Micro Enterprise Development in Nepal

Potentials, Achievements and Impacts

(Synopses of researches and assessments commissioned by Micro Enterprise Development Programme)

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Micro Enterprise Development Programme (MEDEP IV)

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Forewords

Micro enterprise development is a systematic and sequential activity, providing various types of support to potential beneficiaries at different stages of enterprise creation and development - from target group selection to entrepreneurship training, skills development training, technology support, access to micro credit and business counseling and market linkages. Each of these stages requires rigorous and realistic planning, implementation and feedback. Moreover, for pro-poor and sustainable micro enterprise development, it should focus on utilising local resources by upscaling existing skills and introducing low-cost, energy efficient and appropriate technologies. Therefore, surveys, assessments and researches are essential prerequisite to designing and implementing micro enterprise development programmes. They help identify potential for programme implementation, measure programme's effectiveness and provide crucial feedback for improvement in targeting, planning, implementation modality and engagement with stakeholders.

With the experience of successful implementation over the past 16 years, Micro-Enterprise Development Programme (MEDEP) – a joint initiative of the Government of Nepal, Ministry of Industry and the United Nations Development Programme (UNDP) has commissioned hundreds of researches, impact assessments, feasibility studies and resource surveys. These activities provided invaluable feedback and helped the programme to be evolved as a successful model for poverty alleviation in rural Nepal. Eventually, the Government of Nepal has internalised this programme in the name of Micro Enterprise Development for Poverty Alleviation (MEDPA) programme with a plan to cover all 75 districts of the country by 2018. With the generous financial support of Australian Government, MEDEP has been expanded to its fourth phase (August 2013-July 2018) to work for capacity building of the GoN agencies and private sector organisations aiming at sustainable micro enterprise development in Nepal.

For the systematic knowledge management, MEDEP has been publishing various knowledge materials, (1) compilation of synopses of dissertations and theses entitled Micro Enterprise Development for Poverty Alleviation, (ii) Synopses of impact assessments, (iii) Anthology of success stories besides producing documentaries and audio-visual toolkits. Till date, three volumes of Micro Enterprise Development for Poverty Alleviation have been published. Most of these materials are available online on MEDEP website www.medep.org.np and MEDEP youtube channel www.youtube.com/medepnepal. Meanwhile, as there has been major transition in MEDEP's role – from direct implementer to facilitator, many important researches were carried out over the period of 2009-2014.

This volume is the compilation of synopses of selected nine researches and assessments commissioned by MEDEP. Five studies are particularly focused on optimum utilisation of untapped forest-based resources for the benefit of the poor. Study on Pine Timber Export to Tibet and Pine Electric Pole Treatment Industry presents a very useful model for utilising

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pine timber without harming the ecological balance along with a feasible business model of exporting the poles to Tibet. Another study 'Policy Provisions, Gaps, and Practical Constraints in Promoting Small-scale Forest-based Enterprises' outlines the policy level to practical impediments in utilising the vast and untapped forest-based (non-timber) resources for the benefit of local communities. Going by the line, resource surveys of Allo and Chyuri present the immense potential of utilising these otherwise unused/waste resources for the benefit of rural poor. The study Allo Product Diversification, Supply (Value) Chain and Potentialities of Expansion asserts that the Allo products are already diverse and there exists huge potential and possibility of expansion.

The study entitled 'Assessment of Effectiveness of MEDEP's Support to Make Micro Entrepreneurs More Resilient through Job Creation and Livelihoods Improved' analyses the effectiveness of MEDEP's post-training support to Micro Entrepreneurs. This study has come out with indicators in making the Entrepreneurs more resilient.

Similarly, two researches focus on financial inclusion which is crucial to micro enterprise development. The study on Assessment of Access to Finance in MEDPA and MEDEP Including Financial Mapping presents the status of the access to finance for MEDEP supported Entrepreneurs as well as outlines the availability of financial institutions in MEDEP and MEDPA implemented districts. Similarly, Impact Study of Micro-Finance in MEDEP assesses the impacts of the micro finance support to Micro Entrepreneurs.

As MEDEP works to build a system for sustainable micro enterprise development in the country, Capacity Assessment of and Institutional Development Guidelines for MEDEP Supported Organisations recommends measures to strengthen partner organisations including the associations of beneficiaries.

I believe that the messages in synopses would give invaluable insights into micro-enterprise development in Nepal, while also contributing to the Programme's potential to aid the poor, the impacts it is making, lessons learnt from this programme and the immense potential of expanding similar programmes to reduce poverty in Nepal. The full reports of these studies can be accessed at the MEDEP Office, Dhobighat, Lalitpur.

Yam K. Khatiwada

Yam Kumari Khatiwada
Joint Secretary, Ministry of Industry and
National Programme Director, MEDEP
20 November 2014

United Nations Development Programme

Empowered lives.
Resilient nations.

Foreword

Over the last 15 years, MEDEP has helped more than 70,000 people to start their own businesses and to create employment in rural areas. Over 73 percent of the families (covering over 300,000 people) which benefitted from the programme have come out of poverty. MEDEP-supported entrepreneurs have created jobs and have contributed to stemming the exodus of young people to low-paid jobs abroad.

The MEDEP has also influenced government policies and helped government bodies to introduce pro-poor, inclusive and micro-enterprise development friendly policies and programmes. That the government of Nepal has adopted the MEDEP model in the government's own Micro Enterprise Development for Poverty Alleviation (MEDPA) Programme is the testimony of the programme's success. Over the next four years, the MEDEP will support the two agencies under the Ministry of Industry – the Department of Cottage and Small Industries and Cottage and the Small Industries Development Board – to gradually take over the responsibility for support to micro entrepreneurs. As the government agencies take over the direct implementation role, MEDEP will focus more on capacity building, institutional development and policy advocacy.

One important factor behind programme's success has been its readiness to embed the lessons of experience into implementation. It has promoted independent research to discover loopholes in its approach and implementation modality and the findings are fed into subsequent actions. This research has been compiled in a publication -- *Micro Enterprise Development in Nepal: Potentials, Achievements and Impacts*. This explores the experience of micro enterprise development, making the book a useful reference for conceptualizing, planning, implementing, monitoring and upscaling micro enterprise development programmes in Nepal and elsewhere.

I am very happy that the MEDEP is publishing this compilation. I believe that it can be a useful reference for planners, implementers, development workers and partners, potential entrepreneurs, students, teachers, researchers and general readers alike.

I would also like to take this opportunity to thank the Australian Government for providing support to the programme and to the Government of Nepal which has incorporated the programme into its own SME support programme (MEDPA).

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Micro-Enterprise Development Programme (MEDEP) which started as a pilot initiative in 1998 with the support of the United Nations Development Programme (UNDP) has come a long way with financial support from many development partners including Australian Aid, DFID, New Zealand Aid and CIDA. The MEDEP is on the fourth phase now after successfully completing first (1998-2002), second (2003-2007) and third (2008-2013) phases.

Over these phases, knowledge management has become one of the priority areas of MEDEP. The programme has commissioned various researches and assessments which were very useful to make the Programme more effective and targeted. MEDEP has been continuously providing support to dissertation students to carry out research in the areas of micro enterprise development. MEDEP also conducts various assessments and researches through external experts. These provide crucial feedback to MEDEP and other programmes working in the areas of poverty alleviation, enterprise development, natural resources, forestry and agriculture. This publication is a compilation of the synopsis of nine MEDEP commissioned researches.

My first and foremost thanks go to all the consulting firms and individual researchers for providing technical expertise in carrying out the researches. This compilation would not have been possible without the tireless efforts of Neeraj Narayan Joshi, Ph. D. who toiled hard to extract synopsis from the long and voluminous reports. My special thanks go to my colleagues Dr. Lakshman Pun, Chief Technical Advisor of MEDEP for his insightful inputs during various phases of research and preparation of this volume and Indra Dhoj Kshetri, Communication and Documentation Specialist for editing and coordinating the publication of this volume.

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28 October 2014

Contents

A Study on Pine Timber Export to Tibet and Pine Electric Pole Treatment Industry[1]

1. Introduction

1.1 Background

Nepal Australia Community Resource Management and Livelihood Project (NACRMLP) has spent more than three decades for providing supports to forestry sector and has planted Pine trees (*Pinus patula* and *Pinus roxburgii*) in Kabhrepalanchowk and Sindhupalchwok districts. In these two districts, more than 19,000 hectares of forest areas have been afforested. Most of these planted forests areas are under the management of Community Forest User Groups (CFUGs). In these districts, planted pine is one of the valuable assets, and primary source of income for the CFUGs. Most of the plantations are overstocked and at the harvestable stage having an average age of 28 years old. These stocks should be utilised shortly with the notion of value addition for premium price; otherwise these might stand only for conservation without much of economic value.

The management of these plantations so far has been basic, with very little silvicultural operation undertaken by user groups. If not managed scientifically, an inverse relationship between stocking density and growth may show, i.e. as stocking increases, growth decreases (Hunt *et al*., 2001); which resulted a significant loss of opportunity costs, around NRs.20,000 per hectare per year. CFUGs are currently gaining only nominal benefits from planted forests. Kanel (2004) suggests that there is also a substantial potential for generating additional income from better management of community forests, and the funds generated can be better utilised to benefit the poor

1 Study conducted by MEDEP with technical support from Management Association Nepal, 2010.

and marginalised groups. Besides sawn timber, one of the options of utilising these products would be in the form of poles. To provide more benefits to CFUGs socially and economically, these timber and poles should be out marketed shortly.

Initial piloting of Pine Pole Treatment project was carried out by Micro-Enterprise Development Programme (MEDEP) in partnership with the Timber Corporation of Nepal in the year 2008. The piloting report indicated that the treated Pine Poles withstand weathering and posses desirable quality and strength, and useful for rural electrification. It is in this context, this study was conducted in Kabhrepalanchowk and Sindulpalchowk districts. The main objective of the study was to explore possibility of exporting pine timber and poles to Tibet and establishing a Pine Pole Treatment Plant in the country. The specific objectives of the study were: (i) estimate the present stocking of Pine timber in the two districts, and (ii) explore the opportunities for backward and forward linkages through establishment of Pine Treatment Plant.

2. Study Methodology

A multi dimensional approach was used to carry out the study. Field visits were made at the two districts to collect the views of the local stakeholders, and to estimate the present stocking of planted pine products in the form of timber or poles. The study was carried out from the month of May to June 2010 in 3 Community Forests (CFs) of Chautara Range Posts of Sindhupalchwok district and 4 CFs of Kabhrepalanchowk district. A total of 110 CFs' Operational Plans (50 in Kabhrepalanchowk and 60 in Sindhupalchowk district) were reviewed. Of 110 CFs, 47 and 55 CFs are designated as planted pine forests respectively in these two districts.

Interactions with District Forest Officers and other personnel, executive members of different Community Forestry User Groups of Sindhupalchwok and Kabhrepalanchowk districts were carried out. Members of CFUGs of these districts were interviewed to explore the possibilities of pine pole harvest and establishing treatment plants. Discussions were held with the concerned government and autonomous entities such as Department of Forest, Department of Commerce, Department of Customs, Nepal Electricity Authority (NEA), Access Network Planning, Department of Nepal Tele-communication Corporation and the Timber Corporation of Nepal. Besides, some timber traders of the two districts, as well as Kathmandu valley and Lhasa were interviewed for assessing the future market of pine timber.

Similarly, Commercial Counsellor of Embassy of the People's Republic of China,

Vice President of Nepal–China Chambers of Commerce and Member of Nepal Trans Himalayan Trade Organisation were met to assess the possibility of marketing of poles and timbers in Tibet. Lhasa, the prime city of Tibet Autonomous Region, was chosen for sample survey (from 12 to 17 June, 2010) of pine timber and pine pole market in Tibet because of proximity to Kabhrepalanchowk and Sidhupalchowk districts and good demand of construction materials, as the city is rapidly urbanising and developing. A total of 16 timber traders in Lhasa were identified as potential and promising in order to discuss the possibility of importing pine timber from Nepal. The team members who did the initial feasibility studies on pine treatment plant were also consulted. The existing pine stock resource inventory in the two districts was carried out through appropriate sampling techniques with the technical support of qualified foresters.

3. Findings of the Study

3.1 Present Stocking Situation

In Kabhrepalanchowk and Sindhupalchowk districts, pine plantations were established during the 1970s, but the bulk of the planting was undertaken during the 1980s. More than 15,000 hectares of pine plantations were carried out in Kabhrepalanchowk and Sindulpalchowk districts with the technical and financial support of Nepal Australia Community Resource Management and Livelihood Project (NACRMLP). More than 75 percent of plantations are found in community forests, and the rest are located in government forests. The records of District Forest Offices and subsequent field verification indicate that a total of 492 and 482 number of forest areas are registered as CF in Kabhrepalanchowk and Sindhupalchowk districts respectively. Filed observation and analysis of secondary data (CFUG's Operational Plans) indicate that the average stocking is around 900 trees/ha.

Similarly, the analysis of inventory data (field inventory for verification of CFs' Operational Plans) indicates that on an average 428 and 845 stocking of stem of various diameter classes (10-30 cm and >30 cm)/ha are available in the studied areas of Kabhrepalanchowk and Sindhuplachowk districts respectively. Availability of pine poles varies with the location and district. Pine poles having >30 cm of diameter class in the 3 CFs of Sindhupalanchowk have 96 number/ha, whereas it is higher (131/ha) in 4 CFs of Kabhrepalanchowk district.

It is estimated that the number of poles and volume available from thinning operation in the accessible pine planted area is around 3,494.00 ha. It is also estimated that

about 80 - 90 percent of the timber extracted from planted areas of Kabhrepalanchowk and Sindhupalchowk districts would be potentially available for marketing purpose. CFUGs' Operational Plans indicate that from accessible area, about 50,000 to 100,000 Cu ft of pine timber per annum can be harvested but the sales figures obtained from both District Forest Offices are variable (Table 1).

Table 1: Pine Log Sales from CFs of Kabhrepalanchowk and Sindhupalchowk Districts

District	FY	2064/65	2065/66	2066/67
Kabhrepalanchowk	CFs No.	14	13	1
	Quantity (Cu Ft)	50,000.25	24,268.34	**1,005.63
Sindhupalchowk	CFs No.	0	17	13
	Quantity (Cu Ft)	0.00	41,443.47	55,488.27

Source: DFOs Kabhrepalchowk and Sindhpalchowk, 2067; ** Record as of May 2010

If CFUG's are willing to harvest their forest product according to their Operational Plan, there may be scope of smooth flows of timber for over a longer period. The sale of logs from plantation has been undertaken on a large scale on yearly basis from accessible area, but members of forest users groups are in the dilemma about the issues of the product of inaccessible plantation sites. Interview with CFUGs members and direct field observation suggest that sale prices of extracted logs is in profitable sides but its price per Cu ft varies based on the distance of the extraction sites and negotiation skills of executive members of CFUGs, who deal with contractors. However, minimum price per Cu ft ranges from NRs.60.00 to 75.00 and reaches upper limit of NRs.105.50 per Cu ft in Sindupalchowk, and NRs. 35.00 to 80.00 in Kabhrepalanchowk district.

3.2 Supply, Demand and Prices of Pole and Sawn Timber

3.2.1. Potential Pole and Timber Supply from CF's Pine Plantations of Kabhrepalanchowk and Sindhupalchowk Districts

It is estimated that around 1,663 hectares in Kabhrepalanchowk and 1,831 hectares in Sindhupalchowk districts were identified as accessible area for timber extraction. Both districts can regularly supply the timber for a period of minimum of five years at 20 percent of present stocking per annum.

3.3 Timber's Demand, Supply and Price in Kathmandu Valley

Local markets of both the districts are comparatively small to the market of Kathmandu, given the supplies available. More concentration is needed to look to Kathmandu for sales of timber. The harvested logs are either transported to Kathmandu for sawing or sawn prior to transport. Sawn natural pine (mostly *Pinus roxburghii*) timber is also supplied in large quantity from the Mid- and Far-West of Nepal. Over the past 3 years, pine timber consumption compared with total timber supply in Kathmandu valley is increasing by about 3 percent. Similarly, the quantity of pine timber supply in Kathmandu valley is also increasing significantly (Table 2).

Table 2: Timber supply in Kathmandu Valley

	Fiscal Year		
	2064/65	2065/66	2066/67
Total Timber Entry in Kathmandu Valley (Cu ft)	1,713,389.00	2,712,107.16	2,900,554.75
Total Pine Timber Entry (Cu ft)	111,292.91	243,069.83	349,831.90
Pine Timber %	6.5	9.0	12.1

Source: District Forest Office, Kathmandu and Badbhanjyang Forest Products Check Post Thankot, Kathmandu (2067).

It is perceived that 80 to 90 percent of the total Pine timbers production are supplied and consumed in Kathmandu market. The main sources of pine timber for Kathmandu valley market are Dolakha, Ramechap, Sindupalchowk, Kabhre, Nuwakot, Palpa, Gulmi, Arghakhanchi, Rukum, Pyuthan, Surkhet, Doti, and Dadeldhura districts. It is estimated that about 325,000 Cu fts of Pine timbers are brought from these areas annually (Personal communication with timber traders of Kathmandu valley, 20-25 June, 2010). It is also expected that the demand for both hardwood and softwood timber will increase over the next 5 - 6 years, as the constructions and other use of timber products are increasing in the country still relying on natural products, and non-wood construction materials are barely used.

3.3.1 Production and Trade Market

Though Kathmandu market accounts for the majority of timber sales, yet sawn timber consumption per capita is low. This is merely because of recent price hike in sawn timber owing to soaring transportation cost, bribery, and border porosity. The supply of planted pine, *Pate salla* (*P. patula*) timber, to Kathmandu valley

from Kabhre and Sindhupalchowk districts is currently very limited. Previous report of Nepal Australia Community Resource Management and Livelihoods Project (NACRMLP – 2003) indicates that, in last seven years, both districts supplied near about 37,000 Cu ft with a maximum of around 15,000 Cu ft per annum. In recent years, the maximum volume of pine logs supplied to the Kathmandu market by two districts ranged from 24,000 Cu ft to 55,000 Cu ft.

Prices for logs and sawn timber vary considerably depending on size, colour, texture, type and quality. The present price of pine timber, Natural pine or K*hote salla*, is ranging from NRs.600 to NRs. 700 per Cu ft and plantation pine or *Pate salla* is ranging from NRs. 500.00 to NRs. 550.00 per Cu ft depending on the product quality. The sources further added that the supply is not meeting the present demand, and difference of buying and selling prices varies on the species, size and quality of the timber traded, which generally ranged between 20 and 40 percent (Personal interview with local saw mill).

With regard to the system of timber supply, the contractors bid the tender for acquiring the timber from concerned District Forest Offices or Community Forestry Users Group and then they supply to different saw mills and furniture industries. Bidding price of pine logs of various CFUGs of Sindhupalchowk district varies CFUGs to CFUGs which are ranging from NRs.75-105, 140 -147, 180-250 per Cu ft. The present 13 percent value added tax imposed by Government of Nepal is applicable to the timber sales from CFs other than CFUGs members is also note worthy, in addition CFUGs have to pay NRs.50 per Cu ft as a royalty for the extraction of timber from CFs.

3.3.2 Potential Pine Pole Buyers and their Required Specification in Kathmandu Valley

At present, Nepal Electricity Authority (NEA) is the only potential buyer of treated pole for rural electrification. Their annual requirement is totally based on the available annual budget. However, it has been learnt that about 18,000 to 35,000 numbers of poles per annum are needed.

NEA buys the poles inviting bid from the suppliers as per their electrification programme. The other users such as Nepal Telecommunication Company, Internet Service Providers and Cable TVs are the piggy baggers using the same pole net-worked by NEA for their purpose. This indicates that the market for Pole in Kathmandu valley is very limited. Therefore, the market outside Kathmandu

needs to be explored. Furthermore, the price per pole varies depending on the site of electrification networking and pole sizes; the current price offered by NEA is between NRs 3,000 and 4,000.

3.4 Possibilities of Pine Pole and Timber Market in Tibet

The CFUGs in Kabhrepalanchok and Sindhupalchowk are expecting to produce huge quantity of pine timbers and poles, which seems very ambitious given the consumption at local market. As NEA is the sole user of wooden poles for the electrification in rural as well as urban area, and it cannot hold all the quantity of pine poles that is expected to be produced in Kabhrepalanchowk and Sindhupalchowk, the nearest and rapidly urbanising Lhasa city of Tibet is chosen for the present market exploration venture.

According to Chinese government report, the 'Tibet Autonomous Region' (TAR) has the largest forest cover in China. The result obtained through satellites and land surveys shows that TAR has two billion square kilometers of timber forests; about 9.8 percent of the region (7.17 million hectares) is covered by trees and vast tracts of forest spread across the east and south (Dekhang, 1996). The TAR covers vast area in China; thus not only Lhasa, but the other parts of Tibet may also be an equal potential market for pine timbers. Lhasa, being the recently urbanised and developed city, the construction work is underway throughout the city and construction materials especially sawn timbers are in good demand. Thus, the market for pine timbers is very promising, but it is worth mentioning here that the market for Pine pole for electrification is not an iota. Nonetheless, it was observed that small sized poles for other purpose like for the construction of monasteries and shades etc. are in demand.

3.4.1 Supply and Demand of Timber in Tibet

It was experienced that the market for pine timbers is very promising, but it is worth mentioning here that the market for Pine pole for electrification is almost next to nothing. The town is full of beautiful and artistic poles made from steel. In that scenario, it is obvious that the use of pine pole is out of question in Lhasa. Nevertheless, it was observed that small sized poles deserve some markets. The small sized poles are being used for other purpose like in the construction of monasteries and shades etc. The visit has shown very affirmative and good indications of promising demand of sawn Pine timbers.

Market survey revealed that approximately a total of 7,19,200 Cu ft. of Sawn Pine Timbers and 2,41,000 Cu ft. of Pine Poles are required in the market of Lhasa

annually. As TAR also covers a very large area of PRC, the demand and supply of Pine timber and poles would definitely be abundant. Likewise, the other cities of Tibet like XIGATSE, TSEDANG, GYANTSE, BAYI, DAMSUNG, etc. are also in equally developing process. Market for Pine timbers and poles in these cities might also be a very promising. The rural area of Tibet Autonomous Region such as TSURPU, MONGAR, GANDEN, RETING, DRIGUN, etc. may need poles for electrification network and construction of houses.

3.4.2 Pine Market Prospective in Tibet

As estimated above, approximately a total of 960,200.00 Cu fts per annum of Pine timbers and poles are being demanded in Lhasa alone (personnel communication with timber trader in Lhasa, June 14 -16, 2010). The supply is not meeting the demand. This indicates that the market for Pine timbers and poles in Tibet can be a very prospective and promising, as TAR covers a very large area. The demand for Pine timber and poles may definitely be abundant in other parts of Tibet.

3.4.3 Current Policies of Timber Marketing

The Agreement between the Government of Nepal and the Government of People's Republic of China signed on May 14, 2010 has privileged 4,721 commodities from Nepal for duty free access. In order to get this privilege the Rule of Origin comprising of 23 rules have to be complied with. This privilege has opened the possibility of exporting the Nepalese products to China. The commodities are categorised under different Harmonised System Number (HS No.), and the Pine timber and poles lie under the HS No. 44032090 and 44071090 respectively, but need to confirm from the Chinese Custom Office submitting samples of our pine (cut piece sample of *Pinus roxburghii* and *P. patula*) timbers.

3.5 Possibilities of Establishment of Pine Timber Treatment Plants

In Nepal, most of the constructions still use hardwoods for furniture, windows and doors. The dependency on hardwood has caused a high pressure on its availability, which eventually has raised the prices of hardwood exorbitantly. Recently, due to differences in price per unit of hardwood, it is being slowly replaced by softwood timber species pine. This is one of the reasons for switching over to other non-wood construction materials such as anodised aluminium frame, Unplasticised Polyvinyl

Chloride (UPVC) frame and imported compressed sawdust doors during building and house construction.

On the other hand, the main reason of not using Pine timbers is its low durability nature. If Pine timbers are treated chemically the life can be enhanced to a better extent, and extensive external use may also be possible. This will reduce the pressure on hardwood, while the CFUGs which are relying on the softwood like Pine will be benefited economically. The economic benefit may then be utilised for Rural Infrastructure Development programme as well as for the reduction of poverty by initiating the activities of improving livelihoods of economically marginalised groups.

In view of this necessity, the Government of Nepal has allocated grant assistance of NRs. 50, 00,000.00 for the establishment of Pine Pole Treatment Plants as partnership under the Greenery Self-employment Programme. In connection with the site selection for establishment of proposed treatment plants, a rapid reconnaissance was made at various places such as Pipaldnada, Chautara, Thuloshirubari VDCs of Chautara Range Post and Sukute Range Post of Sindhupalchowk district and Sallebhulle, Chaubas, Sanobanthali VDC of Chaubas Range Post, Panchkhal area of Mahadevsthan Range Post, and Khopasi and Panuti area of Khopase Range Post and proposed pine timber treatment plant at Panchkhal VDC area. Taking into account the road and land accessibility, nature of land, electricity and water supply, and the market approach as well as easy accessibility for downward movement of raw material (harvested timber) to adjoining district Ward No. 9 of Panchkhal VDC of Kabhrepalanchowk district is found more suitable for establishing timber treatment plant. Moreover, the recommended site is appropriate due to its location and convenient to almost all nearest pine plantation CFs. The selected site also conforms to the proposal made by the feasibility study. The team had estimated availability of pole based on the study of 324 Operational Plan of CFUGs and on assumption of five (5) Cu ft volume per pole with specification of poles.

3.5.1 Market Potential

In Nepal, the only market for poles is Nepal Electricity Authority. Its maximum demand is 20,000 to 25,000 pieces per annum, and approximately 7,000 – 8,000 poles are consumed individually by VDC, DDC, Community, individuals, Micro-Hydro, and other institutions. This clearly indicates that a total of 27,000 to 33,000 of poles are in demand in Nepal. So far, no export of treated poles and timber has been made from Nepal. On the production side, there are already 7

timber treatment plants including the treatment plant of TCN in existence with the individual capacity to produce 20,000 – 30,000 poles per year. It is obvious that the treatment centres may not able to produce in full capacity even though they wish.

In Nepal, no commercial production of treated pine pole is so far made and used. Presently, these treatment plants, now in operation, are producing pole of Eucalyptus tree. Under the cooperation of MEDEP, some poles prepared by CFUGs of Kabhrepalanchowk and Sindhupalchowk are treated in treatment plant of the Timber Corporation of Nepal, Hetauda. The poles, so treated, are found as good as the Poles of Eucalyptus in view of its strength and durability. The fibre stress of Pine Pole is 250 kg per cm^2.

4. Conclusions

This study suggests that there is a possibility of market of planted pine trees in Kabhrepalanchowk and Sindhupalchowk districts, and its products in the form of timber and pole in the country and Tibet. There is ample scope of value addition in terms of durability, commercial use, reducing dependency on hardwood species and expanding sale of Pine timber produced in the two districts.

The review of a total of 102 Community Forests' Operational Plans of the two districts for production of pine timbers and poles indicate that about 50,000 to 100,000 Cu ft of pine products either in the form of timbers or poles can be harvested annually from pine planted areas of two districts. The figures obtained from the field inventory of 7 CFs further indicate that there are ample stocking of pine that can be obtained regularly to regulate the market. On an average, both the districts can supply the amount of 1205, 964, 711, 617, and 493 thousand of cubic feet of timbers consecutively within the period of five years.

The maximum volume of pine timber supplied by two districts ranges from 24,000 Cu ft to 55,000 Cu ft. Similarly, the available data show that Pine timber supplied in Kathmandu valley from other parts of the country exceeds the figure of 170,000 Cu ft per annum. At present, in Nepal, NEA is the only user of treated poles of hardwood species for rural electrification. Their annual pole requirement (in numbers) is about 35,000. There is a possibility of using Pine poles by NEA, but it is utmost necessary to supply the chemically treated pine pole. Specifically, they require 250 Fibre stress Kg/ cm^2, 9 meter height and average girth of 9 inches, and treated with Copper Chrome Arsenic (CCA).

Producing and supplying chemically treated Pine timbers to national and international

markets is the only viable option to retain in the timber market of softwood. The existing vertical and horizontal linkages within CFUGs and DFOs of two districts need to be further strengthened.

The traders in Kathmandu valley are enthusiastic about the demand of treated pine timbers. If it is treated, it will be a turning point in the marketing of Pine timbers and poles. Timber traders are also keen to participate in establishment processes of timber treatment plant. Pine timber has great demand in terms of small household construction and electrification in both Tibet and Nepal, provided that they are well treated and available in perpetuity.

Approximately, a total of 960,200.00 Cu ft per annum of Pine timbers could be supplied to Lhasa of Tibet alone. In Lhasa, Pine poles are replaced by concrete or aluminium structures for electricity networking purpose; thus they do not have any market. But, pine pole of different sizes (3 meter and 4 meter long) has a very promising market with the annual demand of 241,000 Cu ft for household construction purpose. This indicates that the market prospective for Pine timbers and poles in Lhasa is very promising subject to the quality and affordable price. So far, no export of Nepalese Pine timbers and poles have been made to Tibet. The Tibetan market is totally unaware of Nepali products. Similarly, the Tibetan customs need to be fully aware about the prevailing Harmonised System Number.

An agreement signed between the government of Nepal and government of People's Republic of China recently has privileged 4,721 Nepalese products to zero tariff (subject to Rules of Origin), if exported to China. This has created conducive atmosphere and opened a new opportunity for Nepalese products to be in Chinese market. Since Pine Timbers and Poles are of 100 percent Nepali origin, it deserves duty free entry into Chinese market. On the contrary to the privilege recently granted by the agreement between Nepal Government and Chinese government, the tariff in timber exportation from Nepal is about 200 percent, which obviously does not promote Nepalese timber market in Tibet.

5. Recommendations

5.1 Actions for Planted Pine Marketing

The following recommendations are made in relation to approaches for marketing of pine timbers produced from plantation areas of Kabhrepalanchowk and Sindhupalchowk districts.

Develop a business plan for future utilisation of timber from community forests: To explore the market potential of the produced timber in more effective way, CFUGs of both districts should develop business plans for the next 5 years, possibly with a second generation operational plan. Besides the marketing of sawn timber, alternative models of marketing should be developed, such as sales of logs greater than 30 cm dbh (diameter at breast height).

Close coordination between CFUGs and FECOFUN: In considering the weak bond among CFUG's, District and Central level FECOFUN in regards to business aspects, a degree of coordination across the CFUGs is necessary to ensure efficient flow of timber in market with synchronising the harvesting time.

Initiation on establishment of Timber Treatment and Seasoning Plants: Before sending to market, it is utmost necessary to treat the product as desired by buyers for the purpose of electrification networks and furniture manufacturing for long lasting. Chemically treated and seasoned products are likely to remain in competitive market.

Establishment of cooperative marketing wings within CFUG's: This is required for improvement of timber market with the approach and function merely for marketing purpose of CFUGs. The effective means of expanding pine wood products in market is to expand its sales in the form of treated products; especially timber, poles, and logs. Therefore, cooperative marketing wings should ensure annual quantity and quality of products to be supplied in market at competitive price, as this will support to establishment of plantation pine in market.

Silviculture management: In order to derive maximum productivity (high quality poles and saw logs) from the planted pine trees, they should be regularly pruned and thinned, and harvested based on the allowable cut assessment. Thinning should be done at the age of 7 and continued till its harvestable age, i.e., 30-35 years for *Pinus roxburghii* and 24-26 years for *Pinus patula* according to its prescribed thinning guideline.

5.2 Improving the policy and legal framework

As the prevailing policy and legal framework in Nepal provide a number of issues that are not conducive for the development of efficient and effective timber export marketing from community forests, MEDEP can advocate and assist the Government of Nepal to address the timber export issues. The key issues that need attention are as follows.

Impact of 200 percent customs duty on timbers export: The prime necessity of Government of Nepal is to decide as to whether the export of timber is to be allowed or not. The present custom duties underline that the government is not in frame of mind to export timbers favourably; paying 200 percent custom duties will not be favourable and competitive in international market of timber. MEDEP should initiate necessary action to make export friendly policy for the betterment of CFUGs.

Timber export policy: As already discussed, this policy provides a strong financial disincentive for CFUGs to export timber to third countries. To overcome this, the mitigation measures could be: (i) waving custom duty for planted pine; (ii) reducing custom tariff to the lowest possible extent for plantation pine only; (iii) privileging these facilities to Tibet export only so that price may be workable in Tibet; (iv) allowing the facility only to the chemically treated pine timbers and poles produced.

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Policy Provisions, Gaps and Practical Constraints in Promoting Small-scale Forest-based Enterprises in Nepal[2]

1. Introduction

Micro-Enterprise Development Programme (MEDEP), as one of the pioneer interventions in Nepal, primarily focuses on promoting enterprises to produce goods and services for the market using raw materials from forest resources, among others. Development of forest-based entrepreneurship is one of the main priority areas in Nepal. It is because of existence of a long history of forest-based local trade and a successful implementation of community forestry for the last thirty years, which has generated an enormous amount of forest resources providing diversified raw material base at the local level. Community forestry has already passed through institution building and forest rehabilitation or resource generation stages, and it is now in a stage of utilising forest products in an effective way so that it generates economic opportunities at the local level. However, the overall policy environment is not conducive to the promotion of forest-based enterprises locally, and there are numerous legal contradictions between different forests related policy documents and enterprise development provisions. This situation has not only created a gap between actual policy provisions and practices on the ground, but also slowed the enterprise development processes allowing spaces for manipulation, corruption and extra legal difficulties especially due to international standards, agreements and trade regulation mechanisms. However, a comprehensive policy analysis is not available in Nepal yet that could help to change policy provisions and practices at various levels so that the small scale enterprise promotion becomes a mainstream development programme.

To fulfill such gaps in policy understanding, this paper aims to find out policy provisions, gaps, and contractions related to small-scale forest-based enterprises in Nepal. In

2 Study conducted by MEDEP with technical support from Forest Action Nepal, 2010.

particular, this research identifies what are the: 1) policy provisions in establishing forest based enterprises; 2) gaps in policy provisions and practices; and 3) contradictions between different policy provisions and actual practices on the ground?

2. Methodology

This research was conducted by interpolating desk review of policy documents with the field level interactions (interviews, focus group discussions, on-site observations) with entrepreneurs, implementers and facilitators. Necessary information was also collected consulting the experts on the subject matter and policy making individuals and institutions. A thorough analysis of value chains of three products, i.e., *Allo* fiber, Resin, and Incense sticks (*Kaulo*), was conducted to understand the specific policy hurdles for different types of enterprises within the forest sector. Specific policy issues have been documented dividing them into different stages of enterprise establishment and production – registration, collection, processing, financing, marketing, taxing, marketing, etc.

3. Study Findings

3.1 Policy Provisions for Forest-based Enterprises in Nepal

This section maps out a policy landscape focusing on the forest-based enterprises to understand the regulatory mechanisms for forest related small-scale enterprises in Nepal. The synthesis of policy provisions are presented under the following nine main stages of enterprises.

3.1.1 Enterprise Registration

Official registration in the Cottage and Small Industry Office is the first step for establishment of small-scale forest-based enterprises in the district. Government has categorised enterprises into three main groups, i.e., small and cottage industries, private companies, and cooperatives, mainly for the purpose of registration, tax regulation/exemption and financial management. Registration of one type of enterprise does not prevent from registering another type by the same individuals or the group. There are different regulatory mechanisms and registration processes for each of them, and specific legal documents are enacted separately to define and control enterprise activities.

Registration of **small and cottage industries** is regulated by the Industrial Enterprise Act 1992 and Small and Cottage Industry Procedural Guidelines 2009. Enterprises with less than NRs 200,000 fixed capital and NRs 30 millions working capital can be registered as small and cottage industries with the Small and Cottage Industry Offices in the district. The Industrial Enterprise Act - 1992 defines cottage industries as those enterprises which are based on 'traditional skill or local raw materials and resources, and labor intensive and related with national tradition, art and culture.' The same Act defines small industries as 'industries with a fixed asset of up to an amount of NRs. 30 million rupees.' In general, small and cottage industries are understood as kind of self-employed entities which produce raw materials (for secondary processing) and local consumption goods in a small scale. Most micro-enterprises initiated and supported by development organisations fall under small and cottage industry category. Nevertheless, if entrepreneurs want to register as company even though their amount of financial investment is small, they can register for it.

There are no separate legal procedures and category for the registration of micro-enterprises. They are defined and registered under the legal provisions of small and cottage industries, and they can be registered with the Cottage and Small Industry Office at district level. According to the Small and Cottage Industry Procedural Guidelines - 2009, the small and cottage industries can be registered within six months of production, and must be renewed in every three years

For the registration of forest-based enterprises, the proposal of the enterprise must be approved or permitted by the District Forest Offices (DFOs). DFO grants such approval only after the enterprise concerned submits a report on the evaluation of environmental impacts of the proposed enterprise, inventory of raw materials in the given forests and distribution of benefits within and between CFUGs.

Private companies are registered with the central Company Registrar's Office in Kathmandu as defined by the Company Act 2006. The main objective of the company is to make profit through organised production, marketing and long term businesses. A company can be registered with individuals or groups (CFUGs) or both as shareholders. An individual can also register the company even though the enterprise is intended to produce goods as defined under small and cottage industry. As companies are registered only in Kathmandu, local entrepreneurs

(especially the micro-enterprises) naturally choose to register their enterprises locally in the district as a small and cottage industry. The enterprise must not produce and sell goods and services before registering the company, if the enterprise is intended to register under the Company Act - 2006.

Micro-level production and sale can also be organised under **cooperatives**, which are registered with Cooperative Division Offices as defined by Cooperative Act 1993. It has more social objectives rather than profit making, e.g., spending certain percentage of its earnings for the general social welfare and cooperative education of its member communities. Since it has a social and community approach of organising individuals as a cooperative group it requires at least 25 members to be able to register as an enterprise under Cooperative Act 1992. Micro-enterprises can be registered as cooperatives if there are more than 25 members interested in producing similar goods. Goods produced under cooperatives are not allowed to export by cooperatives outside the country; therefore it is not suitable for those products which are marketed directly by micro-enterprises. The certificate of origin is required for marketing the goods internationally, but it is hard to get such a letter in the case of cooperatives, because cooperative cannot become a member of FNCCI. A cooperative cannot be expanded in many places. It can cover maximum of five Village Development Committees (VDCs) as its working area.

The Industrial Enterprise Act 1992, The Companies Act 2006, Cooperative Act, 1993, and Forest Act 1993 are the main legal documents relevant for registering forest-based micro-enterprises. In addition, Local Self Governance Act - 1999 defines the role of VDC as 'motivator' to carry out enterprise activities. According to Forest Act and community forestry directives of the government and Community Forest User Groups (CFUGs) can register enterprises if it is approved in their operational plan and the authority concerned decides that the group has a capacity to run such commercial production based on raw materials from their forest. The Industrial Policy 2009 has foreseen a strong role of VDC in registering micro-enterprises, fixing location of the factory, and also deciding proximity from the forest.

3.1.2 Collection of Raw Materials

The collection of raw materials (forest products) is the second main task for establishment and operation of forest-based micro-enterprises. Forest Act and

Regulations control and regulate most of the raw material collection activities. Raw materials are collected mainly from three types of forests – government managed forest, community forests, and private forests. There are separate provisions, procedures and control mechanisms for each of them.

3.1.3 Production/Processing of Goods

Quality control is one of the main regulatory controls especially for processing food items and consumable goods that are directly related to human and animal health. There are no specific legal explanations about processing of forest products specifically, but the health and environment related issues in processing are regulated by quality control mechanisms and Consumer Protection Act.

Quality control mechanisms and procedures on processed food items are scattered in many legal documents and provisions, i.e., food processing, consumer rights, medicinal products, poisons, agro-products, environmental products, etc. However, these legal documents have focused mainly on health related issues, and do not talk much about managerial and general processing related issues.

Apart from quality control measures, Small and Cottage Industry Procedural Guidelines - 2009 clearly mentions that the enterprises must develop pollution control mechanism and ensure that the production unit does not damage environmental condition by producing waste, noise, and other pollutants. Appropriate waste and other pollution management procedures should be in place. There should not be any disturbances to the neighbors, and the production/ processing operations must not be visible from the main road. This provision can be adjusted according to the nature of the industries.

3.1.4 Environmental Provisions

Protection of the environment while collecting raw materials and establishing enterprises is given a high priority in Nepal's industrial and environmental strategies and legal procedures. This has been one of the strong points if the enterprises are established for the processing of natural resources. Constitutionally, local communities should be given priority for the management and utilisation of natural resources. Therefore, the environmental provisions for the enterprises are directly connected to the processing of local raw materials and the ownership of the communities.

Environment Protection Act 1997 and Environment Protection Regulation 1998 are the main legal documents that provide a detailed provisions and procedures in evaluating environmental impacts of the proposed enterprises. These documents clearly state that enterprises which collect raw materials from the forest must conduct Initial Environment al Examination (IEE) and Environmental Impact Assessment (EIA) before they start operating enterprises and processing raw material. Community Forest User Groups should conduct such assessment even though their operational plans explain about the total amount to be harvested annually. There are two ways of conducting evaluating environmental impacts – Initial Environmental Evaluation (IEE) and Environmental Impact Assessment (EIA). The annual quantity of each forest product to be harvested determines the methods to be used for the evaluation of environmental impacts.

However, the regulation mentions that if the enterprises are based on traditional skills and management practices, then there are no environmental evaluation restrictions for the collection of raw materials. Micro-enterprises and traditional cottage industries should provide general information on the source of water and garbage production. But, as a consequence, such production faces difficulties while transporting from one place to another. This is because there is no evaluating agency which verifies such parameters. The identification of traditional industries has become a subjective judgment of authorities. There is no clear separation between traditional commercial production and modern entrepreneurship particularly with regard to micro-enterprise. This has created further confusions among entrepreneurs and enforcement authority.

3.1.5 Financing Mechanism

Financing of micro-enterprises is one of the main issues in promoting entrepreneurship in the forest sector. Lack of proper financing mechanism is a barrier for the local entrepreneurs, and most of the existing provisions define loan and investment procedures for the bigger enterprises. In some cases, there are traditional and informal financing mechanisms in which local entrepreneurs can borrow loans from local money lenders. But it has created a different power dynamics and reinforced the feudal type of exploitation. Formal mechanism of borrowing loans is theoretically accessible to all entrepreneurs, but in practice micro-entrepreneurs are unable to produce documents, collaterals and production plan according to the rules of lending institutions. Therefore, most of the micro-entrepreneurs are not funded through banking institutions directly for

running enterprises.

Medicinal Plants and Non-Timber Forest Product (NTFP) Development Strategy 2001 clearly states that government should provide financial support to the cooperatives for cultivation, collection, processing and marketing. This support does not apply for other types of enterprises, but this provision is not implemented as yet.

3.1.6 Tax System

Tax provisions on commercial production and marketing of forest products are very complicated and inaccessible to the micro-entrepreneurs to be able to get benefits while producing and selling in the market. The overall policy environment shows that government is committed to provide maximum tax benefits to the small and micro-enterprises which produce goods locally and generate employment for the rural population. Nevertheless, as there are too many legal documents (most of them contradict with each other) and complexity in defining and presenting tax provisions, exemptions and regulations, forest-based enterprises are not benefiting from government's intention of promoting entrepreneurship at the local level. Income tax and value added tax (VAT) are two main tax provisions that are relevant for forest-based micro-enterprises.

Industrial Policy 2009 has attempted to clarify the income tax system specifically focusing on small and micro-enterprises although these policies are not formalised as law. This policy has divided rural areas into three main categories – highly underdeveloped, underdeveloped and less developed areas. Forest-based enterprises established in these areas are exempted from paying tax of 90 percent, 80 percent and 70 percent of the total income respectively for ten years. Industrial policy gives priority to micro-enterprises and proposes that micro-enterprises which produce goods locally should be exempted from paying taxes while buying machinery, raw materials and production materials. It also states that all traditional and cottage industries which are not located in remote areas will be exempted from paying 50 percent of their income tax. For this purpose, the entrepreneurs should get a certificate of tax exemption from concerned agencies. However it is difficult to obtain such document for local micro-enterprises due to centralised mechanism.

According to Cooperative Act 1993, forest-based cooperatives do not need to pay income tax. However, it is not clear whether such enterprises are required

to pay VAT and other taxes or not. Similarly, there is a custom fee for each product if it is exported to foreign countries. Such fees change every year and are different for different products. Due to lack of legal awareness at local level, enterprises are not getting benefits from tax exemption related policies and laws.

3.1.7 Domestic Transportation

There are many institutions involved in controlling, verifying and punishing enterprises while transporting forest products or forest-based industrial products from one place to another. Among them, district forest offices, forest check points and police posts are the main verifying agencies involved in transportation of forest products. Forest Regulation 1995 explains most of the regulatory mechanisms while transporting forest products from one place to another.

3.1.8 Marketing (domestic/international)

Marketing of goods produced from forest-based enterprises is one of the key elements for a successful entrepreneurship. It consists of advertisement, local selling, international export and compliance with the international and exporting countries' rules and regulations. There are no specific legal regulations for the marketing of goods from forest-based enterprises within Nepal. The general customer protection mechanisms and commercial rules apply in forest products as well. Most of the processed and unprocessed forest products such as *Lokta* paper, essential oil, *Allo* fiber, etc. produced by micro-enterprises are exported outside the country. For this purpose, there are a number of regulatory procedures that must be followed before exporting the goods.

3.1.9 Revenue Distribution (profit sharing)

Distribution of proper benefits or financial profits to lower producing enterprises (micro-enterprises) from the total value chain of the trade is a crucial point to achieve above objectives. Unfortunately, there are no regulatory mechanisms which monitor and guarantee the proper and fair share of revenue for small and micro-enterprises. As micro-enterprises are basic producing units (which lack effective marketing skills and accesses) they are the most vulnerable institutions in the entire chain of production and trade of forest products. Similarly, there are no clear explanations on how the profit generated from the micro-enterprises should be distributed among the involved shareholders or individuals. This is one of the important aspects of entrepreneurship and enterprise policies which

need special attention if micro-enterprises are intended for producing better livelihoods opportunities for the rural population.

4. Policy Gaps, Contradictions, and Issues

The overall policy environment is conducive to the big companies, but it is very controlling and hindering for the growth of small-scale enterprises which are forced to follow legal procedures that are primarily enacted for the bigger production enterprises. Some of the gaps, contradictions and issues in forest-based micro-enterprise related policies in each stage of enterprise establishment and management, identified by this study are as follows.

4.1 Registration of an Enterprise

Registration of the forest-based enterprises is regulated by different legal documents and law enforcement agencies. Unfortunately, there are no specific legal provisions to register the micro-enterprises. They are registered under the category of small and cottage industries. Government has recently developed the micro-enterprise and industrial policies which have a provision for registering micro-enterprises at local level (mostly in VDCs), but these policy provisions are not enacted as Acts and Regulations. Therefore, there are no micro-enterprises registered under their own category and they are compelled to register as a small and cottage industry or cooperative or company.

The existing legal provisions define and categorise the enterprises based on the amount of annual financial investment and transaction rather than ownership structure. The Industrial Enterprise Act 1992 and Micro-enterprise Policy 2008 assume that big investment is not possible at local and community levels. Therefore, rural enterprises are defined as small producing units creating self-employed rather than enhancing competitive entrepreneurship. Similarly, the distinction between small and cottage industries and private companies is not very clear. There are no clear definitions and procedures about the involvement of community forest user groups in the companies or other types of enterprises such as cooperative. Companies registered by CFUGs and local individuals are regulated under the legal mechanisms developed for bigger private companies or international firms (corporate sector), and they have to bear similar financial responsibilities and follow similar regulatory control. The involvement of too many institutions in registration and regulation of enterprises processes has not only created spaces for manipulation and corruption, but also emphasised on legal

control rather than the actual promotion and facilitation.

4.2 Collection of Raw Materials

Collection of forest products as raw materials from the forests is one of the most regulated and also manipulated activities within the forest sector in Nepal. District forest offices are the main institutional regulator, and Forest Act and regulations are the main legal documents to deal with the collection of forest products. Most of the legal provisions are very subjective, and are under personal discretion of forest officials creating spaces for corruption, distortion of legal processes, over-harvesting of valuable forest resources, and systematic discrimination against small scale entrepreneurs favoring large scale contractors and business houses.

4.3 Production/Processing of Goods

The regulatory provisions on methods and quality of processing or producing goods are very weak for many products. There are many institutions (Food Technology and Quality Control Department, Agricultural Quarantine check posts, Nepal Quality Standard and Measurement Department, Department of Plant Resources, Medicinal Management Department, and Department of Industry) and related legal frameworks involved in controlling quality of processed food items and the products. However, the actual quality control is lacking due to lack of coordination among the relevant authorities. As a result, there is a compromise in producing the quality goods leading to deteriorating marketing practices and consumer interest.

4.4 Environmental Provisions

Government has developed a number of policy provisions and legal mechanisms to ensure the protection of environmental integrity from the impacts of industrial production. However, most of the micro-enterprises, which are traditional in nature, well integrated with the local environmental conditions, use natural resources that are familiar with the local communities and are well integrated with the livelihood systems of the people, suffer the most from recently enacted environmental protection mechanisms. Provisions of Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) are conceptualised based on technical understanding of resource stock or quantity rather than the entire political economy of industrial processes, ownership mechanism, local control and regulation, historical association between forest resources used and micro-entrepreneur communities.

4.5 Financing Mechanism

Financing provisions are very weak within the government's enterprise development policies in Nepal. There are no systematic provisions, procedures, and practices that provide and guarantee the sources of financial investment to the rural entrepreneurs. Due to the lack of financial resources micro-entrepreneurs produce goods using very basic infrastructure and are unable to expand their production potential.

4.6 Tax System

There exit clear provisions to exempt micro-entrepreneurs and forest-based enterprises from paying different taxes in Nepal. However, as there are so many policy explanations and regulatory institutions, micro-enterprises are not benefited from government's policies on tax reduction and promotion of small-scale production. Income tax, taxes by District Development Office/Village Development Office (DDC/VDC) and value added tax are the main tax items that micro-entrepreneurs are concerned with.

4.7 Transportation and Storage

Micro-entrepreneurs suffer the most while transporting forest products from one place to another. The preparation of various documents before uploading the products and checking, bribing, unloading/uploading and producing documents while transporting are some of the common legal/illegal practices each entrepreneur must follow in this process. Legal provisions are not clear, and the presence and subjective discretion of forest officials, tax officials and police officers becomes law in itself. There are no proper guidelines that are public and knowable to general population, to monitor and control illegality of the forest products while transporting. Therefore, check points and control mechanisms have become a source of illegal activities in itself.

4.8 Marketing (International)

Marketing of the forest products in an international market is almost impossible for micro-enterprises due to complicated export regulations of forest products, small quantity of production, lack of access to buyers in an international market, lack of quality standard, and bribe seeking attitude of the government officials. Legally, they are discouraged from trading goods internationally by creating legal systems in which small enterprises lack capacity to comprehend exporting procedures. It is this reason that the micro-enterprises are paid relatively less in comparison to the total values

of the forest products. In reality, micro-entrepreneurs are treated as labor intensive workers rather than 'entrepreneurs'. Overall, the policy environment for forest-based micro-enterprises is control oriented rather than facilitative for the access and promotion of market at national and international levels.

4.9 Revenue Distribution (Sharing of the Profit)

There are no any clear policy provisions or legal mechanisms to ensure equitable distribution or fair share of financial profits in the total chain of production and marketing of forest products in Nepal. Micro-enterprises are encouraged to produce goods at local level, but are not facilitated and legally protected from getting proper benefits from national and international marketing. Usually, they are paid less and treated as raw material collectors rather than competitive segment of the market. The distribution of the profit within the members of enterprises (in case of multiple ownership system) is not clear. If communities are managing the enterprises, the poor and illiterate members of the communities are found to be deprived from benefiting financially. Community forestry guidelines have attempted to explain ways to distribute in an equitable way, but community-based enterprise policies and legal mechanisms are unaware or reluctant to the necessity of such policy provisions.

The benefit sharing mechanism is different in company, cottage industry and cooperative and it is generally defined in the memorandum, regulation, by-laws or scheme of these types of enterprises. The local enterprises have confusion to choose appropriate types of enterprise for equitable benefit sharing due to lack of facilitation from government agencies. There are very high price fluctuations while selling the forest products to the suppliers. Therefore, the producers are paid from the bottom level of the fluctuated price at all time. One of the reasons for this consequence is that many producers produce small quantity of products, which leads to less payment and lack of control over business processes.

5. Policy Hurdles in Certain Value Chains

The general policy environment might affect different value chains or forest species differently while collecting, processing and marketing by forest-based enterprises. Micro-enterprises are producing goods from various tree and NTFP species, and such variations are not considered while designing and implementing micro-enterprise related programmes, policies and laws. However, the analysis of three value chains revealed that forest-based enterprises have been facing similar policy constraints

and legal barriers irrespective of difference in traded species or value chains. Allo, resin and incense sticks were studied to identify some of the major policy constraints specific to these products with the aim of understanding the enterprise related policies and practices in a comprehensive way. Some of the main policy issues for each product are as follows.

Allo**:** *Allo* is one of the highly commercialised forest products in the mid-hills with the involvement of more than 8,000 collectors in total (MEDEP, 2010). As it covers more than 20 districts, and most of the collectors/processors are illiterate rural people, the policy provisions and legal procedures are not accessible to rural entrepreneurs. According to the collectors, producers and traders, it is almost impossible to follow all the legal requirements for the production of *Allo* fibers and textiles. Most of the policy provisions are impractical and do not match with the real practices on the ground.

Resin: Resin collection is one of the widely implemented forest-based activities in lower hilly areas of Nepal. Resin collection is done by the processing companies with the special permission from the Department of Forest and mobilisation of local labour. In community forests, resin is collected either by bigger processing companies on a contractual basis or through the CFUGs' networks and its own structure. Resin factories are relatively bigger forest-based enterprises in Nepal, and they have established strong relationship with forest officials to make the collection processes compatible to their industrial needs. Resin collection is one of the perfect examples to illustrate a successful informal alliance among companies, forest officials and local leaders to systematise collection, corruption, and guaranteed supply of collected resin. Although most of the resin collection and processing companies are bigger in terms of size and scale of operation, they have been facing similar legal difficulties as other NTFP producers and traders.

Kaulo (incense sticks): Kaulo is used for the production of incense sticks and are mostly collected from marginal forests and private lands. Barks are collected from standing trees and the collection can be done next year from the same tree. However, this product faces exactly similar issues to that of resin and Allo while collecting, processing and transporting from one place to another.

6. Recommendations

This study reveals that the overall policy environment is not conducive to the micro-enterprises, nor it is facilitative for the promotion of entrepreneurship at the local level. Some of the main recommendations that have implications for MEDEP for the improvement and creation of enabling policy environment for the development of micro-enterprises are as follows:

- Enterprise related policies are not accessible or easily available to the local entrepreneurs. Therefore, the micro-entrepreneurs are unaware of most of the constraining and also favourable policy provisions. MEDEP is highly recommended to either train or create local level institutions (at least at the district level) which support micro-enterprises in terms of providing legal services in an effective way.
- There are no separate legal procedures and category for the registration of micro-enterprises. They are defined and registered under the legal provisions similar to small and cottage industries. Given the scope and objectives of micro-enterprises, they should be registered by VDCs and informed to district cottage and small industry offices for information. MEDEDP has a very high potential to work on this issue to help government to enact the registration policy at local level.
- To avoid the nuisance, delay and possible corruptions, a system should be developed in government authorities, where entrepreneurs deposit all the required documents to the designated office which will then be circulated to the authorities concerned for further action and approval. For example, getting an approval or recommendation from DFO should be the responsibility of the Small and Cottage Industry Office once the micro-entrepreneurs apply for the registration.
- The Industrial Policy 2009 has foreseen a strong role of VDC in registering micro-enterprises, fixing the location of the factory, and also deciding proximity from the forest. However, such provisions are not legally enacted yet. There is a need for a separate legal provision (law) that defines clear procedures of establishing forest-based enterprises with the regulatory control of VDCs.
- The house or land owner is reluctant to make a contract agreement and lend it to the micro-enterprises in fear of paying income tax. It is very

small amount, but as per the law they must pay income tax if they lend their property to enterprises. This has created difficulties to the micro-entrepreneurs. Therefore, it is strongly recommended to exempt land owners from paying income tax, if they lease the land/house to the micro-enterprises.

- Ministry of Forests and Soil Conservation provides resource collection permits for some regions (e.g., district or zone) to the large industries. Because of this long term agreement, the local entrepreneurs cannot get collection permits from the District Forest Office. These centralised mechanism of contracting certain areas and products to specific companies must be scratched for the development competitive entrepreneurship at the local level. MEDEP has field experience and evidence to work on this issue, and it needs an urgent attention from the government and support institutions in the context of growing community forestry across the country.
- The forest act and regulations do not explain about the collection of forest products other than the timber from the private land. This has created space for manipulation and corruption. Therefore, a clear legal explanation is required for the promotion of forest-based enterprises using the resources from the private lands.
- The collection and trade of timber in private land is fully controlled by the DFO, and it is a tedious process. To simplify this process, the authority for regulating timber and other forest product extraction for the purpose of processing in local enterprises should be delegated to the local bodies mainly to VDCs in consultation with concerned local forest officers (e.g., range posts).
- The registered enterprise must secure the Certificate of Quality Standard before it manufactures and sells consumable forest products such as foods, drinks, juice, etc. However, the laboratory services are available only in Kathmandu. Therefore, each district level Small and Cottage Industry Office should provide a service of collecting samples from the entrepreneurs, transporting to the labs in Kathmandu, testing the samples, and reporting back to the entrepreneurs.
- For the registration of forest based industries, the entrepreneurs should show the approval of District Forest Office to establish the industry. DFO

only provides such recommendations after submitting the IEE/EIA reports as per Environment Protection Regulation. The IEE/EIA process is very complicated and expensive for the local level entrepreneurs. The IEE/EIA provisions should be exempted for the micro-enterprises.

- The responsibility of conducting the IEE/EIA should be of DFO. The environmental evaluation conducted by the entrepreneurs themselves may not be reliable, as they do not have required technical capacity. DFO office itself should be a repository of information, and serve as a reference point for information related to EIA.
- As the loan provisions are not favourable to the micro-enterprises, there is a need for a VDC level funds that finance small-scale enterprises locally. This fund can be tied up with the VDC budget system and support the targeted community (e.g., Dalits, women, etc). Donor organisations and development programmes can provide initial seed money and help develop a system locally. This will enhance entrepreneurs' access to finance. Such local funds can create provisions to approve loan to the enterprise in a group's guarantee, commonly known as 'group collateral' basis.
- Legal provision for the insurance of tree species and few commercially valuable NTFPs is required for the promotion of forest-based enterprise at local level.
- Though VAT is exempted for the herbs and its extracts, the VAT Act has not included products like *Allo* and *Lokta*. So, VAT may be imposed to these products. Therefore, micro-enterprises should get tax exemption irrespective of their nature of production. Similarly, the medicinal plants, its extracts, and artisanal products should be exempted from paying VAT. These products can be exported using Harmonised Code 12.11 for the purpose of tax exemption. Harmonised Code is given for *Jadibuti* (medicinal plants) and it does not explain which those items are and what the characteristics to be *Jadibuti* are.
- Micro-entrepreneurs should be exempted from paying DDC levy (*Chungi Kar*). The provision for this kind of levy is for those products that are exported from the district and marketed internationally. However, DDCs are imposing the tax on every product leaving the district. This practice should be stopped for the promotion of micro-entrepreneurship at the

local level and help them to link with the national market.

- Forest based cottage and small enterprises should get uninterrupted transportation to the districts, once their products are checked locally in VDC. All agencies or offices related to checking of forest products should establish in one place and operate in an integrated way.
- Due to the poor labeling, packaging and branding, the genuine products of the small enterprises are not getting attractive consumer preferences. So, the enterprises should get support from the government and non-government organisations in labeling and packaging in order to enter into the present competitive market.

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Assessment of Effectiveness of MEDEP's Support to Make Micro Entrepreneurs More Resilient through Job Creation and Livelihoods Improved[3]

1. Introduction

The Micro-Enterprise Development Programme (MEDEP) was initiated by the Government of Nepal (GoN) and the United Nations Development Programme (UNDP) in 1998. The programme has been extended to 38 districts by the project's third cycle (2008 – 2013). The main aim of the programme is to create employment and income opportunities for the rural people by providing business as well as technical skill training and other support for poor women, young and disadvantaged people to set up and run micro-enterprises. It also facilitates to establish Business Development Support Services Organisations for micro-entrepreneurs. But starting up of a business does not guarantee resilience. It requires further support. MEDEP has, therefore, typically supported micro-entrepreneurs to start-up and graduate into profitable business by providing them with targeted technical support in the form of entrepreneurship trainings, linkage with financial service providers, linkage with markets, business counseling, and labeling, branding, packing and other services.

MEDEP has provided various supports through strategic activities to micro-entrepreneurs to make them more resilient. In 2010, an Impact Assessment of MEDEP was carried out by an Independent Team. This study reported that

3 Study conducted by MEDEP with technical support from Institute for Policy Research and Development (IPRAD), 2014.

80 percent of MEDEP enterprises continue to do business — a high success rate that reflects the strength of this programme. This assessment covered impacts on the micro-entrepreneurs that were created by MEDEP during its first and second phases. However, the aspects of MEDEP's support to micro-entrepreneurs to graduate into profitable businesses and to make them more resilient were not analysed. This led to realisation for a need of an independent assessment that identifies quantitative and qualitative impacts of the MEDEP's interventions to make micro-entrepreneurs more resilient. It is in this context that a study on MEDEP's support to make micro-entrepreneurs more resilient through job creation and livelihood improvement was undertaken. The overall objective of this assessment was to assess the effectiveness of MEDEP's intervention to make micro-entrepreneurs more resilient through job creation and income change.

2. Methodology

For the purpose of conducting this study, the sites being surveyed by the impact evaluation of MEDEP in 2010 were considered. Of the MEDEP's 38 intervention districts in the country, seven districts were selected for the purpose of this study. The respondent entrepreneurs were selected on the basis of proportion of entrepreneurs in each category, thus producing a total of 385 entrepreneurs' households (1 district in each Area Programme Support Office-APSO X 7 number of APSO X 55 entrepreneurs in each district).

For the purpose of the study, both quantitative and qualitative data were collected. The secondary information was obtained from the official database of MEDEP. The primary data was collected through (i) Entrepreneur survey, (ii) Business Development Service Provider (BDSP) survey, (iii) Focus Group Discussion, (iv) Key Informant Interview, and (v) Case Studies. Some retrospective information was also obtained using the survey tools, where required. Besides, the progress reports of MEDEP and its partner organisations including other relevant materials were extensively and critically reviewed. The quantitative data was entered into SPSS software for analysis purpose.

3. Findings of the Assessment

3.1 Effect of MEDEP Intervention on Micro-enterprises

MEDEP has been providing various technical and financial supports to establish and develop micro-enterprises in the rural areas. Effects of these interventions are reflected in various aspects of micro- enterprises.

3.1.1 Investment

The current investment increased in all categories of micro-enterprises at varying rates, as compared to the initial amount of investment. Micro-entrepreneurs (MEs) use one or more sources of investment. But self-finance is the source of investment for most of the micro-entrepreneurs. Over time, the proportion of respondents relying on self-finance slightly increased, i.e., it reached to 49.25 percent from 48 percent; thus indicating that micro-enterprises have reinvested their income in the business. Similarly, the share of MEs using the loan as a source of investment increased substantially during the last three years. In the initial stage, 24.29 percent of respondents were found borrowing loan for investment in micro-enterprises. It has increased by 5.3 percent point, and presently it reached to 29.59 percent. This means that the access to credit has been increased for micro-entrepreneurs. It is noteworthy that MEDEP plays a catalyst role in establishing or enhancing micro-entrepreneurs' access to banks and financial institutions.

3.1.2 Use of Technology

Technologies have been divided into two categories, namely, improved and traditional. Of the total respondents, 75.58 percent respondents used improved technology, whereas 24.42 percent used traditional technology. The use of improved technology was the highest (100%) in the case of information technology (IT) based enterprises, followed by tourism based (83.33%) and agro based (82.01%) enterprises. It was the lowest in forest based micro enterprises (62.71%). The study showed that 71.30 percent respondents received the improved technology from MEDEP, while the tourism based enterprises were totally based on MEDEP for improved technology. Except IT based, all types of enterprises have received improved technology from MEDEP, but with varying magnitude.

3.1.3 Production

Volume of Production: There has been significant increase in almost all types of production in all programme districts. Currently, the volume of production has been increased by 71.2 percent; and in terms of weight it reached to 363,800 kg, as compared to 212,496 kg three years before. Forest based, artisan based and leather products are shown in terms of piece. The volume of production, measured in terms of piece, has also been increased by 106.83 percent in the current year compared to three years before. In the current year, the production of milk increased by 61.18 percent, as compared to three years ago. Like-wise the number of service provided to persons increased by 88.90 percent, i.e., from 150,463 persons to 164,721 persons in the current year, as compared to three years before. Some *Dhaka* production enterprises have been inactive or semi active due to the lack of market. The overall scenario indicates that with the intervention of MEDEP in the areas of finance, technology, training and other inputs, the level of production has been increased over time.

Product Diversification: MEDEP has been supporting the MEs for product diversification. District wise, the proportion of enterprises diversifying their product varied from 42.1 percent to 65.5 percent. The number of respondents from tourism and IT based enterprises also diversified their product. The total number of products increased to 613 in the current year, from 445 three years ago. Thus, there has been a significant product diversification by 37.8 percent over the last three years.

3.1.4 Sales

Number of Clients: Of the micro-entrepreneurs who responded, a majority (56.63 percent) of them reported that the number of clients has not been increased in the current year, as compared to the last three years. However, the remaining 43.37 percent of the respondents reported the other way round. Category wise, 100 percent of IT and construction based enterprises reported that the number of their clients has increased. This was followed by service based, agro based and forest based enterprises which increased by 48.05 percent, 47.08 percent and 40.68 percent respectively. However, the overall scenario indicated that the

number of clients of the MEDEP enterprises has not been increased in an expected way.

Sales Volume: Of the total respondents reporting with respect to volume of sale, 80.13 percent had their sales increased during the last three years. In terms of variation from one category of enterprise to another, the maximum sales was recorded in construction based enterprises (91.67%) and followed by forest based enterprises (87.76%), whereas the minimum volume of sales was recorded in IT based enterprises (25.0%). Based on different measurement units used for different products, it was crudely estimated that there has been increase of sales volume by 58.98 percent during the last three years. Such an increment was seen in almost all types of products.

3.2 Performance of Micro-Enterprises

3.2.1 Micro-Enterprises and their Categories

As of July 2013, the Micro-Enterprise Development Programme (MEDEP) has been able to create 61,838 micro-entrepreneurs in 38 districts. Among them, only 32,408 (52%) are active. In the present study, the enterprises have been categorised into seven sectors including construction and information technology. Of the total enterprises surveyed, 49.09 percent were agro-based, 20.00 percent service based, 15.32 percent forest based, 9.87 percent artisan based, 3.12 percent construction based, 1.56 percent tourism based and 1.04 percent IT based. This means that most of the enterprises were engaged in agro-based activities.

3.2.2 Management of Micro-enterprises

Micro-enterprises were found to be operated only by the individual entrepreneurs and groups. Of the total enterprises, 70.65 percent were operated by individuals. The share varied from 61.02 to 84.42 percent in different categories of enterprises. The highest proportion (84.42%) was found in service based micro-enterprise, followed by construction based (83.33%) and artisan based (73.68%). Of the total enterprises, 29.35 percent were found operated by groups. In such enterprises, the share varied from 15.58 to 38.98 percent in different categories of enterprises. The highest proportion (38.98%) was found in forest based

micro-enterprise, followed by agro based (33.33%) and tourism based enterprises (33.33%); whereas 15.58 percent of service based micro-enterprises were found operated by groups.

3.2.3 Operational Status of Micro-Enterprises

Of all categories of enterprises, only 56.62 percent were operational all the year around. While 42.34 percent of enterprises were seasonal, 1.04 percent was casual. Among the casual enterprises, 50.0 percent, 25.0 percent and 25.0 percent were forest based, agro based and artisan based respectively. But, among the seasonally operated enterprises, 75.47 percent enterprises were agro based, 12.27 percent forest based, 6.13 percent service based, 4.29 percent artisan based, 1.23 percent construction based and 0.61 percent was tourism based. Similarly, among the actively (year round) operated enterprises, 30.73 percent were service based, 29.83 percent agro based, 19.97 percent forest based, 13.76 percent artisan based, 4.59 percent construction based, 2.29 percent tourism based and 1.83 percent were IT based enterprises. Most of the enterprises were being operated smoothly; only a few units were remaining either sick or casually operating.

3.2.4 Sources of Raw Materials and its Sustainability

The enterprises used multiple sources of raw materials. A majority of enterprises (58.4%) used locally available raw materials, whereas international market has been used by only 6.7 percent enterprises. Locally available raw materials were used by 74.6 percent of forest based, 70.9 percent of agro based, 50.0 percent of tourism based, 36.8 percent of artisan based, 33.8 percent of service based and 33.33 percent of construction based enterprises. Some entrepreneurs, particularly forest based, reported difficulties in obtaining raw materials due to cumbersome rules of forest office.

The national market has been used as source of raw material by 60.5 percent of artisan based enterprises, 58.3 percent of constriction based enterprises, 50.00 percent of IT based, 38.9 percent of service based enterprises, 33.33 percent of agro based enterprises and 10.1 percent of forest based enterprises. But only 23.7 percent of artisan based, 10.4 percent of service based and 2.6 percent of agro based enterprises

obtained the raw materials from international market. MEs belonging to other categories did not use this source for raw material.

Regarding making supply of raw materials sustainable, 47.79 percent of respondents were found to be carrying out some activities, whereas 52.21 percent of them have not undertaken any activity. Category wise, artisan based enterprises were highly concerned about sustainability of source of local raw materials, while forest based enterprises were least concerned with this issue.

3.2.5 Business Plan and Its Application

Of the total respondents, 76.36 percent of micro-enterprises were found to have prepared business plan, whereas 23.64 percent of them run their business without any plan. Among the enterprises making business plan, only 87.41 percent appled it practically whereas 12.59 percent of them did not practically apply their business plan to run the enterprises, although they have prepared it. All tourism based and IT based enterprises have prepared and applied the business plan.

3.2.6 Production and Types of Products

Regarding types of products, among the total respondents, 25.71 percent were selling intermediate products, while 68.31percent were selling final products and the remaining 5.97 percent respondents were unable to state what type of products they were selling. Among the enterprises of different categories, 38.98 percent of forest based, 33.33 percent of tourism and construction based, 26.98 percent of agro based, 25.0 percent IT, 20.78 percent of service based and 5.26 percent of artesian based enterprises were found to have sold intermediate products. On the other hand, 86.84 percent of artisan based, 75.00 percent of IT based, 72.73 percent of service based, 66.67 percent of agro and tourism based, 58.33 percent of construction based and 57.63 percent of forest based enterprises sold the final product. It is clear that majority of enterprises of all categories sell final products in the market.

3.2.7 Sales and Demand of Products

There was good demand of micro-entrepreneurs' products. While, 72.98 percent of total respondents reported that there was high demand of their

products, 20.78 percent of respondents even stated that the demand for their products was very high. Only 6.24 percent respondents perceived the demand as being low or uncertain. Category wise, the demand was very high (31.58 percent) for artisan based products, followed by IT based (25.0%), service based (20.78%), agro based (20.63%) and construction based enterprises (16.67%). Similarly, demand was high for tourism based enterprises (100.0%), followed by construction based enterprises (75.0%), agro based enterprises (74.60%), service based enterprises (74.02%), forest based enterprises (69.49%), artisan based enterprises (65.79%) and IT based enterprises (50.0%). As there was low demand for only 3.12 percent of total enterprises, demand aspect was not perceived as a serious problem. But meeting was being perceived as a challenge.

3.2.8 Market Networking

Of the total respondents, 67.79 percent sold their products at the local market, as most entrepreneurs did not have information on other markets and also did not have idea on value chain for national or international markets. Of the total enterprises, 21.04 percent sold their products at district level market and only 10.65 percent did sell at national market, revealing that local market was the main market for products of micro-enterprises. All (100%) of the products produced by IT based enterprises were sold at local market. Similarly the local market remained as market for 87.01 percent of service based, 66.67 percent of tourism based, 65.79 percent of artisan based, 65.61 percent of agro based and 58.33 percent of forest based enterprises. Different categories of enterprises sold their products at district level market with varying proportions; the highest being tourism and construction based enterprises and the lowest being service based enterprises. Similarly, 33.33 percent of tourism and construction based, 26.32 percent of artisan based, 25.40 percent of agro based, 18.65 percent of forest based and 7.76 percent of service based enterprises sold their products at district level market. Only limited enterprises did sell their products at the national market. Likewise, 30.50 percent of forest based, 8.34 percent of construction based, 7.94 percent of agro based, 7.89 percent of artisan based and 5.20 percent of service based enterprises have their networking at national level market. No

products of tourism based and IT based enterprises were sold at national level market.

3.2.9 Marketing Channels

The survey data showed that the maximum proportion of respondents followed the producer to retailers marketing channel to sell their products. Similarly, the producer to retailer marketing channel was followed by 83.33 percent of construction based, 55.93 percent of forest based, 50.0 percent of artisan based, 43.39 percent of agro based and 49.35percent of service based enterprises. All tourism and IT based enterprises used this channel. But 45.76 percent of forest based, 36.36 percent of service based, 34.92 percent of agro based, 34.21 percent of artesian based and 16.66 percent of construction based enterprises used the producer to wholesalers marketing channel. Only a small number of MEs used the middle persons or collection centres as the marketing channel to sell their products. Thus the producer to retailer and producer to wholesaler was the marketing channel mostly used by the MEs.

3.2.10 Commission to Market Channels

The survey data showed that 34.28 percent respondents provided 5 to 10 percent commission to the market channels, 21.30 percent provided 11 to15 percent, 13.25 percent provided 16 to 20 percent and 13.77 percent provided more than 20 percent commission to market channels. The remaining 17.40 percent did not know about commission. As such, they were not paying any commission to marketing channel.

3.2.11 Market Promotion Activities

Among the total respondents, 31.97 percent respondents carried out the packing activities, 34.54 percent respondents carried out grading, 28.05 percent carried out standardisation, 14.02 percent did labeling activity, 12.21 percent registered brand, 20.0 percent conducted quality test, 29.61 percent carried out advertisement, 37.40 percent carried out personal sale and 36.65 percent participated in trade fair for market promotion of their products. The study also indicated that the micro-enterprises appeared to be weak to select appropriate tools of market promotion.

3.2.12 Mode of Receiving Payment of Product

Most of the micro-enterprises had dealt their transaction on installment, cash or credit basis. Only a small number of respondents reported that they did get advance payment. According to the survey data, maximum number of respondents (64.85%) received their payment on installment basis, followed by credit basis (46.41%), cash basis (35.91%), and advance basis (10.59 %). The respondents who sold on other bases accounted for 10.59 percent.

3.2.13 Profit of Micro-Enterprises

With regard to the profit from the enterprises being operated in the year of the establishment, three years after the establishment and the current year (previous 12 months from the date of survey), it was found that the profit of enterprises remained at the same level for the first three years of establishment. However, a noticeable increase in profit was recorded in the current year across the survey districts. In the initial year of the establishment of the enterprise, the average profit was NRs. 29,102 which increased to NRs. 61,576 in the current year. In the year of establishment the rate of return to investment was as high as 120.39 percent, whereas it reduced to 81.1percent in the current year. But the rate of return is still lucrative for reinvestment.

3.2.14 Problems and Challenges

Micro-enterprises have been facing various problems and challenges. The major problems/challenges identified are as follows.

- MEs are spread even in remote places. Transportation of products is costly and also delayed due to geographical difficulties.
- Self Governance Act - 1999 authorises local bodies to charge taxes and fees to any enterprise on extraction of natural resources and on transportation of goods. Depending on the number of districts to pass, enterprises are required to pay tax in multiple places, exerting substantial tax burden on the product.
- Significant amount of security threat, particularly to tourism related micro-enterprises, in rural areas from unlawful people.

- Most entrepreneurs lack knowledge about marketing of their products to national and international markets, thus limiting themselves to local market.
- Lack of quality testing laboratories and modern processing plants for different products. This has been a hurdle to quality control and value addition.
- Competing with cheap Chinese products penetrated in the local market has been a challenge for certain products of micro-enterprises in certain .districts.
- Despite substantial increase in number of financial institutions, inadequacy of easy access of MEs to institutional credit has been a problem.
- Inadequacy of available collection centres and warehouses to facilitate marketing of the products, particularly the agro and forest based products.
- Lack of adequate and efficient linkage among different agents of value chain inhibiting expansion of market from the local to national and international.
- Most of the MEs obtain required raw materials from local natural resources. But they do not initiate any action to preserve them. Thus sustainability of such sources of raw material seems to be a serious issue.
- Although overall impact of MEDEP on employment is encouraging, the number of micro-enterprises that have increased the number of employees is small. It is only 51 out of total 385.

3.3 Impact of Performance of Micro-Enterprises

3.3.1 Income of Micro-Entrepreneurs and Major Sources of Income

The income of micro-entrepreneurs was computed in terms of the annual total income, average household income and per capita income from the micro-enterprises. A total income of NRs. 39.3 million was generated by the respondent's households, in the year of the survey. Of the total income, the share of income from micro-enterprises accounted for

60.6 percent (NRs 23.7 million). A remarkable increase in per capita income was seen in all the study districts. This shows that MEDEP has exerted positive impact on raising the income of the people. Though, the entrepreneurs interviewed have multiple sources of income, yet an overwhelming majority (85.7percent) reported that 'micro-enterprise' was the major source of income, thus indicating that the entrepreneurs largely depended on the micro-enterprises for their survival. This implies that the MEDEP intervention has contributed to increase the income of rural people.

3.3.2 Poverty Reduction

According to the baseline data, out of 385 households, only one household was above the poverty line and the rest all were below the poverty line. But, after the MEDEP's intervention, 27.3 percent of them were found to be above poverty line. This indicates that MEDEP has contributed to poverty reduction process in the programme implemented districts.

3.3.3 Employment Generation

A total of 1,484 direct employments have been created by 385 enterprises. On an average, 4.6 employments (in number) have been generated by each enterprise. The average number of employment generation varied from one sector to another. The highest number was found in the construction sector (7.0) and lowest in IT sector (2.0). In addition to this total, 1,054 indirect employments have been generated by micro-enterprises in the survey areas. During the last three years, the total number of direct employment created by 385 enterprises has been increased significantly by 478 (24.15%). The average number of employment per enterprise also increased from 3.63 three years before to 4.6 in the current year. The share of part time employment in total also employment increased from 46.8 percent three years before to 52.1 percent in the current year. It means that micro-enterprises have significantly contributed to employment generation in the country particularly in rural areas.

3.3.4 Expenditure of the Family

Out of 370 respondents, who provided information, the total annual expenditure was found to be NRs. 36.6 million among 370 households

of the entrepreneurs. Accordingly, the average annual expenditure per household was NRs. 99,050.30. Expenditures in education and health aspects were found to be very remarkable across the survey districts. This will have a far-reaching positive consequence in generating the human capital in future and improvement in livelihood. From these, it is clear that MEDEP interventions have contributed to improve the livelihood of rural people.

3.4 Status of the Resilience of MEDEP Enterprises

3.4.1 General Concept of Business Resilience

Business resilience refers to the ability of a business to protect itself from untoward unexpected events and risks and to continue the business in changing business environment. There are internal as well external events that could disrupt business operations. Thus the general ability of enterprises to absorb the shocks (internal and external) is considered as resilience. Resilience is mainly the result of interaction of business enterprises with their environments and the processes that either promote well-being or protect them against the overwhelming influence of risk factors.

Enabling business environment is required for the sustainability of an enterprise. Business environment may differ from one country to another and from time to time. There are a number of factors that affect resilience of enterprises. These factors are broadly categorised into three categories, viz. economic, social and technical. Economic factors contain market competition, access to market, availability of raw material, and access to capital and finance. Social factor includes social networking of enterprises. Likewise technological factor contains adaptation of improved technology. Increasing competition, continuous technological development, increased use of information technology, and greater market uncertainty are the major challenges of current business environment. Thus the issue of resilience is linked with improving competitive strength, adoption of improved technologies, market as well as product diversification, which reduce vulnerability of business.

The business continuity is the central point of business resilience. Future

continuity of a business is largely directed by its past performance. But the success of an enterprise also depends on its current strength and the future plans as well as strategies. Hence in order to appraise resilience of an enterprise, it is required to evaluate its past performance indicators as well as future business approach.

3.4.2 MEDEP Interventions to make its Micro-enterprises Resilient

In order to make Micro-enterprises more resilient MEDEP has made the following interventions:

- Comprehensive training on financial analysis and management
- Tailor made training on general business management
- Entrepreneurship education-think and act like an entrepreneur
- Facilitation for adoption and adaption of improved and advanced technology
- Facilitation for accessing financial capital
- Strategic linkages with District Micro-entrepreneurs Groups' Association (DMEGA), Cooperatives, District Enterprise Development Committee (DEDC), business houses and other resources-rich service providers
- Encouraging bulk quality production, purchase and collective marketing
- Strengthening micro-enterprise assessment process and help them define their growth goals
- Providing additional advanced or refresher trainings
- Creating mentoring opportunities for micro-entrepreneurs and
- Building networks of entrepreneurs/marketing opportunities.

Micro-entrepreneurs are considered to be more vulnerable to the change, given the more limited range of risk management mechanism they can access. A MEDEP enterprise is assumed to be resilient, if it has market linkages to be able to innovate, grow business and overcome shocks. MEDEP expects micro-enterprises to achieve the following factors in order to be more resilient.

1. Increase in the size
2. Increase in sales volume

3. Increase in profit retention
4. Increase in the number of clients
5. Product diversification
6. Adaptation to and upgrading of improved technology
7. Increase in market network
8. Moving from part time to fulltime engagement in business
9. Expanding entrepreneurs outreach

Thus considering the above theoretical concept, MEDEP's expectations as well as the stakeholders' perception of resilience learned from the field study, the study team sets the following 16 indicators for resilience test of MEDEP enterprises.

- Increase in sales volume
- Increase in investment
- Profit: for at least last two continuous years and not less than threshold of national absolute poverty line
- Increase in profit retention
- Increase in number of clients
- Increase in production capacity
- Adaptation to and upgrading of improved technology
- Increase in marketing networks
- Increase in employment
- Business age: at least three years of operation
- Relation with other organisations
- Product diversification
- Availability of raw materials
- Business plan
- Registration: with Cottage and Small Industry Development Board (CSIDB), Department of Cottage and Small Industry (DCSI), Office of the Company Register (OCR), Cooperative Department or District Cooperative Office or in local governance bodies.
- Having access to Financial Institutions (FIs): borrowed at least once from any FIs.

3.4.3 Resilient Enterprises under MEDEP

Although all the above mentioned 16 indicators are important, it may not be possible to attain all of them. Therefore, enterprises attaining three-fourth or more of total indicators are considered as 'resilient' and attaining more than half but less than three-fourth of total indicators as 'potential to be resilient'. All enterprises attaining 50 percent or less number of indicators are considered as 'non-resilient'.

On the basis of a set of 16 indicators and adopting these standards, a resilience test was conducted. The test found that 7.53 percent enterprises were 'resilient' and 33.77 percent enterprises 'potential to be resilient'. The remaining 58.70 percent enterprises were considered to be 'non-resilient'.

Category wise, the resilience ratio was the highest in construction based enterprise, followed by service based. Out of 12 construction enterprises, 3 enterprises (25.0%) were found as 'resilient'. Similarly 12.99 percent service enterprises were found 'resilient'. The resilience ratio was found lowest at 5.08 percent in forest category. Agriculture category had the resilience ratio of only 5.82 percent. Although resilience ratio was low, the number of resilient enterprises was highest (11) in agriculture category, followed by service based. Of the total resilient enterprises, agriculture and service based enterprises accounted for 37.93 percent and 34.48 percent respectively. Also category-wise, most of the potentially resilient enterprises belonged to agro-based enterprises (65), followed by service (27) and forest based (17). This indicates that reform should be focused on agriculture, service and forest sectors.

As 130 (33.77%) enterprises were found potential to be resilient, various supports are required to make them resilient. It was found that most of the enterprises (124) failed to develop relationship with other organisations. Likewise, expansion of marketing network, product diversification, enterprise registration, adaptation and upgrading of improved technology were found to be the weak areas of resilience.

4. Conclusion and Recommendations

4.1 Conclusion

The study found that most of the micro-enterprises have been able to

contribute in employment creation and livelihood improvement of the rural people in terms of social sector expenditure and women empowerment. Most of them have achieved success in terms of production, sales, profit earning and other business indicators. BDSPs are providing different types of support to them and willing to continue it. In addition to BDSPs, DMEGA and other institution are in place to support micro-enterprises. Hence, the scope of being these enterprises resilient is high, provided that capacity building particularly on technology adaptation and up gradation, product diversification, marketing network and relation with other organisations is enhanced.

4.2 Recommendations

Based on the information gathered from different stakeholders and their analysis, the following general and specific recommendations are presented to make micro-enterprises resilient.

4.2.1 General Recommendations

- **Raise education level of entrepreneurs,** as the level of formal education of micro-entrepreneurs is low.
- **Establish fund for rehabilitation of sick micro-enterprises,** as a large portion of micro-enterprises are either inactive or sick.
- **Launch special programme for ensuring sustainability of locally available raw materials,** as most of the micro-enterprises use locally available raw materials but do not take any initiative to protect and preserve the sources of such raw materials, e.g., locally available *chyuri* plants, *allo*, *lokta*, vegetable seeds, etc.
- **Provide refresher and advanced training** to entrepreneurs before establishment of an enterprise on a priority basis.
- **Give a higher priority to training of entrepreneurs on marketing,** as most of micro-enterprises sell their products at local market and they lack of knowledge on national and international marketing.
- **Develop market infrastructure** such as transport network, warehouse, market centres, laboratories for quality control, etc. to help make micro-enterprises more resilient.
- **Enhance access to credit:** Although financial sector has been

expanded remarkably, all stakeholders report that access to credit is still limited and difficult. Therefore, it is recommended to undertake a study to identify constraints and remedial measures in this regard.

- **Strengthen DMEGAs:** For making monitoring of micro-enterprises more effective, strengthen the DMEGAs with more human and financial resources. The existing administrative model should be rearranged. The post of coordinator should be upgraded to Executive Programme Director, who will also be assigned the responsibility of mobilising additional resources, among others.
- **Develop micro-enterprises across the value chain** of certain viable products, in which large numbers of micro-entrepreneurs are engaged.
- **Promote business linkages:** As small in size, MEs may not be able to perform both production and marketing activities. Therefore, establish business linkages with other members of value chain and promotional agencies such as Trade and Export Promotion Centre (TEPC), National Micro-entrepreneur Groups' Association (NMEGA), Federation of Nepalese Chambers of Commerce and Industry (FNCCI) and Federation of Nepal Cottage and Small Industries (FNCSI).
- **Improve MEDEP Data Base,** as it still lacks important data such as volume of production, sales, etc.

4.2.2 Specific Recommendations for resilience of potentially resilient MEs

- **Organise stakeholders meeting, Trade Fairs and Exposure Visits**: As most of the potentially resilient MEs do not have relationship with other organisations, it is recommended to hold frequent stakeholders meetings, district level trade fair once a year and exposure visits to develop wider and strong public relation with all concerned organisations.
- **Provide package training**: Among various indicators of resilience, relation with other organisations, adaptation to improved technology; product diversification and expansion of market network were found weak among potentially resilient MEs. Therefore, design and

conduct a package training containing public relations, adaptation to improved technology, product development and marketing for potentially resilient MEs.

- **Provide technology up-gradation support**: As an incentive to adopt improved technology, support should be provided in the form of machineries, equipments and tools so that MEs are encouraged to adopt improved technology.
- **Establish Product Development Centres:** For product diversification, knowledge on product development is required. It also demands research and development. MEs may not be able to afford it individually. Hence, it is suggested to establish and run such centres by MEDEP.
- **Establish Marketing Centres:** Marketing network of MEs is not that strong. If marketing centres like 'Saugat Griha' are replicated in each district, it will help potentially resilient MEs to be resilient.
- **Establish Information Centres:** Without enough knowledge and information, appropriate product development and marketing is not possible. Therefore, establishment of information centres is recommended for capacity building of potentially resilient MEs to become resilient.

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Resource Analysis of Allo (Girardina diversifolia) in Nepal[4]

1. Introduction

Over the last two decades, the importance of non-timber forest products (NTFPs) has been globally recognised as a key component of health care, biodiversity conservation and people's livelihood. There is a growing demand of NTFPs in pharmaceutical and botanical medicines, food and flavouring items, cleaning products, insecticides and other industries, and also as raw or as value-added products at local, regional and international markets. However, Nepal has not been able to adequately utilise them. There is a general lack of sustainable production practices, inappropriate harvesting and post-harvest practices, inappropriate value addition, poorly organised marketing information system, and lack of standardised production system, which have hindered international recognition of Nepali NTFPs and posed challenges to maximise equitable economic returns. Various reports and research indicate that the NTFP sector in Nepal is expected to grow fast in the coming years and it will continue to play a vital role in the national economy. However, if serious efforts are not made, this will lead to erosion and degradation of NTFP resources and unsustained availability of quality raw materials. In order to cater to increasing levels of commercial demands of NTFPs by a broad range of people, more careful assessment of NTFP resource base as well as intensive management and sustainable harvesting of NTFPs have become necessary in Nepal (Ojha *et al.,* 2001).

Realising the cognisance of resource sustainability, the Government of Nepal

4 Study conducted by MEDEP with technical support from Dr. Surendra Joshi, 2010.

(GoN) is emphasising the need to assure sustainable harvesting in wild and commercial domestication (i.e., *ex situ* cultivation) of important plant resources. Many development agencies have been supporting this government initiative by providing grants, loans and technical assistance. As a result of these efforts and with the increased access to information and technology, the areas under cultivation vis-à-vis production of several forest resources, like *Asparagus, Amla, Gheukumari* have rapidly grown over the last few years. However, the actual status of distribution and economic potential of such plants in the wild has not been properly documented.

Given the abovementioned context, the present study was conducted at the initiative of Micro-Enterprise Development Programme (MEDEP), which is a jointly executed project of the United Nations Development Programme (UNDP) and the Government of Nepal under the Ministry of Industry (MoI). The programme primarily aims at improving the livelihoods of families below the nationally defined poverty level through micro-enterprise development. This particular study aimed at detailed assessment of *Allo*, which is one of the most important resource bases for the establishment of micro-enterprises that create off-farm employment and income opportunities for the rural communities. The specific objectives of the study were to: (i) identify the geographical and ecological coverage of *Allo* plants with reference to the district and village development committee (VDC); (ii) estimate the quantity of *Allo* fibre produced in Nepal; and (iii) identify usage of *Allo* fibres with reference to quantity and place, and product items and markets.

2. Materials and Methods

The study is based on participatory and consultative approach, which included review of secondary information, key informant survey and field observation. The study used the data collected by MEDEP staffs from the MEDEP command districts and from the Livelihoods and Forestry Programme, National Trust for Nature Conservation, District Forest Offices and local people through telephone, e-mail, fax and postal mail about the availability of *Allo* plants in certain districts and VDCs. Besides, the study reviewed the existing reports and research publications on availability and analysis of *Allo* in Nepal and neighbouring countries. The study also used such materials as Land Cover of whole Nepal, a Geographic Information System-GIS (shape file) layer, Digital

Elevation Model (DEM) of whole Nepal, ninety meter resolution (raster grid format), Administrative area of whole Nepal (with VDC), and data regarding roads and rivers, a GIS (shape file) layer. GIS was used to analyse the data and present the result in the form of maps. The necessary input data required for this purpose were prepared. In this process, the information provided by different persons/institutions from different districts on availability of *Allo* in different district was entered into GIS. The *Allo* potential area were extracted by using GIS overlay, operation of administrative layer with *Allo* area, forest cover and DEM layer within the elevation of 1,200 m - 3000 m.. As the report and information from the local people showed, out of these *Allo* potential areas, only about 25 percent of the area was found covered with *Allo* (ACAP, Kaski, Parbat), and 25 percent of total *Allo* potential area was estimated as *Allo* covered area. The *Allo* potential area, thus identified, was visualised in GIS map with proper symbolisation.

3. Assessment Findings

3.1 General Overview of the Allo plant

3.1.1 Description of Allo Plant

Allo (*Girardinia diversifolia*) is commonly known as the Himalayan Nettle. It is a fibre yielding perennial plant that belongs to the plant family called Urticaceae. The plant is 1.5 to 3 m high. The leaves are stalked, palmately and deeply divided, dendate, broadly ovate, shallowly or deeply lobed, acuminate, base rounded, and covered with long stinging hairs with hooked protrusions that cause irritation to human skin, and petioles 3-10 cm. Flowering period starts in July/August, and flowers generally are of 1.5 mm diameter.

After the end of the rainy season, rural villagers go to the forest to collect *Allo* fibres. Covering their hands with a cloth to avoid the giant stingers, they cut the nettle above the ground and collect bark from them. Then they lay it in the sun light for about 3 days to dry and put it inside water for about a week. When it is ready to clean it is rinsed with clean water, and then dried in the sun and teased. Traditional methods of spinning the yarn by hand spindle are still used.

In recent years, some improvements have been made in the harvesting and spinning technique. For example in Sankhuwasabha, the fibrous inner bark is stripped from the plant and boiled in water and wood ash for about three hours and then left to simmer overnight. The plant material can then be beaten and the fibre removed. It is then rubbed with soil containing mica, which lubricates the yarn, and makes separation and spinning of fibres easier. The sale of nettle yarn and nettle fibre products such as mats and the beautiful whisper-fine nettle scarves provides a cash income to families living in remote hilly areas of Nepal. According to an estimate, about 80,000 villagers from different parts of the country are involved in *Allo* processing work (www.swicofil.com).

***Allo* plant in its natural habitat**
© Rosie Thapa 2009

3.1.2 Habitat

Allo is highly successful plant found in a variety of habitats and soil types all over the temperate areas of the world (www.swicofil.com). The plant spreads by means of seeds and underground rhizomes that creep around just under the surface of soil (Devkota and Chhetri, 2009). In Nepal, *Allo* grows wild in forest glades, edges and water courses at altitudes between 1,200 and 3,000 m. It generally grows in pockets, mostly in areas that would not be otherwise cultivated for food crops. It can grow up to 3 m in height. The moist and shady land seems suitable habitat for the growth of *Allo*. The pockets are mostly found in the forests and waste lands. The aspects for *Allo* growing areas vary from the west to east and north depending upon the type of forest and climatic conditions. With respect to soil type, black and fertile soil is the prerequisite; brown soil is also considered suitable. Similarly, bank of streamlets is good for better growth (Barakoti and Shrestha, n.d.).

3.1.3 Collection of Bark

Allo is harvested generally from Kartik (mid October) to Magh (mid January). As the plant grows above 1,200 meters, most areas for harvesting are difficult in terms of access, often requiring a number of days to travel to forest, harvest *Allo*, and return with load of *Allo* (MEDEP, 2010).

Collection of *Allo* has become a regular business for several rural households. In some districts, Community Forest Users' Groups (FUGs) have developed well-organised system of collection. For example, in Sankhuwasabha, members of the FUGs and VDCs are confined to the concerned community forest for harvesting of *Allo*. As per the collection rule of FUG, one user needs to pay NRs. 15 for a coupon to bring a *Bhari* (about 30-40 kg load on back) from that community forest. The users have to pay double (NRs. 30) per coupon to use other's community forest (Barakoti and Shrestha, n.d.). Both men and women are involved in this work. Collection of bark from the stem is very tedious and time-consuming job, as the nettle stings in the bark. The extractors have to spend 5-8 hours to 3 days in the *Allo* forest to collect a basket load of bark. Generally, a basket load (37.5 kg) of bark can be harvested in one day. This would comprise around 370 stems each weighing up to 100 g. From one 100 g stem, a maximum of 5 g of dry fibre can be made. It takes 10 days to make one kilogram of nettle yarn (Thapa, 2009).

3.1.4 Harvesting and Processing Technique

Although there are variations in harvesting and processing techniques in different parts of Nepal, the basic methods of *Allo* harvesting and spinning remain similar all over the country. Harvesting of *Allo* takes place between August and December. The best-quality fibre comes from the early harvests. It is believed that the *Allo* growing under shade yields the finest and whitest fibres, while plants that are more exposed to the sun are brownish in colour. Fibres from plants growing at high altitudes are most valued for weaving (Gurung, 2007). Though bark can be extracted up to the tip of the stem, yet the fibre from upper part is weak.

The stems are cut using sickles at about 15 cm from the ground in order to leave sufficient stem for new shoots to sprout. The stinging thorns on both stem and leaf make the cutting of the stems hazardous, and the

harvesters protect their hands with bundles of cloth. Often, the stems are left for a few days before fibre extraction begins; this is done to reduce the potency of the stinging hairs. On an average, in one day, the barks of about 370 stems are harvested. The fresh bark of one *Allo* stem can weigh up to 100 grams - it yields a maximum of 5 grams of dry fibre (Gurung, 2007).

Barks are striped from the stems with the help of a sickle or in some cases they are peeled with bare hands and left to dry in the sun for a period of 3 to 4 days. Then the barks are boiled in water containing ash for around three hours, depending upon the amount of fibre. The ash is known to make the bark soft and easier for the individual separation of fibre (Devkota and Chhteri, 2009). The strands of fibres are then dried in the sun, after which they can be teased apart and readied for spinning.

3.1.5 Spinning, Weaving and Knitting

Traditionally, *Allo* cloth has been woven on back-strap or body-tension looms. Women are mostly involved in spinning using lightweight hand spindles, which are about 30-40 cm long. Though spinning by hand spindle is slower than spinning on a wheel, the spindle has the advantage of weighing very little, being easily carried and used anywhere (Gurung 2007). All parts of the loom, except the wooden beater, are carved from bamboo at home. When the weaving is completed or at the end of the day, the loom parts can just be rolled together into a bundle, which can be easily stored in the roof rafters.

Weaving generally takes place during winter months when there is little fieldwork to do. With locally made wooden handloom, one can weave 2 - 2.5 m of cloth per day. *Allo* is especially used for weaving sacks and *Bhangra.* In these days, hand knitting of shawls, vests and other items is becoming very popular and the demand is high.

3.1.6 Marketing

Allo fibre is considered ‘organic by default’ as the plant grows naturally in the wild. Traditionally, threads or yarns are sold without any dye. But these days, producers have started dying the thread and weaving fashionable materials. In some areas, *Allo* producers have blended their traditional

knowledge with modern techniques. For example, the Rai communities in Sankhuwasabha use plant extracts for different colours; *Banmara* to make light green or grey colour, *Majitho* for red, *Dar* for brown and *Dudhilo* to make light yellow colour. Dyes are prepared using bark and/or leaf of these plants with different proportion of copper sulphate, ferrous sulphate and potassium dichromate (Barakoti and Shrestha, n.d.).

Most of the producers sell the yarn to the middlemen who supply the yarns to product makers, carpet industry or garment factory. Only a few producers make finished products as per the specification given by the traders or exporters. Members of fair trade group prefer purchasing finished products, whereas the local traders and industries purchase yarns.

Marketing of *Allo* products is generally done as per demand locally in the country and from abroad. For the knitted products like shawls, vests and jackets have markets in other countries like the UK, Germany and the USA. The price of *Allo* cloth and thread varies based on the quality, size and location. There is no an assured market of produces. On the one hand, farmers find it difficult to locate the market and get payback of their produces even after 9 months; on the other hand the exporters based in Kathmandu face the problem in meeting the demand. They say that there is a big demand of *Allo* products that was never fulfilled.

3.1.7 Characteristics and Usage

Allo fibre is extremely versatile, being it renowned for its strength and durability. The examination of the fibre under a research microscope reveals that the fibre consists of elongated and thick walled cells. The average length of the fibre is 287-354 mm and average diameter is 67-136 microns (RECAST, 1988). The fibres have special characteristics. They are hollow. This means that they can accumulate air inside, thus creating a natural insulation. With the cool touch of linen, nettle garments wick moisture away from the body to keep comfortable in the warmest sun, while in colder weather the tiny hollow structures in the fibre trap body heat (www.wildweaves.co.uk). Nettle is gentle on the skin as well as naturally anti-bacterial and mould-resistant.

3.2 Geographical and Ecological Coverage of *Allo* Plant

The *Allo* plant grows in the hills from the west to the east of the country at altitudes ranging between 1,200 m and 3,000 m. It flourishes under the shade of deciduous forests, and in moist, sandy soils, especially ravines. It can also be found on shrub land and on the edges of cultivated land, where it is used to consolidate bunds on terraced land. The present study reveals that it is possible to find *Allo* plant in almost all the hills and mountain areas of the country. Based on local knowledge, judicious subjective decision-making and GIS mapping, 58 districts are found to have *Allo* production.

Based on the findings of earlier studies (for example, Participatory GIS Mapping of *Allo* in ACAP area by National Trust for Nature Conservation (NTNC), data obtained from the command districts (Baglung, Myagdi, Parbat and Sankhuwasabha) of Livelihoods and Forestry Programme (LFP), field surveys conducted by MEDEP staff, the total production potential of *Allo* fibre is estimated to be 275 metric tonnes per year. The main production pockets are located in Achham, Doti, Bajhang and Bajura districts in the far west region; Rukum, Rolpa, Jajarkot, Salyan, Kalikot and Dailekh in the mid-west part of the country; Myagdi and Baglung in western mountains; Sindhupalchok and Dolakha in the central region; and Sankhuwasabha district in eastern hills. Rolpa, Rukum, Jajarkot, Doti and Sankhuwasabha are the 5 topmost potential ones among *Allo* growing districts having production potential of over 97 quintals each. Achham, Bajhang, Bajura, Baglung, Baitadi, Kalikot, Kaski, Lamjung, Myagdi, and Salyan have potential for production of over 60 quintals.

The mid-west region is the largest producers of *Allo*, which is followed by the far west, western and eastern region, whereas the central region contributes only 13 percent of the total *Allo* production in the country. Mid-Western Development Region offers potential for the production of about 85.3 metric tonnes, which makes 31 percent of the total *Allo* production in the country. Far Western Development Region has the potential to produce 58.2 metric tonnes of fibres, whereas Western, Central and Eastern Development regions can produce 48.2, 36.8 and 46.3 metric tonnes of fibre respectively.

3.3 Trend of *Allo* Production

The size of *Allo* growing areas and the quantity of *Allo* fibre is declining to a large extent. For example, a field survey conducted by Barakoti and Shrestha

in 1999/2000 revealed that the exploitation rate of *Allo* in the study area (Bala, Sisuwa, Tamku, Mangtewa, Yaphu VDCs of Sankhuwasabha district) has been negatively affecting the availability and sustainability of raw material in the natural habitat. There is a gradual decline in *Allo* production in these areas, where it is over-harvested without considering regeneration. The study also showed that the present natural resource of the Himalayan nettle was decreasing mainly due to it not being harvested, which would otherwise stimulate growth (Gurung, 2007). The situation indicates that both the over-harvesting as well as under utilisation of *Allo* plants negatively contribute to its regeneration. Guidelines for sustainable management and proper harvesting are, therefore, necessary for proper growth and regeneration.

3.4 Resource Availability for Establishment of Enterprises

The people in Nepal have a long tradition of collecting and processing of *Allo* for weaving sacs, *Bhangra*, rugs, etc. A large number of people in the hills manage part of their livelihoods from the sale of *Allo* fibre, yarns and other value-added products. *Allo* weaving is seasonal and household-based activity that provides much-needed supplementary income for the weavers. Some ethnic communities (Rai, Gurung, Sherpa, Magar and Tamang) in the hills of Nepal use *Allo* cloth in their religious ceremonies. For example, Kulung Rais in Sankhuwasabha offer *Allo* cloth to God in their *Nagi Puja*. They have to wear *Bhangra* cloth at the entry of new house, and upon demise of a family member. They also present Allo cloth when their daughters get married (Barakoti and Shrestha, .n.d.). *Allo* has other values; it is a source of livestock feed, bedding material, fuel-wood and live fence (Gibbon *et al.,* 1988). Manandhar (1989) reported that decoction from leaf is used to treat headache, joints and fever. It can be used for making blue dye and paper. The seed containing 10-12 percent oil could be used for soap and other oil-based industries (Dunsmore and Dunsmore, 2000).

In recent years, *Allo* is used for making a wide range of items like fashionable clothing, carpets and curtains that have a good demand in the export market. It offers a great potential for import substitution of silk, cotton and wool. It is already substituting cotton and woolen thread to a large extent, especially in the carpet and handicrafts subsector. According to the data of Trade, Export and Promotion Centre (TEPC), Nepal currently imports a huge quantity of silk, wool

and cotton fibre, worth over NRs. 5 billion (Table 1). However, the traditional clothing items, which used to be made from *Allo* fibre in the rural villages, are now being worn by people mainly during feast and festivals. As the processing of *Allo* fibre is very complex and labour-intensive, in many villages *Allo* weaving is considered as a non-economical work, and only elder people are involved in this work. Young generations do not take interest in this work.

Table 1: Import of Natural Fibre in Nepal

Items imported	Import value (NRs.)	
	Year 2008/2009	Year 2007/2008
Silk	367,343,184	288,290,916
Wool (fine or coarse)	1,876,333,398	1,939,711,074
Cotton	3,205,469,528	742,996,465

Source: Nepal Overseas Trade Statistics, TEPC

3.5 Potential for Employment Creation

The collection, processing, weaving, stitching and marketing of *Allo* fibre and value-added *Allo* products offer part-time and full-time employment opportunities for a large number of people, especially in the hills of Nepal. *Allo* weaving is a seasonal and household-based activity that provides much-needed supplementary income for the weavers. According to the informants of the present study, for weaving *Allo* clothes, one weaver requires about 40 kg of yarns in a year. Based on this estimation, a total of 3,876 rural weavers can get full-time employment (Table 2).

Table 2: Production and Estimation for Employment Creation

Development Region	Production quantity (Kg)	Quantity of yarn (kg)	No. of weavers required
Far West	110,514	44,205	1,105
Mid-West	171,467	68,587	1,715
Western	48,101	19,240	481
Central	14,116	5,646	141
Eastern	43,446	17,378	434
Total	274,800	155,056	3,876

In addition to this, thousands of rural households get part-time employment in harvesting and processing of *Allo*. Similarly, a few hundred tailors, middlemen and traders can get work opportunity respectively for stitching of *Allo* clothes, collecting materials and marketing (wholesaling, retailing and exporting) of *Allo*-based products.

3.6 Share of *Allo* Fibre in the World Market

In 2008, the world production of natural fibres stood at approximately 34 million metric tonnes, of which cotton alone constituted over 75 percent of the total (FAOSTAT). Jute and wool constituted about 8.5 percent and 7 percent respectively of the total quantity fibre produced in the world. Silk, hemp, linen and other natural fibres though make a small proportion of total production, yet they are highly prized for their unique properties. The quantity of *Allo* fibres produced in the world is far less than that of cotton, wool and other fibres, which are popular for regular use. Its production and trade value is insignificant when compared with other natural fibres. Nevertheless, in recent years, the products made out of *Allo* fibres are being well appreciated by the high end customers, and the demand for *Allo* fibre is increasing both at national and international markets. For countries like Nepal, *Allo* offers a good potential for import substitution of cotton, wool and other fibres. It is being increasingly used in carpet industry, which is one of the major sources of foreign currency earning.

4. Conclusion and Recommendations

As one of its initiatives to ensure sustainable utilisation of local resources, MEDEP has been undertaking various studies to make detailed assessment of some non-wood forestry products (like *Allo* and *Chyuri*) that are commonly used as raw materials for establishing micro-enterprises in the rural areas. The present study was carried out with an aim to provide data on resource availability and production trend of *Allo* in Nepal.

According to the findings of the study, *Allo* is grown in almost 6,465 sq. km of land in the country. It has production potential of 275 metric tonnes per year. Mid-west region is the largest producers of *Allo*, followed by far west, western and eastern regions, whereas, the central region contributes only 13 percent of the total *Allo* production in the country. At present, only a small quantity of *Allo* is harvested and processed for product making, though there is a good demand

for its fibres/yarns. By following proper harvesting guidelines, about 200 metric tonnes of *Allo* fibres can be collected. Since underutilisation of *Allo* plant is not considered good for regeneration of the crop, it seems necessary to develop harvesting guidelines, train the people and encourage them to make optimum use of *Allo* fibre for making yarns and *Allo* products.

Keeping in view the new trend in fabric/garment industry, *Allo* has a strong potential as a fibre crop in the natural textiles industry. It can replace the use of cotton threads in carpet industry and substitute the import of natural fibres, provided that the fibre processing technique is optimised as per the demand of industry stakeholders. Since the fibres are collected from the naturally grown wild plants, *Allo* products can be considered 'organic by default'. Furthermore, the *Allo* fibre has special characteristics (insulation property), that provides opportunity to sell *Allo* products in 'niche market'.

However, at present, the traders have not been able to fully tap the market, despite the increasing recognition of *Allo* products in the international market. The link between *Allo* collectors/weavers and traders is weak. While the latter complain about the quality consistency and erratic supply of raw materials, *Allo* collectors/weavers complain about low price. In fact, harvesting/fibre extraction, processing and spinning techniques are still traditional; it is tedious and labour-intensive work that results in high cost of production. Therefore, to reduce the cost of production, appropriate technology needs to be explored and promoted.

Allo harvesters, processors and weavers are typically poor and have little access to the market. They mostly supply the *Allo* fibre/yarns to middlemen, who keep bulk of profit margin. Most of these poor *Allo* workers are not well placed to take up support from the government and donor agencies. Interestingly, when a new cash crop (e.g. sericulture, floriculture) is introduced to a community, it is often supported by services and structures to enable the farmers to market their produce. Yet, for utilisation of traditional crops and naturally grown plants like *Allo* and hemp, only a few support services exist. It is, therefore, recommended that the Ministry of Industry focuses on this target group and ensure steady and reliable market for their products.

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Allo Product Diversification, Supply (Value) Chain and Potentialities of Expansion[5]

1. Introduction

Allo (*Girardinia diversifolia*), a small plant found between 1200 and 3000 masl, is known as Himalayan nettle. Its barks and stems contain long fibers, which are used for making different types of usable products for human uses such as bags, sacks, mats, jackets, porters' headbands and fishing nets. Further, its leaf is used for treating headache, joints pain and fever. It has been used by mainly Rai, Gurung, Magar, Tamang, Sherpa and other ethnic groups of Nepal for social and cultural functions in the hills.

The Government of Nepal (GoN) has realised that the economic development of the country can be enhanced not only from the production and marketing of timber products, but also from the Non Timber Forest Products (NTFPs). It is a fact that there is a great role of the poor, Dalit, Indigenous Nationalities and local communities not only for protection of natural resources but also for promotion and wise use of NTFPs in Nepal. In Nepal, it is realised that micro-enterprises have great potential for getting involvement of the rural people to enhance their livelihoods at village level.

Realising the importance of *Allo*, under the government, the Micro-Enterprise Development Programme (MEDEP) with the support of United Nations Development Programme (UNDP) has been promoting its business since 1998. A number of reports have been prepared which are helpful to enhance the resources and livelihoods of the people. The main objective of the study was to explore the *Allo* products diversification supply (value) chain and future

5 Study conducted by MEDEP with technical support from Nepal Foresters' Association, 2014.

potentialities of expansion. The specific objectives of this study were as follows:

- describe the concept, types and activities of existing *Allo* products including the entire process and mechanism and the areas where the support is needed for them. Complete study of diversification, value (supply) chain, and its gap, identifying and developing future potential for expansion,
- identify the positive and negative effects on *Allo* product, its diversification, supply chain and future potentiality of expansion,
- develop suitable methodology and techniques/tools for assessing and analyzing *Allo* product, its diversification, supply and future chain potentiality of expansion,
- identify the issues challenges and problems and the ways to address these for more effectiveness of MEDEP intervention to contribute *Allo* product, its diversification, supply and future potentiality of expansion,
- suggest suitable mechanism of developing more effective *Allo* products,
- assess the present quantities of *Allo* yarns in carpet industries, and determine the volume of future demand,
- determine the estimated value of different *Allo* products in different countries and estimate the future potential of export, and.
- recommend effective business development services for making *Allo* product its diversification, supply chain and future potentiality of expansion.

2. Methodology

The study was accomplished based on the review of secondary information such as published documents, reports related to *Allo* plants and *Allo* products available at MEDEP, Ministry of Forests and Soil Conservation, Department of Forests, Department of Plants Resources and other institutions. The primary data were collected through direct observation, Appreciative Inquiry, and consultation. The checklists and structured questionnaires were used to

collect the data from *Allo* collectors, traders, District Forest Offices (DFO), District Cottage and Small industry Office (DCSIO), and financial institutions, community organisations, and individuals. A rigorous consultation with MEDEP was done and maintained communication during the study period. A number of concerned government and non-government agencies, private sector, donors and development partners, civil societies (Dalit, and Indigenous Nationalities, Federation of Community Forest Users Nepal-FECOFUN), and organisations especially related to MEDEP at the centre and district levels were consulted. During the study period, altogether 97 persons were consulted, which included mainly collectors (15), traders (16), DFOs (5), District Soil Conservation Offices (4), Financial Institutions/Cooperatives (12), central level traders (14), carpet industries (4), MEDEP (3), FECOFUN (7), DMEGA (2), social workers (3), warden/staffs (4), Bank staffs (8). In order to make precision of the data and information, triangulation was done. The field study was carried out in five purposively selected districts, namely, Rolpa, Baglung, Nuwakot, Dolkha, and Sankhuwasabha and two trade hubs, i.e., Pokhara and Kathmandu Valley.

3. Study Findings

3.1 Understanding of Existing Allo Products

3.1.1 At Micro level

Socio cultural value: *Allo* products have social and cultural values in the country. In the eastern hills, *Allo* plants and products are used at the time of birth, marriage and during funeral. Especially, in Sankhuwasabha and Rolpa districts, people have very sentimental attachment with *Allo,* because of their cultural and spiritual values. *Allo* products are being used for curing heart and skin diseases in the USA and Europe even these days.

Support to subsistence economy: A large number of community level producers/processers in the hills have been managing a part of their livelihoods from the trade of *Allo* yarns and diversified *Allo* products. From *Allo*, various products such as ready-made cloth, place-mats, shawl, muffler and handkerchief are being produced. *Allo* business has very much potential to promote the income generation activities at the local level.

Job opportunity: Based on the norms of the MEDEP (2010), 42 man-days are required to make 100 kg raw yarn of *Allo*, whereas 2 man-days are required to make 1 kg of loom/thread. Therefore, a total of 93,361 man-days have been created by *Allo* raw yarn and thread making, excluding products making, in the districts being studied.

3.1.2 At Meso level

Understanding the economic benefit: Based on observation, interviews and consultation with community members in the study sites, input for production was found to be provided by the local people. Further, the local people, farmers and CFUG members as producers were involved in selling *Allo* yarn and products to the local traders or middle men, sales centre/Koshelee house, *Allo* Club, etc. in the district headquarters. The middlemen or traders had supplied the yarn and other products to the national level traders or whole seller, mainly in Kathmandu and Pokhara. Further, the national level traders had supplied or traded (retailing and whole sale) the products at the International level. The retailers were found to be confined to the district and national level. In case of *Allo* products, international consumers were found to be more benefitted as compared to the local and national traders. Hence, the *Allo* business is more attractive to traders who supply the products to foreigners. At the local level, the collectors were unaware of the value and importance of the *Allo* products at the national and international level trade due to poor information and sharing of the market price. Only the national and international traders have information about the value of wild fibres / nettles.

Policy and process: The NTFPs policy has provisioned collection, extraction and marketing of NTFPs in Nepal. All the collectors who were consulted during the study expressed that they were getting low price as compared to the price in international market. The traders were found to be frustrated from the transportation system because of torturing by officials at the check posts. However, four District Forest Officers mentioned that there was no complaint about the check post related to transportation of *Allo* products from different districts to Kathmandu and Pokhara.

Inadequate financial support: Local traders were found to be in difficult position due to shortage of money to invest in trade of *Allo* products. Collectors, in general, were very poor people and they were in need of wages at the spot. Most financial institutions were ready to provide loan for the *Allo* business with collateral only. However, the traders had no capacity to provide their collateral to get loan from the financial institutions.

3.1.3 At National Level

No concern on resource base: At the national level, it was found that there was not much concern about the sustainability of resource base. Further, the numbers of people /collectors were found to be increased in the villages, and there was a competition to supply the yarn to Kathmandu and Pokhara.

Variety of products: *Allo* has become a brand and it is mixed with other clothes, and used with carpet making products to supply to the international market. The pure *Allo* products have high value and the mixed products have also satisfactory price. Understanding of *Allo* products has gone up and *Allo* yarn mixed with silk, cotton and wool has high value in the international market.

Profit making environment: It is very difficult to find out the actual profit from the *Allo* products business, because the market is very sensitive. Competition among the limited traders was found to be high. Profit was dependent on those who had fixed the price of the *Allo* products. Generally, collectors and traders were involved in fixing the price of the raw materials. Therefore, the value of *Allo* products is not a matter of single decisions.

International market access: There is no formal market system of *Allo* products established yet. Most of the products were exported as clothes or in the name of Himalayan nettle. From the study, it was found that the profit of Nepali traders from *Allo* business was very minimal. The whole-sellers of the international market were benefiting more in comparison to the local traders and collectors.

3.2 Existing Types of *Allo* Products

3.2.1 Traditional Method

Mostly, *Allo* is harvested in the months between August and December every year. Most villagers have their traditionally reserved areas which belong to government forest, community forest, private land, and open access. After harvesting, the outer bark of *Allo* is separated and boiled in water with wood ash for 2-3 hours. After that, boiled fibre follows different processes such as beating, cleaning, mixing with white clay, drying, etc. After drying for 2-4 days in the sun, it becomes complete dry. Then the fibres are spun into yarn. The stem bark contains fibres with unique qualities, strength, smoothness, lightness and when appropriately treated, a silk like lustre.

3.2.2 Improved Method

Pure product: The pure *Allo* products are marketed at the local and international levels, but the products mixed with cotton, silk, wool, etc. are also available. Pure products have good market and fixed price in every aspect of products. Similarly, many carpet industries established in Kathmandu had used Allo yarn with cotton, wool and silk.

Mixed with hemp, cotton, wool: In some places, the products were made by mixing with Hemp and Jute, which were similar to the *Allo* products. But the price and quality of those products were found to be very low, as compared to *Allo* products.

3.3 Existing Process and Mechanism

A number of stages are required in order to make the *Allo* products marketable. In the process, one should use hands and equipment for yarn making, such as local Charkha, and electric Charkha. It was noticed that, due to the traditional technologies of the beating and spinning, collectors were losing 30-40 percent of raw materials. So, it was a great loss for the collectors and entrepreneurs.

3.4 *Allo* Diversification

At the local level (e.g., in Rolpa and Nuwakot districts), the *Allo* products (*Bhangra*, Mufflers, Coats, Bags, and Shawls, etc.) being made could meet the

market demand and local demand, despite the low price. The products made in Baglung, Dolakha and Sankhuwasabha districts were consumed mostly at national level (mainly Pokhara and Kathmandu). At the local level, the products were made mainly keeping in view meeting the local requirements like *Bhangra*, Mufflers, Coats, Bags, Shawls, etc.

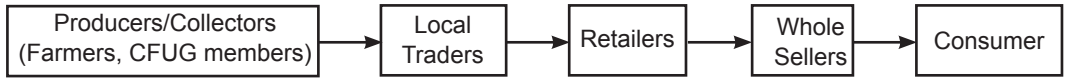
At the national level, both raw and ready-made products were found to be supplied to Kathmandu and Pokhara. Some traders were involved in selling readymade Allo products supplied by the local traders. Now-a- days, carpet industries have been using more volumes of *Allo* raw materials as well as yarn. Similarly, a large number of shops and stores with *Allo* products (Shirt, Coat, Jacket, Wallets, Half Paint, Vest, Shawl, Bags, Tea Mat, Dolls, etc.) are found in Kathmandu and Pokhara.

3.5 Value/Supply Chain

With the help of stakeholders, the research team prepared a value chain of *Allo* products. Based on the business structure, actors, and market channel, the value chain prepared is as follows (Fig. 1).

a) Business structure of *Allo*

b) Market actors of *Allo*



c) Market channel of *Allo*

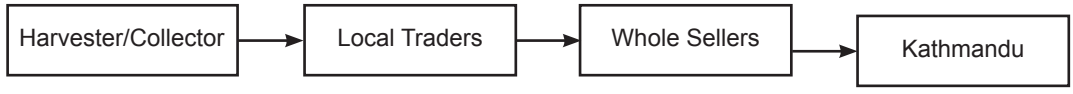


Fig. 1 : Business structure, actors, and market channel

3.6 Gaps on Diversification and Value Chain

3.6.1 Producer and Traders

A number of practical problems were found in the micro-enterprises,

especially in *Allo* products business. Firstly, the producers collect the raw materials from community forest, government forest, public and private lands. By following the processes, finally they make yarns which are being supplied for local market to meet the local demand. The producers had no access to the national market. They consult only the local/district level traders and share available information among them. There was inadequate flow of information and access for the real producers.

Similarly, at the national level, the carpet manufacturers have no idea about the provisions being mentioned in the forest law. The business is not transparent among producers and traders regarding the price of the products. The primary *Allo* goods producers were unknown about the market and products diversification, which create unstable business. It was found that there was very poor coordination among the producers and traders. Further, there were also gaps among the local, district, national and international traders' linkage regarding the price and quality of the products.

3.6.2 Policy Gaps

The Government had committed to play as a facilitator, catalyst and regulator in Medicinal and Aromatic Plants (MAPs) and NTFPs Development Policy - 2004. Although the policy had covered issues of poor, and given space for them by providing waste and barren land, the implementation part is very slow. Similarly, no national and international level trade centres on NTFPs have been established by the Government. Similarly, no proper attention has been given to exhibit fibre products as committed in the policy. The role of District Cottage and Small industry Office, Cottage and Small Industry Development Board and DFOs were not encouraging to promote *Allo* and fiber products as required by the entrepreneurs. Credit facilities through Bank and related institutions were found to be blocked at the field level.

In case of NTFPs business, there was a lack of information. In addition, NTFPs policy was found very much impractical at the local level. The local people were not familiar with royalty rate and trading provision for the *Allo* business. In very few cases, CFUG members and local level traders were aware of the rules and regulations. Similarly, some traders

had taken the collection and supply permission of raw materials and yarn products outside the districts from DFO. They pay NRs 5/kg as royalty to DFO and NRs. 2/kg for District Development Committee (DDC). The study realised that in order to promote the *Allo* products business at the local level, present policy provisions should be disseminated widely.

Although the Industrial Policy - 2011 had given the privilege to cottage and small enterprises and micro-enterprise promotion, yet not especially for the *Allo* enterprises. Further, the policy was silent on sustainable harvesting of *Allo* in the country. Collectors, producers and even some traders at the national level were not familiar with the Industrial Policy – 2011, MAP and NTFP Development Policy - 2004. The policy related to loan for promotion of *Allo* enterprise and its market at the national level is lacking. Similarly, either financial institutions were not familiar or they had not practiced to provide the loan to *Allo* collectors, weavers and traders and for Allo promotion at the district and central levels.

3.6.3 Marketing Channel Information

Transparency in the business is still in verbal and theory only. The business of *Allo* products has been promoted by few traders in Nepal. They are also struggling for the appropriate price and smooth business. The real producers had got very low price in comparison to the national market. From producer level to the district level, the market information of *Allo* products has not properly been shared each other. There is a variation in the price of pure *Allo* products from local to international market (Table 1).

Table 1 : Market Price of some *Allo* products (NRs)

SN	Type of product	District level	Central level Kathmandu	International
1	Bag	450-500	750-800	1200
2	Coat per piece	2700-3200	4500-5000	7000-10000
3	Shawl	700	1200	1900
4	Jacket per piece	3500	4500-5000	7000
5	Shirt	-	1500	4000

Source: NFA study team 2013

The price of raw material has been fixed by limited buyers, but the price of readymade products was fixed by whole sellers. Thus the market structure was found to be monopoly due to limited supply channel, limited shops and high value of wild nettle at the national and international market.

Out of the total traders (11) interviewed, 45.5 percent of them mentioned that they were not getting reasonable price of the *Allo* products. But similar numbers of the traders were happy about the price. It is recognised that there is a lack of proper market information flow on *Allo* Products in Nepal. The government policy is not providing any kind of privilege or support for *Allo* enterprises in the country.

3.6.4 Identifying and Developing Future Potential for Expansion

The existing NTFPs development policy on *Allo* products business is supportive. However, the policy should clearly spell out the management and trading provision of *Allo* with high value plants like *Lokta, Timur, Kaulo*, etc. The market channel of the *Allo* products had been established from local to national levels. The selling of *Allo* products had no significant problems, but there was fluctuation of prices and unorganised trading systems, which caused the irregularities on its business. So, the local level collectors, who invested more time, could not get reasonable price.

A limited number of people were involved at the local level. Similarly, a limited number of traders were involved in *Allo* business at the central level. Some traders had played the role of trader mediator as well. However, the price ranged from the local to national levels considerably. Hence, there is a need of market information mechanism and enhancement of the relationship between the local collectors and traders.

In recent years, carpet industries have used huge amount of yarn, hence its scope is increasing day by day. The market is not only confined at the national level, but the high possibility of market at the international level has provided good opportunities for future expansion of *Allo* products. To strengthen the *Allo* business, financial support is needed especially at the local level. Further, proper linkages among the concerned stakeholders are needed. There is a risk of *Allo* business, and problem in sustainability of *Allo* resource.

The existing institutions like DFO, DDC, Federation of Nepalese Chambers

of Commerce and Industry (FNCCI), CSI, *Allo* Cloth Production Club, and Community Facility Centres need networks to facilitate at the local level for sustainability of *Allo* resource. Coordination among stakeholders, improved road access, awareness raising, safety measures, improved affordable technology and its future sustainability are the major areas where concerned authorities need to focus to explore *Allo* products trade.

3.7 Positive and Negative Effect of *Allo* Products, Its Diversification, Supply Chain and Future Possibility of Expansion

3.7.1 Positive Effects of Allo Products

Allo, which is generally grown in sloppy land, helps in soil conservation, as the plants have creeping root system with high soil retention capacity; hence covers the soil and protects it from erosion. Similarly, as the successful regeneration of *Allo* plants are found on shady, swampy lands, and near water source areas where adequate moisture is available, the plants and sprouts densely cover the land surface resulting in soil moisture retention and conservation.

Allo also contributes to socio-cultural spheres. In Nepal, the ethnic groups such as Rai, Gurung, Magar, Tamang, and Sherpa in the hills have been involving in extraction and spinning the fibres to weave strong and durable bags, sacks, mats, jackets, porters' headbands and fishing nets. Kulung Rai in Sankhuwasabha district offers *Allo* cloth to the God on the occasion of their Nagi Puja. They wear Bhangra cloth when the daughter gets married. Similarly, *Allo* is a part of livestock feed, bedding materials, fuel wood and live fence, and leaf is used to treat headache, joints pain and fever. It can be used for making blue dye and paper. *Allo* seed contains 10-12 percent oil, which is used in soap and other oil based industries. In the economic sphere, the *Allo* related activities also contributes to creation of alternative employments opportunities at local, national and international levels.

3.7.2 Negative Effects of Allo Products

Maintaining *Allo* on the sloppy ground is one of the best methods to control soil erosion and landslides. *Allo* plants spread roots and hold the

soil surface and prevent water run-off mainly in rainy seasons. However, the over harvesting of the plants causes depletion of *Allo* resources and increases soil erosion, and the land becomes barren, thereby making the people to encroach the land for the purposes other than *Allo* production.

A lot of firewood required in the process of making *Allo* products and these fire woods are taken from the local forests. Over harvesting of firewood species also causes degradation in the forest. The yarn making is a time consuming job, despite the profit from it. Similarly, the transportation of *Allo* products and raw materials from the production sites to the district headquarters and Kathmandu or Pokhara has become difficult due to rent seeking culture of inspectors. It has discouraged micro-entrepreneurs. Besides, the health hazard aspect is always undermined by the villagers and ignored by the traders as well as government officials.

3.7.3 Positive Effects of Diversification

Sustainable use of resources: *Allo* products are made by hand, using local raw materials. Both types of *Allo* products, either pure or mixed, were found to have high value. Value addition of *Allo* products made by mixing with other materials (cotton, jute, hemp, wool, and polyester) had provided tremendous market opportunities to the collectors and traders. Moreover, it was found that the traders had addressed the choices or preferences of the consumers at the national and international market.

3.7.4 Negative Effects of Diversification

Despite the efforts made by the private sectors, still there are some issues raised in case of *Allo* products business. Firstly, assurance of quality products (mixed with hemp, jute, etc.) has become a challenge for the traders. The lack of improved technology at all levels has made the business hard and time consuming, which has increased the cost of *Allo* products.

3.7.5 Expansion Opportunity

a) **Sites available:** There is a plenty of land for *Allo* cultivation on private land and community and leasehold forest. In this concern, the Government has rules and regulations in place.

b) **Tools and equipments:** Local people have knowledge to produce *Allo* products since long time. Further, the government's commitment is for the support through policy and budget.

c) **Entrepreneurs' characteristics:** People involved in this sector are honest. They are committed to maintain honesty for long term business.

d) **Trade fair:** Government is organising exhibition and trade fair.

e) **Credit:** Some banking institutions have started to provide credit to *Allo* traders.

f) **Joint venture:** Government and MEDEP have jointly initiated training programme on spinning, weaving, designing, nursery techniques, planting, etc.

g) **Policy:** The Government's commitment is to formulate micro-enterprise development policy.

h) **Carbon trade:** There is a growing concern among the indigenous people and local communities to conserve the vegetation and participate in carbon trade.

3.8 Methodology for Assessing and Analysing Allo Products, its Diversification, Supply Chain and Future Potentiality of Expansion

To assure the quantity of *Allo* for supply and well-functioning of the business, one door system should be maintained in the country by forming 'a body' comprised of representatives from local producers and district level traders like CFC, *Allo* Clubs, DCSI, FNCCI, etc. The wing takes the responsibility to manage all types of *Allo* products of district, and supply through them to the national level and facilitates to maintain regularity of the products like quality, price/value, legal provision, etc. Likewise, one institution should be formed at the national level to facilitate the national level stakeholders related to *Allo* business and to regulate the supply of any type of *Allo* products from districts, besides the coordination role for the national level market.

The market of *Allo* products (called as wild or Himalayan nettle) from the local to international level still lacks its brand. So, the above mentioned institutions

should be responsible to make its brand title and assure its customers on its purity of product at the national and international markets.

The rules on trade of NTFPs stated in the forest laws, especially for *Allo* products, were not found to be properly implemented and strictly enforced by District Forest Offices. The district level authority such as DFO, Police, DCSIO and DDC should be strict to follow and enforce the NTFPs rules especially for *Allo* products, and the traders and suppliers should adhere to the provisions mentioned in the forest laws. If so, then the contribution from the single species of *Allo* to the national economy can be reflected.

The diversification of the *Allo* products is high, and these products have high potentiality and possibility of expansion. One separate sector like carpet industries mainly confined in Kathmandu valley have high demand of *Allo* raw, yarn or products. One *Allo* factory located in Swoyambhu area was producing a variety with high price/value of products for export purposes. Most shops of *Allo* products being visited had the readymade products targeted mainly at foreigners. Some were found to have supplied directly to Germany, the USA, UK, Switzerland, Japan, Canada, Spain, etc.

3.9 MEDEP's Interventions and the Environment

3.9.1 Issues

Sustainability of resources: As it appeared, the business is going to be collapsed soon, because no proper harvesting techniques and tools were used for sustainability of the resources at the local level. There is no inventory methodology/guidelines developed specially for *Allo* species, thus causing the resource depletion. There is an urgent need to provide intensive training on Allo management by mainly to the local level harvesters and collectors. The MEDEP should work in close coordination with district level stakeholders like DFO, DCSIO, DDC, Women Development Office (WDO), etc. At the moment, awareness programme on sustainability is needed to conserve *Allo* resources.

Pure *Allo* products: (a dream): In recent years, the diversification of *Allo* products is in large numbers from the local to national levels. The study showed that the raw materials like yarn and its availability in the market was not enough. It was observed that the processes from harvesting to end

products of *Allo* were found to be lengthy. It was really a time consuming and expensive. So, a tradition began to make Allo products, which were made mixing with Hemp, Jute, etc. Almost similar quantity of Hemp and Allo yarn were found to be kept in the trader's store in Rolpa district. There was no proper mechanism to identify the difference between *Allo* and Hemp yarn.

Disorganised trade mechanism: The study showed that significant numbers of people were found to be involved in *Allo* business at the local, district and national levels. However, no systems were found to be developed and proper linkages maintained among the traders and other organisations like CFCs, Koshelee shops, etc. Most of the *Allo* products were channelled through Allo Club, Himalayan *Allo* and Cotton Cloth in Sankhuwasabha district. There was no proper trading business, business linkages and coordination maintained by the traders; this had hampered the trade of *Allo* products. Due to such a situation, the individuals were more benefitted than the related organisations or collectors.

Market characteristics: It is well known that market has some characteristics, such as price of raw materials, price tag for each traders, official letters, check and balance of quality by the regulatory bodies. However, there was no system established for the *Allo* products business. It was mainly due to the Government, which is responsible for the facilitation and regulation of the policy. The officials from Cottage and Small Industry (75 percent) mentioned that there is a need of advocacy for federation to maintain the market stable.

Lack of brand: Till date, all types of *Allo* products have no any special brand. In this case, individual approach or contract is the only way of promoting *Allo* business at all levels. No brand means low satisfaction and dilemma of the products. Further, it creates low level of satisfaction among consumers and uncertainty of *Allo* market. So, every product made up of *Allo* yarn needs its legal brand name. The government's support in this area is urgently needed.

Use of child labour and health safety: It was found that carpet industries in the Kathmandu Valley had employed a number of labours, of which more than 70 percent were women. Most of the labours were boys and girls of age below 18 years. Most of the industries had not been running

with a proper working environment like working space, air circulation, and proper sanitary facilities. It is a serious issue of the rule and law, and also against the international labour rights provisions.

Of the total (12) collectors interviewed, 50 percent collectors mentioned that they had used thick cloth during debarking of *Allo* plants. However, 33.3 percent stated that they had used their hands only, due to which their hands were found damaged. The results showed that there was no provision of safety and healthy environment for the micro-enterprises in Nepal. According to 33 percent respondents, ash was used for colouring, 25 percent respondents mentioned that caustic soda was used in *Allo* processing and 25 percent stated that the mixed chemicals were used in *Allo* processing (like soil, caustic soda, ashes, kerosene, etc.).

3.9.2 Challenges on Allo Products Business

Policy change: There is an urgent need of overall change or revisit of the NTFPs policy in Nepal. Policy should incorporate promotion strategy for high valued NTFPs, like *Allo*, *Lokta*, etc. *Allo* business needs separate sub-plans in the District Forest Management Plan and CFUG's Operational Plan for collection, harvesting and marketing of the products. *Allo* products were not found transported and marketed through proper channels. Some traders had deposited royalty in the District Forest Office, and others had deposited to CFUGs.

Sustainability supply of the products: Resource sustainability is the basis of business. However, there was a lack of proper mechanism of harvesting the *Allo* plants, which created a serious problem in sustainable supply of Allo products. There is a need of awareness programme related to collection of *Allo* raw materials, harvesting and cultivation.

3.9.3 Problems

Collection equipments: The traditional harvesting tools like sickle and knife were found to be used by the collectors. No efforts were made by the government and non-government institutions to improve the harvesting system.

Beating and spinning: Raw materials of 30-40 percent have been lost due to the processing of *Allo* which is a huge loss for the individual

collector and the nation.

Storage: There is no proper storage plan and mechanism for *Allo* products. The storage of raw materials and yarns in wet places led to decrease in the durability of the threads. Coaching class on protection of Allo products from moisture is needed to the collectors and yarn producers; thus helping them maintain the quality and colour.

Transportation: In rural areas, *Allo* products were transported by people with high costs which definitely increased the production cost. To reduce such costs, there is a need of a store house nearby road access.

3.9.4 MEDEP's Intervention

MEDEP has been planning, implementing and monitoring the *Allo* product enterprises since long time. MEDEP should consider the following points for its future interventions.

- **Replication of successful components:** (***a) Social pillar:*** It is a remarkable work done by the MEDEP by forming local institutions like MEG, MEGA, DMEGA, etc., which have helped to foster the micro-enterprises in Nepal. Further, yarn making and *Allo* business have created jobs in Nepal. (***b) Biophysical pillar:*** *Allo* is seen as waste plants in most of the rural areas. But the minor product has become a major resource for uplifting the livelihoods of poor, women and indigenous people. ***(c) Economic pillar:*** The business of *Allo* products has become an income source for the local people and created jobs in the villages.
- **Revision of the activities:** There are a number of justifiable policy, procedures, and actions in the present *Allo* products business. Despite the stakeholders' efforts, there are still areas which require revisions and review before continuing the existing business. Some of the areas include: sustainability of *Allo* plants as raw materials, supplying of yarn or cloth in the market, transportation hurdles, and royalty rate and procedures/directives for collection and sale. Further, the role of development partners like MEDEP has to be revised ,and it should work for mainstreaming the line agencies through DDC with clear cut detail plan and action plan to change the present scenario

- **Avoidance the following activities:** It is well understood that sustainable business requires continued supply of raw materials, predictability and durability. Therefore, the following activities should be considered during the *Allo* product business.
  - Stopping of harvesting without resource inventory
  - Not going for business without business plan
  - Stopping of harvesting without development of plantation or protection mechanism
  - Not using chemicals, if possible., in the process of yarn making
  - Not collecting *Allo* before maturing the plants.

3.10 Developing More Effective Allo Products

In order to develop more effective *Allo* products, the following points should be followed:

- Harvesting matured plants only: product harvesting
- Introducing renewable energy/ electricity for boiling
- Providing training at Common Facility Centres for better products
- Adopting appropriate technology in production of quality yarn
- Providing post training support
- Preparing business plan
- Linking with designers, fashion designer at the national and international level
- Participating in the South Asian and international exhibition of micro-enterprises
- Arranging international exposure visits for regional and central sales centres/ traders
- Blending the *Allo* product business with other NTFPs in off seasons as well
- Registering *Allo* product-based market network
- Developing appropriate tax system

3.11 Present Quantities of Allo Yarns in Carpet Industries, and Future Demand

Raw materials: The study team found the carpet industry using 7- 8 percent of the *Allo* yarn, 30-40 percent of Hemp and remaining of wool, cotton and silk. It is necessary to identify the volume of environment friendly *Allo* yarn and cotton silk to meet the future requirement of the carpet industries in Nepal. The wool is imported in high volume from Tibet. It is the main material of the carpets. Silk comes mainly from China and India. Most of the carpet industries were using *Allo* products heavily. They had received the yarn as per demand (MEDEP, 2013). Cotton threads are mainly used to make loom (*Taan*). It is strong, durable and extensively used in carpet making.

Trade of carpet: The consumption of *Allo* and Hemp in the carpet industry is high. It is the best alternative resources to Tibetan wool, which is heavily imported from Tibet. It saves the foreign currency and provides employment opportunity in the country. The use of Hemp was found to be higher than *Allo* in making carpets mainly due to the processing problems in *Allo*. The market in the name of 'wild Nettle' was found very high, but it is necessary to mention the species used for making yarn on the tag.

The demand of *Allo* yarn was found to be very much high in carpet industries. Due to the lengthy and traditional process of making yarn at the local and national levels, the cost of *Allo* products was found to be higher than the cost of products made of Hemp, cotton and silk thread. So, the owners of the carpet industries were reluctant to use pure *Allo* yarn, and they had mixed with Hemp, jute, silk and cotton. The demand of pure *Allo* product was very high but the traders were found to be involved in supplying them as wild nettle in carpet industries.

Import substitute: The average consumption of *Allo* yarn was estimated at 8 percent of the total raw materials (Sheep wool, *Allo* yarn, silk, etc.) used in carpet making in Nepal. The export quantity of carpet in the year 2012/013 from Nepal was 4, 79,277 sq. meters to overseas. As per the above estimation, 38,400 sq. meter of *Allo* carpet was produced in Nepal. It is estimated that 1 sq. meter of carpet requires 4 kg of yarn from Sheep wool. In the year 2012/13, 153.6 tonnes of Sheep wool import was substituted by *Allo* yarn.

3.12 Export Value of Different Allo Products

Carpet industry is the successful enterprise with highest foreign currency collection sector in Nepal. More than 1700 carpet industries were established in the past. However, at present, the number decreased and reached at only 890. *Allo* yarn consumed for carpet industries is around 100 tonnes per year. The demand has not been fulfilled, and very difficult to say on the supply of *Allo* products at the international market. The international market requires more than 300 tonnes per year of *Allo*. Some issues faced by the carpet industries in Nepal include unnecessary legal burden from District Forest Office, Police check posts during transportation of *Allo* and Hemp products. The quality and quantity of *Allo* products are not available as required by the market. Therefore, the future scope of the *Allo* made carpet is bright. .

In FY 2012/13, the total income from carpet export to third countries was 4, 79,277.44 sq. meter, which valued US$ 61,011,829.39. Of the total quantity, 8 percent of *Allo* products were used in carpet. Therefore, 38,342.19 sq. meter made from *Allo* products was valued US$ 4,880,945.68 (as export value). It showed that the importance of *Allo* products was found to be increasing at international level. Apart from the carpet industry, there are a number of traders engaged in supplying *Allo* products to foreign countries.

3.13 Ways to Effective Allo Products Business Development

To make effective business development of *Allo* products, the followings points are recommended.

Improve existing tasks and process: The existing traditional method of yarn production process is more time consuming. Hence, the harvesting and debarking system need to be improved by providing better equipments and debarking with gloves. The boiling system should also be changed to electric system, from the use of firewood.

Business ethics: Due to the high demand of yarn at international market, the actors should play ethical role to save *Allo* plants and for sustainable harvesting. Human capacity should be strengthened right from the collection to yarn making.

Information sharing: There is very limited information on *Allo* products due to the poor support system of the government. District Forest Office must be an

entry point to collect the *Allo* information. Further, District Cottage and Small Industry should play a vital role to run *Allo* business and generate information. Information such as distribution of Allo plant, productivity, collectors, traders and market should be made available.

Entrepreneurship development: This business is based on *Allo* resource and must be used on the basis of the regeneration and availability of *Allo*. Therefore, there must be business plans and action plans for the use and supply of yarn to national and international market. Entrepreneurship is especially needed at meso level.

Share sale experience: This is a newly introduced business at the international market. Hence, the experience sharing on *Allo* business is vital to make the business more effective.

Alliance with other NTFPs business: Although the *Allo* products business is a highly promising business, but the off time business has to be incorporated. It would help the collectors and traders to run the NTFP's business in a sustainable way.

Financial support: *Allo* products business requires investment, but the traders are lacking money to invest in the rural areas. There must be a mechanism developed to support the traders by providing credits through banks as soft loan without collateral.

Business plan: Business plan must be prepared. All the resources such as infrastructure, social, human resources, financial availability, and legal arrangements are a must. Further, the policy and institutions should be strengthened.

Sustainable resource collection: Predictability is a key element in any business. There must be enough resources for the *Allo* products business. Hence, *Allo* threads collection and supply to the traders should be based on the information and resources.

Consumer's choice: Market is based on consumer's choice. Products should be made, as per the demand and choice of the consumers.

Marketing: *Allo* products are not limited with local trade alone. Therefore, it should be linked with local, regional, national and international markets.

4. Conclusion and Recommendations

Allo products have been used by the local people of Nepal since long time as socio-cultural values. In recent years, traders are more diverted towards the sale of *Allo* products to foreign countries. Despite the efforts in *Allo* business promotion from the Government and MEDEP, the local people are expecting more support to sustain their business.

The role of *Allo products* is significant in the local and national economy. It is found that *Allo* resources are available, and the local and national traders are getting more experience in *Allo* products trade. Further, the use of *Allo* yarn in carpet making is increasing, which has demanded more Allo products in these days. To meet the growing demand of *Allo* products, there is a a need of an action to be taken especially at meso level by the government and donor partners in resource management, diversification, value chain and marketing. There is a great potentiality of expansion of *Allo* products business. In order to improve the present situation, as well as for the Government and MEDEP to take initiation, the following recommendations have been drawn.

4.1 Resource Sustainability

- Conduct inventory of *Allo* and Hemp in 58 districts and incorporate Allo management into the District Forest Management Plan (e.g., Community forestry, Private forestry, Leasehold forestry, Buffer Zone Community Forestry)
- Conduct Initial Environmental Assessment prior to harvest *Allo* to maintain annual allowable harvest.
- Establish monitoring system to follow up the *Allo* harvesting and seeding time to secure the sustainability of Allo plants for long-term *Allo* products business in Nepal
- Raise *Allo* seedlings by establishing nursery and carry out plantation activities of *Allo* in the districts
- Allocate adequate budget for preparing *Allo* guidelines, resource inventory, resource creation, and monitoring the activities
- Encourage leasehold forestry for promotion of *Allo*
- Develop mechanism to provide financial incentives for *Allo*

conservation groups, enterprise groups, supporting institutions and individuals.

- Implement *Allo* production, protection, business plan at cluster level
- Prepare action plan jointly among MFSC, MoI, and Ministry of Federal Affairs and Local Development (MoFALD) for product diversification scheme.
- Develop separate harvesting and management guidelines for the field staff.

4.2 Product Diversification

- Conduct market survey and mapping of the existing enterprises demanding *Allo* products.
- Organise *Allo* products exhibition/ trade fair in and outside the country
- Invite renowned fashion designers from the overseas for producing diversified *Allo* products
- Organise *Allo* fashion show at the national and international level
- Encourage youth, women, Dalit, Janajati, poor segments of the society
- Encourage micro-entrepreneurs and support for the development towards small, medium to large industry.

4.3 Value Chain

- Encourage the local collectors, district traders, national traders and international traders to get reasonable price of *Allo* products at all levels.
- Establish Market Information System (MIS) on Allo and Hemp products at the district and central levels
- Prepare guidelines for harvesting, collection, yarn making, transportation and sale of *Allo* products
- Establish e- business

- Review existing royalty system (bark, yarn, etc.)
- Reduce cost of production with the help of appropriate technology and training
- Link *Allo* business with other NTFPs
- Settle the conflicting policy on NTFPs among MFSC, MOI, MoFALD and Ministry of Agriculture Development
- Support at meso level so that traders and collectors will be benefited from the emerging market of *Allo* in the international level.
- Make sub contract with the micro-entrepreneurs outside the Valley by large carpet industries.

4.4 Future Expansion Potentiality

- Establish new *Allo* cultivation practices on private land, community and leasehold forests
- Supply advanced tools and equipments for spinning, using local knowledge
- Supply fibre products by mentioning clearly the source of products with honesty, e.g., either *Allo* or Hemp or mixed
- Provide opportunity to traders and *Allo* resource managers for participating in the overseas exhibition / trade fair / fashion show events
- Provide loan to local traders and international traders without collateral
- Encourage plantation of *Allo* on the degraded land
- Provide training to the local collectors and weavers on spinning, weaving, designing, nursery techniques, planting, etc.
- Formulate pro-micro entrepreneurs and micro-enterprise development policy
- Declare *Allo* year and *Allo* product districts
- Conduct intensive programme by selecting pilot districts (Shankhuwasabha, Dolakha, , Parbat, Rolpa and Doti)

- Utilise carbon trade mechanism and conduct research on impact of climate change on Allo.
- Involve FNCCI, CCIAN, and other associations in the planning, implementation of the *Allo* business.
- Develop linkage between *Allo* business and associated businesses.
- Provide improved technology, especially for beating and spinning machines
- Conduct detail study of existing carpet industries to estimate the demand of Allo as substitute of other raw materials.

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Resource Analysis of Chyuri (Aesandra butyracea) in Nepal[6]

1. Background

Millions of people worldwide depend on the harvest of non-timber forest products (NTFPs) for their livelihoods (Vedeld *et al.,* 2004). Over the last two decades, the importance of NTFPs has been globally recognised as a key component of health care and biodiversity conservation as well. However, Nepal has not been able to adequately utilise them. There is a general lack of sustainable production practices together with inappropriate harvesting and post-harvest practices, inappropriate value addition, poorly organised marketing information system, and lack of standardised production system, which hindered international recognition of Nepali NTFPs and posed challenges to maximise equitable economic returns (Poudel, n.d.). The NTFP sector in Nepal is expected to grow fast in the coming years and continue to play a vital role in the national economy. However, in the absence serious efforts, this will lead to the erosion and degradation of NTFP resources and un-sustained availability of quality raw materials. In order to cater to increasing levels of commercial demands of NTFPs by a broad range of people, more careful assessment of NTFP resource base management and sustainable harvesting of NTFPs have become a mandatory.

Realising the cognisance of resource sustainability, the Government of Nepal (GoN) is emphasising the need to assure sustainable harvesting in wild and commercial domestication (i.e., *ex-situ* cultivation) of important plant resources. Many development agencies have been supporting this government initiative by providing grants, loans and technical assistance. As a result of these efforts,

6 Study conducted by MEDEP with technical support from Dr. Surendra Joshi, 2010.

the areas under cultivation vis-à-vis production of several forest resources, like *Asparagus, Amla, Gheukumari* have rapidly grown over the last few years. However, the actual status of distribution and economic potential of such plants in the wild has not been properly documented. Similarly, *Aesandra butyracea* is one of various tree species commercially harvested for its butter throughout the low hilly areas of Nepal, and all parts of the plants are used for a variety of purposes. However, despite its very high socio-economic importance to local communities, very little information is available on the geographical and ecological coverage of the trees and status of resource availability. In considering these contexts, the present study was undertaken within the overall framework of the Micro-Enterprise Development Programme, which is a joint initiative of the Government of Nepal and United Nations Development Programme. The main aim of the study was to assess the major production areas and production quantities of the *Chyuri* fruits that will be useful for the promotion of local resource based enterprises.

2. Materials and Methods

The study was carried out adopting multiple research methodology, which included review of secondary information, and collection of primary data through key informant survey, field observation and sample survey techniques. A standard set of questionnaires and checklists were prepared for different groups of stakeholders in order to document the information relating to trends in production, local perceptions of resource availability, market condition, local uses, etc. Informal interactions and semi-structured interviews were held with various professionals and enterprises involved in making use of *Chyuri* products. The secondary information was collected from the published documents, internet data and reports.

This study used the (i) information related to availability of *Chyuri* trees in certain districts and VDCs (obtained from the District Forest Office, MEDEP personnel, and local people through telephone, e-mails, fax and postal mails), (ii) existing reports and research publications on availability and analysis of *Chyuri* in Nepal and neighbouring countries, (iii) land cover of whole Nepal, a GIS (shape file) layer, (iv) Digital Elevation Model (DEM) of whole Nepal, ninety meter resolution (raster grid format), (v) administrative area of whole Nepal (with VDC), (vi) information on location of *Chyuri* plants in some sample pocket area, captured

by Global Positioning System (GPS) and (vi) data regarding roads and rivers, a GIS (shape file) layer and (v) land-cover (Forest cover). These different geographical information system (GIS) layers available from different sources were converted in the same projection system and made ready for overlay and further analysis. The *Chyuri* potential areas were extracted by using GIS overlay operation of administrative layer with *Chyuri* area, Forest cover and DEM layer within the elevation of 1000 m – 2500 m. The *Chyuri* potential area, thus identified, was visualised on GIS map with proper symbolisation.

3. Assessment Findings

3.1 General Overview of the Butter Tree

3.1.1 Description of the Plant

Chyuri, Aesandra butyracea, *is a deciduous multipurpose tree, naturally occurring in subtropical and warm temperate areas throughout the Himalaya; from Kumaon hills in the state of Uttarakhand in India through Nepal to Sikkim, Darjeeling, Bhutan and Arunachal Pradesh in the eastern Himalaya. The plant is commonly known as butter tree throughout the Himalaya. In Nepal, it is commonly known as* 'Chyuri'.

Chyuri tree is considered to be a good soil binder and could be of immense value for promoting soil conservation. The tree provides habitat and food for a large number of animals and insects. Children, monkeys and *langur* shake the flowers and collect nectar for drinking. A large number of honeybees, wasps, hornets and other insects are found collecting nectar.

Due to its value as multipurpose tree, the people in *Chyuri* threshold areas of Nepal generally do not chop up or fell the chyuri trees. They apply their own traditional way of tree management. There are a couple of development organisations supporting for the conservation and management of *Chyuri* plants. Yet, there is still a very little information available on its ecology and biology. Likewise, there is little published information about cultivation, tending and management of *Chyuri* in agro-forestry systems or as a plantation fruit tree. Moreover, the resource availability in terms of quantity of butter, population size and trend of *Chyuri* trees has not been precisely documented.

3.1.2 Physiological Characteristics

Taxonomically, *Chyuri* belongs to the plant family called Sapotaceae. The botanical characteristics of this species are well described by Boxburgh (1809), which could be perhaps the first documented information on morpho-physiology of *Chyuri* plant.

Chyuri tree grows up to a height of about 20 m, in hill slopes between 300 and 2000 m above sea level. The tree is usually found scattered in wastelands, pastures and cultivated fields near the villages. The tree also occurs singly or in small groups as a natural component of broadleaved forests, especially in association with simal (*Bombax ceiba)*, koiralo (*Bauhinia variegate)*, amla (*Embelica officinalis)*, sal (*Shorea robusta*), buddhairo (*Lagerstroemia parviflora*), dhayo (*Woodfordia fruticosa*), tatari (*Dillenia pentagyna*), barro (*Terminalia bellirica*), padke (*Carpesium nepalensis*), tanki (*Bauhinia purpurea*), saj (*Terminalia alata*), Bhalayo (*Rhus succedanea)* etc. *Chyuri* has a long flowering period beginning in September and lasting to February. There seems to be two different varieties of *Chyuri* plant: (i) early flowering variety grown in the western region, and (ii) late flowering variety grown towards the east. Due to differences in flowering time, beekeepers of Chitwan district first bring their bee colonies to Dang valley, and then they bring back their colonies and place in Lothar, Silinge and Shaktikhor area of Makwanpur and Chitwan districts for production of *Chyuri* honey.

Bark is dark grey or brownish and slightly fissured. The timber is white, soft, and porous; and is nearly as light as the *simal*, or cotton tree (*Bombax ceiba*). ***Leaves*** are alternate, petioled, obovate-cuneate, obtuse-pointed, veins are simple and parallel; six to twelve inches in length and three to six inches in breadth. ***Flowers*** are creamy white, long stalked, usually crowded in fascicles on the leafy axis and have a soft, sweet aroma. The number of flowers per fascicle varies from 50 to 72. A full grown tree can produce up to 90 kg of flowers in a year (Encyclopedia India). The gathering of the flowers nectar for making 'gur' is an important business for rural people. ***Fruits*** are light green when young and become yellowish or orange in colour when fully ripe, scented and sweet in taste. Berry oblong, generally pointed by a remaining portion of the style; smooth, fleshy, containing one, two, or three large seeds. The average fruit yield

was estimated to be 5–155 kg per tree in different girth class sizes (Sundriyal and Sundriyal, 2003). Pulp of the fruit is sweet and juicy, but cannot be stored for a longer time due to low keeping quality. ***Seeds* are** oblong, rather round than flat, but differing in shape according to the number contained in each fruit; smooth, shining, light brown, lanceolate, lighter coloured, less smooth, umbilical mark on the inside. On opening the shell of the seed or nut, the kernel appears of the size and shape of a blanched almond. Its seed kernel contains saponins. According to literature, the yield of oil is 42-47 percent of the weight of seeds. The viability of seed is very low which adversely affects its regeneration.

3.1.3 Socio-economic and ecological importance

Chyuri is amongst the most important NTFPs that are utilised for an array of purposes by the rural households. The plant is well known for the butter or oil, which has traditionally been used for daily cooking, and also for lighting lamps. The oilcakes are used as manure with pesticidal properties, as fish poison and as feed for animals after detoxification. *Chyuri* flowers are extensively visited by honeybees and hence beekeeping is very popular in areas where *Chyuri* trees are abundant. The juicy pulp of ripe fruit is eaten fresh. They also produce good fuel wood, hard and durable timber, and the leaves are used as tree fodder in many areas in Nepal. In addition, *Chyuri* has a very important cultural value in Nepal, especially in Chepang community, where the people give *Chyuri* plants as dowries to their daughters indicating its significance in the livelihood of the Chepang community (Bhattarai *et al.,* n.d.; Practical Action, 2008). Table 1 provides some common usages of *Chyuri* trees.

Table 1: Some commonly cited uses of *Chyuri* products[1]

Plant parts	Uses
Bark	• Bark of the tree is used in the treatment of rheumatism, ulcers, itching, and hemorrhage, inflammation of the tonsils, leprosy and diabetes. • The bark contains 17 percent tannin, and is used in tanning, dyeing and as a fish poison.
Wood	• People generally do not fell the trees for timber. If the trees are felt down then the wood is used for making handles of tools, furniture, sheds for animals and constructing fences. The small branches are used as fire wood.
Leaves	• *Chyuri* leaves are valuable as fodder for cattle and other livestock, especially when other fodder sources are rare during February to April. • Leaves are also used as food plates and cups.
Flowers	• Flowers are extensively visited by honeybees for collection of nectar, • It is one of the rare plants in the world from which nectar can be collected without aid of honeybees for making juice, jam or Gur
Fruits	• The fruits are eaten raw, while working in the field or forest. • The fatty juice from the fruit is used for making sweets or brewed for making alcohol (*Rakshi*). • The residues after juice extraction contain many saponins and are used for washing clothes and also as insecticides.
Oil or butter	• The oil and butter is used in daily cooking • The butter is used for religious purposes such as structuring religious figures or offering butter lamps. • The oil and butter is used to make value added products like, soap, candles, chocolates • Oil is used as an external ointment to ease rheumatism, paralysis and sprains. • Butter is a valuable preservative for mustard and sweet scented oils.
Oilcake	• The oilcakes are used as manure with pesticidal properties, as fish poison and as feed for animals after detoxification. • The oilcake contains saponins and act as detergent. • Also used as insecticides in chilly plantations to control cutworms, *Agrotis ipsilon* (Lepidotpera, Noctuidae).

[1] Cited from Khanka, 2009; Tshering, 2007, Joshi & Pechhacker, 2001; Practical Action and MEDEP Reports

The plant is also important from the ecological point of view. *Chyuri* products and byproducts considerably contribute to the livelihood of people. A large number of people in the hills earn substantial amount of cash from the sale of *Chyuri* butter, honey and other value added products.

3.2 Geographical and Ecological Coverage of *Chyuri* in Nepal

Chyuri Tree Grown in its Natural Habitat in Rolpa

Geographical distribution of *Chyuri* extends from Darchula, Baitadi and Dadeldhura districts in the western region to Dhankuta and Ilam districts in the eastern region of Nepal. Region-wise, the highest numbers of trees are found in the mid-western development region (MWDR), followed by the far western development region (FWDR), western development region (WDR) and central development region (CDR), respectively. Whereas, the eastern development region (EDR) consists only 7 percent of the total trees found in Nepal. Of the 75 districts in the country, almost 50 districts are known to have *Chyuri* plants. Of these 50 districts, Baitadi, Dadeldhura, Doti, Surkhet, Jajarkot, Rolpa, Rukum, Pyuthan, Dang, Arghakachi, Makwanpur, Dhading and Gorkha have large number of *Chyuri* trees. Besides, a meager number of trees can also be found in other VDCs of districts like Jaire, Maila, and Kalika VDC of Humla, Thuhethata VDC of Panchthar, few places in Kathmandu and Lalitpur. But in these districts, *Chyuri* plants are either introduced as an ornamental plant (for example in Bhirkutimandap of Kathmandu) or sparsely occurred in natural habitat, but their fruits are not commercially utilised by the local people. Hence, these districts are not considered as *Chyuri* potential districts.

Chyuri is microclimate specific plant, found in patches in between the Churia and Mahabharat range. There is high variation both within and across the districts, especially in terms of number of trees, production of fruits and quality of butter extracted. Generally speaking, the eastern part of the country has a fewer number of trees than the western part. The plant occurs singly or in small groups as a natural component of broadleaved forests as well as on agricultural land. In recent years, some people have also started the plantation

of the trees in their private land and community forest area. Yet, it is not very attractive to small farmers for plantation in farm land, since it is a slow growing tree and covers a big land area under its shade.

3.3 Resource Potential for Enterprise Promotion

There is a wide variation in production potential of *Chyuri* trees. For example, Sundriyal and Sundriyal (2003) reported the average fruit yield of 13.7 kg/tree, with minimum of 5 kg per tree to maximum of 155 kg per tree in different girth class sizes. Similarly, Practical Action (2006) reported average fruit yield as 100-800 kg per hectare or 1-14 kg per tree. While, Bhatta (1996) reported the yield of butter at 50-125 kg per tree and production potential of 'Gur' at 30-37 kg per tree, Bhatta and Adhikari (2003) reported that from a single tree one can get 694 kg of fruits containing 240 kg seeds, which yield 127 kg of butter and 103 kg oil cake.

According to the statistical extrapolation, there are a total of 5.6 million *Chyuri* trees at fruit bearing stage in the country. If the average fruit yield per tree is considered as 67.3 kg, then the total fruit production of the country could be estimated at 378,605 metric tonnes (MT). Considering that 4 kg of fruits give 1 kg seeds; the total quantity of seeds and butter produced throughout the country could be 94,651 MT and 37,245 MT respectively. It is also extrapolated that one *Chyuri* tree bears 30,298 flowers, and each single flower secrets 27.9 micro litre of nectar per day. If sufficient numbers of honeybee colonies are managed in *Chyuri* threshold areas, approximately 17,825 MT of *Chyuri* honey can be produced in the country.

As it appears, there is tremendous scope and resource base for establishment of micro and small enterprises in the rural areas. Some of the key areas for establishment of *Chyuri* based enterprises are discussed below:

Chyuri butter based enterprises: There exist a number of value added products which can be made out of *Chyuri* butter. If proper training and technical backstopping support is provided, the rural people can make these products locally. At present, *Chyuri* dwellers manage to harvest only a small quantity of fruits. Since the trees are very tall and mostly found in slopes, it is hard and tedious job to harvest fruits. It is also difficult to extract

butter with traditional tools and techniques. Hence, keeping in view the increasing demands of *Chyuri* butter for making value added products, it seems necessary to set up improved oil expeller for the commercial production of *Chyuri* butter.

As mentioned above, the production potential of *Chyuri* butter in the country is estimated at 37,245 metric tonnes. The average price of butter in the villages is NRs. 150 per kg (ranges from NRs 70 to 200 per kg), which means the total quantity produced in the country is worth of NRs. 5,587 million. If all the potential quantity of butter is harnessed, hundreds of micro and small enterprises can be operated in the villages. An enterprise that targets to sell herbal soaps (@NRs 20 per 80 gram piece) worth of 200,000 requires producing 10,000 pieces of soaps. Taking commonly used soap making formula into consideration, it can be said that in one batch of preparation, 1.67 kg of butter is needed to make 72 pieces of soaps. That means to make 10,000 pieces of soaps; a total of 232 kg *Chyuri* butter is required.

In recent years, *Chyuri* butter and other vegetable oils are being popularly used in pharmaceuticals, cosmetics, herbal soaps and Palmolive industries. According to Mahaguthi that purchases *Chyuri* soaps from micro-entrepreneurs of Pyuthan, there is good market potential for export of *Chyuri* herbal soaps, but inconsistent quality, irregular supply and untimely delivery of the products pose problem in dealing with export market. In order to make optimum use of the resources, there is a need to create awareness, build capacity and strengthen market linkages (both backward and forward).

Beekeeping and honey processing enterprises: The next enterprise that directly depends upon *Chyuri* forest is beekeeping. Traditionally, beekeeping with native hive bee, *Apis cerana,* is very common in areas where *Chyuri* trees are prevalent. Beekeepers in *Chyuri* threshold areas can earn as much as one third of total cash income from the sale of honey and beeswax. Since beekeeping requires minimal start up investment and generally yields profits within the first year of operation, it is very suitable for poor and low income groups. Moreover, honeybees create win-win situation between environment and income generation; they

help maintain biodiversity by providing pollination services and increase incomes through the production of honey and other bee products.

Honey produced by bees from the flowers of *Chyuri* trees has fine granules, sweet soft aroma and pleasant taste. It is one of the most popular unifloral honeys that fetches good price in the local market and has high demand in the international market. *Chyuri* is among the very plants that have long blooming period and provide abundant nectar for bees. The nectar secretion per flower per day ranged from 13.8 to 51.9 (average 27.87) micro-litre with solute concentration of 25-44 percent (Joshi and Pechhacker, 2002). The flowers are intensively visited by honeybees for collection of nectar and its pollen. As a rich source of nectar, coupled with a long blooming period, *Chyuri* provides enormous opportunity for the production of honey (Joshi and Pechhacker, 1999).

In recent years, *Chyuri* threshold areas, like Dang valley, Lothar in Makwanpur, Shaktikhor in Chitwan have become favourite destinations for migration of *Apis mellifera* colonies. As *Chyuri* grows in pristine land and produce enormous quantity of nectar, it is highly feasible to produce organic honey from the nectar of *Chyuri* flowers. Keeping in view the number of *Chyuri* trees available in the country, approximately 17,825 metric tonnes of *Chyuri* honey can be harvested. However, the beekeepers are able to harness less than one percent of the total potential. This is mainly due to lack of road access to various *Chyuri* threshold areas, improper placement of bee colonies and lack of adequate skills to mange bees and harvest honey.

With proper training, technical backstopping and development of infrastructure, beekeepers can earn significant amount of cash from the production of honey and other bee products. Even if only 50 percent of the total honey production potential is achieved, beekeepers can generate significant amount of revenue from the sale of honey alone. This can generate employment opportunities to a large number of people in various areas of apiculture (e.g., hive carpentry, beekeeping, colony migration, and honey collection, processing and marketing).

Nectar and pulp based enterprises: *Chyuri* is among a very few plants, from which flowers' nectar can be collected without aid of honeybees (Crane). People, especially in the Far West (e.g., Darchula, Baitadi and Dadeldhura districts) shake the flowers to collect nectar. This nectar after prolonged steaming is made into sugar candy, locally called '*Gur'* (Joshi and Pechhacker, 2002). This sugar candy is highly prized for its nutritive value and is also used to cure several diseases (Awasthi, 1994).

Nepal offers potential for an estimated production of 378,605 metric tonnes of *Chyuri* fruits. In most areas, fruits are eaten fresh. At present, only a small amount of fruit pulp is used for edible purposes by local people. In some areas, fruit juice is traditionally extracted to make *Rakshi* (locally brewed alcohol). Making squash by adding sugar and some preservatives is also taking place in some areas with the support of development agencies. Yet, the huge amount of pulp gets wasted due to lack of appropriate processing techniques and poor access to market. There is a strong need to provide training and technical backstopping support for making squash or fruit juice from *Chyuri* fruits. The promotion of squash making techniques and its packing and marketing can lead as a small but peculiar trade in the country. *Chyuri* pulp can be used both in confectionery and juice factory.

Paper plates and other enterprises: Disposable plates can be made from the *Chyuri* leaves, which can replace the use of paper plates in the market to some extent. It can be developed as a small enterprise for local as well as distant markets. *Chyuri* also provides good quality durable wood for making furniture, but it is not encouraged to fell down the trees for harvesting timber. Since it is slow growing trees, it is also not good to cut the young branches while collecting leaves and fruits.

3.4 Potential for Employment Creation

Chyuri based activities offer strong potential for part-time as well as full-time employment opportunities. Thousands of rural households get engaged in harvesting and collection of *Chyuri* fruits, drying and roasting of kernels, expulsion of oil, migration of bee colonies to *Chyuri* threshold areas, harvesting and marketing of *Chyuri* honey, collection of flower's nectar for making '*Gur'*

etc. According to an estimate, if the total potential quantity of butter is utilised for soap making, 160 herbal soap making enterprises can be established in the country. These enterprises can generate full-time employment for about 800 people (Table 2).

Table 2: Potential Number of Butter-based Enterprises

Development Region	Estimated Quantity of *Chyuri* Butter (Kg)	Potential Number of Enterprises (estimated @ 232kg butter per enterprise/year)	Potential Number of Full-time jobs
Far Western Region	10,646	46	230
Mid Western Region	13,335	57	285
Western Region	5,755	25	125
Central Region	4,877	21	105
Eastern Region	2,632	11	55
Total	37,245	160	800

Based on the estimated number of *Chyuri* trees and quantity of nectar secreted by a flower, about 594,000 honeybee colonies can be managed in *Chyuri* threshold areas during *Chyuri* blooming seasons. This offers part-time employment opportunities to thousands of rural people for carrying bee boxes from road-head to the *Chyuri* forest areas. Assuming that one person carries 5 bee boxes a day from road-heads to the apiary site, 119,000 person days of work can be estimated in colony migration. Similarly, a large number of rural people can also get employment in harvesting, processing and marketing of *Chyuri* honey.

3.5 Potential for Export or Import Substitution

Palm oil is popularly used in various industries across the world. Nepal's neighbouring countries (China, India, Pakistan and Bangladesh) are among the major importers of palm oil. China is on the top of the list that imports palm oil worth US$ 3.78 billion, followed by India with a total import value of US$ 1.6 billion. Since palmitic acid content of *Chyuri* fat is 56.6 percent (Khanka *et al*., 2009), its butter can be used as substitute of palm oil. Various reports and anecdotal evidences suggest that *Chyuri* butter has unique characteristics, which are better suited for making skin care creams and other cosmetic products. If *Chyuri* is properly processed and packed it can offer strong potential not only

to substitute the import of palm oil, but also finds its place in the export market.

In recent years, *Chyuri* has become a resource of commercial interest for several national and international companies/entrepreneurs. *Chyuri* butter is increasingly used in making soaps, creams, shampoos and other value added products. *Chyuri* butter offers great potential for import substitution of palm oil and other base materials that are mainly used for their saponin. The Trade, Export and Promotion Centre (TEPC), Nepal currently imports huge quantity of palm oil, animal fats and oils for industrial use. The import value of these products in fiscal year 2008/2009 was about 15 billion Nepali Rupees (Table 3). Nepal also imports huge quantity of shampoos, soaps and surface active products from third countries. The total import value of these products in year 2008/2009 was about 1.8 billion Nepali Rupees. This value of import can be substantially reduced if proper technical support is provided to make soaps, shampoos and surface active products using *Chyuri* butter as one of the basic raw materials.

Table 3: Import of Palm Oil, Animal or Vegetable Fats and Oil Seeds in Nepal

Items Imported	Import Value (NRs)	
	Year 2008/2009	Year 2007/2008
Crude palm oil	2,721,836,414	5,234,037,286
Palm oil	171,706,005	267,158,502
Animal or vegetable fats and oils and their clearage products	11,740,020,707	N.A.
Oil seeds and oleaginous fruits	38,829,074	Na
Vegetable fats and oils, partly or wholly hydrogenated	32,135,088	Na

4. Conclusion and Recommendations

Nepal has about 10.8 million *Chyuri* trees distributed over 46 districts. The total production potential of *Chyuri* butter, which is commercially important *Chyuri* product, is estimated to be 37,245 metric tonnes, which has economic value of over 5 billion Nepali Rupees. Similarly, the honey production potential of *Chyuri* trees in the country is about 17, 285 metric tonnes.

Chyuri butter offers strong potential for import substitution of palm oil, and stands

as unique raw material for production of cosmetics, skin care creams and other high value products because of the international market demand for vegetable oil/butter/palm oil. *Chyuri* honey containing fine granules, pleasant taste and unique flavour also stands as niche product for export market. However, the traders have not been able to fully tap the market, despite the enormous potential and increasing recognition of herbal products in the international market. What appears is that there is a general lack of awareness among the producers/processors and traders about the availability and potential of *Chyuri* products. In some areas, there is a crowd of beekeepers to forage bees for the production of *Chyuri* honey, whereas in other areas there is not even a single beekeeper. Similarly, in few districts there are a number of middlemen and processors competing to buy *Chyuri* butter, while in other districts *Chyuri* dwellers find it difficult to sell their butter.

Regarding conservation and sustainable utilisation of *Chyuri* forest, only a few communities, like *Chepang* have developed management systems for this tree species in its natural habitat, and they are also trading *Chyuri* products through community groups and cooperatives. But in many places, people still chop off the trees/young branches to feed green leaves to their cattle. They also chop off the branches to collect fruits. In those areas, plant dwellers and fruit collectors need to be educated about the adverse impact of felling of branches for fruit collection.

It seems that the selling of seeds brings minimum return to the *Chyuri* dwellers, as the existing oil processing techniques are time as well as labour consuming, and the expellers are not efficient enough to get the expected quantity of butter from the seeds. Therefore, some supports are required to improve processing techniques and diversify the products in the form of soaps, candles, etc. *Chyuri* dwellers are of the opinion that they could have earned more money, had they managed to sell fruits or add value on it. It is difficult to bring the fruits to the market due to fairly low keeping quality. Therefore, it would be interesting to look at the prospect of making juice, squash and jams from *Chyuri* fruits.

It is noted that the nectar of *Chyuri* remained under utilised. Traditionally, people in the far west used to shake the flowers for collection of nectar to make '*Gur',* but in these days this product is hardly available in the market. Hence, this could also be an interesting area to look at whether '*Gur'* making enterprise can be economically viable.

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Assessment of Access to Finance in MEDPA And MEDEP Including Financial Mapping[7]

1. Outreach Status

This study has located the financial service providers (FSPs) that are engaged on promoting access to finance for poor, disadvantaged groups and micro entrepreneurs in the MEDEP/MEDPA working districts and VDCs, and analyzed the outreach of financial services, identified the access to finance status of the micro entrepreneurs, find out the different products suitable for micro entrepreneurs offered by FSPs, and described the access to finance status for the missing middle. The information used in this study was used though a review of the secondary information and field survey in six MEDEP/ MEDPA districts namely Rasuwa, Baglung, Dadeldhura, Terhathum, Banke and Dhanusha.

Commercial Banks (CBs), Development Banks (DBs), Finance Company (FCs), Microfinance Development Banks (MFDBs), Financial Intermediary NGOs (FI-NGOs) and financial cooperatives are the main FSPs that exist in the working areas of MEDEP/MEDPA.

Financial cooperatives exist in over 95 percent MEDEP's working VDCs. There are few very potential financial cooperatives in each districts and use of these cooperatives for promoting access to finance to micro entrepreneurs requires intervention to upgrade their capacity on savings mobilization, loan operation and management, and risk management.

7 Study conducted by MEDEP with technical support from Centre for Employment and Development Nepal, 2014.

These FSPs have a tendency to offer low interest rate on savings/deposit and charge higher interest rate including service charge on loan. The CBs, DBs and FCs work in a limited profit margin, and other FSPs such as MFDBs and FI-NGOs work in a relatively large margin.

All the micro entrepreneurs are linked with DMEGA and they have accessed services of some scale from BDSPO. Some micro entrepreneurs have either engaged on promotion of financial cooperatives or link micro entrepreneurs with financial cooperatives nearby. The financial cooperatives promoted by MEDEP/MEDPA with micro entrepreneurs as shareholders have the potentials to enhance access to finance if they are supported to establish business linkages with wholesale FSPs.

2. Wholesale Funding

There are wholesale FSPs and arrangements such as RMDC, SFDB, First Microfinance Development Bank, Cooperative Development Bank and RSRF and Youth Self Employment Programme that provides with wholesale loans to FSPs including financial cooperatives. The cooperatives promoted by micro entrepreneurs of MEDEP have also received wholesale loans from these arrangements.

3. Informal Sector

Informal financial services through moneylenders and institutional arrangement such as Dhukuti, Dharma Bhakari, Guthi and informal savings and credit groups exist in the MEDEP/MEDPA working districts and VDCs. There are both local, districts, regional and national FSPs that have service delivery network to provide financial services in MEDEP/MEDPA working areas. National level MFIs such as NIRDHAN, Chhemek and Swabalamban have relatively larger networks while localized MFIs such as Naya Nepal, Summit, Nagbeli, etc. have small networks.

4. Revolving Fund

World Bank financed PAF is a largest community based local development programme providing revolving fund to local community people and significant

number of micro entrepreneurs have accessed financial services from this arrangement. Micro entrepreneurs are also the member of PAF's COs who have received the revolving loan find. Such fund is used to supplement the finance required for enterprise establishment, growth and development. There is absence of the coordinated effort to promote the revolving loan fund provided by different development partners under PAF, WUPAP, LDF, etc. for the microenterprise promotion and development. There exist potentials for using such fund among CO members to graduate them from using income-generating activities into micro entrepreneurs.

Micro entrepreneurs borrow from friends and relatives, cooperatives, MEG/MEGA, and BFIs. Over 89 percent of the micro entrepreneurs save either in FSPs or MEG/MEGA/Financial Cooperatives. Mostly they have used the borrowed amount to establish enterprise related to agriculture, livestock, service, and cottage industries. Financial linkages of the micro entrepreneurs with FSPs are important for their continued growth and sustainable development.

5. Accessibility

There are about 68,000 micro entrepreneurs in MEDEP/MEDPA districts, of which 63 percent are active, 15 percent semi-active and 22 percent are inactive. Both active and semi-active micro entrepreneurs require access to finance for the growth and development of their microenterprises. It has been found that about 37.2 percent of the micro entrepreneurs surveyed have access to finance from BFIs and 34.6 percent have accessed from financial cooperatives. About 28.2 percent of the micro entrepreneurs lack access to finance for their enterprise development and management and they have managed the required capital for the enterprises from their own savings, borrowing from friends and relatives, and other informal sources such as Dhukutis or borrowing from moneylenders.

Average outstanding loan balance of the micro entrepreneurs was Rs. 21 thousand and about 53.82 percent of them (35.2 percent of total) have received the repeat loan with an average interest rate of 16.6 percent. The micro entrepreneurs have borrowed mainly from MFDBs, FI-NGOs, and financial cooperatives. Very few micro entrepreneurs have borrowed from CBs and DBs. Micro entrepreneurs have repaid the loan on time and repayment rate is almost 100 percent and demonstrated that they are good credit risk.

There are 28.2 percent micro entrepreneurs who need loan but have not access loan yet due to factors such as absence of FSPs nearby, lack of acceptable financing plan, difficult loan terms and conditions of the FSPs, collateral and process, and lack of knowledge about banking process. There are 193 micro entrepreneurs promoted cooperatives, some of them are linked with RSRF and have gradually started extending the access to finance to shareholder micro entrepreneurs. About 43 percent of the micro entrepreneurs have received loan from MEG/MEGA/Micro-entrepreneurs, with an average size loan size of Rs. 1.4 thousand and 100 percent repayment rate. Likewise, about 25 percent of the micro entrepreneurs have borrowed from revolving loan fund scheme, with an average loan size of Rs. 2.7 thousand and 100 percent on-time loan repayment rate.

With the 53,256 active and semi-active micro entrepreneurs, all of them requiring access to credit from BFIs, with an average initial loan size of Rs. 60,000, total loan demand of microenterprises are estimated at Rs. 3,196 million. The loan will be used for microenterprise establishment, growth and development. The total loan demand will increase greatly as the microenterprise grow, expand and upgrade from micro to small enterprises. Further, overtime, micro entrepreneurs have been graduated into small entrepreneurs. Their financial need is relatively large (Rs. 200,000 – Rs. 2,000,000) and there are no specialized FSPs to provide financial services to these graduated micro entrepreneurs i.e. issues of missing middle. Monetary Policy 2070/71 and 2071/72 have initiated some measures to address the issues of missing middle. This policy need to be further elaborated to accommodate the entire financial sector.

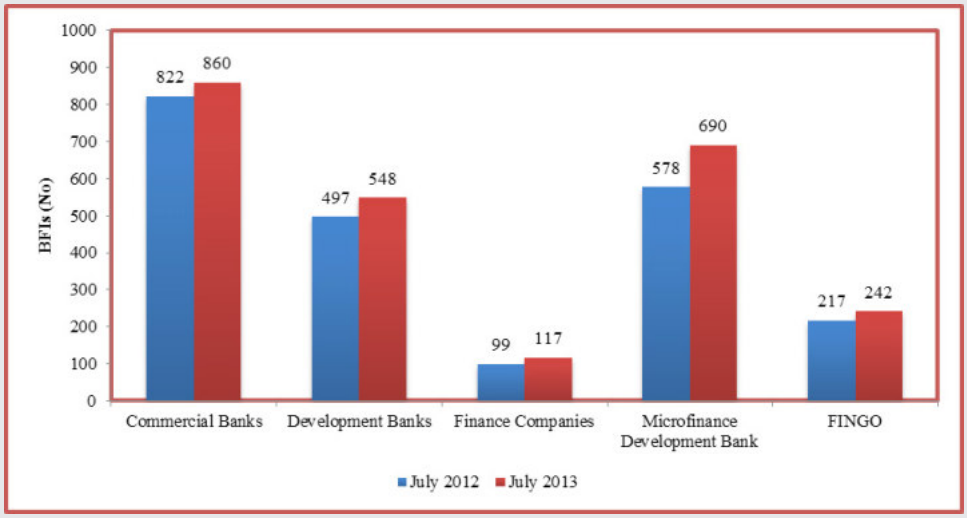
6. Key Findings

This study aimed at locating the FSPs and other development partners engaged on promoting access to finance for poor, disadvantaged groups and micro entrepreneurs along with the MEDEP/MEDPA working districts and VDCs. More specifically the study has located the FSPs including cooperatives and community based microfinance operation by development partners in terms of their outreach (VDCs) coverage in the districts, identified the micro entrepreneurs' status in reaching the financial services, find out the different products developed by different FSPs that are suitable for micro entrepreneurs, including financial services for the missing middle. The study has worked out

the best possible options for MEs to access financial services from FSPs. Key findings and recommendations of the study follow hereunder.

a. Existence of Financial Service Providers

Commercial Banks, Development Banks, Financial Companies, Micro Finance Development Banks, Financial Intermediary-NGOs and financial cooperatives are the main Financial Service Providers (FSPs) that exist in the working areas of MEDEP/MEDPA. Total network of these FSPs are estimated at 860 CBs, 548 DBs, 117 FCs, 690 MFDBs, 242 FI-NGOs, 7474 SCCs, 2,745 MPCs, and 6128 Agricultural Cooperatives. Distribution of these networks is not even. There exist wide network of FSPs in the MEDEP/MEDPA districts in the Terai and accessible hills. On the other hand, inaccessible districts have a very limited network of these BFIs.



Branches of Banks and Financial Institutions in MEDEP/MEDPA Districts (2012-2013)

Financial cooperatives exist in over 95 percent of the MEDEP working VDCs. Despite the existence of financial cooperative/s in the working districts and VDCs of MEDPA/MEDEP, the financial need to micro-entrepreneurs has not been met. It has been found that most cooperatives are constrained due to lack of managerial capacity, loanable fund, risk management, design of products and services, and regulation and supervision. They have limited potentials to promote access to finance for the micro-entrepreneurs.

b. Savings and Insurance

FSPs provide savings, loans, money- transfer and remittance services to their clients. In order to attract savings from diverse group of people in the market as well as meet the financial need of the diverse set of target group, FSPs have diversified their savings and loan products. Diversification of the savings and loan products is a typical feature of the FSPs in the working areas. Insurance market is poorly developed and very few micro entrepreneurs have used the insurance services. Both BFIs and money transfer companies such as IME, Western Union, etc. have a large network for extending the remittance services in MEDEP/ MEDPA working areas.

c. Interest rate

These FSPs have a tendency to offer low interest rate on savings/deposit and charge higher interest rate including service charge on loan. Average interest on deposit ranges between 1.5 percent and 10.0 percent with an average of 6 percent while annual interest on loan ranges between 10 percent and 24 percent with an average of 16 percent. They operate on a high margin of 10 percent or more.

d. Cooperative status

All the micro-entrepreneurs are linked with DMEGA and accessing MED integrated types of services from BDSPO. Some micro entrepreneurs have either engaged on promotion of financial cooperatives or linked with financial cooperatives nearby. These cooperatives have provided access to financial services to member micro entrepreneurs to a limited extend. There capacity is yet to be developed to provide full-fledged financial services to these micro-entrepreneurs.

e. Linking with Financial Sector

Linking of the micro entrepreneurs with MFIs and financial service is though technically possible, but there are challenges for operating this arrangement. Micro entrepreneurs need to develop their capacity to acquire financial services and role of the BDSPO need to be directed towards developing the capacity of these micro entrepreneurs on accessing the financial services from FSPs.

There are wholesale arrangements such as RMDC, RSRF, SFDB, First

Microfinance Development Bank, Youth Self Employment Programme, and Cooperative Development Bank that are providing wholesale loans mainly to financial cooperatives, and selected BFIs. The financial cooperatives promoted by micro entrepreneurs of MEDEP have also received wholesale loans from these arrangements. All SFCLs have established linkage with SFDB and MFIs/FI-NGOs have established linkage on the deprived sector-lending scheme of the commercial banks, development banks and finance companies. As a consequence, almost all the MFIs/FI-NGOs and selected cooperatives (SAHARA, Bindabasini, etc.) have not felt the scarcity of the loanable fund for retail lending.

Informal financial services through moneylenders and institutional arrangement such as Dhukuti, Dharma Bhakari, Guthi and informal savings and credit groups are very strong in the MEDEP/MEDPA working districts and VDCs. Almost all the micro entrepreneurs are involved on group based informal financial arrangements and there are about 27 percent of the micro entrepreneurs that have borrowed from informal sources.

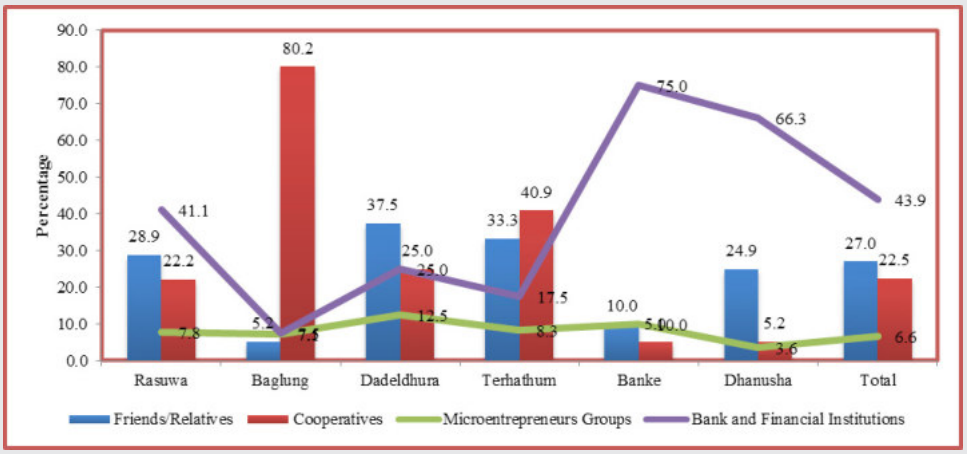
There are both local, district based, regional and national FSPs that have service delivery network to provide financial services in MEDEP/MEDPA working areas (VDCs). National level MFIs such as NIRDHAN, Chhemek and Swalamban have very relatively larger networks while localized MFIs such as Naya Nepal, Summit, Nagbeli, etc. have small network.

World Bank financed PAF is a largest community based local development programme providing revolving fund to local community people and significant number of micro entrepreneurs have accessed financial services from this arrangement in districts such as Rasuwa, Dadeldhura and Dhanusha. In most cases, the revolving fund scheme is not effectively mobilized for income and employment generation and enterprise development.

f. Borrowing

Micro entrepreneurs borrow from friends and relatives, cooperatives, MEG/MEGA, and BFIs. Over 89 percent of the micro entrepreneurs save either in BFIs or MEG/MEGA/Financial Cooperatives. About 65 percent borrow from BFIs, 43 percent from MEG/MEGA/Financial Cooperatives and 26 percent have borrowed from revolving loan fund. About 50 percent of the borrowing MEs have received repeat loans and borrowed fund

have invested for either in production, or consumption, or both. Mostly they have used the borrowed amount to establish enterprise related to agriculture, livestock, service, and cottage industries.



Sources of Loan/Borrowing of the Micro-entrepreneurs Surveyed in the Study

There are about 68,000 micro entrepreneurs in MEDEP/MEDPA districts, of which 63 percent are active, 15 percent semi-active and 22 percent are inactive. Both active and semi-active micro entrepreneurs require access to finance for the growth and development of their enterprises. It has been found that about 37.2 percent of the micro entrepreneurs surveyed have access to finance from BFIs and 34.6 percent have accessed from financial cooperatives. About 27 percent of the micro entrepreneurs lack access to finance for their enterprise development and management and they have managed the required capital for the enterprises from their own savings, borrowing from friends and relatives, and other informal sources such as Dhukutis or borrowing from moneylenders.

Average outstanding loan balance of the micro entrepreneurs was Rs. 21 thousand and about 53.82 percent of them (35.2 percent of total) have received the repeat loan with an average interest rate of 16.6 percent. The micro entrepreneurs have borrowed mainly from CBs, DBs, MFDBs, and FI-NGOs, and they have also borrowed from cooperatives. Micro entrepreneurs have repaid the loan on time and repayment rate is almost 100 percent.

g. Loan demand

There are 27 percent micro entrepreneurs who need loan but have not

access loan yet due to factors such as absence of FSPs nearby, lack of acceptable financing plan, difficult loan terms and conditions of the FSPs, collateral and process, and lack of knowledge about banking process. There are 193 micro entrepreneurs promoted cooperatives and some of them are linked with RSRF. They have gradually started extending the access to finance to shareholder micro entrepreneurs.

About 43 percent of the micro entrepreneurs have received loan from MEG/MEGA/Micro-entrepreneurs, with an average size loan size of Rs. 1.4 thousand and 100 percent repayment rate. Likewise, about 25 percent of the micro entrepreneurs have borrowed from revolving loan fund scheme, with an average loan size of Rs. 2.7 thousand and 100 percent on-time loan repayment rate.

With the 53,256 active and semi-active micro entrepreneurs, all of them requiring access to credit from BFIs, with an average initial loan size of Rs. 60,000, total loan demand of microenterprises are estimated at Rs. 3,196 million. The loan fund will be used for enterprise establishment, growth and development. The total loan demand will increase greatly as the microenterprise grow, expand and upgrade from micro to small enterprises.

Overtime, micro entrepreneurs promoted by MEDEP has been graduated into small entrepreneurs. Their financial need is relatively large (Rs. 200,000 – Rs. 2,000,000) and on the absence of the FSPs specialized to finance this segment of small entrepreneurs; their financial need has yet to be addressed. There are cases where small entrepreneurs developed by MEDEP in Terhathum and Dadeldhura have been able to access financial services from CBs and DBs.

7. Recommendations

There are large networks of FSPs in the working areas of MEDEP/MEDPA. These networks are not evenly distributed. They are skewed in the Terai and accessible hills with thin networks in inaccessible hills and mountains. These FSPs are not properly and adequately use to enhance access to finance to MEDEP promoted micro entrepreneurs in those districts.

a. Cooperative consolidation

Despite potentials, financial cooperatives have not been able to meet

financial needs of the micro entrepreneurs developed by MEDEP/MEDPA. Over 90 percent of the financial cooperatives are constrained due to lack of managerial capacity, loanable fund, risk management, design of products and services, and regulation and supervision. Use of financial cooperatives to promote access to finance to micro entrepreneurs of MEDEP/MEDPA requires intervention to upgrade their capacity on savings mobilization, loan operation and management, and risk management.

The financial cooperatives promoted by MEDEP/MEDPA with micro entrepreneurs as shareholders has the potentials to enhance access to finance if they are assisted to establish business linkages with wholesale microfinance service providers.

b. Intervention of financial products

Micro entrepreneurs use savings, loan, remittance and money transfer services from the FSPs. There is limited innovation to introduce market led approach to new product development on savings, loans, money transfer and remittance services suitable for micro entrepreneurs. As a result most financial products are not suitable for the micro entrepreneurs. Insurance service is yet to be popular among the micro entrepreneurs. Access to finance of the micro entrepreneurs from these FSPs mainly depends on existence of their network. There is no barrier for the micro entrepreneurs to access the savings and remittance services from these FSPs, but access to loan services mainly depends on the viability and profitability of the business proposal.

c. Coordination with development programmes

There is absence of the coordinated effort to promote the revolving loan fund provided by different development partners under PAF, WUPAP, LDF, etc. for the microenterprise promotion and development. There exist potentials for using such fund among the CO members to graduate them into micro-entrepreneurs.

d. Financial literacy

MEDEP/MEDPA has to intensively organize the campaign to educate the FSPs about the comparative advantage of these micro entrepreneurs on microenterprise selection, management and repayment of the loans. The feature that these micro entrepreneurs are groomed has not been properly disseminated among the BFIs. The awareness of these micro

entrepreneurs on money management, enterprise budget, use of business plan for enterprise growth and management, financial management, investment decision, service delivery by BFIs, financial discipline, etc. needs to be enhanced to enable them to better manage their enterprise and upgrade their investment capacity.

Total loan demand (Rs. 3,196 million) of MEDEP micro entrepreneurs can be managed through networking and dissemination of MEDEP approaches and modality among the FSPs. MEDEP/MEDPA to start concerted measures to improve the quality of the micro entrepreneurs and educate the FSPs about the comparative advantage of lending to these micro entrepreneurs to meet the financial need of micro entrepreneurs it has developed.

There are no specialized FSPs to provide financial services to graduated micro entrepreneurs i.e. issues of missing middle. There is a need of the organized policy interventions to address the issues of missing middle.

e. Stakeholders role

Role of BDSPO:

Keeping in view of deteriorating capacity, there is a need to revisit the role of the BDSPOs. They should have clear understanding on the types of the services extended by FSPs in the area and enhance their capacity to support micro entrepreneurs establish business linkages with FSPs. They need to be educated on various types of FSPs including wholesale FSPs and they need to assist the financial cooperatives with these institutions.

Role of D-MEGA:

The role of D-MEGA is not balanced. They are more focused on advocacy, lobbying and networking on access to non-financial services to micro-entrepreneurs. They have performed very much limited functions to enhance access to finance to micro entrepreneurs. D-MEGA needs to have clear understanding on issues related to access to finance to micro entrepreneurs and landscape of FSPs in their district. They need to regularly organize meetings of the FSPs, disseminate their proposal and sort out the issues of access to finance to micro entrepreneurs and missing middle (graduated micro entrepreneurs).

Role of DCSI/CSIDB:

As far as promoting microenterprises in the district is concern, DCSI/

CSIDB should play a leading role in promoting access to finance to MEDPA promoted entrepreneurs. Their roles should extend beyond training on microenterprise development. DCSI/CSIDB should have clear understanding on issues related to access to finance to micro entrepreneurs and landscape of FSPs in their district. They need to regularly organize meetings of the major FSPs such as CBs, DBs, MFIs and FI-NGOOs, advocate/lobby on the corporate responsibility to promote access to finance to micro entrepreneurs, and potential to expanding their business opportunities by extending access to finance missing middle (graduated micro entrepreneurs).

Role of APSO:

APSO of MEDEP/MEDPA needs to play a crucial role to enhance access to finance for the micro entrepreneurs through proper coordination, and networking. APSO need to organize regional level workshops/*mong the leading regional level FSPs including financial cooperatives and to better understand the expectations of the FSPs to provide financial services to micro entrepreneurs. APSO should document and disseminate the emerging best practices on promoting access to finance to micro entrepreneurs in their working areas. Further, APSO should identify the potential financial cooperatives of their working areas and support them to establish business linkages with wholesale financial service providers to increase their business.

Role of NPSO:

National Programme Support Office (NPSO) should play a lead role on improving access to finance among the micro entrepreneurs developed by MEDEP/MEDPA. NPSO needs to educate the MEDEP model to enterprise development to all the potential FSPs and comparative advantage of these micro entrepreneurs for expanding their business. Further, NPSO need to support APSO to identify the potential financial cooperatives and establish the business linkages with wholesale FSPs. NPSO should support the piloting of the poverty focused microfinance modality such as village bank, village savings and loan association, etc. in geographically isolated areas. NPSO should document and disseminate the emerging best practices on promoting access to finance to micro entrepreneurs in their working areas. Finally, they need to devise support packages for the financial cooperatives promoted by MEDEP/MEDPA with micro entrepreneurs as shareholders to improve their operating efficiency and

governance, and establish business linkages.

Ministry of Industry:

Ministry of Industry (MOI), in collaboration with Ministry of Finance, needs to advocate with NRB, to issue special directives to FSPs to extend access to finance for the micro entrepreneurs and graduated micro entrepreneurs (missing middle). Further, MOI need organize learning session with Bankers Association of Nepal, Development Bankers' Association, Finance Company Association of Nepal, Micro-Finance Association, etc. to educate them about MEDEP model and comparative advantage of enhancing access to finance to MEDEP micro entrepreneurs.MOI need to facilitate the coordination of the revolving loan fund provided by different development partners under PAF, WUPAP, LDF, etc. for the microenterprise promotion and development.

Financial Service Providers:

FSP need to adopt market led approach to new product development on savings, loans, money transfer and remittance services suitable for micro entrepreneurs. They need to simplify the apparent barriers on access to lending services and make them friendly to micro entrepreneurs. FSPs like CBs, DBs and FCs need to design products and services suitable for the graduated micro entrepreneurs (missing middle). They need to devise mechanism to meet the total loan demand (Rs. 3,196 million) of MEDEP micro entrepreneurs from among themselves.

FSP need to adopt the "market entity" policy that may create investment opportunities as per the market demand if business grow and have wider market. A permanent business linkage of the micro entrepreneurs with the FSP will enable them with assured access to finance as the enterprise grows.

Nepal Rastra Bank:

NRB needs to regulate FSPs by setting the interest spread such that they will be discouraged to charge the exploitative interest rate to micro-entrepreneurs. NRB needs to ensure that group based informal microfinance operation undertaken by savings and credit group is properly and adequately used for enterprise creation and development. Finally, NRB need to facilitate the implementation of linkage banking scheme to ensure that savings mobilized by MEGs/MEGAs are linked for microenterprise development.

Impact Study of Micro-Finance in MEDEP[8]

1. Introduction

Micro-Enterprise Development Programme (MEDEP) is a multi-lateral donor funded poverty reduction initiative supported by the Government of Nepal (GON) and the United Nations Development Programme (UNDP). The programme has been working with poor people, especially women and those from backward communities since 1998. The Programme has successfully completed its two consecutive phases and the third phase is currently underway[9].

MEDEP has piloted different approaches and strategies for ensuring access to financial services to micro-entrepreneurs it have developed. The Programme worked in partnership with different financial service providers (FSPs). To start with, MEDEP and the Agricultural Development Bank Limited (ADBL)[10] signed a Memorandum of Understanding (MOU) to establish the microenterprise credit fund to provide financial services to micro-entrepreneurs developed by MEDEP. In response to phasing out of microfinance operation by ADBL as part of its restructuring initiatives and apparent inefficiencies in the arrangements[11], in the second phase, MEDEP established partnership with different financial service providers (FSPs) to meet the demand for financial services of the

8 Study conducted by MEDEP with technical support from Centre for Empowerment and Development, 2009.

9 The programme was implemented in 10 districts in the first phase (1998-2003) while it was extended in 25 districts during the second phase (2004-2007). The programme is being implemented in 31 districts in the third phase (2008-2010).

10 The then Agricultural Development Bank, Nepal (ADBN).

11 Owing to mounting conflict situation leading to merger of branches of the ADBL in district headquarter, many limitations were noted in UNDP-ADBL partnership provide access to finance to micro-entrepreneurs for access to financial service.

micro-entrepreneurs. In order to provide further impetus on enhancing access to finance to micro-entrepreneurs, since 2008, MEDEP is supporting the District Micro-entrepreneurs Group Associations (DMEGAs) to sign MOU with the FSPs to explore the possibilities of enhancing access to financial services to micro-entrepreneurs locally. Further, a significant number of cooperatives of the micro-entrepreneurs are promoted under MEDEP to open further avenue on addressing issues related to access to financial services to micro-entrepreneurs. Similarly, in order to address immediate financial need of the potential micro-entrepreneurs by building up the internal financial resources, MEDEP has supported MEGs to mobilise savings among their members. Further, some of the MEDEP assisted micro-entrepreneurs are accessing financial services from different FSPs (commercial banks, development banks, Micro Finance Institutions and cooperatives).

Given the above context, it is necessary to understand the impact of financial schemes and assess financial services among micro-entrepreneurs in order to estimate proportion of microentrepreneurs receiving financial services, and identify emerging best practices on blending of financial and non-financial services for empowerment and improvement of the livelihood of micro-entrepreneurs. Therefore, this study was conducted to assess the impact of various microfinance schemes on establishment, operation scale–up and growth of microenterprise as well as generation of income and employment and empowerment of microentrepreneurs.

2. Study Methodology

The study used both primary and secondary sources to gather the required information. The primary information was gathered by conducting field visit and surveys. The secondary sources of information included the review of relevant documents, project documents, progress reports, and other published and unpublished documents related to and annual reports of ADBL. The study used different methods of data collections that include focus group discussion, organisational assessment, key informant interview (MEDEP and ADBL officials, MEGA's chairpersons, BDSPO's staffs, etc.), performance review and field visit. This study was conducted in four MEDEP districts; covering the hills and Tarai districts, namely, Nuwakot, Nawalparasi, Sunsari and Udayapur. During the field work, survey of Business Development Service Provider Organisation

(BDSPO), District Micro-entrepreneurs Group Association (DMEGA), Micro-entrepreneurs Group Association (MEGA) and Microentrepreneurs Group (MEG) and borrowing and non-borrowing micro-entrepreneurs were done using checklists and questionnaires.

3. Assessment Findings

Access to financial services is considered to be a powerful tool for poverty reduction and the case of microfinance as a mechanism for poverty reduction is simple. The MEDEP supported micro-entrepreneurs have established micro-enterprise for income and employment generation. There are varying types of enterprises promoted by the micro-entrepreneurs surveyed. Financial services received from FSPs have been used to finance both fixed investment and working capital finance. The findings are based on the assessment of the impact of access to financial services to 234 (121 borrowings and 113 non-borrowings) micro-entrepreneurs promoted under MEDEP.

3.1 Impact of Access to Financial Services on Enterprise Development

In order to enhance the access to financial services to the micro-entrepreneurs, MEDEP has undergone partnership agreement with different types of Financial Service Providers (FSPs), e.g., Commercial Bank (CB), Development Bank (DB), Grameen Bikas Bank (GBB), Microfinance Development Bank (MDB), Financial Intermediary NGOs (FI-NGOs), Savings and Credit Cooperatives (SCCs), etc. The borrowing micro-entrepreneurs have obtained access to finance for enterprise development from different FSPs, namely, ADBL (18%), GBB (6%), MFDB (2%), FI-NGOs (11%), SCCs (11%) and combination of FSPs (4%).

Access to loan services has contributed to increase capital/asset formation among the micro-entrepreneurs. Capital formed in micro-entrepreneurs' households can be broadly grouped into three categories viz. (i) financial capital, (ii) productive as well as physical capital and (iii) human capital. Each of these capital leads to subsequent empowerment of micro-entrepreneurs at individual, household, and community level.

Financial capital formation: Savings is a form of capital accumulation carried

out by all micro-entrepreneurs by setting aside a part of their current income for future use. Under social mobilisation initiatives, BDSPOs have provided an option for compulsory savings, voluntary savings and other savings on regular intervals. Micro-entrepreneurs value greatly the ability to save in their concerned MEGs. The social mobilisation initiatives of MEDEP provide micro-entrepreneurs with an opportunity to save small amounts on a regular basis.

Productive and physical capital formation: Loan micro-entrepreneurs surveyed have generated productive and physical assets out of income earned from micro-enterprises established either under credit financing or self-financing. These assets represent an economic opportunity to improve income. Improved housing (white wash, roof repairs and additional room) and purchase of households assets (small tools, fans, gas-stoves, animals, push carts, handloom, gold, TV, radio, cycle, rickshaw, etc.) are frequent cases and this reflects consumption to enhance the quality of life. There are cases where micro-entrepreneurs have invested additional income on land purchase as well.

There are cases where micro-entrepreneurs have invested the additional income for the purchase of land and average land holding has been increased before joining the programme and as of July 2009. Size of farm size increase has been more in case of borrowing micro-entrepreneurs compared to non-borrowing micro-entrepreneurs due to their ability to establish; operate and manage the relatively larger micro-enterprises.

There also exist evidences that loan micro-entrepreneurs have invested the income saved to increase livestock head depending on their capacity and preference. There are cases where increase on number of cattle, buffalo, goat, pig and chicken while number of ox and duck has been decreased. This indicates that micro-entrepreneurs have a tendency to increase number of heads of livestock of economic significances than the non-economic ones.

Human capital formation: Contribution of access to financial services on human capital formation was evident in terms of increased investment on education and increased evidence of sending children to school. A small contribution of access to finance (e.g. internal group loans from MEG and MFIs) in meeting schooling costs exist. One of the first things the poor people do with new income from micro-enterprise is to invest in their children's education. Greater access to financial services and increased incomes has enabled the poor entrepreneurs to invest in their children's education. To support this

priority, most of the MEDEP packages provide additional focus on educated people compared to un-educated ones.

About 52 percent borrowing MEs and 71 percent non-borrowing MEs have not created any other assets. The assets created by them are land purchase (5% borrowing MEs and 5.3 % non-borrowing MEs), home improvement (5.8% borrowing MEs and 0.9% non-borrowing MEs), enterprise expansion (23.1% borrowing MEs and 5.3% non-borrowing MEs), ornament (0.8% borrowing MEs), increase in livestock heads (10.7% borrowing MEs and 15% non-borrowing MEs), etc.

Due to assurance of repeat loan and confidence on access to financial services from FSPs, borrowing MEs are found to be in a relatively better position to invest net income from microenterprise for the creation of other asset for their improved livelihood. Creation of such asset has been instrumental to micro-entrepreneurs to protect against any external sucks and enable them to mange their likely vulnerability in future.

3.2 Overall use of increased income

An analysis of general trend on use of incremental income earned from micro-entrepreneurs revealed that there is clear difference on pattern to use incremental income across borrowing and non-borrowing micro-entrepreneurs. While non-borrowing micro-entrepreneurs use most of the incremental income for consumption purpose, the borrowing micro-entrepreneurs use such an income for other activities such as asset creation, children education, health care, clothing and buying ornaments.

Table 1 shows that The micro-entrepreneurs have used incremental income mainly on household consumption (47.4%, 38.3% borrowing micro-entrepreneurs and 54.7% non-borrowing micro-entrepreneurs), followed by children education (14.8%, 14.2% borrowing and 15.8% non-borrowing micro-entrepreneurs), asset creation (13.2%, 15.9% borrowing and 8.4% non-borrowing micro-entrepreneurs), clothing (8.6%, 7.4% borrowing and 10.8% non-borrowing micro-entrepreneurs), health care (4.1%, 3.9% borrowing and 4.5% non-borrowing micro-entrepreneurs) and buying ornaments (2.9%, 3.5% borrowing and 1.8% non-borrowing micro-entrepreneurs).

Table 1: Use of Incremental Income Earned from Micro-enterprise by Micro-entrepreneurs

S. N.	Particulars	Unit	Borrowing MEs	Non-borrowing MEs	Total	Borrowing MEs	Non-borrowing MEs	Total
1	Asset creation	Rs.	8443	2580	5612	15.9	8.4	13.2
2	Children education	Rs.	7560	4881	6266	14.2	15.8	14.8
3	Health care	Rs.	2074	1384	1741	3.9	4.5	4.1
4	Clothing	Rs.	3951	3340	3657	7.4	10.8	8.6
5	Household consumption	Rs.	20335	16885	20089	38.3	54.7	47.4
6	Buying ornaments	Rs.	1858	566	1231	3.5	1.8	2.9
7	Others	Rs.	8930	1234	3796	16.8	4.0	9.0
	Total	Rs.	53151	30870	42392	100.0	100.0	100.0

Source: Micro-entrepreneurs Survey, August-September 2009

Note: MEs = Micro-entrepreneurs

3.3 Employment Generation

The enterprise managed by the micro-entrepreneurs has generated full-time and part-time employment to men, women and children. There is a difference on number of employment generated by enterprises managed by borrowing and non-borrowing micro-entrepreneurs (Table 2).

Table 2: Contribution of Microenterprise Development on Employment Generation

S.N.	Particulars	Unit	Borrowing MEs	Non-borrowing MEs	Total
1	Full time	No	0.8	0.5	0.7
	Men	No	0.3	0.2	0.3
	Women	No	0.5	0.3	0.4
	Children	No	0	0	0
2	Part-time	No	1.5	1.2	1.3
	Men	No	0.4	0.2	0.3
	Women	No	0.6	0.6	0.6
	Children	No	0.5	0.4	0.4
3	Total	No	1.6	1.1	1.4

Source: Micro-entrepreneurs Survey, August-September 2009

Note: MEs = Micro-entrepreneurs

The number of full-time employment generated by borrowing micro-entrepreneurs is 0.8 person year and that of non-borrowing micro-entrepreneurs is 0.5 person year. Similarly, the number of part-time employment generated by borrowing micro-entrepreneurs is 1.5 person year and that of non-borrowing micro-entrepreneurs is 1.2 person year. Using the conversion factor that one part-time employment equals 50 percent of the fulltime employment, total employment generated by one average microenterprise has been estimated at 1.4 (1.6 among borrowing micro-entrepreneurs and 1.1 among non-borrowing micro-entrepreneurs) person year.

3.4 Empowerment

It is quite visible that access to financial services has eased the people in their process to be entrepreneur that has enabled them to become more confident, more assertive, increase in family and community decisions, and better able to confront systemic gender inequities. During a series of focus group discussion and individual interactions, micro-entrepreneurs were not easily able to identify what it was that made them feel good about themselves and gave them power. This initially appeared to be a matter of shyness and a lack of recognition of their skills. The following are the empowerment indicators developed through access to financial services and being an entrepreneur:

- Ability to save and access loans;
- Opportunity to undertake economic activity;
- Mobility i.e., opportunity to visit nearby villages and towns;
- Awareness on local issues, banking procedures and banking transactions,
- Skill for enterprise creation and management;
- Decision making within household;
- Group mobilisation in support of individual micro-entrepreneurs: action on social issues;
- Role in community development activities,

Empowerment through enterprise development and management takes different forms such as economic empowerment, social empowerment, political empowerment and legal empowerment. These are briefly discussed hereunder.

3.4.1 Economic Empowerment

The data in Table 3 depict that about 97 percent micro-entrepreneurs surveyed are involved in managing microenterprise; this is followed by husband/wife (2%) and other family members (0.9%). Similarly, 90 percent micro-entrepreneurs make borrowing decision by themselves; this is followed by husband/wife (6%) and other family members (3%). Control of income/expenses is the most important factor deciding level of economic empowerment. About 91 percent micro-entrepreneurs control income/ expenses of micro-entrepreneurs by themselves; this is followed by husband/wife (4%) and other family members (5%). In general, economic empowerment level is quite satisfactory among micro-entrepreneurs surveyed.

Table3: Economic Empowerment of Micro-entrepreneurs

S. N.	Particulars	Unit	Borrowing MEs	Non-borrowing MEs	Total	Borrowing MEs	Non-borrowing MEs	Total
1	IGA/ME management	No						
	Self	No	117	110	227	96.7	97.3	97.0
	Husband/wife	No	3	2	5	2.5	1.8	2.1
	Other family members	No	1	1	2	0.8	0.9	0.9
2	Borrowing decision	No						
	Self	No	107	104	211	88.4	92.0	90.2
	Husband/wife	No	11	4	15	9.1	3.5	6.4
	Other family members	No	3	5	8	2.5	4.4	3.4
3	Control of income and expenses	No						
	Self	No	109	104	213	90.1	92.0	91.0
	Husband/wife	No	6	4	10	5.0	3.5	4.3
	Other family members	No	6	5	11	5.0	4.4	4.7
4	Total	No	121	113	234	100.0	100.0	100.0

Source: Micro-entrepreneurs Survey, August-September 2009

Note: MEs = Micro-entrepreneurs

3.4.2 Social Empowerment

Social empowerment relates to changes in position of women micro-entrepreneurs in the households and society, including increase in mobility and social capital formation. Table 4 indicates that loan micro-entrepreneurs have felt change in their position in households (96%), change in their status in society (93%), increase in mobility (92%) and increase in social capital (86%). In general, status of social empowerment is quite subjective and depends on feelings of micro-entrepreneurs in households and society. There is a greater need to increase awareness of household members on the type of services these micro-entrepreneurs have received from their involvement in MEDEP to ensure access to financial services.

Table 4: Social Empowerment of the Loan Micro-entrepreneurs

S. N.	Particulars	Unit	Borrowing MEs	Non-borrowing MEs	Total	Borrowing MEs	Non-borrowing MEs	Total
1	Change in position in HHs	No	121	103	224	100.0	91.2	95.7
2	Change in status in society	No	120	98	218	99.2	86.7	93.2
3	Increase in mobility	No	116	99	215	95.9	87.6	91.9
4	Increase in social capital	No	108	94	202	89.3	83.2	86.3
			121	113	234	100.0	100.0	100.0

Source: Micro-entrepreneurs Survey, August-September 2009

Note: MEs = Micro-entrepreneurs

3.4.3 Political Empowerment

Level of political empowerment among loan micro-entrepreneurs surveyed has been quite low. Only 48 percent of women micro-entrepreneurs participated in political process in the community and express their opinion the type of leadership required for their personal and community development. On the other hand, 46 percent women micro-entrepreneurs expressed that they selected political leader in a

more informed way including an understanding of election manifesto and agenda of the party concerned (Table 5). These micro-entrepreneurs expressed that MEG meeting and their involvement on MEG operation provided them a platform to discuss on agenda and related details about political process in their community.

Table 5: Political Empowerment of the Loan Micro-entrepreneurs

S. N.	Particulars	Unit	Borrowing MEs	Non-borrowing MEs	Total	Borrowing MEs	Non-borrowing MEs	Total
1	Participation in political process	No	67	46	113	55.4	40.7	48.3
2	Selection of leader in more informed way	No	62	46	108	51.2	40.7	46.2
			121	113	234	100.0	100.0	100.0

Source: Micro-entrepreneurs Survey, August-September 2009

Note: MEs = Micro-entrepreneurs

3.4.4 Legal Empowerment

Legal empowerment is quite complex agenda among micro-entrepreneurs surveyed. Most of them have felt that they have been legally empowered. Only 71 percent micro-entrepreneurs felt some increase in legal awareness level while only 4 percent were able to file a case against exploitation/ harassment in VDC and local court. By being MEG member, 72 percent micro-entrepreneurs studied are feeling more secured now as solidarity among them is very much increased and micro-entrepreneurs are also involved in social reform process (Table 6).

Table 6: Legal Empowerment of the Loan Micro-entrepreneurs

S. N.	Particulars	Unit	Borrowing MEs	Non-borrowing MEs	Total	Borrowing MEs	Non-borrowing MEs	Total
1	Increase in legal empowerment level	No	92	75	167	76.0	66.4	71.4
2	Filling case against exploitation or harassment	No	6	3	9	5.0	2.7	3.8
3	Feeling more secured	No	91	77	168	75.2	68.1	71.8
	Total		121	113	234	100.0	100.0	100.0

Source: Micro-entrepreneurs Survey, August-September 2009

Note: MEs = Micro-entrepreneurs

Other indicators through which women micro-entrepreneurs feel themselves empowered include their ability to save and access loans from MEG that act as a safety net at the time of emergency, opportunity to undertake economic activity that has enabled them to earn and get themselves self-employed to use their spare time more productively. Further, compared to their fellow non-member counterparts, they feel more aware on local issues, banking procedures and increased confidence on banking transactions. They also see their potential role to involve in community development activities.

3.5 Constraints/Problems on Receiving Microfinance Services

The constraints/problems faced by micro-entrepreneurs on access to financial services include: conducting MEG meeting (94%), overall MEG operation (92%), savings mobilisation (72%), borrowing from MEG (61%), borrowing from FSPs (85%), loan repayment (43%), enforcement of joint liability (7%), maintaining group discipline (62%), market (75%), investment finance (65%). raw materials (64%), skill/technology (40%). There exist clear variation on type and intensity of problems across borrowing and non-borrowing MEs and these constraints / problems are quite valid for long-term viability and future growth of MEs promoted under MEDEP modality. The root cause of these constraints/ problems lies on these basic weaknesses inherent with the MEG formation and operation.

Various strategies and measures adopted by micro-entrepreneurs are introduction of rewards and punishment system, proper recording, motivation on different issues, revising savings rate, introducing rotation system and personal guarantee system to ensure quality for internal lending, linkages with other FSPs, use of business expansion plan, use of household cash flow, use of other services, increase awareness on joint liability, increase self-help feeling, maintaining group decision, review of meeting decision and introduce the incentive of applying decision, promote market linkages and introduce promotional services, replacement of asset and exploring alternative FSPs, lobbying, bulk purchase and increased group cohesiveness, promote linkage and networking, lobbying with district line agencies, use of MEG and MEGA's support, growth management and quality assurance. These measures have worked in most areas to address the constraints outlined above.

In general, these problems/constraints are quite serious as far as principles and practices of sustainable access to financial services and sustainability of MEG is concerned. This requires that each MEG/MEGAs possesses (i) mutually agreed code of conduct for MEG operation and management and its strict enforcement, (ii) savings policy, (iii) loan policy and (iv) financial and portfolio management policy. At present there is MEG/MEGAs policy based on words of mouth rather them consolidated and written form. MEG can't function properly as envisaged on the absence of these policy documents and capacity of MEG/MEGA executives to enforce these policies / rules. In this context, FSPs should facilitate MEG / MEGAs to prepare their policies in a participatory way and ensure that all micro-entrepreneurs own these policies. Further, once these policies will be in place, there is a need to enhance capacity of MEG/ MEGA executive to enforce those policies and rules. Unless MEG/MEGA executives' capacity on these aspects are enhanced, problems / constraints like savings mobilisation, borrowing from MEG, borrowing from FSPs, loan repayment, enforcement of joint liability and maintaining group discipline could not be solved and this will eventually jeopardized the entire efforts for enterprise development.

3.6 Performance of Micro-entrepreneurs Groups and other Organisational Structures

The performance of MEGs have been analysed to assess: (i) the extent, to which they can be developed as an intermediary to enhance access to financial services at grassroots level, and (ii) the existing and potential role of MEGAs, D-MEGA and BDSPO to enhance access to financial services to micro-entrepreneurs promoted under MEDEP.

3.6.1 Performance of Micro-entrepreneurs Groups

As of June 2009, MEDEP has supported to establish more than 38,300 micro-entrepreneurs in 31 districts and all these micro-entrepreneurs are organised into 4,281 MEGs. In general, MEGs are promoted by BDSPOs, and they have received services from them to the extent possible. They have also received services from other line agencies at district level. Not all the members in the MEGs have access to financial services from the FSPs. The number of MEG members with access to financial services in these districts has been estimated at 61percent.

MEGs are operating based on simple operating rules and regulations agreed, decided and recorded in meeting register. All the MEGs lack operational policy such as code of conduct for MEG operation, MEG operational rules and regulations, savings policy, loan policy and financial management policy. Similarly, not all executives of MEGs have skill for loan management, book keeping and accounting and savings mobilisation respectively.

Role of some MEGs to enhance access to financial services to their members is quite effective. While most MEGs are very inactive and lack seriousness on creating enabling environment for microenterprise development at local level, they are not yet fully aware about their potential role on microenterprise development. Very few MEGs possess future plan for membership growth, increase outreach of services, linkages and networking and increase access to financial services.

3.6.2 Performance of Other Organisational Structures

MEGAs, D-MEGA and BDSPO are the organisational structures supported by MEDEP. These organisational structures have paramount role to enhance access to financial services to micro-entrepreneurs. MEDEP has facilitated to federate MEGs of a particular market centre or VDCs into MEGAs. As of June 2009, MEDEP has supported for the emergence and growth of over 350 MEGAs. There are more than 100 cooperatives and product associations in twenty districts. Similarly, MEGAs are federated into district level organisations named D-MEGA. BDSPOs, which are involved to support the emergence and growth of micro-enterprise in the district, facilitate the non-financial services required for microenterprise development and support to promote and develop institutional networks from grassroots to district level.

Micro-entrepreneurs Group Associations

With one MEGA in each market centre, MEDEP has directly or indirectly supported the promotion of over 400 MEGAs in the form of associations or cooperatives or product associations. In this report such associations are named as MEGAs. MEGAs are involved in providing services in areas such as marketing of products produced by MEG member, coordinating training and access to technology to micro-entrepreneurs under market

centre, linkages with FSPs to enhance access to finance to micro-entrepreneurs, supply and management of locally available raw materials and training on skill development.

MEGAs have received support from MEDEP and district line agencies for their improved operational performance. MEDEP has provided materials, logistic, financial and technical support for improved operational and financial performance of MEGAs. There are instances where district level line agencies have worked with MEGAs as a service delivery agency to channel their support at local level. In general, MEGAs are able to establish linkages with DDC, DADO, Small and Cottage Industry Development Committee and FSPs such as cooperatives, ADBL, MFDB and Financial Intermediary NGO (FINGO) that are currently working in the district.

Marketing, training, office management, monitoring and services to member of the MEGs are the typical problems faced by MEGAs for their improved operation and management. Further, most MEGAs are unable to provide services to concerned MEGs due to lack of resources and limited capacity.

Most MEGAs have realised their role to expand membership growth through their involvement on identification of potential micro-entrepreneurs and organising potential micro-entrepreneurs into MEGs as well as expanding the outreach of their services such as increased access to technology, finance, raw materials, market and business consultancy services through improved linkages and networking initiatives. Most of the MEGAs foresee the potential role for increasing the access to financial services to micro-entrepreneurs, even in a capacity of saving and credit cooperatives (SCCs). MEGAs also have potential to act as an alternative financial service delivery agency at local level.

District Micro-entrepreneurs Association

There are 25 D-MEGA in 25 MEDEP districts and process is underway to form D-MEGA in remaining six project districts. The general members of D-MEGA include representative from all MEGAs in the district. There is one D-MEGA in each district and the D-MEGA studied were established either in 2062 or 2063.

D-MEGAs are involved in providing services in areas such as marketing

of products produced by member of MEGAs, coordinating training and access to technology to micro-entrepreneurs under market centre, linkages with FSPs to enhance access to finance to micro-entrepreneurs, supply and management of locally available raw materials and training on skill development. These D-MEGAs are involved in providing either of these services to members of MEGAs.

D-MEGAs have received support from MEDEP and district line agencies to perform their envisaged roles for lobbying and networking. D-MEGAs also MEDEP has provided materials and logistic, financial and technical support. District level line agencies, bilateral and multilateral projects have worked with D-MEGAs as a service delivery agency to channel their support through their networks. In general, MEGAs have been able to establish linkages with DDC, DADO, Small and Cottage Industry Development Committee and FSPs such as cooperatives ADBL, MFDB and FINGO working in the district.

Marketing, training, office management, monitoring and services to member are typical problems faced by D-MEGAs for their enhanced operation. Most D-MEGAs are unable to provide services to concerned MEGAs due to lack of resources and limited capacity.

D-MEGAs have clearly visualised their role on membership growth, outreach of programme and services, linkages and networking and increasing access to financial services. Some D-MEGAs are involved for enhanced access to financial services to micro-entrepreneurs by supporting MEGs to establish itself as a SCCs and assist them to obtain required services to enhance their capacity on book keeping/accounting, financial management, savings mobilisation, loan management, operational risk management, management information system and linkages with apex FSPs. D-MEGA can play an important role on increasing access to financial services to micro-entrepreneurs through lobbying, networking and coordinating with FSPs at district level.

Business Development Service Providers

There is one BDSPO in each district and they are mainly responsible either to provide or coordinate with other business development service providers to existing and potential micro-entrepreneurs in the district and support for creation and growth of micro-enterprises in the potential

locations in the district.

In general, BDSPOs have one district as their working areas, but some of them are working in more than one district (like BDSPO in Nuwakot district). These BDSPOs are registered as a local NGO in District Administration Office and are supporting for the emergence and growth of micro-enterprise in their working areas adopting MEDEP model. While some BDSPO are working for district line agencies, VDCs and I/NGOs, some of them are also selling services to larger bilateral and multilateral projects for micro-enterprise development.

They are involved in activities such as selection of potential micro-entrepreneurs, promotion of micro-enterprises, promotion of MEGs and MEGAs and conducting training for micro-enterprise development. Further, they are also involved to federate MEGs within the particular market centre into MEGAs. Most BDSPOs are unable to deliver their services as anticipated owing to series of technical and management problems, such as (i) fund raising, (ii) retention of human resources, (iii) programme implementation and (iv) support to enterprise development. Most BDSPOs are unable to expand their operation in the district. Presently, BDSPOs are involved on conducting management and enterprise development training. The future role of BDSPOs on enterprise development must go beyond MEDEP packages of services. The role of BDSPOs should revolve around creating enabling environment for the creation and development of microenterprises in the district.

4. Conclusions and Recommendations

4.1 Conclusion

Access to financial services is considered to be a powerful tool for poverty reduction and the case of microfinance as a mechanism for poverty reduction is simple. If access to financial services is improved, the poor can participate in productive activities that allow income growth, provided there are no other binding constraints.

About 61 percent MEG members in these districts have access to financial services from different FSPs. The client level impact of microfinance services

is quite vivid and significant. There are cases where over 95 percent borrowing micro-entrepreneurs have improved their livelihood through their enhanced access to financial services, while less than 60 percent non-borrowing micro-entrepreneurs have experiences such impact. Borrowing microentrepreneurs have earned incremental income of over Rs. 100,000 per year, improved their livelihood and used incremental income for asset creation (land purchase, house improvement, purchase of consumer durables, increase the number of livestock head), sending children to school, health care, clothing, household consumption and buying ornaments, which is about 25-50 percent higher than non-borrowing microentrepreneurs. More importantly, impact of access to finance on self-employment generation is quite high. Borrowing microentrepreneurs are more empowered in terms of economic, social, political and legal empowerment than the non-borrowing ones.

MEGA and D-MEGA are playing a paramount role for enhancing access to finance to microentrepreneurs by fostering linkages and networking with FSPs. The BDSPOs could play a role on increasing the credit absorptive capacity of the microentrepreneurs.

4.2 Recommendations

***Programme Packaging**:* In order to ensure sustainable access to financial services to microentrepreneurs, MEDEP should include relatively more advanced level of social mobilisation in its package and provide extra focus on social and human capital formation. Considering the paramount role of BDSPO on social mobilisation, their capacity should be enhanced on formation and capacity development of MEG, MEGA and D-MEGA vis-a-vis enhancing access to financial services to the microentrepreneurs.

***Recovery of loan fund from ADBL**:* In view that ADBL has already phased-out its microfinance operation, MEDEP should immediately initiate dialogue with ADBL to recover loan fund it has created to enhance access to financial services to the microentrepreneurs.

***Revisit the MOU with FSPs**:* MEDEP has still continued working within the framework of MOU signed with different FSPs which has raised expectation among them and created a complex situation. In view of this, MEDEP should revisit the MOU with FSPs and provide extra focus on promoting linkages and networking.

MEGs and Financial Market: Considering the current status of MEGs and financial market, it is recommended to adopt the strategy to ensure access to sustainable microfinance services to existing member of MEGs that range from federations of MEGs into SCCs (MEGAs) to MEGs' linkages with existing SCC/MEGAs nearby their vicinity and/or FSPs with prudent technical support. Thus, there could be four different strategies, described below, for enhancing access to finance through proper use of the potentials of MEGs.

Sub-strategy 1 (MEG Banking): This strategy promotes financial transactions between FSPs and MEGs. MEG banking through MEGs and existing decentralised formal banking network including several organisations in formal and non-formal sectors as banking partners allow for large-scale outreach of financial services to the poor. This scheme helps to promote financial transactions between formal rural banking systems with informal MEGs as clients. In this scheme, MEGs act as financial intermediaries. Once MEG demonstrates mature financial behavior, banks are encouraged to make loans to MEG in certain multiples of their accumulated savings.

Sub-strategy 2 (Linkages of MEGs with SCCs): There are districts or areas within a district where sub-strategy 1 cannot be applied due to access and lack of basic infrastructures. However, by virtue of cooperative movements started with the enactment of Cooperative Act 1991, there are VDCs/areas with SCCs in which most MEG members are also shareholders. The case of one member depositing savings in 2-3 informal or formal places is quite common in most areas. In those areas, strategies should be ensuring linkages of MEG members with existing SCCs. MEDEP should recognise these SCCs as its partner and assist them to enhance their capacity on aspects such as promotion and management, loan operation, accounting/book keeping, financial management and linkages with apex[12] institutions. This strategy requires close scrutiny and assessment of SCCs that exist within a VDC where MEG exists. Further, the strategy is to enhance the capacity of SCCs using packages of services that ensures upgrading them to a level where apex institutions will find them creditworthy to provide wholesale loans.

Sub-strategy 3 (Promotion of Savings and Credit Cooperatives): There are VDCs within a district where existing FSPs are reluctant to

12 The apex institutions providing wholesale loans to SCCs are RSRF, RMDC, Cooperative Banks and SKDB.

extend their services and/or SCCs do not exist, but there exist proven local capacity (education level and leadership) to promote SCCs. In such areas strategy will be to support the promotion of SCCs. In those areas, MEG will be assisted to promote SCCs either through (i) federation of the MEGs within a VDC or (ii) using on lead MEGs to register the SCC with responsibility to increase shareholders over time and keeping the status of the MEGs intact. This strategy demands complete packaging of services to support emergence and growth of SCCs as well as enhance their capacity on aspects such as promotion and management, loan operation, accounting/book keeping, financial management and linkages with apex institutions[13].

Sub-strategy 4 (Strengthening of MEGs): There are districts or VDCs within a district where (i) FSPs are less likely to extend their services over next 5-6 years due to technology and market constraints, and SCCs do not exist and local capacity limits emergence, growth and development of new SCCs. Such areas lack options to ensure access of existing clients to sustainable micro-finance services except refining existing arrangements. In these areas, emphasis should be towards enhancing the capacity of MEGs of on such aspects as promotion and management, loan operation, book keeping, financial management, etc. In such areas, possibilities of providing revolving loan funds needs to be explored.

MEGs Strengthening: MEDEP should revisit the strategy on MEG formation and strengthening focusing on up-grading their current status towards their empowerment and ensuring that each possess a documented operational policy, transparent decision making process, double entry system of book-keeping and accounting, simple financial management and reporting system so as to make them creditworthy with formal financial services providers. Further, their capacity should be enhanced in implementing these activities. A system of auditing MEGs' transaction by external auditors should be instituted.

Impact at Micro-entrepreneur Level*:* There exists difference in terms of scale, operation and management of the enterprises by the borrowing and non-borrowing micro-entrepreneurs. Therefore, MEDEP should assist the micro-entrepreneurs to ensure access to financial services using the best available options, be it linkage banking or formation of community based FSPs or linkages with commercial oriented FSPs.

13 Ibid

Capacity Assessment of and Institutional Development Guidelines for MEDEP Supported Organisations[14]

1. Introduction

MEDEP (Micro-Enterprise Development Programme) is a micro-enterprise development focused programme implemented by the Government of Nepal (Ministry of Industry), with technical and financial assistance of UNDP (United Nations Development Programme). It is currently running in its third phase (2008-2013). MEDEP activities are spread over 31 districts of Nepal, with imminent plans of scaling up to all 75 districts. Since its inception in 1998, MEDEP persistently strives to create, promote and scale up of micro-enterprise development activities targeting the ultra poor. Through such efforts, more than 35 thousand micro entrepreneurs have been created, together with the development of a significant number of institutional structures at micro, meso and central levels.

Under the MEDEP modality, micro entrepreneurs (MErs) are federated into groups with institutional support structures located at micro, meso and macro levels through the establishment of networks and partnerships at the community and national levels in the form of (Micro-Entrepreneurs groups) MEGs, Micro-entrepreneurs Group Associations (MEGAs), District Micro Entrepreneurs Group Association (DMEGAs) and National Micro Entrepreneurs Group (NMEGA)[15], both at the enterprise and service seeking fronts. Business

14 Study conducted by MEDEP with technical support from Alliance for Social Mobilization, 2009.

15 NMEGA has been named National Micro Enterpreneurs Federation Nepal (NMEFEN) in 2010.

Development Support Providing Organisations (BDSPOs) are another institutional support structure geared for providing services at the district level. Other local government bodies such as District Development Committee (DDC), Cottage and Small Industry Development Board (CSIDB) and Department of Cottage and Small Industries (DCSI) too work as partners for the growth of the sub-sector. All these entities are working for the key goal - creation, promotion and scaling up of the micro enterprises activities in line with MEDEP support. For the internalisation of micro- enterprise developmental activities initiated by MEDEP into local governmental system, a unit called Enterprise Development Unit (EDU), under District Development Committee / District Enterprise Development Committee (DDC/DEDC) has been established in all MEDEP working districts. To further complement the above efforts, BDSPOs, which also provide ME creation and promotion related services at the district levels, have been registered in the form of Non-government Organisations (NGOs), giving it the legitimacy and the required formal basis to work. BDSPOs are comprised of, and run by former MEDEP employees (under a transferring strategy from employees to independent service providers).

These entities at all levels, however, are in dire need of institutional development support. MEDEP itself and other concerned stakeholders frankly acknowledge and feel that the level of professional maturity of these entities is still not at par with the maturity of expectations of the beneficiaries who seek their services. In an effort to better understand these 'dynamics of gaps and way forward', and to have this information at hand to make an informed decision about how to take MEDEP forward, a need for an assessment of institutional capacity of these entities emerged. Therefore, this assessment was undertaken with the key objectives of: (i) Assessing institutional capacity of different organisations established and supported by MEDEP - e.g. MEGA, DMEGA, BDSPO, DEDC/ EDU, NMEGA, National Enterprise Development Committee (NEDC), CSIDB and DCSI, and (ii) Preparing institutional development guidelines to further enhance their capacity.

2. Methodology

This assessment was undertaken adopting a multi-pronged approach, based on qualitative data collection and analysis. The approach consisted of such information gathering techniques as: (i) Pre-test for drafting Work / Field Plan,

(ii) Participatory Workshops, (iii) Field Meetings & Observation, and (iv) Field Protocols such as questionnaires, interviews, Focus Group Discussion. Similarly, the Secondary Sources of data included the review of relevant documents and databases, individual and/or institution-based interviews with BDSPO, DMEGA and MEGAs in all the areas of each Area Programme Support Office (APSO), consultative workshops with MEGA, DMEGA, BDSPO, DEDC/EDU, Cottage and Small Industry Office (CSIO), DCSIO (District Cottage and Small Industry Office); interview with NMEGA and NEDC at the national level; consolidation, policy and validation workshops in the presence of DCSI, CSIDB, NMEGA, NEDC, Ministry of Finance (MoF), MEDEP and related stakeholders. Besides, Validation and Policy workshops were held at central level.

3. Findings of the Assessment

Findings have been presented in line with the study objectives, i.e., (i) Assessing institutional capacity of different organisations established and supported by MEDEP - e.g. MEGA, DMEGA, BDSPO, DEDC/EDU, NMEGA, NEDC, CSIDB and DCSI, and (ii) Preparing institutional development guidelines to further enhance their capacity.

3.1 Institutional Capacity of MEDEP Supported Organisations

3.1.1 Micro-Entrepreneurs Group Association (MEGA)

- From an organisational perspective, MEGA is an informal group of entrepreneurs who are committed from the lower economic strata, not registered as any formal entity.
- Some of the MEGA members, however, perceive it to be having a legal entity since DMEGA is a formal organisation and MEGA comes under DMEGA's umbrella. Others think otherwise. Understanding is thus varied among MEGA members and also within MEDEP staffs as to what actually MEGAs status is.
- MEGAs do not have any office space of its own but in some districts there is the provision of a community facility centre (CFC) which is used for holding monthly meetings in addition to doing actual daily micro-enterprise (ME) work.
- MEGA's function is almost limited to monthly meetings in some

places where issues/ demands of MEs are collected, compiled and submitted to DMEGA.

- MEGA is very much dependent on MEDEP for even its regular activities and meetings.
- MEDEP gives Rs.1500 (1275 after tax) for meeting and preparing monthly report. Even out of this amount, a little savings is put away. Some MEGAs have a system of making monthly contributions, and this amount collected is used for granting loans with minimum interest to MEGA members. There is, however, no such planned investment done as a group or as an organisation.
- Although, recognised as an emerging group in the community, they do not have outside network besides MEDEP.
- Reports (institutional memory and systems) and reporting mechanism is weak.
- Many MEGAs have already established cooperatives and are either in the process of registering cooperative or are seriously contemplating on it.
- Members are hopeful that MEGA may survive through cooperative in post MEDEP support stage. However, MEGAs converted into cooperatives still face limitations to work for real marketing. The concept and modalities of the cooperatives may also be difficult to be managed by the kind of individual members within MEGs.
- Support for business development, diversity and overall guidance is either missing or insufficient from MEDEP entities. If such demands are made, some support is given, as by BDSPOs. However, there is often no direct working relationship of MEGAs with BDSPO (it is basically via APSO).
- Regarding human resource development, training distribution seems unbalanced – some of them have received multiple trainings which have not necessarily paid off in terms of entrepreneurship.
- Well doing MEGAs are motivated. Monthly forum provide them with an opportunity to get together and have useful business discussions.
- MEGAs complain about MEDEP being focused more on increasing

number of entrepreneurs rather than providing business development supports to old MEGAs.

- To reiterate - at the individual level, several individual MEs are strong (in terms of being robust financially and resource-wise) and doing well for themselves. Such MEGA members are quite motivated and doing well, they are appreciative about MEDEP support but the individual enthusiasm seems to be not translated collectively into organisational enthusiasm and motivation. There are some cases of withdrawals too.
- MEDEP's effort has been paid off in terms of promoting women in leadership as women are coming out good. However, the leadership formation and strengthening is still weak, and dynamism still lacking.
- Leadership vision was not seen in any of the MEGAs interviewed.
- Young entrepreneurs are seen to be what makes MEGAs vibrant.

3.1.2 District Micro-Entrepreneurs Group Association (DMEGA)

- DMEGA**,** comprising a group of entrepreneurs at district level, is registered as NGO.
- Apart from one salaried programme coordinator (supported by MEDEP) – DMEGA is almost like a volunteering organisation composed of busy people who hold major responsibilities in their own business ventures.
- Programme Coordinator expected to actively engage in DMEGAs progress, is mostly occupied with MEDEP's other routine / reporting works. Hence DMEGA is more like an implementing partner of MEDEP rather than an independent organisation of/for entrepreneurs.
- Overlapping of similar nature of work has subtly induced a hidden competition / ambition in some DMEGAs as they feel they are equally competent to work as the BDSPOs.
- One monthly meeting falls under DMEGA's regular activity which is found not sufficient for regular functioning and sustainability. Again, even this meeting is MEDEP driven (and an allowance is given to meeting attendees).

- From an organisation management point of view, key documents such as by-laws, meeting minutes, monthly report, field report, constitution do seem to be maintained in some DMEGAs, but require systematic attention all around. Plus, there is no strategic documents prepared or at hand, to guide the organisation professionally.
- DMEGA members also work as trainers for MEDEP but all members are not fully trained and competent. Some DMEGA members are working as trainers and resource persons elsewhere. These are the active members who can support the organisation further.
- No proactive role and support to MEGAs is given. DMEGA being weakly linked to the grassroots there is a gap in their understanding of the real service needs of MEGs which do not surface due to their limited access to DMEGA (and BDSPOs). DMEGAs have a weak management and do not have a strong team, so there is mismatch between expectations and present level of competence.
- National Policy - 2064 is not internalised by (many) members.
- There is no strong network and linkage with other institutions as required for an organisation to run efficiently and independently. In fact, Individual networking for one's business is not contributing much – nor will it eventually benefit the organisation. On top of that, a communication hiatus between it and NMEGA, given the nature of functioning and mandate of MEDEP, has narrowed DMEGA's scope considerably.
- Many DMEGAs will vanish, if BDSPOs are not supportive enough and/or when MEDEP is phased out. The future of DMEGA is bleak.
- DMEGA is MEDEP dependent for rudimentary resources and related programmes.
- Like in MEGAs, individual motivation is there and members are dedicated but collective motivation to professionally move the organisation could not be seen.
- Leadership in DMEGA is socially accepted among members but competency wise – skill building is necessary. No prominent vision in leadership.

3.1.3 Business Development Service Provider Organisation (BDSPO)

- BDSPO is registered as NGO comprising of competent and well trained professionals at district levels. However, resourcefulness is more at an individual level rather than a collective asset of the organisation.
- On the positive side, some BDSPOs have re-discovered their inherent competence due to MEDEP's work and opportunities to further develop their own competencies. Such BDSPOs who have taken the opportunity and made an effort, have created an image and profile in the community, and are in demand as service providers, the extol of which goes to MEDEP.
- BDSPO office premises are well equipped albeit rented. These do include a training hall commonly shared with DMEGA.
- There are only limited processes in place that support continuous learning and self evaluation. The functioning of “BDSPOs as service providers” is not working as effectively as expected. The practice of collecting “support needs” of MEs is not effective.
- MEDEP has provided BDSPO a *protected space*, thus, its function is more inclined towards implementing MEDEP programme rather than developing itself as an independent entity. It has limited donor/ programme diversification. The only revenue generation is from membership renewal and few other programmes.
- The 2007 – 2010 strategic plans have been prepared by BDSPO as a mandatory requirement of MEDEP, but without a full understanding of the reason behind its formulation. There is absence of functional long term strategic and intermediary business plan.
- The mature BDSPOs (in terms of years of work experience with MEDEP) are rather developing individual professionals in demand who then focus on individual career building. BDSPO has thus become a platform for individual career development since many training and related supports are available. Many also leave for better jobs resulting into high staff turnover making BDSPO like a transiting platform.

- There are still deep concerns about job security. Mindset of "being employed" rather than entrepreneurial as desired, is still holding true. There was also no orientation from MEDEP for such transformation from staff to independent consultant. Many show routine-roles resulting in "jagire" mentality, instead of taking a lead as BDSPO (a gap between expectation and reality) professionals.
- Training packages for building business competencies has been made available by MEDEP including packages such as SIYB (Start and Improve Your Business) from International Labour Organisation (ILO) and they were trained.
- The division of role/s is still not clear (who does the networking and linkage, planning etc) and management practices are still relatively weak. Thus, ownership over the organisation is not visible.
- Not enough team management and leadership, in general. However, competent leaders have shown some good results in some BDSPOs.

3.1.4 District Enterprise Development Committee (DEDC)

- DEDC acts in terms of approving programmes on micro enterprise development activities in the district. However, it seems to follow a set ritualistic path – performing only for its inventor - MEDEP. It is managing only the fund that was created under the support of MEDEP.
- On another positive side, DEDCs have used available DDC fund for development of Community Facility Centres (e.g. in Parbat, Baglung, Sunsari).
- Committee meetings are quite participatory though not regular. They also seem to be called for upon the request of APSO. DEDC meetings are held not for any strategic issues or follow ups, but only to discuss MEDEP related issues of current relevance. There is a blank when it comes to discussing ideas and strategies regarding niche products and comparative advantage for the district through ME development.
- Knowledge on national level policies including Micro Enterprise Policy 2064 is limited. There is an eager anticipation for promulgation

of respective Acts and By-laws.

- DEDC lack a proactive role partly due to unclear Terms of Reference, and partly due to the systemic ill of limited sharing. DEDCs lack of clarity about the rationale underlying their establishment is making focused commitment and motivation unrealistic.
- DEDC is almost silent in directing and supervising the performance of DMEGA and BDSPO so as to foster the ME development initiatives.
- The absence of a long term strategy in turn blocks out long term envisioning and commitment, and limits motivation to develop competence to carry out resource assessment and market analysis.
- The "line manager" of DEDCs – the Local Development Officer (LDO) – is too busy a person who by this fact engages in / with DEDC work in a more reactive manner, getting active when "on demand" from MEDEP. The LDO, whose leadership is not questioned though, is at this point of MEDEP's operational modality, not well positioned to facilitate development of MEs in the district. For reasons already repeated (as in BDSPOs too), LDO's dedication and pro-activeness for enabling and institutionalising MEGA/DMEGA progress is missing.
- DEDCs not dedicated, constrained in being so by the very nature of its regular job that makes it a priority to fulfill MEDEP requirements. So, DEDC becomes non functional for the purpose of its ideally-thought existence.

3.1.5 National Micro-Entrepreneurs Group Association (NMEGA)

- NMEGA is in a key position to lead and transform enterprise development especially with its experience from *Saugat Griha* However; it is being overlooked while MEDEP plans programmes vis-à-vis BDSPO and DMEGA.
- Despite having a key position, NMEGA is one of the weak structures, having no space, poor fund and low technical capacity to support member DMEGAs.
- Members are however, keen to have a more active role in promoting national – district level linkages through systems but are confused

when repeatedly bypassed and excluded from participation during programme planning meetings where programmes for BDSPOs and DMEGAs are discussed.

3.1.6 National Enterprise Development Committee (NEDC)

- Loose network of BDSPOs from 25 districts except for Karmali-4; Dolkha 1 & Baglung 1. Some are getting membership soon.
- Overall coordination – not yet strong.
- Good data/information system but still has space for improvement further.
- Executive Committee meeting not regular although planned quarterly as it is expensive in terms of costs - almost 100 to 125 thousands for 1 meeting.
- NEDC recruited, trained and deployed 98 people in different districts as the facilitators.
- Change of status from Employed to Non-employed was painful and no transiting-orientation was provided. But it has boosted self esteem of being independent as well.
- NEDC budget is approx NRs. 10 million (1 crore), of which almost 90 percent comes from United Nations system; Project – HIV/AIDS; and some other trainings.
- Training Schools being opened for 15-month Enterprise Development Facilitators' courses are being seen as an initiative for sustaining the organisation.

3.2 Institutional Development Guidelines for MEDEP supported Organisations

The guidelines for institutional development prepared, based on the findings of the study, to further enhance the capacity of MEDEP supported organisations are presented below.

3.2.1 Micro-Entrepreneurs Group Association (MEGA)

Synopsis of major findings	Guidelines for Institutional Development
For both "mature" districts like Kavrepalanchok as well as emerging ones like Surkhet, individual members come out strong, in particular women. Their motivation to succeed is however challenged by lack of clear leadership within MEGA, and limited strategic support for business promotion and expansion from BDSPOs.	• Clarifying MEDEP's stand to develop phasing out strategies and prepare MEGAs accordingly. • Enhancing self assessment and feedback system. • Providing basic management training to selected key position holders • Regularising mentoring and networking support from BDSPOs. • Supporting for compulsory provision of recommendation from MEGAs for registration of any MEs at VDC levels for boosting image and provision for progress monitoring. • Showing ways to develop communication and network with other organisations in the district. BDSPOs must help them to develop a communication/collaboration matrix. • Promoting to avoid set "given-scope" and to transcend beyond *Dalmoth,* candle (examples only) making. This must be supported by including introduction to niche products and market through BDSPOs. • Arranging office space. CFC construction needs to be a priority for multiple objectives. • Training on leadership and constant support to enhance leadership quality. • Providing support through BDSPOs in promoting existing MEs. • Developing and adherence to long term strategic and business plans. • Backstopping support for management proficiency; better communication and networking; visioning for the future; performing in business-like manner, enhancing leadership etc.

3.2.2 District Micro-Entrepreneurs Group Association (DMEGA)

Synopsis of major findings	Guidelines for Institutional Development
It has a distinct presence in districts where MEDEP has been functioning for some years, with a nascent emergence in districts where MEDEP programmes have just begun. DMEGAs are among the nodal institutions for MEDEP's success. DMEGA members at present are struggling with competitive priorities within their own enterprises and MEDEP programmes whose active engagement at a more strategic level is now a key factor. They need to develop and function as an institution.	• Developing mechanism to enhance self assessment and feedback system. • Reorienting on their Terms of Reference to make sure that it has been internalized and will be followed through. • Managing data and information in required standard for institutional memory and needed actions. • Enhancing capacity in social mobilisation and skills for needs assessment of MEGAs. • Promoting it in the communication loop in a way that it acts as liaison between MEGAs and NMEGA. • Developing and ensuring adherence to Strategic and business • Developing and adherence to the modality and norms for task sharing and financial management. • Training on Project Cycle Management (enterprise life-cycle: pre - during - diversity - post) • Providing backstopping support for management proficiency; better communication and networking; visioning for the future; performing in business-like manner, enhancing leadership etc.

3.2.3 Business Development Service Provider Organisation (BDSPO)

Synopsis of major findings	Guidelines for Institutional Development
It is the organisation at district level with well trained individuals having expertise in micro enterprise development activities. It has tremendous potential to expand its business services within the district if only they could diversify their resource base and programmes. Employment-oriented mindset of people is a hurdle. Collective translation of individual competence, dedication and enthusiasm into organisational strength is still missing. In other words, collective competence has not been turned into strength for professional growth and institutionalization of programmes and outcomes.	• Clarifying MEDEP's stand to develop phasing out strategies and prepare BDSPOs accordingly • Systematising evaluation of performance for career growth and career-diversity along with self assessment and feedback system. • Managing data and information in required standard for institutional memory and needed actions. • For institutional sustainability there needs to be some level of autonomy in the way BDSPOs function. MEDEP must be providing normative procedures precluding risk taking, independent decision making and learning from trying, so critical for contributing to institutional robustness. • Supporting for programmes and donor diversification. • Organising one additional person besides the coordinator (as this person has limited spare time after completion of required MEDEP formalities) for overall coordination, proposal writing etc. • Training in "Project Cycle Management (PCM) + Institutional Development (ID)" that includes competence on external context assessment, proposal development, marketing tips, networking etc. • Integrating Sectoral experts (e.g. Agriculture, Forestry, and Tourism etc.), motivating to attract such local matured people without much of monetary obligation and creating an "Expert Pool" for serving the district (no multi trainings to a single person). • Providing programme-plan and guidance to let them balance both objectives (a) new enterprise creation and (b) promoting the existing ones. • Pragmatic and output-based Terms of Reference to key position holders with clear responsibilities. • Providing training on leadership for bringing people together, harnessing available resources, creating new ones, identifying additional programme avenues tapping new donors, etc. • Developing and ensuring adherence to Strategic and business plans. • Providing backstopping support for management proficiency; better communication and networking; visioning for the future; performing in business-like manner, enhancing leadership etc.

3.2.4 District Enterprise Development Committee (DEDC)

Synopsis of major findings	Guidelines for Institutional Development
Conceptually, an ideal committee formed at the DDC level to internalize the MEDEP model for mainstream local development activities. However, in contradiction, its functionalities are much mechanical and ritualistic and its contribution towards micro enterprise development is not tangible. Commitment of individual members is marred by frequent job transfer and own departmental obligations. It is not self activated but MEDEP backed.	• Supporting to promulgate act and by-laws for policy - 2064. • Persuading committee members that MEDEP model can give break to nation through ME development in niche areas in each district having comparative advantage for which role of DEDC/Micro Enterprise Development Fund (MEDF) is critical. • Organise regional workshops inviting LDO, member secretary and CSIO representative (from each district) to let them internalise role of DEDC and finding ways to institutionalize such approach. The findings are then disseminated at the national level workshop for policy level intervention. • Organising exposure visits to committed members. • Secretariat function of DEDC and management of MEDF to be handed over to CSIO as the latter is the right agency responsible for industrial development. • Supporting to DEDC to identify niche product and this concept of "uniqueness" for comparative advantage of the district. • Supporting DEDC to operationalising competitive environment for local organisations to access the funds and Micro Enterprise (ME) programmes. • Training key position holders in supervision and monitoring for programme effectively and organisations' efficiency.

3.2.5 National Micro-Entrepreneurs Group Association (NMEGA)

Synopsis of major findings	Guidelines for Institutional Development
Competence to assess and forecast demands of services required by DMEGAs is weak. Being out of programme planning loop its possible contribution is more doubtful. Apart from *Saugat Griha*, there is a distinct absence of its competence, in general. Its existence and role has been questioned by many for the support in ME sub sector.	▪ Reviewing role and functioning is critical. A thorough review of its strategic relevance and inclusion within the overall purview of MEDEP is more critical given the imminent expansion to all 75 districts. ▪ Developing and ensuring adherence to Strategic and business plans if found necessary. ▪ Government must make budget provision if review reveals prominence of its role in ME development.

3.2.6 National Enterprise Development Committee *NEDC*

Synopsis of major findings	Guidelines for Institutional Development
An apex body and loose network of BDSPOs with fairly good data and information system. It is a key structure for policy lobbying and other important guidelines to make service-providing system to ME development. Overall management and operational approaches are weak.	• Its portfolio must be expanded to make it grow and sustain for national level initiatives for Micro-enterprise sub-sector. • Intensifying support for programme and donor diversification which can ultimately make them able to establish as a national level NGO. This can only happen when the "ME-based only" value is made flexible. For this MEDEP must be supportive for capacity building. • Training in "Project Cycle Management + Institutional Development" that includes competence on external context assessment, proposal development, marketing tips, networking etc. • Supporting to create an "Expert Pool" within NEDC • Developing and ensuring adherence to Strategic and business plans. • Providing backstopping support for management proficiency; better communication and networking; visioning for the future; performing in business-like manner, enhancing leadership etc.

The minute scrutiny of the Institutional Development Guidelines reveals that there are basically five major components (see Table below) of the support needed by the entities created and supported by MEDEP, in general. They need such supports for institutionalisation of their existence and image in the community, effectiveness of programmes and impact in the society at large.

Institutional Development Strategy	Institutional Development sub-components and activities
1. Strategic and Business Plans for visioning and sustainability	• Supporting development, supervision on implementation monitoring of the adherence and assessment of results • Mentoring on assessment of externalities, programme expansion and donors diversification
2. Human resource development through Training	• PCM + ID for all including facilitating professionals of MEDEP • Leadership + Basic Management practices • Communication and networking including media materials • Assessment of Externalities and proposal writing • Concept and approaches on supervision and monitoring to key position holders in DEDC, BDSPO, DMEGA, and NEDC
3.Regional Workshops with key position holders in DEDC	• Internalisation of ME Policy; importance of DEDC in nation building through ME development; awareness on the need to identify niche products and services in each district; open bidding approach to procure services of local organisations for ME development; being vigilant on changes in market force and product dynamics etc.
4.Intermittent backstopping support	• Mentoring to refine management practices, data/information management, strategy to deploy members/staff for specific outputs; being vigilant on service needs of members and beneficiaries; being vigilant on market force and product dynamics; • Practicing self assessment and feedback system • Support in management proficiency; better communication and networking; visioning for the future; performing in business-like manner, enhancing leadership etc.
5. System development for programme effectiveness and efficiency	• Supporting to promulgate Act and by-laws for policy - 2064. • Revisiting organisational structure and refinement on Terms of Reference of major key position holders, communication channel, line of authority etc. • Providing additional person (pert-time) to the Coordinator in BDSPOs and DMEGAs • Support in the creation of “Expert Pool” with locally available matured persons • Thorough assessment of NMEGA’s position and space at the national level for ME development • Competence building of up-coming organisations (other than BDSPOs) on “ME development” after open bidding system. • Ideally determined balanced support for (a) ME creation and (b) promotion of existing ones

4. Conclusion and Recommendations

On the whole, MEDEP has made a significant contribution in the livelihood and poverty alleviation in the country. Its persistent advocacy has shown results in ME sub-sector. MEDEP's success is contributed by field level facilitators (BDSPOs) who "mentor" each micro-entrepreneur till they are settled into an activity. It is the social aspect of support as much as the economic / technical aspect of acquiring skills that have accounted for such an impact. BDSPOs could have a critical role to play in developing market linkages and marketing strategies, as yet generally under-achieved. The BDSPOs and DEDCs do have the human resource expertise, but now need to plan together how to deepen inter-linkages both amongst matured BDSPOs in other districts and with DMEGAs, the MEs at the grassroots in their work area. The DEDC personnel who are accountable to a certain sector require training on facilitation, monitoring, and networking.

MEDEP's efforts to setting up institutional entities at the district and national level for enabling sustainability in the long run are strategic. Also crucial is setting up networks of skilled human resources within the forum of DEDCs and BDSPOs. Support from BDSPO to MEGA, and direct support to MEGs is almost nil. There is role confusion as some find DMEGA and BDSPO synonymous. There was also a concern raised on conceptual existence of DMEGA and BDSPO in the district. It is suspected that many DMEGAs will vanish if BDSPOs are not supportive when MEDEP is phased out. BDSPOs, on their part, are more focused on individual target achievement (creation of new MEs as per MEDEP stipulations) but a lot more needs to be done for already existing MEs as well. If not, their mortality and attrition rate will increase.

In order to survive and grow, every organisation must be able to assess its external environment (the open market, market share of the products and services, competitiveness, growth potentials, organisational image, public faith etc.) Thus, DMEGA/BDSPO/DEDC/ NMEGA/NEDC must enhance institutional image to the optimum. MEDEP must enhance their competence or built-in a system, by which a regular backstopping support to assess the externalities is provided, which also provides an opportunity to reflect on their immediate past.

The following recommendations are put forward reflecting the participants' need, and also from the perspectives of sustainable and possible institutional development interventions.

- DMEGA/BDSPO/DEDC/ NMEGA/NEDC must enhance their competence for giving an institutional image to their respective entities. MEDEP must enhance their competence or build in a system by which a regular backstopping supports to make them able to assess the externalities is provided.
- A tailor-made Project/Programme Cycle Management (PCM) training to develop competence on (a) Leadership, (b) Programme Supervision and Monitoring, (d) Basic Management Functions, (d) Networking with external world etc. must be provided to DMEGA and BDSPO at the local levels and to NMEGA and NEDC at central level. However, such packages must be made compatible to their respective context.
- DEDC must float the bidding in local market so that competent organisation gets an opportunity to serve. "DEDCs must also develop process sensitivities, and follow a transparent procurement system to seek services of the most competent local organisation/s for its MEDEP work through Tender / open bidding".
- MEDEP must short list other NGOs which have potential to come at par at the level of BDSPO from open bidding process. MEDEP must train these organisations in the thematic area of ME development while following MEDEP model to induce a healthy competition. This could be a way out for BDSPOs to be stirred out of their existing complacency into being competitive and committed, which is a mandatory factor for survival and phasing out strategy".
- All entities must have long term strategic plan backed by intermediate "business plan".
- CSIO must function as the secretariat of the DDC-based DEDC.
- DMEGA must be capacitated to run the organisation. They must seek support from BDSPO and must assist MEGAs for the growth of their enterprises.
- "Institutional Development" must be brought in the fore front with a good balance between ME creation and systemic support to promote the existing ones.
- In order to professionally support all entities, MEDEP staffs are also suggested to participate in "Project Cycle Management" training to internalise and use the suggested management tips.

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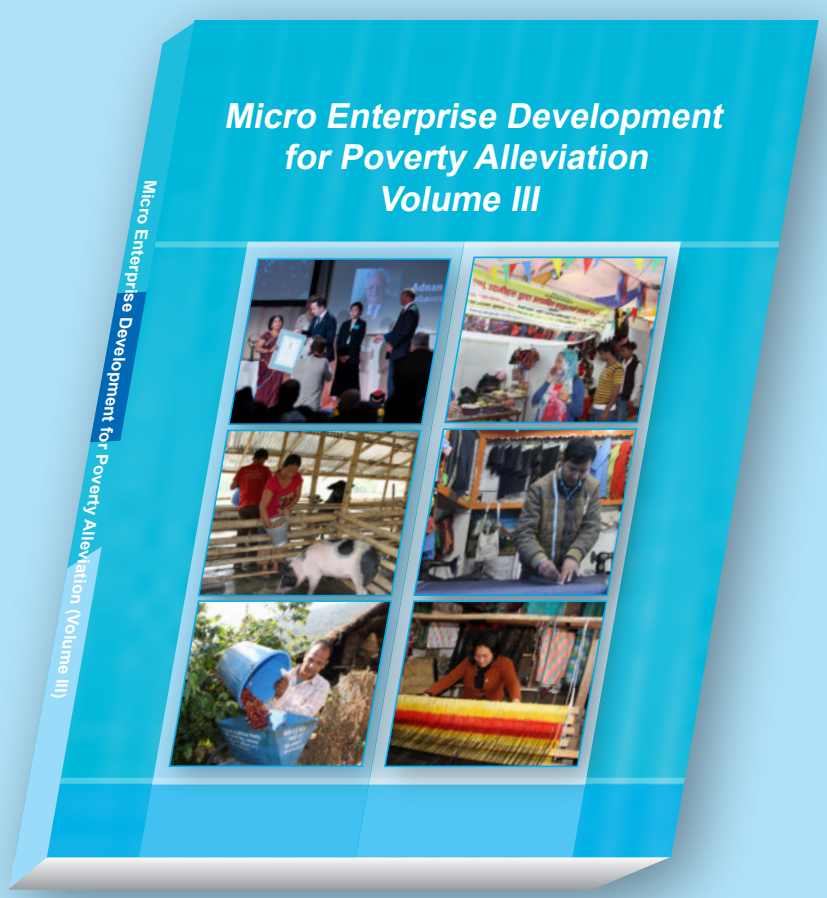

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