the main categories:

Input Supply:

- Limited processing capacity to produce Jigit or *Kaulo* powder
- Bamboo not available in adequate quantity near villages.
- Dependence on imported Compounds (scents) increases cost of production.

Technology:

- Poor grinding technology for making Jigit or *Kaulo* powder the main ingredient (resin based binder) in incense making. Lack of proper matching of grinder and motor resulted in poor performance of processing unit at Sindhuli
- Lack of technical knowledge on making compounds of scents locally

Market Access:

- Products lack consistency in terms of quality
- Large packagers reluctant to procure from MEs due to lack of capacity to deliver in a timely manner and to ensure supply in sufficient quantity due to small scale of operation
- Lack of market linkages
- Poor quality of packaging

Finance:
Problem of access to finance to expand scale of operation.

In the case of MEDEP the capacity of service providers the so called BDSPOs is seen as weak especially in the provision of appropriate technology and linking producers to markets.

4.2 Enabling Environment for Incense Sticks Value Chain

The government has recently brought out the Industrial Policy which is seen as being friendly to micro-enterprises. However, these are yet to be backed by Acts and regulations. In addition the issue of policy harmonization in the case of forest based products especially related with environmental aspects has also been expressed by resource users in incense industry.

In terms of policy customs on raw materials and packaging items used in incense production/packaging are in higher range than import of finished product that works to put the local producers at a disadvantage. The current rates of valuation of incense at the point of import for customs purposes also works to the disadvantage of local producers, as they seem to be highly undervalued. There is also the regulatory issue of ineffective control at the border to restrict import of incense through informal channels to avoid market distortion.

There are several regulations on the utilization of natural resource that have a direct bearing on facilitation of the *Kaulo* extraction and trade. These regulations involve different ministries, hence need harmonization. The regulations related to IIE (for extraction of herbs and NTFPs up to the quantity of 50 MT) and IIE (for extraction in excess of 50 MT) is seen as possible deterrent to expanded utilization of resources by CFUGs. Similarly, there are restrictions of location of forest based enterprises (such as 1 Km in Hill and 5 KM in Tarai).

Getting collection permit and release order from DFO is both lengthy and also involves some costs. The contractors get the collection permit, not the actual collectors or harvesters. So, the *Kaulo* collectors are always in fear as they do not possess collection permits (Paudel et. al, 2010:32). The transport and transit of NTFPs from source (collection area) to destination (for processing or export) is full of hassles to traders even after payment of royalty and the issuance of "*Chod Purje*"(Release Letter) by DFO. During transit period, traders are subjected to multiple taxation by DFOs, Range Offices, and local administration along the way often with the added burden of having to pay donations to politically affiliated organizations. These issues on the policy and regulatory side are affecting the *Kaulo* / Agarbatti value chain and require appropriate measures to improve the enabling environment to facilitate the value chain upgrading.

Chapter-5

Recommendations to Strengthen Incense Value Chain

5.1 General Recommendations

Based on the analysis on the incense sub-sector value chain the potential role of incense sub-sector value chain in poverty alleviation is not difficult to understand. Here is an enterprise requiring very little fixed investment and having the potential to provide gainful employment with reasonable rates of return for improved livelihood of poor people. MEDEP has successfully integrated families below the poverty level into the incense value chain as producers of inputs and products. Some of the entrepreneurs have really graduated as small / medium incense manufacturers and have created employment opportunities for others.

Another important point to emphasize is the potential in import substitution keeping in view the huge trade deficit the country has in its trade with India. There is a huge unmet demand (from domestic production) indicating the scope for expanding incense sub-sector which mostly uses locally available resources. Incense sub-sector should be given due priority by the government considering its immense potential to help in poverty alleviation, employment generation, and trade balance.

5.2 Specific Recommendations

The following specific recommendations are made to support the upgrading strategies related to the micro and small Incense manufacturers:

Inputs Supply:
Private sector capacity to process *Kaulo* should be enhanced. MEDEP should continue its support by establishing small scale processing units in the mountain districts under the Common Facility Centre (CFC) mode. With increased local processing capacity the input supply situation will be improved. Moreover, primary collectors are likely to receive better price for *Kaulo* bark than that provided by the middlemen / traders operating on behalf of large herbs / NTFP dealers and exporters.

There is the real possibility of producing compounds of scents locally using aromatic plant extracts such as lemongrass, palmarosa, and citronella etc. which are processed by Herbs Production and Processing Company Ltd. (HPPCL), a public sector undertaking. A Participatory Action Research (PAR) is therefore recommended to formulate and test compounds of scents using locally available plant based resources.

A better coordination with private processors of NTFPs including collaboration with organizations in such as *Jadibuti Association of Nepal (JABAN*) will be helpful in to improve the access to quality inputs.

Technology:
Appropriate equipment for processing *Kaulo* preferably pulperizer with capacity to process 1 ton in 8 hours (entrepreneurs suggested). Improved technology and processing capacity will augment the availability of *Kaulo* to the Incense manufacturers.

Market Access:
To facilitate and improve marketing of products produced by micro enterprises MEDEP has been supporting the establishment of marketing outlets at district, and at central level by DMEGAs and NMEFEN. There are a total of 31 sales outlets including the central level sales outlet *Saugat Griha* managed by SMPPL, a company established by NMEFEN for marketinmg the products of micro-entrepreneurs. However, most sales outlets are performing poorly primarily due to lack of sufficient working capital.

Linkage of small producers with large manufacturers based in major incense manufacturing centres such as Birgunj, Janakpur, Butwal, and Kathmandu through formalized sub-contracting mechanism will help in up scaling through improved market access. However, the main concern in this regards is the low quality of incense produced by MEs with such reported problems as high dusting and shedding which make it difficult for the workers to handle during the processes of dipping, wrapping, and packaging.

Improved packaging and collective branding should be introduced in view of the limited financial capacity of micro-entrepreneurs and small producers. Horizontal integration of small producers should be promoted for adoption of common strategies involving procurement of inputs, use of improved packaging materials and adoption of common product quality standards, and branding.

Finance:
Finance is another weak link in value chain development. Access to finance should be improved for up scaling of enterprises, as the need for working capital increases with increase in scale of production.

Contractual arrangement with medium and large incense manufactures should be considered as an option to ease the problem of finance under a buy back arrangement

MEDEP promoted SCCs should be linked with wholesale lenders such as RSRF and RMDC to ensure availability of funds (to date five SSCs have already developed such linkages).

Improving the capacity of service providers:
The capacity of service providers especially the BDSPOs is weak to improve the access to technology, and enhance marketing linkages for the micro-entrepreneurs. MEDEP should help build the institutional capacity of the service providers with special emphasis on:

- Sub-sector Analysis
- Value Chain analysis
- Business Counselling and Mentoring

Enabling Environment:
The enabling environment should be made conducive to the overall growth of the incense manufacturing industry with policy harmonization, and support consistent with New Industrial Policy of GoN to realize the tremendous potential of incense industry to provide employment especially to women, increased income to participants and also contributing to import substitution. Incense industry should be accorded high priority creating favourable conditions including those related to the issue of appropriate customs valuation to promote the domestic incense industry.

The sustainable harvest of *Kaulo* should be ensured based on natural resource surveys, formulation / implementation of sustainable harvesting guidelines. It will be to the interest of value chain actors in the incense industry to put an emphasis on domestic processing of *Kaulo* for higher value addition as compared to export in raw form as is currently done.

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Annex-1: Export of Handicraft Goods from Nepal (in Rs.)

Fiscal Year 2059/060 - 2065/066

S.N.	Products	2059/60	2060/61	2061/62	2062/063	2063/064	2064/065	2065/066
A	**Textile products :**							
1	Pashmina Products	989,897,860	661,373,832	700,701,035	619,391,984	491,205,766	584,265,083	686,629,566
2	Woollen Goods	277,937,043	432,203,471	555,182,797	657,726,442	475,270,083	373,802,779	473,329,626
3	Felt Products	-	-	-	-	224,742,173	226,999,611	296,356,226
4	Silk Products	41,489,102	132,354,320	129,084,221	126,521,848	121,662,533	122,082,813	136,530,280
5	Cotton Goods	96,199,631	113,720,701	110,769,595	92,564,129	101,935,371	105,015,940	119,497,630
6	Hemp Goods	43,675,079	45,256,263	62,082,023	51,614,459	29,253,310	31,793,708	34,392,434
7	Allo Goods	-	-	-	4,764,624	4,884,444	4,841,153	4,739,668
8	Dhaka Products	3,991,182	4,995,352	3,370,222	4,661,928	2,192,217	1,805,730	3,297,600
9	Misc. Textile Products	10,142,175	7,097,350	8,441,589	13,452,267	14,098,867	12,786,586	6,679,762
	Sub Total :	**1,463,332,072**	**1,397,001,289**	**1,569,631,481**	**1,570,697,682**	**1,465,244,764**	**1,463,393,405**	**1,761,452,792**
B	**Non Textile Products :**							
1	Silver Jewellery	353,059,924	367,498,246	377,448,266	360,079,696	371,174,442	345,695,653	361,907,257
2	Metal Craft	276,238,090	293,065,733	373,010,297	437,790,118	381,198,709	372,515,583	365,224,811
3	Handmade Paper Products	275,374,703	301,725,045	263,764,274	269,630,462	242,019,925	236,647,187	264,553,139
4	Wood Craft	56,211,726	69,881,610	80,824,001	66,806,760	60,984,160	58,204,940	60,231,651
5	Glass Products							32,199,520
6	Bone & Horn Products	12,308,845	10,691,236	14,976,693	23,824,695	26,041,350	23,586,444	25,161,367
7	Ceramics Products	15,970,615	14,864,420	18,716,832	15,081,348	20,647,331	16,115,157	21,399,799
8	Incense	16,502,523	18,308,356	20,591,579	17,726,273	22,048,909	17,636,657	17,143,054
9	Leather Goods	24,850,288	23,610,502	25,811,618	20,761,121	21,629,804	15,813,451	17,853,398
10	Paubha (Thanka)	15,761,935	15,002,557	21,009,108	15,411,112	16,397,750	13,608,253	13,380,359
11	Plastic Items	1,853,942	7,453,119	8,530,634	8,921,345	21,697,113	17,851,699	20,815,171
12	Beads Items	7,099,160	6,026,616	7,967,173	9,519,405	8,525,295	6,173,314	11,984,831
13	Stone Craft	3,616,754	3,458,700	3,372,941	3,018,383	2,749,158	2,584,900	4,088,106
14	Bamboo Products	1,768,574	2,487,826	2,918,536	2,198,939	1,647,215	3,240,493	1,950,571
15	Miscellaneous Goods	29,003,392	40,766,170	60,902,905	59,177,511	54,378,122	89,747,766	50,367,057
	Sub Total :	**1,089,620,471**	**1,174,840,135**	**1,279,844,858**	**1,309,947,166**	**1,251,139,283**	**1,219,421,500**	**1,268,260,091**
	Grand Total	**2,552,952,543**	**2,571,841,423**	**2,849,476,340**	**2,880,644,848**	**2,716,384,047**	**2,682,814,905**	**3,029,712,883**

*Misc. Textile Products include products made from Rayon, Polyester, Velvet and Jute;

*Miscellaneous Goods include goods/products other than classified above

*Felt Products categories separately from fiscal year 2063/64 which was included in woolen goods in previous years

* Glass Products categories separately from fiscal year 2065/66 which was included in Miscellaneous Goods in previous years

Source: Federation of Handicraft Associations of Nepal, Thapathali Height (data obtained from website: www.nepalhandicraft.org.np)

Annex-2: MEDEP supported Value Chains

Value Chain	Entrepreneurs	Sales (Rs.)	Profit (Rs.)
Allo	769	51,924,550	41,999,850
Bamboo Products	738	87,225,522	60,458,688
Honey	2,475	233,644,810	204,776,801
Chiuri/herbal soap	116	24,302,873	19,959,626
Dhaka	635	117,068,793	82,381,914
Ginger	872	228,330,717	209,372,332
Incense stick	1,200	140,519,372	113,077,339
Lapsi	190	10,529,642	5,453,231
Lokta	151	18,358,362	13,342,914
Total (10 value chains)	7,146	911,904,639	750,822,694

Note: Figures are cumulative till September 2010

Annex-3: Price list of inputs used in incense production.

Input	unit	Price/unit
Compound (scent)	liter	Rs.500-Rs. 3,000
Diethyl Phthalate (DEP)	kg	Rs. 240
White Oil	liter	Rs. 130-140
Jigit powder (*Kaulo*)	kg	Rs. 70
Charcoal dust	kg	Rs. 25
Bamboo sticks	kg	Rs. 35

PHOTOGRAPHS

Kaulo tree (seen in wild, Parbat district) is abundantly available in Nepal's mid-hill region.The bark is processed to obtain a resin based binder called "Jigit" and used in incense making

Bark of *Kaulo* being dried before processing to obtain "Jigit" powder

Processing facility at Sindhuli supported by MEDEP to produce *Kaulo* powder and charcoal dust

Charcoal dust ready for use in incense making.

An old woman making incense for supplemental income generation
at Bhuchakrapur VDC, Dhanusha

Making bamboo sticks using simple tools at Bengadawa VDC, Dhanusha dist. that helps entrepreneurs earn up to Rs. 5,000 per month.

Women micro-entrepreneurs making incense in Dhanusa..

Drying incense sticks on yard.

Bundles of “blanks” being weighed before dispatching to large incense manufacturers

Scented incense sticks being wrapped in plastic paper

Mr Ram Ramoli of Ramoli Agarbatti Udyog, Bhuchakrapur, Dhanusha, with family members in front of his incense making facility with successful upstream linkage with over 300 micro entrepreneurs.

Packaged incense ready to be despatched to market (Small producer at Sindhuli)

Group discussion in progress during Incense Value Chain workshop at Janakpur on 11 August 2009