











# BBP-VC-Gap Analysis Hoang Lien Sa Pa AHP (Viet Nam)

**Prepared for** 

# **Biodiversity-based Products (BBP)**

as an economic source for the improvement of livelihoods and biodiversity protection

This report was commissioned by GFA written and prepared by Mr. Trang Hieu Tuong (Value Chain Consultant). The views expressed in this report are those of the author and do not represent the views of the GFA Group.

October 2015

# **ACKNOWLEDGEMENTS**

We would like to express our gratitude to all persons met. Especially, we wish to sincerely thank Mr. Nguyen Quang Vinh, Director of Hoang Lien AHP; Mr. Nguyen Thanh Tam, Deputy Head of Planning and Finance Division of Hoang Lien AHP for their steering guidance and the strong supports to the field survey as well as technical supports.

Our special thanks are for Dr. Martin Falke - BBP Project Director, Ms. Tu Anh - GFA representative office in Ha Noi who contributed valuable ideas on methodological orientation and organization of the survey.

We do hope that the findings and proposed recommendations will contribute to the development of BBP project which will benefit the selected value chains in Hoang Lien AHP and the numerous poor farmers involved.

# **ACRONYMS AND ABBREVIATIONS**

ACB ASEAN Conservation of Biodiversity

AHP ASEAN Heritage Park
AMS ASEAN Member State

BBP Biodiversity Based Products
CPC Commune People's Committee

**DARD** Division of Agricultural and Rural Development

**DPC** District People's Committee

GFA Consulting Company/ Hamburg, Germany

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit

NTFPs Non-Timber Forest Products

**S.W.O.T** Strengths, Weaknesses, Opportunities and Threats

VC Value Chain

VCA Value Chain Analysis
VND Vietnamese Dong

# **TABLE OF CONTENTS**

I. Introduction	1
1.1 Background	1
1.2 Methodology	
1.2.1 Focus group discussion on VC selection and analysis	
1.2.2 Field survey.	
1.2.3 Market research	
1.2.4 Secondary data collection	
II. Overview of BBP Project area – The Hoang Lien AHP	
III. Selection of potential sub-sectors	4
IV. Relevant policies, meso support institutions and other projects	
4.1 Relevant policies	
4.1.1 Relevant to medicinal plants:	
4.1.2 Relevant to enterprise development; common interest group and cooperative	
development	5
4.1.3 Relevant to promotion of rural trades, small industries	
V. Analysis of selected value chains with upgrading strategies	
5.1 Brocade	
5.1.1 World production and international trade of brocade	
5.1.2 Overview of brocade weaving in Viet Nam	
5.1.3 Description and quantification of the value chain in BBP Project area	
5.1.4 S.W.O.T analysis of the value chain	
5.1.5 Environment and biodiversity conservation concerns	
5.1.6 Upgrading strategies	
5.1.7 Suggested facilitation action plan	
5.2 Bath medicinal herbs and essential oils by local ethnic groups in Sa Pa, Lao	
Cai	16
5.2.1 Overview of production and trade of Bath medicinal herbs and essential oils by	
Dao's ethnic group in Viet Nam	
5.2.2 Description and quantification of the value chain in BBP Project area	
5.2.3 SWOT analysis of the value chain	
5.2.4 Environment and biodiversity conservation concerns	
5.2.5 Upgrading strategies	
5.3.6 Suggested facilitation action plan	
5.3 Giao Co Lam medicinal tea (Gynostemma pentaphyllum Cucurbitaceae)	
5.3.1 Giao Co Lam in the world wide and international trade of Giao Co Lam	
5.3.2 Overview of production and trade of Giao Co Lam in Viet Nam	
5.3.3 Description and quantification of the value chain in BBP Project area	
5.3.5 Environment and biodiversity conservation concerns	
5.3.6 Upgrading strategies	
5.3.7 Suggested facilitation action plan	
VI. Annexes	
Annex 1: The ToR	
Annex 2: Set of criteria for selecting the most potential products	
Annex 3: List of participants attended in group discussions and field interviews	
Annex 4: Questionnaires used for the field survey	
Annex 6: Websites of Giao Co Lam trading companies	. 61

# LIST OF TABLES

Table 1: Area of communes in the Hoang Lien AHP. .....Error! Bookmark not defined. Table 2: Demographic data, income and poverty rate in Hoang Lien AHP.......Error! Bookmark not defined.

#### I. Introduction

# 1.1 Background

ASEAN's rich natural resources and biodiversity offer significant potential for the region's socio-economic development. Now more than ever, it is vital to understand and acknowledge the value of biodiversity. The ASEAN Member States (AMS) want to use this economic potential by further developing trade relations for bio-products (organic trade) nationally, regionally and possibly globally. However, the potential of Biodiversity-based Products (BBP), especially for the local indigenous population in buffer zones of protected areas in the region, is not yet sufficiently analysed, their market potential often unknown. In the promotion of BBP for the improvement of livelihoods and the conservation of biodiversity, the AMS do not get sufficient support.

The BBP project, implemented in Cambodia, Lao PDR and Vietnam with a 4 year-duration from March 2015 to February 2019, is one of three modules of the German - ACB Cooperation Program "Protection of Biological Diversity in the ASEAN Member States". The project contributes to the overall *Program Objective*, but also has its specific Project Objective and respective impact indicators. The specific *Project Objective* of the BBP is: The AMS are supported by the ASEAN Centre for Biodiversity (ACB) in the promotion of biodiversity-based products (BBP) for the improvement of livelihoods and biodiversity protection, according to their needs.

On behalf of the German Government via the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the BBP Project is implemented in cooperation with the ACB in Los Banos, Philippines by GFA Consulting Group GmbH.

As part of the BBP project, the GIZ ValueLinks methodology on promoting pro-poor green value chains, will be utilized in cooperation with other biodiversity-related projects around the world, to develop a specific module on Biodiversity-based Products. The present Value chain study should be seen within this context.

The overall objective of the study is to undertake prioritization of the BBP sectors & sub-sectors and pre-analyse the three most promising value chains (VC) of BBP products in the buffer zones of Hoang Lien ASEAN Heritage Park in (AHP) in Viet Nam. The expected outputs, among other concerns include as following:

- Identify the key opportunities and constraints that limit market growth and/or production expansion;
- Suggest improvements in the value chain system to ensure direct linkages & infrastructural access of the producers with/ to the major markets to create increased incomes from their products;
- Give recommendations on how the proposed BBP value chains should be upgraded and could be supported

Specific objectives and tasks of the assignment is presented in the ToR (**See Annex** 1: **The ToR**).

# 1.2 Methodology

Based on the GIZ ValueLinks methodology with consideration of project context, the BBP Project has elaborated suitable approaches for the study.

# 1.2.1 Focus group discussion on VC selection and analysis

We discussed with Management Unit of Hoang Lien Park, leaders of CPCs, representatives from the Women's Union, Farmers Union, focal point enterprises, producers and processers in communes (preliminarily selected to join the project) to evaluate and select potential value chains.

After having a brainstorming exercise, several rounds of discussions and group works, the participants selected the most viable sub-sectors for the next steps. We provided the participants with a set of criteria for evaluating, scoring the potential products (See Annex 2: Set of criteria for selecting the most potential products).

After completing field surveys of households and local market research, we again organized an intensive group discussion with participation of key staff from Hoang Lien AHP, representatives of nodal companies, commune heads and we got consultation from some experts, NGO staffs in analyzing 03 selected sub-sectors. Outputs of those discussions are chain mappings, SWOT analysis and strategic recommendations on upgrading 03 selected VCs. (See Annex 3: List of participants attended in group discussions and interviews)

# 1.2.2 Field survey

Several interviews took place during the field survey with active contributions from collectors, producers, processors and traders of 03 selected sub-sectors. We used questionnaires to get relevant data on the collection, production, processing and sales of 03 selected sub-sectors. The questionnaires also addressed constraints facing to primary collectors/ producers at different aspects, such as accessibility to natural resources, to the market access, technological and financial capacity ... (See Annex 4: Questionnaires used for the field survey).

#### 1.2.3 Market research

We took many visits to local shops, local market places to see and interview traders of the products. We visited many shops, market places in Sa Pa Town and Ha Noi Cities to understand distribution channels, consumption trend, business linkages and other relevant information.

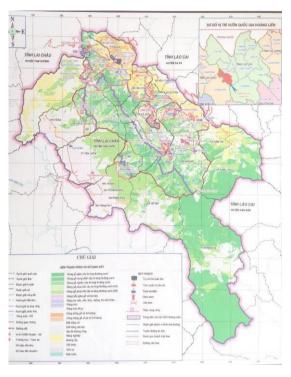
A lot of information is available on internet through online market research; we have studied many relevant websites to get understanding of international transaction of targeted products, opportunities for integrating into regional and global value chains as well as competition forces from other players.

# 1.2.4 Secondary data collection

A large amount of information was collected from relevant organizations and agencies at provincial, district and commune level. We prepared a checklist of information needed and arranged exchange meetings with related parties, who provided us with a number of studies and reports. Besides, we could get information

on the past and on-going projects, programs supported by the Governments and donors.

# II. Overview of BBP Project area – The Hoang Lien AHP



Hoang Lien National Park was established on 12/7/2002 by the Prime Minister's Decision No.90/2002/QĐ-TTg and recognized as the AHP on 18/12/2003.

The Park contains an abundant bio-reserve area with 2,847 species of flora and 555 species of fauna. Total area of the park is 28,509 ha in which 21,009 ha belonged to Lao Cai province and 7,500 ha located in Lai Chau Province. The total buffer zone area is 67,395.97 ha, mainly distributed in Lao Cai province and partly belonged to Lai Chau Province.

Total population in 8 communes in Hoang Lien AHP is about 22,259 people of 4,635 households, belonging to 8 ethnic groups. H'Mong and Thai ethnic groups posess 74% of the total population, Dao ethnic group

accounts for 6.5% and the remaining belongs to Tay, Day, Kho Mu, Lao and Kinh ethnics.

Table 1 below presents demographic data and poverty rate in the core zone and buffer zone communes in Hoang Lien AHP.

Table 1: Demographic data, income and poverty rate in Hoang Lien AHP

District/ Province	Commune	Total households	Poverty rate (%)
	San Sả Hồ	4.233	41,99
Sa Pa, Lào Cai	Lao Chải	3.889	42,26
Sa Fa, Lau Cai	Tả Van	4.022	29,44
	Bản Hồ	2.808	27,34
Tân Uyên, Lai Châu	Phúc Khoa	4.472	25,8
Tan Oyen, Lai Ghau	Trung Đồng	5.805	60,0
Tổng cộng		25.229	37.8

Source: Data of DOLISAs of Lao Cai, Lai Chau, 2014.

In general, the average poverty rate of the households in the park is relatively high and there is quite some difference in terms of the poverty rates across the communes<sup>1</sup>. Especially, the household poverty rates of Trung Dong, San Sa Ho and Lao Chai communes (partly situated in the core zone) is very high followed by other communes such as Ta Van, Ban Ho and Phuc Khoa communes. It is noted that the average household poverty rate in the communes in Hoang Lien AHP, at 37.8% is much higher compared to the average household poverty rate in the Lao Cai province, at 17.6% by 2014.

The poverty situation has been caused by many reasons. Firstly, the local inhabitants have very limited livelihood assets, especially concerning productive agricultural land. The local people still heavily rely on exploitation of natural recourses, mainly from the forest. Collection of NTFPs (wild fruits, medicinal plants, vegetables etc) is one of the main income sources for the local households. However, local people often sell collected species in the raw forms with low value and those are seasonal activities with small gains. Most of the households take part in the forest protection under the agreement with Hoang Lien AHP from which they receive the forest protection fees, 200,000 VND per household/ year. Notably, a majority of the local households collect firewood from forests, many of them collect timber and construction materials.

In conclusion, the poverty situation is still the vicious circle in some communities in Hoang Lien AHP. Therefore, it is very significant to seek market opportunities and to support for value added options, livelihood opportunities for the local inhabitants in Hoang Lien AHP.

# III. Selection of potential sub-sectors

As previously mentioned, the selection of potential sub-sectors was conducted through several rounds of meetings and group discussions. We provided the participants with a tool for scoring and ranking for a number of potential sub-sectors.

The tool includes assessment criteria as follows:

- Stable markets and selling prices
- Many people can be involved in the sub-sector (production, processing and selling)
- There will be opportunities for increasing income and value added for participating households in the sub-sector.
- The poor can easily participate in the sub-sector
- Opportunities for participation and increase of income for women
- Sub-sector development in connection with biodiversity conservation through sustainable harvest and use of natural resources
- Support from the government and local authorities.

The aggregation of the assessment results from the participants came up with the selection of three potential sub-sectors, including: (1) brocade weaving; (2) herbal bath remedy and essential oil based on local knowledge; (3) Giao Co Lam Therefore, these sub-sectors were selected for further analysis and strategy development of value chain promotion.

<sup>&</sup>lt;sup>1</sup> Poverty lines are defined in Decision No. 09/2011/QĐ-TTg on 30/01/2011 by the Prime Minister. Accordingly, for rural areas, households earn income, on average, from 400,000 VND/ person/month (4,800,000 VND/ person / year) and below are poor households.

# IV. Relevant policies, meso support institutions and other projects

# 4.1 Relevant policies

Relevant policies have been taken into implementation in Viet Nam in general and in Hoang Lien AHP in particular including the following:

# 4.1.1 Relevant to medicinal plants:

In terms of medicinal plants, the Government issued Decision No.1976/QD-TTg dated 30 October, 2013 on "Approving the master plan on medicinal plant development through 2020, with orientations toward 2030". A number of related issues for the BBP Project in Hoang Lien AHP and the selected medicinal plants are:

Specific objectives in the Decision:

- a) To preserve and exploit natural medicinal plants
- b) To develop the cultivation of medicinal plants
- c) To develop sources of medicinal plant varieties
- d) To gradually increase the ratio of standardized raw materials (medicinal plant extract, essential oil and powder) in medicine factories under the good manufacturing practice principles and standards of the World Health Organization (GMP-WHO)
- e) To create products of high quality, low cost and high competitiveness in the market
- f) To invest in the construction of factories for medicinal plant preliminary processing, processing and extraction, and medicinal plant trading centers so as to establish a favorable market for the supply and consumption of medicinal plant products

Notably, Lao Cai province located in the Northeast is one of eight ecological regions in the plan of medicinal plant development. Besides, Giao Co Lam is in the list of 54 striking species of medicinal plants in the plan of large scale plantation in eight ecological regions.

The Decision No. 2495/QĐ-UBND dated on 26/9/2012 issued by the Lao Cai PPC on approving the planning of agricultural development in Lao Cai Province to the year 2020 with orientation to 2030, stating that "Based on the local natural conditions such as suitable climate, soil, available species such as Atiso, Giao Co Lam, Xuyen Khung ...to develop the medicial plants in potential districts such as Sa Pa, Bac Ha, Si Ma Cai, Bat Xat with an area up to 350 . 400 ha.

4.1.2 Relevant to enterprise development; common interest group and cooperative development

The Decree No. 210/2013/ND-CP, dated on 19/12/2013 by Vietnamese Government on policies to support enterprises to invest in agricultural and rural development. Accordingly, the enterprises invest on the agriculture are provided strong supports in many aspects such as land allowcation, land use and leasing; supports for vocational training, aplication of new technologies, supports for marketing products.

The formation of clubs, interest groups and cooperatives to produce potential products is specified by the Government in Decree No.152/2007/ND-CP dated 10 October, 2007 on "The organization and operation of cooperative groups".

# 4.1.3 Relevant to promotion of rural trades, small industries

Decree No.66/2006/ND-CP dated 07 July, 2006 specifies policies to support rural enterprises, rural producer's groups and trade villages in recognition, conservation of trade villages; providing land area with tax exemption; trade promotion, technological application, preferable loans and vocational training.

# V. Analysis of selected value chains with upgrading strategies

#### 5.1 Brocade

# 5.1.1 World production and international trade of brocade

Brocade refers to those textiles where in patterns are created in weaving by transfixing or thrusting the pattern thread between the warp. In regular weaving the weft thread passes over and under the warp thread regularly. There are 4 main kinds of brocade: Polyester Fabric, Cotton fabric, Embroidered fabric and Silk fabric.

Brocade weaving is a traditional occupation in various countries. It has developed in approximately 30 countries in the world, of which 14 countries are in Asia, the others are in America and Africa. Brocade weaving develops in China, India, Japan, Egypt, Iran, Indonesia, Laos, Myanmar in Asia; in Peru, Bolivia, Guatemala in the Americas; Kenya, Madagasca, Morocco in Africa. Brocade has existed in India, China and Egypt since BC.

Several tens of sites introducing and advertising brocade from various countries with thousands of different kinds of brocade products are found on alibaba.com. It shows a diversity of brocade sub-sector and an increasing brocade demand in the world. Data from alibaba.com indicates that 2191, 731, 265, 88 brocade products are from China, India, Vietnam and Japan respectively.

# 5.1.2 Overview of brocade weaving in Viet Nam

There are 54 ethnic groups throughout the territory of Vietnam. The diversity of ethnicity and culture includes the diversity of lifestyles and traditional occupations. Brocade weaving exists and develops in various places in Vietnam, especially in the community of most mountainous provinces in the North such as Dao, H'Mong, Thai, Lo Lo, Muong, Nung, Xa Pho. It also exists in a number of provinces in the Central Vietnam such as Thanh Hoa, Nghe An (Thai), Thua Thien Hue (Ta Oi), Da Nang, Quang Nam (Co Tu) and a number of provinces in the South such as Ninh Thuan (Cham), Lam Dong (Chau Ma), Ben Tre, Can Tho (Khmer).

Brocade weaving existing for a long time in Vietnam is a cultural characteristic of ethnic minorities. Previously, brocade products were mainly made for household use, used as a dowry for daughter getting married and partly used for exchange. Besides, brocade is currently used as a meaningful souvenir for visitors.

Cotton is used as main material. Harvested cotton is made porous and spun after that. Moreover, a number of ethnic groups spin the bark (of Sui², hemp). Many natural materials are used to dye the brocade such as kinds of leaves, barks, lime mixed with leaves, bulbs...The colors and patterns of brocade differ considerably between the ethnic groups. For example, while brocade in the North is the connection of cloth patches that are embroidered later, patterns on brocade of Khmer people are made in the time of its weaving³.

\_

<sup>&</sup>lt;sup>2</sup> Local name

<sup>&</sup>lt;sup>3</sup> http://vietlinkcompany.oni.cc/index.php/San-Pham/tho-cam-viet-nam.html?ckattempt=1

Today, brocade becomes a common concept for textile products with colorful partterns that are not only made by hand but also with mass production. Modern brocade is applied in numerous fields such as fashion, graphics and interior decoration, etc. Besides, it is also used as a national souvenir, contributing to tourism and economy of Vietnam. Many brocade products have been exported to overseas markets such as America, Europe.

# 5.1.3 Description and quantification of the value chain in BBP Project area

# i) Brocade weaving in Lao Cai Province:

Of all traditional occupations in Lao Cai province, brocade weaving offers products with predominant position on the market. Brocade was mainly produced for self-sufficiency before. As tourism in Lao Cai province develops, the demand for such kind of products increases, accordingly promoting the production. Tens of thousands of brocade meters are produced each year. Sa Pa is potential for tourism development so embroidery and brocade weaving develops significantly. The district has 11 villages of embroidery and brocade weaving in Ta Phin, San Sa Ho and Sa Pa communes with the participation of approximately 1,050 households in focus and 260 participants from district Women's Union. 32,000 to 35,000 meters of brocade are exported each year, costing billions of dong. Similarly, Van Ban and Bac Ha districts have also founded various brocade weaving villages to use available labors. The output reaches nearly 40,000 meters of brocade each year<sup>4</sup>.

The labor force joining brocade weaving in Lao Cai province in general and in Sa Pa district in particular is mainly H'mong and Dao people. In the past, brocade weaving included various completely hand-made steps such as cotton and jute plantation, spinning, weaving, dyeing, sewing and embroidery. Now, weavers often purchase available threads and fabric (mainly imported from China). Although the brocade does not comprise natural fabric, it is woven much more quickly and costs lower than hand-made one. Only embroidery is effort-consuming as it requires meticulousness and refinement in minute detail and transfers the cultural traditions through each pattern and motif.

Traditional patterns and embroidery techniques of different ethnic groups are unique and different. On brocade of H'Mong ethnic group, the valance with cross pattern, Chu Dinh, Chu Cong<sup>5</sup> is combined with lozenge or triangle with zigzag contour in other layouts. The Dao is fond of using bright red for decoration: red scarf, red flower motif on breast and collar. The embroidery technique revealing black and indigo background in motifs helps to reduce the brightness of natural color and make the overall color smoother and more elegant.

Brocade products are diverse in terms of types, patterns and motifs. Main brocade products in Sapa include garments (skirts, clothes); decorative pieces (earrings, necklaces, bracelets, belts); scarves; wallets, purses; pillowcase; tablecloths; stuffed pet toys, etc.

The graph 1 describes a brocade value chain in Hoang Lien National Park according to direct chain actors involved the value chain. Their role and task is described as follows:

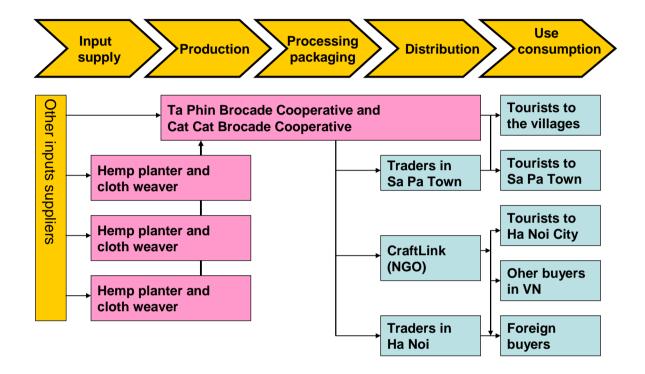
# i) Brocade buyers:

<sup>&</sup>lt;sup>4</sup> http://www.dulichhalong.com/camnang/vanhoa/lao-cai-lang-nghe-gan-du-lich/

<sup>&</sup>lt;sup>5</sup> Traditional art of local ethnics

Brocade buyers in domestic market are mainly tourists who often purchase brocade as gifts. The interviews show that the number of brocade consumers has not increased recently despite increasing distribution channels on the market. Key customers are domestic visitors who often follow a team/group and buy a large quantity of brocade. Foreign tourists purchase smaller quantity of brocade which are often compact. However, the tourists want to understand how the patterns reflect ethnic group identity of weavers.

Graph 1: Brocade value chain map in Hoang Lien AHP



Source: Compiled by the consultant

#### ii) Brocade traders:

Brocade products are often consumed through retail channels including:

#### \* Local traders:

A number of retail shops in community tourism sites (such as brocade market in Ta Phin commune; souvenir shops in Cat Cat); brocade shops in Sa Pa town; souvenir shops in Sa Pa town. It is estimated that there are nearly 100 large and small brocade shops in Sa Pa. The concern is that although there are hundreds of brocade producing households in Sa Pa, many traders have imported brocade from China. However, customers cannot distinguish between local products and Chinese ones.

<sup>\*</sup> Traders in Hanoi:

A number of companies and retail shops in the Old Quarter in Hanoi where displays various handicrafts including brocade. They purchase brocade from different places including Nghe An, Son La (Thai people), Hoa Binh (Muong people), ...

The products are often selected carefully. In many cases, they have artisans make products based on their design so the products cater for customers' taste. Besides, their selling price is much higher than that of local products.

# \* CraftLink:

As previously mentioned, in addition to supporting the design and development of products, training for weavers, CraftLink supports to introduce, advertise, make order and purchase the products. CraftLink has opened 3 shops in Hanoi and places of tourists (Temple of Literature, Vietnam Museum of Ethnology) in order to distribute the products in the domestic market. CraftLink has participated in large handicraft fairs in the country. Besides, it has been present in international fairs in New York (USA) and Germany.

CraftLink has had producers and cooperatives make brocade designed by CraftLink. In many cases, CraftLink has the groups make a number of accessories. CraftLink sews, assembles them into a complete product. Percentage of CraftLink sales consists of 70% of value in export market and 30 % of value in domestic retail market.

### iii) Weavers:

As mentioned above, there are 11 brocade villages with approximately 1,050 households in Ta Phin, San Sa Ho, Sa Pa throughout Sapa district and 260 participants from district Women's Union. Dao people mainly concentrate on



embroidery. They purchase fabric from hemp made by H'Mong people and cut, assemble and embroider to make a complete product. In many cases, Dao people purchase synthetic fabrics to make the products. Meanwhile, apart of H'Mong people still plant hemp, spin and weave the cloth. A number of H'Mong people sell hemp before weaving them. A part of fabric is retained for sewing garments in their families, others are processed for selling in the market.

Average income of weaving and embroidery is

60,000 to 80,000 VND per day.

Most H'Mong hemp planters are brocade producers. Average income of hemp household is about 100,000 dong per day (See figures in the table ? below):

Items	Unit	Quantity	Unit cost	Total cost (dong)	Notes
Seedlings	Kg	10	35,000	350,000	Many households provide seedlings by themselves
Manure, potash	Kg	20	6,000	120,000	
Nitrogenous fertilizer	Kg	15	10,000	150,000	
Pesticide				50,000	

Total intermediate cost				670,000	
Revenue in the year	Kg	10	150,000	1,500,000	Harvest after 5 months (from
Plantation and care	Day			4	February to
Harvest and preliminarily process	Day			4	June every year)
Total				8	
Annual value added				830,000	
Value added/man-day				103,750	

# iv) Brocade cooperatives:

There have been currently 2 brocade villages in the key area of BBP project. They are Ta Phin brocade cooperative and Cat Cat brocade cooperative with 250 and 14 members respectively.

Ta Phin brocade cooperative was founded in 1999 – 2000. It has 150 H'Mong members and 100 Dao members. Business activities of Ta Phin cooperative include hemp plantation, brocade weaving and sales to tourists. The advantage of Ta Phin

cooperative is the mobilization of artisans and weavers of two ethnic groups in the same area to make products with diverse types, patterns and motifs. As previously mentioned, hemp and hemp cloth are provided by H'Mong people. Dao people are responsible for cutting, assemble and embroider for a complete product. In many cases, the cooperative purchases fabric available in the market for production as the price of local hemp is higher than that of



synthetic fabric. Also, spinning is more time-consuming. This cooperative consumes the products through 3 main channels including retailing to tourists in the commune, retailing to some shops in Sapa town and wholesaling to CraftLink in Hanoi. Average income of its members is from 60,000 to 80,000 dong per day.

Cat Cat brocade cooperative was founded in 2014 with participation of 14 H'Mong people. Its consumption channels are retailing to tourists in Cat Cat village and selling in Hanoi through ViRi company.

# iv) Input suppliers:

Brocade weavers and cooperatives still purchase extra materials (thread, synthetic fabric, needle...) and other external inputs. Those inputs are provided by traders in shops in Sapa town. A quantity of cloth and synthetic fabric is imported from China.

# 5.1.4 S.W.O.T analysis of the value chain

Strengths, weaknesses, opportunities and threats of the brocade VC in Hoang Lien National Park were addressed by the group discussions as follows:

STRENGTHS	WEAKNESSES
0111=1101110	11-11-11-11-11-11-11-11-11-11-11-11-11-

- The products transfer the characteristics of H'mong and Dao ethnic groups so their patterns are diverse and unique.
- A number of cooperatives and companies specializing in brocade
- Domestic and international tourists are interested in buying brocade as a souvenir.
- Make use of available manpower

- Erratic weather affects the productivity of hemp
- The area of hemp cultivation is narrowed, not fertile. It needs renovating.
- Output for hemp is not stable as consumption demand significantly decreases.
- Traditional indigo dyeing keeps smell on the product.
- Input is not diverse.
- Production scale is small and scattered.
- Capacity of design is limited. There is not much improvement in product design.
- The collaboration between brocade producing households is not close, model of cooperative shows many restrictions on current management capacity.
- Negotiation capacity is weaker than that of traders.
- Cultural values are not widely introduced
- Selling price is high (because of being hand made)

# **OPPORTUNITIES**

- Increasing number of tourists to Vietnam in general and Sapa in particular.
- Opportunity to enter into new markets
- Much concern and support for cultural feature conservation and development.
- Potential for job creation and income increase
- Potential supports from Projects and Government programs

# **THREATS**

- Increasing cheap synthetic fiber brocade from China that erodes local brocade production.
- Overuse of chemical dyes instead of natural substances and use of nylon and synthetic yarn might destroy customers' trust in producers using natural products like silk.
- Alternative products

# \* Opportunity of market to for bracade products

According to statistics of Lao Cai Department of Culture, Sports and Tourism, total number of tourists to Lao Cai in 2014 is 1,470,000 arrivals that increases to 16.6% compared with that of 2013. Total number of tourists to Lao Cai in nine months of 2015 reaches nearly 1.6 million arrivals, rising 42.2% in comparison with that of the same period in 2014. Especially, the number of foreign tourists to Lao Cai is estimated 504,620 arrivals, rising 34.4% compared with that of the same period in 2014.

It is notable that Fansipan Cable Car Project in Sapa in in the stage of completion. The project includes complex of tourism, cultural buildings, cable and entertainment

services, hotels in Sapa. Estimated distance from the station to the top of Fansipan is 6,325 meters (one of the most longest cable in the world). The altitude difference between the departure station and arrival station is 1,410 meters (the world biggest). The project is expected to be completed and put into operation in Deecember 2015. Accordingly, the number of tourists to Sapa will rise from 30% to 40% per year. The expected number of tourists to Sapa can be up to 3 million arrivals/year by 2020. It is also a main tourism form in Sapa in the next years.

# 5.1.5 Environment and biodiversity conservation concerns

H'Mong people still dye the fabric under traditional method. They mix indigo with ash to make color. Although the material is natural, sometimes the products are smelly. Besides, the fabric is soaked into a solution of water, indigo and ash that is replaced for several times in several days. Therefore, indigo dyeing inevitably affects the environment.

# .

# 5.1.6 Upgrading strategies

Upgrading strategies for brocade value chain in Sapa focus on supporting existing production groups and cooperatives, enhancing their capacity based on strength promotion and weakness reduction, focusing on market demands and opportunities. Accordingly, upgrading strategies for brocade value chain are recommended as follows:

- a) Support for formation of brocade association in Sa Pa District to enhance the cooperation among production groups, ethnic groups. Accordingly, a common strategy of brocade development in Sa Pa district is formed.
- b) Support for capacity building on product design, product development, innovation, diversification for cooperatives.
- c) Improve skills of producing new products based on market demand.
- d) Provide innovative machines, semi-automatic machines to improve productivity of brocade production.
- e) Build managerial capacity and business operation capacity for key persons of the 02 cooperatives and local enterprises.
- f) Create raw material source from hemp plantation, increase productivity of hemp plantation; build close linkage between hemp planters and brocade weavers.
- g) Improve water treatment and waste treatment system in raw material processing and dying
- h) Build a brand of brocade in Sa Pa District

# 5.1.7 Suggested facilitation action plan

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)
a) Support for formati Pa District	on of brocade	association in Sa		
a.1 Assess the need of existing interested groups and cooperatives in forming brocade association in Sa Pa	February, 2016 (6 days)	DPC of Sa Pa	BBP Coordinator Officials of Hoang Lien AHP	300

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)
District.				
a.2 Draft operational regulations, business plans of the brocade association	February, 2016 (4 days)	Canvassing board of Sa Pa Brocade association	BBP Coordinator VC Consultant Officials of Hoang Lien AHP	600 and 8 days of VC consultant
a.3 Support for formation of Sa Pa brocade association	March to June 2016	Canvassing board of Sa Pa brocade association DPC of Sa Pa	BBP Coordinator Officials of Hoang Lien AHP	600
b) Support for capacity	/ building on I	product design,		
product development for the 02 cooperation	•			
b.1 Assess actual capacity in design and product development of 02 existing cooperatives	March 2016 (5 days)	International consultant (Avana Hoi An) and national consultant (CraftLink)	BBP Coordinator Officials of Hoang Lien AHP	600 6 days of Inter. Consultant and National consultant
b.2 Conduct market segmentation and design strategies for the 02 existing cooperatives	March 2016 (5 days)	International consultant (Avana Hoi An) and national consultant (CraftLink)	BBP Coordinator Officials of Hoang Lien AHP	600 6 days of Inter. Consultant and National consultant
b.3 Offer training course followed by supervision consulting on product design and making samples of new products for selected artisans from the 02 existing cooperatives	April to December 2016	International consultant (Avana Hoi An) and national consultant (CraftLink)	BBP Coordinator Officials of Hoang Lien AHP	1,000 30 days of Inter. Consultant and 30 days of national consultant
b.4 Conduct testing of new sampled products at different market outlets	January to March 2017	02 cooperatives	BBP Coordinator Officials of Hoang Lien AHP	600
b.5 Select best selling sampled products	April 2017	02 cooperatives	BBP Coordinator Officials of Hoang Lien AHP	
<ul> <li>c) Improve skills of pro on market demand.</li> </ul>	oducing new p	products based		
c.1 Provide training on making newly designed products (20 trainees from 02	April to July 2017	International consultant (Avana Hoi An) and national consultant	BBP Coordinator Officials of Hoang Lien AHP	2,000 30 days of Inter. Consultant

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)
cooperatives)		(CraftLink)		and 30 days of national consultant
c.2 Launch new products to identified market outlets in both domestic market and export market to assess market responsiveness.	July to September 2017	02 cooperatives	BBP Coordinator Officials of Hoang Lien AHP	800
d) Provide innovative i machines to improv production				
d.1 Provide semi- automatic machines (sewing, twisting machines) suitable to skills of weavers	May to July 2017	02 cooperatives	BBP Coordinator Officials of Hoang Lien AHP	7,000
d.2 Provide training on machines operation and maintenance	May to July 2017	02 cooperatives and supplier	BBP Coordinator Officials of Hoang Lien AHP	1,000
e) Build managerial ca capacity for key per and local enterprise	sons of the 02			
e.1 Conduct training need assessment and provide training on negotiation skills and business planning for leaders of 02 cooperatives (12 key persons of the two cooperatives)	June 2017 8 days	02 cooperatives	BBP Coordinator Officials of Hoang Lien AHP	1,000 10 days of national consultant
f) Create raw material increase productivit				
f.1 Conduct field survey on seeking land availability and possibility to expand hemp plantation area.	August 2017	02 cooperatives	BBP Coordinator Officials of Hoang Lien AHP	400
f.2 Provide funding for land preparation, seedling and fertilizers for households planting hemp.	September 2017 to March 2018	02 cooperatives	BBP Coordinator Officials of Hoang Lien AHP	3,000
f.3 Provide technical training on caring and harvesting hemp for 50	March 2018	02 cooperatives Consultant	BBP Coordinator Officials of Hoang Lien	1,000

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)
households			AHP	
g) Improve water treat				
system in raw mater	rial processing	g and dying	0	
g.1 Conduct assessment on waste treatment and water treatment system in the two cooperatives	May 2017	02 cooperatives	Consultants BBP Coordinator Officials of Hoang Lien AHP	500 5 days of consultant
g.2 Study possibilities to apply advanced the waste treatment and water treatment of raw material processing and dying in the two cooperatives.	May 2017	02 cooperatives	Consultants BBP Coordinator Officials of Hoang Lien AHP	500 5 days of consultant
g.3 Develop manuals and deliver training on waste management and environment protection for the 2 cooperatives	June 2017	02 cooperatives	Consultants BBP Coordinator Officials of Hoang Lien AHP	1,000 6 days of consultant
g.4 Delivering training on practical dyeing skills to producers, both on natural and colour-fast dyeing.	June 2017	02 cooperatives	Consultants BBP Coordinator Officials of Hoang Lien AHP	1,000 6 days of consultant
g.5 Provide necessary facilities to develop models on natural and colour-fast dyeing in the 02 cooperatives	July 2017	02 cooperatives	Consultants BBP Coordinator Officials of Hoang Lien AHP	2,000 15 days of consultant
h) Build a brand of bro	cade in Sa Pa	District		
d.1 Discuss and agree on branding plan with the full participation of representatives of cooperatives and the brocade association	September, 2016	Leadership representatives of brocade cooperatives	BBP Coordinator Officials of Hoang Lien AHP	300
d.2 Develop guidelines to ensure product quality, quality standard and consistency among producers	October, 2016	Members of brocade cooperatives	BBP Coordinator Officials of Hoang Lien AHP	400
d.3 Design and agree on brand design	December, 2016	Leaders of the brocade	Consultants BBP	400 and 6 consulting

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)
		cooperatives Inter. Consultant (Avana Hoi An)	Coordinator Officials of Hoang Lien AHP	days of consultant
d.5 Introduce new labeled products to market	January, 2017 – March, 2017	Leaders of the brocade cooperatives		300
d.6 Learn from market response and adjust the label to match the market	April, 2017	Leaders of the brocade cooperatives	Consultants BBP Coordinator Officials of Hoang Lien AHP	500 and 3 days of consultant
d.7 Register trademark and quality	May, 2017 – July, 2017	Leaders of the brocade cooperatives	BBP Coordinator Officials of Hoang Lien AHP	500
d.8 Connect with market outlets to serve tourists in Hoang Lien AHP	August, 2017	Leaders of the brocade cooperatives	BBP Coordinator Officials of Hoang Lien AHP	500
Total			T	66 man-days f consultants

# 5.2 Bath medicinal herbs and essential oils by local ethnic groups in Sa Pa, Lao Cai

5.2.1 Overview of production and trade of Bath medicinal herbs and essential oils by Dao's ethnic group in Viet Nam

Bath medicinal herbs (also called Dia dao xin in Dao language) do not only belong to Red Dao in Sa Pa but also other Dao ethnic groups' in Vietnam (Dao people in Tuyen Quang, Cao Bang, Son La, Quang Ninh, Ha Giang, Bac Can). Most members of households in Dao community know bath medicinal herbs. However, Dao women know more about their position and sustainable harvest for long-term use<sup>6</sup>.

Prescription for medicinal herb bath consists of some basic medicinal plants that is adjusted to intended use. As a result, medicinal herb bath of Dao people is extremely diverse.

Medicinal herbs for bath are fresh or dry. Fresh medicinal herbs are often used for family members or guests at home in Ta Van, Ta Phin (Sapa). Rare plants are often dried for use all the year round (often bundled into small handfuls and put in the kitchen shelf). After enough herbs are gathered, they are put into a large pan of pot

-

<sup>&</sup>lt;sup>6</sup> http://danviet.vn/que-nha/doc-dao-thuoc-tam-cua-nguoi-dao-121094.html

of 50 liters and boiled for 20 minutes. The medicinal herb water is poured into a large wooden barrel for a person to sit on (some places use plastic barrels). After the water temperature drops to around 50°C (or adding cool water into original water), people can soak in the bath for 15-30 minutes till sweating, rapid heart beating and breathing.

Medicinal herbs for bath are used to treat aching muscles, bones, joints, flu, itching, constipation and enhance the stamina for women after their childbirth or for those who experience illness. Hard laborers feel relieved and comfortable after bathing with medicinal herbs. In many cases, soaking in medicinal herb bath too long can lead to drunkenness and sleepiness. Accordingly, people should take a rest or sleep for a while. In the past 5 years, medicinal herbs for bath are known not only within the community but also commercialized in guesthouses, hotels, hospitals in Sapa and even in Hanoi.

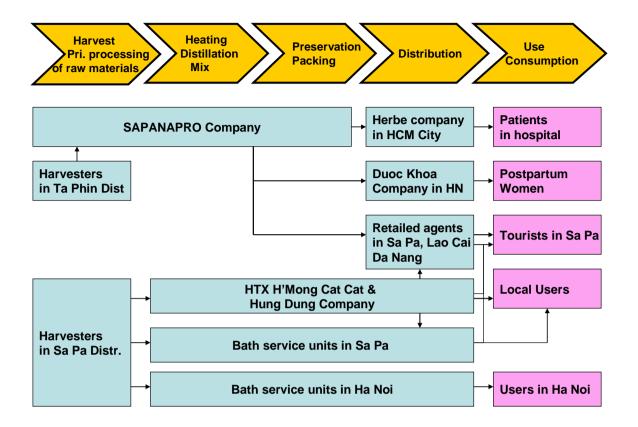
Since 2007, SAPANAPRO company in Ta Phin commune, Sa Pa has made medicinal herb oil based on traditional knowledge of the Red Dao. They are labeled and packaged to serve those who do not have opportunities to visit Sa Pa.

# 5.2.2 Description and quantification of the value chain in BBP Project area

Prescription for bath of the Red Dao in Sa Pa consists of more medicinal plants than that of other Dao ethnic groups maybe because of their greater knowledge in plants and more species of medicinal plants surrounding their residence. A prescription often contains from 10 to 120 species of different families and life forms, 5-10 medicinal plants of which are considered the most important.

The following statistics show the medicinal herb species of Families for bath of the Red Dao in Sapa: Actinidiaceae (1 species), Annonaceae (2 species), Araceae (2 species), Araliaceae (1 species), Aristolochiaceae (1 species), Asteraceae (2 species), Capparidaceae (1 species), Convallariaceae (1 species), Cucurbitaceae (1 species), Equisetaceae(1 species), Euphorbiaceae (1 species), Fabaceae (2 species), Gesneriaceae (1 species), Hernandiaceae (3 species), Lamiaceae (2 species), Lardizabalaceae (1 species), Moraceae (3 species), Oleaceae (1 species), Ranunculaceae (5 species), Rubiaceae (3 species), Rutaceae (1 species), Schisandraceae (1 species), Zingiberaceae (2 species ). Total: species (According to Tran Van On, investigation program of medicinal herbs for bath, 2004).

Graph 2: VC map of bath medicinal herbs and essential oils in Sa Pa, Lao Cai



Source: Compiled by the consultant

The graph 2 describes the VC map of bath medicinal herbs and essential oils in Sa Pa, Lao Cai with regard to direct chain actors involved in the value chain. Their role and task is described as follows:

#### i. Buyers and users

Customers who use medicinal herbs for bath following the traditional remedy of the Red Dao is increasing in number with different ages and genders.

The majority of customers are tourists to Sapa town. Many of them come directly to the communes of Dao such as Ta Phin commune to enjoy the service of steam bath with medicinal herbs of the Red Dao. There were about 9000 arrivals using the medicinal herb bath services of SAPANAPRO company in 2014. The number of customers using medicinal herb services in Sa Pa in 2014 was estimated to be 300,000 arrivals.

Some customers such as postpartum mothers, patients in hospitals in Hanoi and Ho Chi Minh city also use bath medicinal herbs bottled by of the Red Dao through the distribution channels of Herbe Company (in Ho Chi Minh city), Duoc Khoa Company (Hanoi University of Pharmacy); a number of customers from various places have used Herbal bath Remedy from bottled products of the companies.

#### ii. Traders

There are two companies in Ho Chi Minh City and Hanoi distributing Dao Herbal Bath Remedy. They are Herbe company and Duoc Khoa company. These

companies currently purchase two types of products: canned bath oil and bottled bath medicinal herbs. After purchasing medicinal bath oil, the two companies bottle and label the products. Then they conduct marketing activities to promote sales in market. It is estimated that these companies sold about 15,000 liters of bath medicinal herbs in 2014.

Some agencies and shops in Sa Pa, Lao Cai and Da Nang also distribute the bottled bath medicinal herbs of SAPANAPRO company. Through this market channels, products of the Red Dao gradually spread not only in Hanoi and Ho Chi Minh City but also in many other cities and provinces in Vietnam.

It is estimated that there are 60 bath medicinal herb service units in Sa Pa town. These bath service units are equipped with bath medicinal steaming and soaking systems. Price for each bathing service varies between 60,000 VND to 80,000 VND for every 30 minutes.

# iii. Local companies

There are 2 companies on medicinal herbs for bath and oil of the Red Dao in Sa Pa district. The first mover is SAPANAPRO company in Ta Phin commune, Sa Pa.

# \* SAPANAPRO:

Founders of the company include two Red Dao female artisans and a youngster. Recognizing the increasing demand for traditional products, basing on their family



knowledge, business spirit and a conservation sense of traditional herbal bath therapy, they founded the company in 2007.

In the starting time, SAPANAPRO was supported in many aspects by Hanoi University of Pharmacy, Vietnam University of Agriculture such as technique of conducting survey, sustainable zoning and harvest, conservation of local medicinal plants, enhancement of key staffs' capacity. Besides, the company is supported with finance from Rockefeller Fund to purchase machinery for essential oil distillation and blending systems, operational techniques during trial production, quality management and product quality registration.

The company often use 15 species of local

medicinal planters under the traditional method of the Red Dao for making a number of bath herbs. Strategies of SAPANAPRO company are developed based on increasing demand for traditional products with the aim of livelihood improvement, poverty reduction for community. Accordingly, the company set up the strategies as follows: (i) Replicate and develop the material area in a sustainable way; (ii) enhance the



capacity of company; (iii) develop the products and distribution system.

From 14 household members in 2007, the company has attracted 99 members and connected with 113 households in the community by early 2015. The company applies a mechanism of clear action and transparent production that attract and

stimulate the participation of households in the community. Poor households are given preferential treatment by the company through a part of the profits.

Now, the company has developed and introduced a number of medicinal herbs and oil to the market: (1) bath medicinal herbs for post-natal women, (2) bath medicinal herbs for men, (3) bath medicinal herbs for women in general, (4) medicinal herbs for foot massage, (5) essential oil. Besides, the company provides in situ bath services and Giao Co Lam for tourists to Ta Phin. The company's products are distributed through: (i) retail channel: in the company, a number of agencies in Sa Pa, Lao Cai, Da Nang; (ii) wholesale channel: partner companies such as Herbe company in Ho Chi Minh city, Duoc Khoa company of Hanoi University of Pharmacy.

Revenue of the company in the past 3 years are 2,800 million dong (2012), 3,500 million dong in 2013 (an increase of 25% compared with that of 2012); 4,100 million dong in 2015 (an increase of 17% compared with that of 2013). In 2014, SAPANAPRO purchased 36 tons of medicinal herbs from members and affiliated households, creating significant and sustainable additional income for 213 households.

The difficulties and challenges that the company is facing:

- Resources of medicinal plants are into exhaustion because of overexploitation to meet increasing demand.
- Competition with other companies and counterfeit products
- Risks from misconduct and incompetence of the distributors (misappropriation of capital)
- Weak market access and sales
- Weak management leads to insufficient production
- Inadequate equipment and production line

The company has developed a number of solutions in the business plan as follows:

- Develop strategy on material area planning incompliance with sustainable harvest – combine resources of natural medicinal plants and intensive plantation.
- Register monopoly trademark Improve product quality Improve equipment and management capacity to reduce costs
- Select suitable distributors Select methods of sales and payment with less risk.
- Select good members to join the company enhance training prepare future potential members

The company has achieved many solutions successfully. It is remarkable that the company cooperates with households to harvest sustainably in 52 forests with total area of 50 ha. The company has also developed models of nursery, planted a number of medicinal herbs for bath, Giao Co Lam and other medicinal plants.

.\* H'Mong Cat Cat cooperative:

H'Mong Cat Cat cooperative in San Sa Ho founded in September 2014 led by a H'Mong youngster consists of 13 members.

Like SAPANAPRO, H'Mong Cat Cat cooperative is associated with traditional experience of H'Mong people in local medicinal plants for treatment and health care. Their business is associated with remedy conservation. They are also aware of the increasing demand for local products and services.

Now, H'Mong Cat Cat cooperative produces and provides main products as follows: (i) essential oil (ii) medicinal herbal glue (iii) medicinal herbal soap.

The cooperative uses a number of input materials as follows: oil plants (Chu Du, Thao qua<sup>7</sup>) for oil distillation; many medicinal herbs for bath of the Red Dao; medicinal herbs combined with soap and minerals to become medicinal soap. The cooperative has purchased materials from households in San Sa Ho commune and medicinal herbs for bath of Red Dao in Khoang Village, Sapa district.

Those products are sold on trial in tourism sites in Cat Cat and San Sa Ho village, Sapa district. The one-year revenue is estimated to be 60 million dong.

The cooperative has been supported by VIRI with the application of new technology in essential oil and soap production, enhancement of leaders' capacity and brand building.

The difficulties and challenges that the cooperative is facing are:

- Supply of input is not stable because of natural resource overexploitation
- Skills of trading, connection and penetration into outside market
- Ability in team work, management and production.

#### iv. Local harvestors

1,000 households in the communes in Sa Pa district are estimated to harvest, process and sell medicinal herbs for bath and other medicinal plants. They are mainly the Red Dao in Ta Phin, Ta Van, Ta Khoang in Sa Pa district.

To meet the demand of the companies for medicinal herb distillation and blending and about 60 bath service units, 1,000 tons of different medicinal herbs are harvested annually. Through interviewing a number of medicinal herb harvesters and suppliers in Ta Phin commune, the average income was said to be approximately 20 million – 25 million dong/ household/year (in case of sales of 900-1000kg of dry medicinal herbs). They spend total 150 man-days. They get an average income of 18-23 million dong/year after deducting some intermediate costs such as costs for small tools and bags. Their average income reaches 130,000 dong/day.

# 5.2.3 SWOT analysis of the value chain

	STRENGTHS		WEAKNESSES
	SINENGINS		WEARNESSES
•	Some medicinal plants and	•	Weak awareness of a part of
	prescription of Red Dao and H'Mong		community on the medicinal plant
	people can be found only in Sapa		conservation
The products are highly evaluated for		•	Production habits limit the
	health and increasingly popular.		application of science and
•	<ul> <li>Potential for plantation and harvest</li> </ul>		technology in sustainable harvest
	because of appropriate land condition.		and intensive plantation

<sup>&</sup>lt;sup>7</sup> Local names of medicinal plants

-

Increasing demand and market	<ul> <li>Awareness and intellectuality of people limit the ownership in their production and trade of medicinal herbs for bath</li> <li>Lack of market information</li> </ul>
OPPORTUNITIES	THREATS
<ul> <li>Increasing demand for health improvement and care</li> <li>The operation of Cable Car Project (increasing number of tourists)</li> <li>Supports from the Government and Projects</li> </ul>	<ul> <li>Depletion of medicinal plants because of overexploitation</li> <li>High deterioration of biodiversity</li> <li>Counterfeit products</li> <li>Natural disasters: fires, floods,</li> </ul>

According to statistics of Lao Cai Department of Culture, Sports and Tourism, total number of tourists to Lao Cai in 2014 is 1,470,000 arrivals that increases to 16.6% compared with that of 2013. Total number of tourists to Lao Cai in nine months of 2015 reaches nearly 1.6 million arrivals, rising 42.2% in comparison with that of the same period in 2014. Especially, the number of foreign tourists to Lao Cai is estimated 504,620 arrivals, rising 34.4% compared with that of the same period in 2014.

It is notable that Fansipan Cable Car Project in Sapa is in the stage of completion. The project includes complex of tourism, cultural buildings, cable and entertainment services, hotels in Sapa. Estimated distance from the station to the top of Fansipan is 6,325 meters (one of the most longest cables in the world). The altitude difference between the departure station and arrival station is 1,410 meters (the worlds biggest). The project is expected to be completed and put into operation in Deecember 2015. Accordingly, the number of tourists to Sa Pa will rise from 30% to 40% per year. The expected number of tourists to Sapa can be up to 3 million arrivals/year by 2020. It is also a main tourism form in Sa Pa in the next years.

# 5.2.4 Environment and biodiversity conservation concerns

As previously mentioned, the spontaneous exploitation of many households are putting some rare medicinal species in extinction and harming the biodiversity value of Hoang Lien APH.

In addition, it is necessary to consider the impact of the use of firewood from natural forests for cooking and distillation as well as the resulting amount of CO2.

# 5.2.5 Upgrading strategies

Upgrading strategies of medicinal herbs for bath and essential oil in Sa Pa are developed in the context of unorganized harvest and planning, based on initial efforts of movers and increasing demand for local medicinal herbs for bath and essential oil. The strategies aim to reduce the poverty. They are:

- a) Replicate and develop the area of medicinal herbs in a sustainable way
- b) Enhance the management capacity of focal point companies and cooperatives
- c) Support the techniques and equipment in the framework of Public Private Partnership projects (PPP) between BPP project and enterprises
- d) Develop the system of product distribution throughout the country and promote the products professionally

# 5.3.6 Suggested facilitation action plan

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)	
a) Replicate and develo in a sustainable way					
a.1 Build a conservation area of diverse medicinal plants	February 2016 – December 2016	CPC of Ta Phin SAPANAPRO	Hoang Lien AHP BBP Project	2,500	
a.2 Support 213 household members and affiliated households in Ta Phin commune to build models of medicinal plant herb conservation, plantation and harvest in a sustainable way	February 2016 – December 2016	CPC of Ta Phin SAPANAPRO company	Hoang Lien AHP BBP Project	8,000	
a.3 Develop regulations and mechanism; support equipment for community forest management in Ta Phin	February 2016 – December 2016	CPC of Ta Phin SAPANAPRO company	Hoang Lien AHP BBP Project	2,500	
a.4 Support 20 household members of H'Mong Cat Cat cooperative to develop models of medicinal herb conservation, plantation and harvest in a sustainable way	February 2016 – December 2016	CPC of San Sa Ho H'Mong Cat Cat cooperative	Hoang Lien AHP BBP Project	800	
b) Enhance the manage companies and cooper	b) Enhance the management capacity of focal point				
b.1 Train on market understanding and business planning; improve market searching, transaction and contracting for SAPANAPRO and H'Mong Cat Cat cooperative	February 2016 – June 2016 (6 days/2 periods)	Consultants SAPANAPRO company H'Mong Cat Cat cooperative	Hoang Lien AHP BBP Project	6,00 and 10 days of consultant	
b.2 Support to implement 5S well	July 2016 – September 2016 (15 days)	SAPANAPRO company H'Mong Cat Cat cooperative	Vietnam Productivity Institute Hoang Lien AHP BBP Project	600 and 15 days of consultant	

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)
c) Support the technique framework of Public Pro (PPP) between BPP pro				
c.1 Evaluate the situation and investment need for complete production line of the company and focal point cooperative	March 2016	Consultants SAPANAPRO company	Hoang Lien AHP BBP Project	300 and 4 days of consultant
c.2 Support SAPANAPRO to make PPP proposal	April 2016	Consultants SAPANAPRO company	Hoang Lien AHP BBP Project	300 and 10 days of consultant
c.3 Support a number of items for completing the production line of SAPANAPRO (equipment for material process, material storage facility)	May 2016	Consultants SAPANAPRO company	Hoang Lien AHP BBP Project	10,000 and 5 days of consultant
d) Develop the system of product distribution throughout the country and promote the products professionally				
d.1 Support to study 3 new products and build brand for them	March 2016  – September 2017	SAPANAPRO company Hanoi University of Pharmacy	Hoang Lien AHP BBP Project	1,000 and 60 days of consultant
d.2 Support to register the brand name	May 2017 – March 2018	SAPANAPRO company Hanoi University of Pharmacy	Hoang Lien AHP BBP Project	4,000
d.3 Support SAPANAPRO company and H'Mong Cat Cat cooperative to join fairs in the country (in Hanoi, Ho Chi Minh city)	June 2016 – December 2017	SAPANAPRO company H'Mong Cat Cat cooperative	Hoang Lien AHP BBP Project	6,000 and 12 days of consultant
d.4 Support to get access market and set up new distribution channels	June 2016 – December 2017	SAPANAPRO company H'Mong Cat Cat cooperative	Hoang Lien AHP BBP Project	1,000 and 10 days of consultant
Total 36,000 and 126 man-days of consultants				

# 5.3 Giao Co Lam medicinal tea (Gynostemma pentaphyllum Cucurbitaceae)

# 5.3.1 Giao Co Lam in the world wide and international trade of Giao Co Lam

Jiaogulan is a plant of the genus Gynostemma. There are twenty-one species of Gynostemma growing throughout China, with many of them growing abundantly in the Southwest. Most of the species have other Asian distribution in one or two

countries. The pentaphyllum species is the most widespread, with distribution in Bangladesh, India, Japan, Korea, Laos, Myanmar, Nepal, Sri Lanka and Vietnam. In China, one or more of jiaogulan species can be found growing wild in the provinces of Shaanxi, Sichuan, Yunnan, Guizhou, Guangxi, Hubei, Hunan, Jiangsu, Zhejiang, Anhui, and Hainan. Jiaogulan can be found growing in the mountains and plains, at an elevational range of between 1,000 and 10,000 feet (300-3200 meters)<sup>8</sup>.

According to an abstract of the review paper<sup>9</sup> "jiaogulan (Gynostemma Pentaphyllum) is age old herb in traditional Chinese herbology. It has been widely researched. It is true Rasayan (Rejuvenator/Antiaging) herb as it is immunomodulator, adaptogen, antioxidant, anti-cancer, neuroprotective, nootropic and hepatoprotective".

The review paper also refers to a research of Dr. Tsunematsu Takemoto from 1970 to 1984 which discovered that Jiaogulan contains four kinds of saponins exactly like those in Panax ginseng and seventeen other kinds of saponins very similar to those in Panax ginseng. The work of Dr. Takemoto then proved Jiaogulan to enhance endurance, inhibit tumors and help protect the cellular immunity in humans, as well as provide many other healthpromoting benefits.

There are 69,900 results when searching "trade of Jiaogulan". There are tens of advertising pages selling Jiaogulan tea and Jiaogulan capsules on e-commerce site Alibaba, in which the majority of suppliers is from China. Price of packaged Jiaogulan tea ranges from 10 USD/kg to 38 USD/kg, etc.



In addition, a number of companies in Thailand<sup>10</sup> and US specialize in processing and supplying Jiaogulan tea to US and Canadian market. However, the HS (Harmonized System) for Jiaogulan tea cannot be found so there is no data on the volume, value of import and export on the international market.

# 5.3.2 Overview of production and trade of Giao Co Lam in Viet Nam

In Vietnam, Giao Co Lam (Gynostemma pentaphyllum Cucurbitaceae) has been collected from forests by some local people for use for a long time. It is called with different names such as Dan tong, Ngu diep sam, Sam phuong nam, Cay bo dang. In 1997, it was named Giao Co Lam by Prof.PhD. Pham Thanh Ky who was former rector of Hanoi university of Pharmacy after he found it in Fansipan mountain located in Lao Cai province. He had known Giao Co Lam during his business in China many years ago. Giao Co Lam is transliterated from Chinese called Jiaogulan. Since 1997, there have been various studies on Giao Co Lam guided by Prof. Ky. The studies have indicated that Giao Co Lam harvested in Vietnam helps to strengthen health system, lower high colesterol, fight aterosclerosis, reduce blood sugar, prevent oxidizaion, protect livers and prevent aging. The main element of Giao Co Lam is saponin. Besides, it contains flavonoid, amino acid, vitamin and 35 micro elements of relatively high content such as Se, Zn, Fe, Mg, Mn. His team extracted 7 new saponins with Damaran structure similar to ginseng's (Source:

-

<sup>8</sup> http://www.jiaogulan.net/Jiaogulan-book/chapter%204.htm

<sup>&</sup>lt;sup>9</sup> International Journal of Research in Pharmaceutical and Biomedical Sciences, ISSN: ISSN: 2229-3701

<sup>10</sup> http://www.jiaogulan.com

http://suckhoedoisong.vn/dien-dan/vi-giao-su-danh-10-nam-can-man-nghien-cuu-cho-moi-cay-thuoc-20141212164635472.htm). Giao Co Lam grows mainly in a number of provinces in the North such as Cao Bang, Lao Cai, Tuyen Quang, Ha Giang, Hoa Binh and scarcely in some provinces in the Central.

Giao Co Lam has been increasingly concerned and used since Prof.Ky proclaimed his studies. Therefore, a number of enterprises have collected, processed and sold Giao Co Lam to consumers through various different distribution channels. Currently, some enterprises have specialized in processing and selling Giao Co Lam in quite large scale in Hoa Binh and Lao Cai (in Sa Pa). The main product of these enterprises is Giao Co Lam that is distributed to numerous provinces and cities along the country. Its main distribution channel is through pharmaceutical shops in cities such as Hanoi, Hoa Binh, Sa Pa (dozens of shops in each city). These shops often support online sales and door-to-door delivery services (See Annex 6: List of Giao Co Lam trading companies).

However, current materials for processing Giao Co Lam medicinal tea in Vietnam are collected from nature, mainly from the forests. Therefore, the source of materials is at risk of being depleted as people are not concerned about the regeneration ability and lack the knowledge of sustainable harvest. It is remarkable that there are various species of Giao Co Lam in nature which are distinguished through their leaves, including species of three leaves, five leaves, seven leaves and nine leaves. According to the scientists and physicians on herbal medicine, only five-leave and seven-leave species have healing effect. However, consumers hardly distinguish those species after they are processed into tea while most processing facilities have no registration of inspection and quality. In addition, the management of Giao Co Lam medicinal tea quality seems not to be strict. Therefore, consumers may find 7-leave Giao Co Lam medicinal tea processed by different facilities with price gap from 80,000 dong/kg to 280,000 dong/kg.

# 5.3.3 Description and quantification of the value chain in BBP Project area

Sa Pa has been the "paradise" of medicinal plants such as Duong Quy, Bạch Truat, Do Trong, Che Day, Xuyen Khung<sup>11</sup> .In the early 80s of last century, Sa Pa was the place where seedlings were provided to the area of medicinal plantation for material export to Eastern Europe countries. The political events in this traditional market in the early 90s of the 20<sup>th</sup> century made the export volume of medicinal herbs drop. As a result, seedling production in Sa Pa also plummeted.

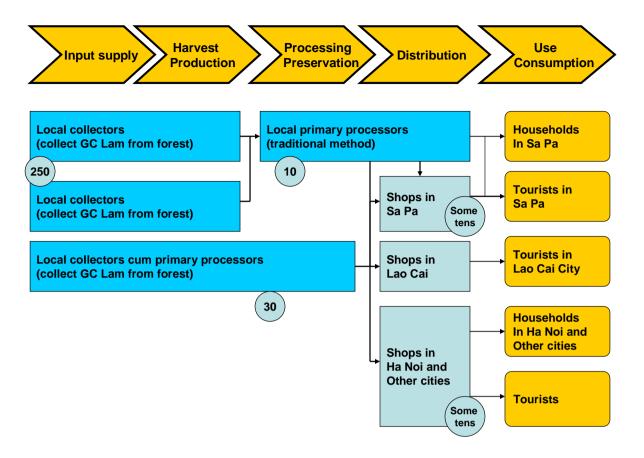
Lao Cai province is the place where Giao Co Lam was first found in Vietnam and has the largest quantity. Giao Co Lam has been used as a medicinal herbal tea and put in soup for a long time. Since 2009, some households have begun collecting big quantity of Giao Co Lam for sale to Giao Co Lam processing units in other districts.

The bellow graph 3 describes Giao Co Lam value chain in Hoang Lien AHP according to chain actors involved in the value chain.

-

<sup>&</sup>lt;sup>11</sup> Local names of medicinal plants

Graph 3: Giao Co Lam value chain map in Hoang Lien AHP



Source: Compiled by the consultant

Their role and task is described as follows:

# i) Giao Co Lam buyers:

There is a diversity of Giao Co Lam consumers in Hoang Lien AHP. The main groups of customers include: households in the park; tourists to Hoang Lien AHP, traders from Lao Cai city, Hanoi City and households in Hanoi. Giao Co Lam from Hoang Lien AHP is being sold by the online marketing to many users in other cities.

The households in Hoang Lien AHP buy local Giao Co Lam primarily as gifts for their relatives and friends in other provinces but not a big quantity.

Majority of consumers are tourists to tourism sites in Sa Pa District with the trust of health improvement and disease treatment. Each customers buy one or two 0.5 - 1kg packages. Some customers want to buy more but they cannot because of inconvenient transport (they travel with many other people in a car). Most customers make no bargain. The traders in Sa Pa Town have quite stable sale with selling price of 150,000 – 200,000 VND/kg of Giao Co Lam. Those prices are comparatively higher than selling prices of Giao Co Lam from Be Ba AHP, Bac Can Province.

The second group of customers is tourists and businessman to Lao Cai city and Hanoi City. They buy Giao Co Lam in the shops in the cities. There is almost no price difference between Giao Co Lam tea in Sa Pa District and that in Lao Cai City.

There are various types of Giao Co Lam tea in medicinal shops in Hanoi with different selling prices. There is also no price gap of the same Giao Co Lam in Ha Noi and in Sa Pa shops.

# ii) Giao Co Lam traders:

Giao Co Lam are sold in many sites in Hoang Lien AHP and shops in tourism sites of Ta Phin, San Sa Ho communes along with other local products. Tens of pharmaceutical shops in Sapa also sell Giao Co Lam. Their main customers are Vietnamese tourists to Sapa. The shop owners also distribute Giao Co Lam to a number of shops in Lao Cai and Hanoi. Some Giao Co Lam processors and traders in Sapa have created a website for Giao Co Lam sales. They advertise and sell Giao Co Lam along with other medicinal herbs. They apply flexible marketing, free trial and payment after door-to-door delivery service.

Tens of pharmaceutical shops in Hanoi sell Giao Co Lam. They purchase Giao Co Lam from different provinces such as Lao Cai, Hoa Binh, Ha Giang. As a result, their selling prices vary based on the input prices. However, it is difficult to evaluate the quality of Giao Co Lam from different places after they are packed.

# iii) Local Giao Co Lam primary processors

There are about ten households processing Giao Co Lam tea with manual method in

Sapa town and communes in Sapa district. They often purchase fresh Giao Co Lam from harvesters. After that, Giao Co Lam is dried, chopped and packed. They are mainly sold in shops in Sapa town. In some cases, Giao Co Lam is sold at home for tourists and local people as gifts. Selling price at home varies from 150,000 VND to 180,000 VND/1 kg pack of tea. The average processing capacity of each household is about 15kg/day, corresponding to 1,500 kg/year. Because of seasonal and unstable input, these households cannot actively enhance their processing capacity.



# iv) Local collectors cum primary processors

It is estimated that there are 30 Giao Co Lam collectors cum primary processing with manual method. They often live near tourism sites so they dry, chop and pack harvested Giao Co Lam for sales to tourists through the shops in the commune. In some cases, they purchase a quantity of Giao Co Lam from neighbors who have collected Giao Co Lam in the forests.

# v) Local collectors

It is estimated that over 50% of households in Hoang Lien AHP collect Giao Co Lam in the forests. However, they also do other tasks such as vegetables collection, farming and afforestation. Besides, 10% of households in Sapa town and neighboring communes collect Giao Co Lam in the forests seasonally. They often harvest Giao Co Lam for 4 or 5 months. Each household sells an average quantity of 250 – 350 kg of fresh Giao Co Lam. As a result, local people harvest and sell an estimation of 75 – 80 tons of fresh Giao Co Lam in Hoang Lien AHP.

Selling price of fresh Giao Co Lam in 2014 was 7,000 dong/kg. The average income from Giao Co Lam harvest is about 175,000 VND per day and 2,100,000 VND per year.

# vi) Household demonstration of Giao Co Lam plantation



There are a number of household demonstrations of Giao Co Lam plantation with manual method in Sapa district. Regarding the household demonstration of Mr.Ly Sai Quang, they have planted Giao Co Lam since 2012 in 3 ha of allocated forest. The area of Giao Co Lam in the forest is 400 m². The household has gained 1,200,000 dong from selling Giao Co Lam.

# 5.3.4 SWOT analysis of the value chain

STRENGTHS	WEAKNESSES		
<ul> <li>They are available in nature</li> <li>They are indigenous species that are adaptable to local natural condition</li> <li>They can help to prevent diseases and improve the health</li> <li>The workforce for planting and harvesting is available</li> </ul>	<ul> <li>Lack of sustainable harvest techniques</li> <li>Source of seedling is not available</li> <li>It is difficult to distinguish species of Giao Co Lam</li> <li>Lack of techniques to process Giao Co Lam</li> <li>Lack of linkage among harvesters</li> <li>There is not yet local branding of Giao Co Lam tea</li> </ul>		
OPPORTUNITIES	THREATS		
<ul> <li>Increasing demand of Giao Co Lam medicinal tea</li> <li>Increasing number of tourists to Hoang Lien</li> <li>Potential supports from Projects and Government programs</li> <li>Potential for job creation and income increase</li> </ul>	<ul> <li>Disease</li> <li>Compete with products in other places</li> <li>False advertising</li> <li>Mixture of different species of Giao Co Lam during processing and packaging</li> </ul>		

# 5.3.5 Environment and biodiversity conservation concerns

As incomes of harvesters depend on collected volume, they raise no concern about sustainable conservation and exploitation of Giao Co Lam from natural forests. They often cut the roots and pull out the entire strings. Moreover, they collect both old and young plants without concerning the time of blossoming and fruiting. As a result, many harvesters also recognize that the source of Giao Co Lam form nature is being exhausted.

# 5.3.6 Upgrading strategies

Upgrading strategies for Giao Co Lam value chain in Hoang Lien AHP are based on findings on chain mapping analysis, summary of SWOT and opportunities of market to this product. Accordingly, upgrading strategies for Giao Co Lam value chain are recommended as follows:

a) Evaluate the quality and reserves of Giao Co Lam in nature; zone an area for planting, protecting and sustainable harvesting Giao Co Lam in Hoang Lien AHP under co-management models of community.

- b) Develop a pilot model of Giao Co Lam processing unit that is managed by local common interest groups or cooperatives.
- c) Support for building models of Giao Co Lam plantation for needed households.
- d) Support for selected processors in applying advanced processing technology.

# 5.3.7 Suggested facilitation action plan

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)
a) Evaluate the quality and natural forest; zone an area sustainable harvesting Giao under co-management mode	for planting Co Lam in I	, protecting and Hoang Lien AHP		
a.1 Collect natural species of Giao Co Lam in Hoang Lien AHP, analyze their physical and chemical composition for medicinal value determination	January 2016	Management Board of Hoang Lien AHP	Hanoi University of Pharmacy (UPHA) BBP Coordinator	750 and 5 days of consutants
The next steps are conducte	d only when h	Activity a.1 gets g	ood results	
a.2 Measure and evaluate reserves of Giao Co Lam in Hoang Lien AHP	March 2016 – May 2016	Management Board of Hoang Lien AHP	Hanoi UPHA BBP Coordinator	2,000 and 30 days of consultant
a.3 Organize groups of Giao Co Lam collectors, make plans and regulations of zoning an area for planting, protecting and harvesting Giao Co Lam (concentrated in the buffer zone, Sa Pa Town and Ta Van commune)	June 2016 – September 2016	Management Board of Hoang Lien AHP People's Committee of communes Groups of Giao Co Lam collectors	Hanoi UPHA BBP Coordinator	500 and 10 days of consultants
a.4 Organize 02 training courses on sustainable harvest of Giao Co Lam for 40 households in Sa Pa Town and Ta Van Commune	October 2016	Management Board of Hoang Lien AHP People's Committee of communes Groups of Giao Co Lam collectors	Hanoi UPHA BBP Coordinator	1,000 and 10 days of consultants
a.5 Monitor the implementation of regulations on sustainable harvest of Giao Co Lam in the two community	From November 2016	Management Board of Hoang Lien AHP People's Committee of communes Groups of Giao Co Lam collectors	BBP Coordinator Officials of Hoang Lien AHP	500

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)
<ul> <li>b) Develop a pilot model of C that is managed by local con cooperatives.</li> </ul>				
b.1 Conduct need assessment to select suitable households to be supported in establishing Giao Co Lam nursery in Sa Pa Town	4/2016	Management Board of Hoang Lien AHP Groups of Giao Co Lam collectors	BBP Coordinator Officials of Hoang Lien AHP	400
b.2 Design Giao Co Lam nursery in a garden of 03 selected households	5/2016	Management Board of Hoang Lien AHP 03 selected households in Sa Pa Town	BBP Coordinator Officials of Hoang Lien AHP	400
b.3 Provide technical supports and essential materials to set up 03 nursery (1,500 sqm, 500 sqm/ each)	6 – 8/2016	Management Board of Hoang Lien AHP 03 selected households in Sa Pa Town	BBP Coordinator Officials of Hoang Lien AHP	1,500 And 5 days of consultant
b.4 Pursuit progress mornitoring and supervision	9/016 – 6/2017	Management Board of Hoang Lien AHP 03 selected households in Sa Pa Town	BBP Coordinator Officials of Hoang Lien AHP	500
c) Support for building mode for needed households.	els of Giao C	o Lam plantation		
c.1 Study the demand for Giao Co Lam plantation in Hoang Lien AHP	June 2016 – September 2016	Management Board of Hoang Lien AHP	BBP Coordinator Officials of Hoang Lien AHP	300
c.2 Organize study tours to Giao Co Lam demonstrations in Ta Phin Commune and Sa Pa Town for needed people.	July 2016	Giao Co Lam needed people Management Board of Hoang Lien AHP	BBP Coordinator Officials of Hoang Lien AHP	400
c.3 Organize 1 training course on Giao Co Lam plantation for 25 needed people (Sa Pa Town and Ta Van commune in buffer zone)	January 2017	Consultants from Vietam Academy of Agricultural Sciences Giao Co Lam needed people	BBP Coordinator Officials of Hoang Lien AHP	500 and 5 days of consultants
c.4 Support necessary materials for 25 trained household for planting Giao Co Lam plantation	March 2017	Management Board of Hoang Lien AHP 20 needed households	BBP Coordinator Officials of Hoang Lien AHP	2,200

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)
c.5 Provide Giao Co Lam seedlings to households	March 2017	Management Board of Hoang Lien AHP	BBP Coordinator Officials of Hoang Lien AHP	1,000
c.6 Monitor, support advice for Giao Co Lam planters	From February 2017	Management Board of Hoang Lien AHP	BBP Coordinator Officials of Hoang Lien AHP	500
c.7 Evaluate models of Giao Co Lam plantation	February 2018	Consultants from Vietam Academy of Agricultural Sciences Giao Co Lam needed people	BBP Coordinator Officials of Hoang Lien AHP	300 and 5 days of consultants
d) Support for selected processing technology.	essor in apply	ying advanced		
d.1 Organize study tours to Giao Co Lam processing units in Hoa Binh province for local collectors in Sa Pa Town and Ta Van Commune	November 2016	Management Board of Hoang Lien AHP Groups of Giao Co Lam Local collectors	BBP Coordinator Officials of Hoang Lien AHP	700
d.2 Assess the need of applying a Giao Co Lam advanced processing unit in Sa Pa Town and select 01 suitable group (5 – 9 members).	December 2016	Management Board of Hoang Lien AHP People's Committee of communes Local collectors	BBP Coordinator Officials of Hoang Lien AHP	300
d.3 Support training courses and provide supports of machinery, equipments of Giao Co Lam processing for selected group in Sa Pa Town.	February 2017 – March 2017	Contracted company to provide the centrifugal drying oven. Newly-founded Giao Co Lam processing and trading group.	BBP Coordinator Officials of Hoang Lien AHP	5,000
d.4 Develop the standards of quality for Giao Co Lam tea (Set criteria for types of tea such as: type 1, type 2, type 3)	April 2017 – May 2017	Hanoi University of Pharmacy Newly-founded Giao Co Lam processing and trading goup.	BBP Coordinator Officials of Hoang Lien AHP	300 and 5 days of consultants
d.5 Train on packaging, labeling, food safety and production on trial	April 2017 - May 2017	Giao Co Lam processing company in Hoa	BBP Coordinator Officials of	300 and 5 days of consultants

Strategies/Activities	Time	Implementers	Supporting agencies	Estimated budget (Eur)
		Binh province Newly-founded Giao Co Lam processing and trading group.	Hoang Lien AHP	
d.6 Process Giao Co Lam under expected scale	June 2017	Newly-founded Giao Co Lam processing and trading group.	BBP Coordinator Officials of Hoang Lien AHP	
d.7 Introduce and sell Giao Co Lam in shops in tourism sites of Hoang Lien AHP and Sa Pa Town.	From July 2017	Newly-founded Giao Co Lam processing and trading group.	BBP Coordinator Officials of Hoang Lien AHP	
Total			T	80 man-days consultants

### VI. Annexes

Annex 1: The ToR

### **Terms of Reference**

for a

National consultant to undertake a Value Chain Analysis of BBP (Biodiversity Based Product) Value Chains in Sa Pa AHP (ASEAN HERITAGE PARK), Vietnam as well as a First Fact Finding Mission at Sa Pa AHP, Vietnam

Project: Biodiversity-based products (BBP) as a financial source to improve livelihoods and protect biodiversity

### 1 Background to the BBP Program-Module

The BBP project, implemented in Cambodia, Lao PDR and Vietnam with a 4 year-duration from March 2015 to February 2019, is one of three modules of the German – ACB Cooperation Program "Protection of Biological Diversity in the ASEAN Member States". The project contributes to the overall *Program Objective*, but also has its specific Project Objective and respective impact indicators. The specific *Project Objective* of the BBP is: The ASEAN member countries (AMS) are supported by the ASEAN Centre for Biodiversity (ACB) in the promotion of biodiversity-based products (BBP) for the improvement of livelihoods and biodiversity protection, according to their needs. The Outputs of the BBP Project are to be:

- A strategy to support BBP Value Chains as well as policies for AMS / ASEAN are implemented
- The central Information Platform of ACB-Biodiversity Information Management (BIM) provides information for the development of BBP Value Chains for the public, private and civil sector in the AMS.
- Selected BBP Value Chains contribute to the improvement of livelihoods and protection of Biodiversity.
- Competences in the development of BBP Value Chains in the private sector of AMS are improved.

On behalf of the German Government via the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the BBP Project is implemented in cooperation with the ACB (ASEAN Centre for Biodiversity/ Los Banos, Philippines) by GFA Consulting Group GmbH.

### 2 Background to the BBP Value Chain

ASEAN's rich natural resources and biodiversity offer significant potential for the region's socio-economic development. Now more than ever, it is vital to understand and acknowledge the value of biodiversity.

The ASEAN Member States (AMS: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and **Vietnam**) accommodate about 18% of the species of the Earth; 3 of the 18 mega biodiversity countries; about 35%

of the global man-grove forests; and 30% of the coral reefs. This wealth in biodiversity poses opportunities for the economic development of the region.

The AMS want to use this economic potential by further developing trade relations for bio-products (organic trade) nationally, regionally and possibly globally. However, the potential of Biodiversity-based Products (BBP), especially for the local indigenous population in buffer zones of protected areas in the region, is not yet sufficiently analysed, their market potential often unknown. In the promotion of BBP for the improvement of livelihoods and the conservation of biodiversity, the AMS do not get sufficient support.

As part of the BBP project, the **GIZ ValueLinks methodology** on promoting pro-poor green value chains, will be utilized in cooperation with other biodiversity-related projects around the world, to develop a specific module on Biodiversity-based Products.

### 3 Objective of the assignment

The overall objective is to undertake prioritization of the BBP sectors & subsectors and pre-analyse the three most promising value chains (VC) of BBP products in the buffer zones of Hoang Lien <u>AHP</u>. The analysis will identify the different products and actors in the chain, the systemic constraints, and give a first overview about value shares accrued at different stages in the chains.

A first fact finding mission to Hoang Lien <u>AHP</u> will cover similar objectives as listed below, but in not such detail.

The main activities of the consultant are grouped around three main steps of analysis.

### **Preliminary VC Description:**

- Evaluate existing BBP value chains and project experiences in Hoang Lien AHP, based on actual livelihood activities of individuals or groups dependent on the natural resources in the buffer zones (e.g. by SWOT analyses);
- Focus on three BBP-VCs in Hoang Lien AHP (analyzing and upgrading recommendations):
  - 1. <u>Dao's Spa health bath & oil essences</u> (and check with MONRE/ Dr. Cuong for synergies with the MONRE-project with Dao Spa and include it in the recommendations)
  - 2. Brocade weaving with Women groups for handicraft VC
  - 3. Medicinal Tea for health purposes (if there is a VC-potential)
- Analyze the most crucial strategies, legal and institutional frameworks, national rules & regulations for the development of these selected BBP value chains in Sa Pa AHP, always keeping also biodiversity conservation practices in mind;

- Get first rough data on local production and production systems, including types, quantities, varieties, prices and value-added of the BBP sub-sectors and VC segments;
- Conduct a first assessment of the potential market sizes based on key informant interview (local, regional & potentially international markets);
- Investigate the existing linkages between collectors/producers, traders, processors and market outlets and create a first value chain mapping;
- Get first data around the actual and potential workforce in different VC segments, assess numbers of women who are involved and could be actively employed/self-employed;
- Investigate the local quality standards/market requirements and preferences of BBP that reach the local market;
- Investigate value addition around primary and secondary processing;

### •

### VC Analysis:

- Determine barriers and options for a future BBP value chain promotion (gap analysis for local, regional & potentially international markets)
- **Identify gaps on meso and macro levels** that can potentially enhance the functioning of the chain actors at the micro level;
- Prioritize value chains within the BBP sub-sectors on the basis of objective economic, social and environmental criteria (such as value-added, production volumes, market growth, employment and income generation potential, opportunities for income generation and employment for poorer population, women and youth, potential for biodiversity protection and sustainable use of resources etc.)

### **VC Options:**

- Give recommendations on how the proposed BBP value chains should be upgraded and could be supported
- Suggest improvements in the value chain system to ensure direct linkages & infrastructural access of the producers with/ to the major markets to create increased incomes from their products;
- **Identify the key opportunities and constraints** that limit market growth and/or production expansion;

### 4 Main tasks of National consultant

- Provide technical support in preparing, elaborating the Value chain study plan
- Prepare necessary tools (questionnaires, checklists, data entry table) for field surveys which will be directly undertaken by the National Coordinator and a data collector.

- Conduct quick market research outside the BBP Project region to get relevant market information of 03 selected value chains.
- When necessary, support the National coordinator, the data collector in consolidating collected data and writing a summary report on the field surveys.
- Conduct further data processing, analyzing and write a completion report on VC analysis of 03 sub-sectors in Hoang Lien AHP.

Study activities are elaborated in a form of detailed work-plan attached to the ToR.

### 5 Qualifications of the Consultant

- The consultant must have a minimum of 5 years' experience in the BBP value chain analysis and value chain development;
- Previous experience of undertaking value chain analysis and market assessment as well as understanding of the BBP value chains in Vietnam;
- A university degree in Economics, Forestry or related field;
- Proven experience in data collection and analysis;
- Proven experience in value chain analysis;
- Proven experience in the GIZ ValueLinks methodology on promoting propoor green value chains;
- The consultant should have high level proficiency English both spoken and written.

### 6 Location and duration

Hoang Lien AHP

Duration: see Schedule

### 7 Schedule

Start: Fact Finding Mid August2015

### The tentative itinerary of the consultant will be as follows:

Third week of August Start of the BBP-VC-Gap Analysis in Hoang Lien (Fact

Finding)

Last week of August Presentation of fact findings in Sa Pa AHP during GIZ-BBP-

Mission to Vietnam (19-27 August 2015)

End of October Finish of the BBP-VC-Gap Analysis in Hoang Lien AHP &

Final Report

### 8 Reporting and deliverables

The consultant will submit **one report**, outlining the specified data for Hoang Lien **AHP**:

- Submission of the Draft Report Hoang Lien AHP 1 week before the end of the assignment (soft copy)
- Final Report Hoang Lien AHP shall be submitted as hard and soft copy within the last week of October 2015
- Report Presentation on the GIZ-BBP-Module Inception Workshop (November 25-27 2015 in Vientiane, Lao PDR)

### Annex 2: Set of criteria for selecting the most potential products

### Sequent steps:

- 1) Please list 07 potential sub-sectors in numbered cells in the bellow table.
- 2) Please read carefully 07 criteria in the left collumn
- 3) Give score to blank cells under the 07 sub-sectors in consideration with your assessment on satisfactory rate for each criteria (Lowest satisfactory rate = 1 point, Average rate = 5 points and High rate = 10 points).
- 4) Please sum up the total scores for each sub-sector.

Criteria	Give score to each product in accordance with your assessment on satisfactory rate for each criteria (from 1 to 10 points)						
	1.	2.	3.	4.	5.	6.	7.
Stable markets and selling prices							
2. Many people can involve in the subsector (production, processing and selling)							
3. There will be opportunities for increasing income and value added for participated households in the sub-sector.							
4. The poor can easily participate in the sub-sector.							
5. Opportinities for participation and increase of income for Women.							
6. Sub-sector development in connection with biodiversity conservation through sustainable harvest and use of natural resources.							
7. Supports from the government and local authorities							
Sum							

Annex 3: List of participants attended in group discussions and field interviews

No	Full name of participants	Address	Date of interviews
1	Lý Sì Mẩy	Tả Chải – Tả Phìn Commune	23/09/2015
2	Tần Phù Quan	Tả Chải – Tả Phìn Commune	23/09/2015
3	Tần Tả Mầy	Tả Chải – Tả Phìn Commune	23/09/2015
4	Lỳ Láo Lở	SAPANAPRO Company	23/09/2015
5	Nguyễn Bá Nhung	Trợ lý GĐ công ty	23/09/2015
6	Lý Sài Thông	Xả Sáng Village, Ta Phin Commune	24/09/2015
7	Lý Sài Quông	Tả Chải Village, Ta Phin Commune	24/09/2015
8	Lý Quẩy Phầu	Tả Chải Village, Ta Phin Commune	24/09/2015
9	Tần Mẩy Sinh	Xả Sèng Village, Ta Phin Commune	24/09/2015
10	Chảo Sử Mẩy	Tả Chải Village, Ta Phin Commune	24/09/2015
11	Má A Câu	Cát Cát Village, San Sả Hồ Commune	25/09/2015
12	Má A Nů	Cát Cát Village, San Sả Hồ Commune	25/09/2015
13	Vàng Thị Tùng	Cát Cát Village, San Sả Hồ Commune	25/09/2015
14	Vàng Thị Mảo	Cát Cát Village, San Sả Hồ Commune	25/09/2015
15	Nguyễn Đắc Trung	Sa Pa Town	26/09/2015
16	Nguyễn Thị Vân	Sa Pa Town	26/09/2015
17	Minh Mai	Sa Pa Town	26/09/2015
18	Lý A Tỏa	SapaGreen Company, Sa Pa Town	26/09/2015
19	Má A Nů	Chairman of CPC of San Sả Hồ	26/09/2015
20	Lồ A Đào	Communal officer of San Så Hồ	26/09/2015
21	Vàng A Ninh	Party Secretary of Ta Van	26/09/2015
22	Giàng A Chúng	Deputy Head of CPC of Ta Van	26/09/2015
23	Lù Thị So	Ta Van Commune	28/09/2015
24	Hạng Thị Dờ	Ta Van Commune	28/09/2015
25	Lý Phù Tình	Ta Van Commune	28/09/2015

# Annex 4: Questionnaires used for the field survey QUESTIONAIRE FOR SAPANAPRO COMPANY

I.		General information			
	1.	Form of legal status:			
		vate enterprise   hers:		npany □	Co., Ltd □
	2.	Foundation year:			
	3.	Number of owners/co-owners	ers: p	ersons	
	4.	Number of labors:	. Female labors:		
	5.	Total area of processing ur	nit land: m	2 Area	of processing unit: m2
	6.	Revenue in the past 3 year	s (million dong)		
		Year 2012:	Year 2013:	Year 2	2014:
II.		Business activities:			
A.	Eco	onomy and market:			
	7.	Products of the company?			
		1)	2)		3)
		4)	5)		
	8.	What are main products?			
		·			
	9.	How many competitors are	there in terms of	main product	s?
	10.	. Where are the competitors	?		
			ses of the compati	tore:	
	11.	·	um 🗆	Low	
		riigii ⊔ IVICUI	uiii 🗆		

1	12	Information	of the	latact	customers.
1	ı <b>∠</b> .	ппоппапоп	()	iaiesi.	COSIONIEIS

Name	Location	Products	Final consumption market
10.1			
10.2			
10.3			
10.4			

13. According to the customers, which is the most important criteria of evaluation? (quality, quantity, shipping time, price)
14. Has your selling price stable during the past 3 years?
If not, state the reasons:
15. Selling prices of main products in the latest 3 years:

	Product 1	Product 2	Product 3	Product 4
Year				
Selling price				
of year 2012				
(dong)				
Selling price				
of year 2013				
(dong)				
Selling price				
of year 2014				
(dong)				

# B. Material supply and processing

16. Is it easy to collect inputs (cây thuộc tăm)?
If not, state the reasons:
17. How many households supplying materials to the company? households
18. Methods of supply?
19. Payment methods?

## 20. Production capacity

Year	Purchased herbs (ton)	Product 1(kg or ml)	Product 2(kg or ml)	Product 3(kg or ml)	Product 4(kg or ml)
2012					
2013					
2014					

## 21. Production cost for 1000 kg of materials (dong):

Main produ ct	Materia Is (herbal leaves)	Manpow er	Electrici ty & firewoo d	Transportati on	Depreciati on	Managem ent cost	Other s
Produ ct 1							
Produ ct 2							
Produ ct 3							
Produ ct 4							

## 22. Production cost for kinds of products (dong)

(In case you cannot fulfill the 21., please complete this one)

Year	Production 1	Production 2	Production 3	Production 4
2013				
2014				

	22	2. L	Эe	sc	rıb	e s	ite	ps	of	· pı	roc	du	ctı	or	n p	ro	CE	ess	3:										
• • • •					• • •				•••	• • •						•••				 	 	 •••	 	 	 	••••			

	23. Where do you purchase equipment and machines?
	24. Has the company completely controlled the operation of the machinery?
	25. How is the repair and maintenance?
	C. Access to loan/credit services and public services
	26. Do you get a loan? If yes, how much the loan balance is?million
	27. Where do you get a loan? How much interest rate is?%
/ye	ar
	28. Is it easy to get access to the capital?
	29. Situation of land use?
	30. It is easy to get a certificate of land use rights?
	If not, state the reasons:
	31. Do you get support from the government? If yes, state clearly:
(M	Please specify the Projected supported by Department of Biodiversity Conservation inistry of Natural Resources and Environment):
	Starting time: Ending time:
	Objectives:
Pa	Forms of support: Technical support   Financial support   Public Private rtnership
	Specify the main supports:
	32. What are the biggest difficulties and challenges of your processing unit?
	30. Do you recommend anything to improve your business?

# QUESTIONNAIRE Situation of Red Dao medicinal bath herb harvest and sales

Commune: I. General information		Village	:		
1. Householder (in	capital letters):			Age:	
2. Telephone num	ber:				
3. Number of famil	y members:				
4. Ethnic group:					
<ul><li>5. Number of peop</li><li>6. Types of housel</li></ul>	holds:	<i>Male: 16-60; Fe</i> Medi			Sufficient [
Poor			ium		Sufficient □
II. Situation of ba	th herb harvest a	nd sales			
<ul><li>7. Do you know ho</li><li>8. Name those spe</li></ul>	• •	f herb for bathir	ng there	e are?	
•	2)			3)	
4)					
7)					
10)					
13)					
•		,		,	
9. How many herb	•	holds in the con	nmune?	•	
	households				
10. Do you often g	o to harvest bath h	nerb? Yes □	No □		
<ul><li>11. Harvest time</li><li>a) Main harvest tin</li></ul>	na, mantha				
•	/month:				
b) Other harvest til					
•	/month:				
12. Information ab		oath herb proce	ssing:		
Do you process ba	ath herb?	Yes □ No □			
13. How do you pr	ocess bath herb?				
Describe steps of	bath herb processi	ng:			
a)	•••••				
b)					
c)					
d)					
e)					

14. Which tools and equipments do you need to premilinarily process bath herb?

Tools	Quantity	Unit price (dong)	Total price (dong)

15. Cost for harvesting and processing bath herb (for 10 kg of premilinarily processed bath herb)

Items	Unit	Quantity	Unit price (dong)	Total price (dong)
Cost for harvesting				
Cost for drying				
Cost for				
Cost for				
Cost for tools and equipment				
Firewood				
Electricity, water				
Plastic bags				
Transport to home				
Transport to shops				
Cost for harvest and royalties				
Others				

16. Data on volume of bath herb harvest and sales in the past 3 years:

Year/Other indicators	Volume of bath herb harvest and sales (kg)	Value (dong)
2012		
2013		
2014		

-	ten go to harvest bat		
	: fromkm to		
18. Form of material	ownership:		
19. Consumer inform	nation		
Who do you sell bath			
•	any □ Trad	ders 🗆	
Herb bath spas □			
Others:			
Where do you sell ba		et data =	At a fix location in the commune
	Others:	-	At a fix location in the commune
Bath herb consumpt			
•	•	icult 🗆	Extremely difficult □
Payment methods of			,
Which characteristic	s of bath herb do cus	stomers of	ten pay attention to?
	in selling bath herb?		
Transport:	Inconvenier	nt	Convenient
	about selling price:	atiand in a	a di vana a
Being noticed in adv Other issues:	ance Not being n	ioticed in a	advance
	•••••		
III. Techniques of h	arvesting and proc	essing ba	ath herb
19. Have you master	red completely the te	chniques	of harvesting and processing bath herb?
Yes □	Not yet □		
If not, why?			
20. Difficulties in hav	esting and prelimina	irily proces	ssing bath herb:

21. What do you need more about the techniques of harvesting and processing bath herb?

Thank you!

# QUESTIONNAIRE Used for Giao Cao Lam collector

I. General information  1. Householder (In capital letters):									
Number of family me     Ethnic group:	3. Number of family members:								
<ul><li>5. Number of people in</li></ul>		le: 16-60: Fem	nale: 16-55):						
6. Types of household		Medium	ŕ	Sufficient					
II. Situation of Giao C	II. Situation of Giao Co Lam harvest and sales								
7. Do you know how many species of Giao Co Lam there are? Characteristics to distinguish different species of Giao Co Lam:									
8. How many Giao Co 9. Do you often go to h 10. Harvest time 10.1 Main harvest time Frequency/mor 10.2 Other harvest tim Frequency/mor 11. Information about t Lam? 12. How do you proces Describe steps of Giao	e: months:e: months:e: months:e: months:e: month:e: cechniques of Giacoss Giao Co Lam?	am? Yes □  O Co Lam proc Ye  ing:	essing: Do yo s □	No □ u process Giao No □					
Tools	Quantity	Unit pr	ice (dong)	Total price (	Total price (dong)				
14. Cost for harvesting Giao Co Lam)	and processing (	Giao Co Lam (f	or 10 kg of pr	emilinarily proce	essed				
Items	Unit	Quantity	/ Unit pr (dong		l price ong)				
Cost for harvesting									
Cost for drying									

Items	Unit	Quantity	Unit price (dong)	Total price (dong)
Cost for				
Cost for				
Cost for tools and equipment				
Firewood				
Electricity, water				
Plastic bags				
Transport to home				
Transport to shops				
Cost for harvest and royalties				
Other costs				

15. Data on volume of Giao Co Lam harvest and sales in the past 3 years:

Year/Other indicators	Volume of Giao Co Lam harvest and sales (kg)	Value (dong)
2013		
2014		
2015		

16. Where do you of	ten go to harvest Gia	
Distance from home	: fromkm to	
17. Form of material	ownership:	
18. Consumer inform	nation	
Who do you sell Gia	o Co Lam to?	
Traders □	Processors □	Other:
Where do you sell G	iao Co Lam?	
In the forest gate	At a fix location in	the commune □
At the processing un	nit □	
Giao Co Lam consui	mption in recent year	·S:

Easy	Convenie	nt □	Difficult □	Extremely difficult	
•	t methods of cus				
 Which ch		 Giao Co L	am do custom	ers often pay attraction to?	
	ind difficulty in s				
	ransport: nformation abou		ivenient ice:	Convenient	
	ticed in advance			in advance	
	niques of harve				
	•	•		s of harvesting and processing Giao Co	)
Yes		ot yet □			
				20	).
	· ·		• •	sing Giao Co Lam:	
21. Wha Lam′	•	ore about	the techniques	s of of harvesting and processing Giao (	Эd
				k you!	

# QUESTIONAIRE GIAO CO LAM PROCESSING UNITS AND HOUSEHOLDS

I. G	eneral information				
1. F	louseholder (In capital letters): .			Age:	
2. T	elephone number:				
3. N	lumber of family members:			_	
4. E	thnic group:			L	
	lumber of people in working age ypes of households:	e (Male: 16-60; Fe	emale: 16	S-55):	
	Poor □	Medium		Sufficient	
7. T	otal labors: Female la	bors:			
	otal area of processing unit land .m2	d: m2	Area of	processing unit:	
For	m of processing unit ownership:				
I.	Giao Co Lam processing				
	How long have you operated yo Monthyear  Reasons for opening Giao Co L	·	orocessin	g unit?	
10.	reasons for opening clad co L	am am.			
11	How many Cina Ca Lam proces	aina unita in Cana	ond in t	ha aammuna?	
	How many Giao Co Lam proces				
	proces	sing units. Which	one is bi	ggest?	
12.	Has volume of sold Giao Co Lar	n increased in red	cent year	s?	
;	State the reasons:				
13.	Information about your main cus	stomers:			
	Customers		Locatio	on	
-	11.1				
-	11.2				
-	11.3				
-	11.4				
-					

	14. According to the customers, which is the most important criteria of evaluation? (quality, quantity, shipping time, price)							
15.	Has your selling price							
If n	ot, state the reasons:							
16.	Where did you buy th	e centrifugal ove	en?					
	When did you buy it?							
	Total costs of building	the oven?	millio	on VND?				
17.	Where do you buy fre	sh Giao Co Lan	n?					
18.	Do you find it conveni	ent to buy fresh	Giao Co Lam?	<b>&gt;</b>				
	Yes □	No □						
	If not, why?							
19.	Volume of purchased	Giao Co Lam d	uring the latest	years				
19.	Volume of purchased  Year	Volume of	purchased	Purchas	ing price a/ka)			
19.	•		purchased		• .			
19.	Year	Volume of	purchased	Purchas	• .			
19.	Year 2012	Volume of	purchased	Purchas	• .			
	Year 2012 2013	Volume of Giao Co I	purchased Lam (kg) other outputs for	Purchas (don	g/kg)			
	Year  2012 2013 2014  Please list types of including the types properties.	Volume of Giao Co I	purchased Lam (kg) other outputs for	Purchas (don	g/kg)			
	Year  2012 2013 2014  Please list types of including the types properties.	Volume of Giao Co I	purchased Lam (kg) other outputs for	Purchas (don	g/kg)			
	Year  2012  2013  2014  Please list types of including the types processed in the price of input	f materials and ovided by your last during the pas	other outputs for nousehold st years:	Purchasi (don	g/kg) Giao Co Lam			
	Year  2012 2013 2014  Please list types of including the types proceed in the price of input Year/	f materials and ovided by your last during the pas	other outputs for nousehold st years:	Purchasi (don	g/kg) Giao Co Lam			

	2. Cost for o	utside labors			
	3				
	4				
21.	Your revenue	es in the past years:			
	Year	Volume of sold Giao Co Lam (kg)	Selling price (dong)		
	2012				
	2013				
	2014				
	III. Access to	loan/credit services	and public service	es	
	Do you get a dong.	loan? If yes, how r	much the loan balar	nce is?	million
23.	Where do you	u get a loan?	How much in	iterest rate is	s?%/year
24.	ls it easy to g	et access to the capita	l?		
25.	Does your un	it get support from the	government?		
	If yes, state o	learly:			
26.	What are the	biggest difficulties and	challenges of your	processing (	unit?
27.	Do you recon	nmend anything to imp	rove your business'	?	

## **CHECKLIST FOR GIAO CO LAM TRADERS AND SHOPS**

1.	In your opinion, how many of Giao Co Lam species are there?						
2.	How to distinguish species of Giao Co Lam?						
	Type 1:						
	Type 2:						
	Type 3:						
	Different price of Giao Co Lam: pe 1: dong/kg Type 2: dong/kg Type 3: dong/kg						
4.	Selling price in the past years:						
	Year 2012: dong/kg						
	Year 2013: dong/kg						
	Year 2014: dong/kg						
5.	Have you sold much Giao Co Lam recently? Does the number of customers tend to increase?						
6.	Who purchase Giao Co Lam most? The old □ The middle-aged □ Adolescents □						
	Women □ Men □						
7.	Which factor do customers pay attention to most? Quality □ Price □ Others:						
8.	Where do you purchase Giao Co Lam?						
9.	Contract and method of payment to processors and middlemen						

# QUESTIONAIRE HEMP PLANTING HOUSEHOLDS

	Hired	d labors	Family labors	
Items	Man-days	Cost/unit (dong/day, dong/m2)	Man-days	Cost/unit (dong/day, dong/m2)
Tillage				
Seedlings				
Plantation + Care + Harvest				
Fertilizer				
Hiring labors				
Kinds of fees				
Others				

## III. Consumption

12) Data on volume of jute harvest and sales in the patst 3 years:

Year/Other indicators	larvesting area (m2)	Volume of harvest (kg)	For use (kg)	For sales (kg)	Value of sold jute (dong)
-----------------------	----------------------------	------------------------------	-----------------	-------------------	---------------------------------

2012							
2013							
2014							
Yes □ If yes, how mu	I anything else ∈ No □ ch money can y		ing them?				
Year/Other indicators	Volume	of extra produ	ıcts (kg)	Value	(dong)		
2012							
2013							
2014							
14) Consumer Who do you se Traders □ Where do you	ell jute?		others:				
At home □	At a fix location	in the commune	e □ At brocade	e weaver's hous	е 🗆		
15) Jute consu	mption in recen	t years:					
Easy □	Convenient [	Difficult =	]	Extremely of	difficult 🗆		
Payment meth	ods of customer	s:					
Comments on	jute consumptio	n:					
Do you find dif	ficulty in selling	ute?					
Transport:	Conveni		nconvenient				
Information ab in advance	out selling price:	Being no	ticed in advance	e □ Not	being noticed		
IV. Technique	s of jute planta	tion					
-	-		chniques of jute	plantation?			
Yes □	Not yet a	3					
If not, why?							
17) Difficulties in jute plantation:							
	ining on jute pla						
Yes	anning on jute pla		0 🗆				
	e the content, for						

# QUESTIONAIRE TA PHIN BROCADE COOPERATIVE

II.		Genreral information
	1.	Establishment year:
	2.	Context:
		tablish itself   Supported by the government   Supported by the project
	Sp	ecify the support:
	3.	Full name of the chairman:
	4.	Number of labors: Female labors:
	5.	Total area of production unit land: m2 Area of production unit:m2
	6.	Form of production unit ownership?
III.		Business activities:
	7.	Types of products (numbering each type):
	8.	What are main products?
	9.	Does the cooperative have operation charter and regulations?
		Yes □ No □
	If n	ot, why?
	10.	Do the Administrative council and the cooperative organize periodic meetings?
		Yes □ No □
		If yes, how many times a year?times
	11.	Information about your main customers:
		Customers Location Products

Customers	Location	Products
11.1		
11.2		
11.3		
11.4		

14. Has your	selling price stable	during the past 3 y	years?		
If not, state th	e reasons:				
cooperativ	ve (numbering)		including the types p		
16. List outsic	de inputs during the	past years:			
			Unit: dong		
Year/Inputs		2012	2 2013	2014	
1					
2					
3					
4					
5					
17. Where do	you get the inputs				
Υe	nd any difficulty in p es □	No 🗆			
Ye	es 🗆	No 🗆			
Ye	es 🗆	No 🗆			

2013							
2014							
III. Access to loan/credit services and public services							
20. Do you get a loan? If yes, how much the loan balance is?million dong							
21. Where do you get a loan? How much interest rate is?%/year							
22. Is it easy to get access to the capital?							
23. Do you get support from the government? If yes, state clearly:							
24. What are the biggest difficulties and challenges of your cooperative?							
25. Do you recommend anything to improve your							
business?							

## CHECKLIST FOR BROCADE TRADERS AND SHOPS IN SAPA

1.	In your opinion, what are core values of brocade in Sapa?  Embroidery pattern □ Materials □ Features of culture and ethnic group □  Others (specify them):
2.	Have you sold much brocade recently? Does the number of customers tend to increase?
3.	State main reasons:
4.	Where do you purchase brocade?
	Who do you purchase much brocade from?
5.	Contract and method of payment to providers
	Has selling price of brocade increased in the past years? ate the reasons:
7.	Who purchase brocade most?
8.	Which factor do customers pay attention to most? Embroidery pattern □ Materials □ Features of culture and ethnic group □ Price □
	Others:

### Annex 6: Websites of Giao Co Lam trading companies

http://banthaoduoc.vn/san-pham/giao-co-lam-7-la-sapa/?gclid=CPCP87mqj8gCFSLkwgodAGAPxg

http://vuoncaythuoc.com/cay-giao-co-lam.html

http://www.tinhhoayhoc.com/

http://www.jiaogulanvietnam.com/p-17-le-jiaogulan-100-naturel.html

 $\underline{http://www.baobackan.org.vn/channel/1121/201501/trong-cay-giao-co-lam-huong-phat-trien-kinh-te-moi-o-cho-don-2367380/}$