



**Royal Government of Bhutan**  
**Ministry of Agriculture and Forests**  
**Department of Forests and Park Services**  
**Social Forestry and Extension Division**



**Case study**  
**Rural enterprise development of NWFPs**

**Medicinal & Aromatic Plants**

**Social Forestry and Extension Division**  
**Royal Government of Bhutan**



## Foreword

The role of non-wood forest products in Bhutan has evolved over the years from subsistence to commercialization; from small scale, domestic use to items of trade and export. A good number of enterprises have risen in recent times, which utilize NWFPs in one form or another and have found markets internally as well as through export. Products such as essential oils, herbal teas, soaps, to name a few, are of NWFP origin, manufactured within Bhutan and entering competitive markets around the world. Rural communities have also had their capacities developed to apply basic processing techniques to their harvests to reap better returns than previously possible.

As these upcoming enterprises rely on mostly wild NWFPs at the moment, it is important that we understand the value chains that make up these products and reduce the pressure on natural resources; to ensure their sustainability in the long run. Required interventions must be learned in order to avoid depleting our resources and provide long term benefits to those in more disadvantaged parts of the country.

Regarding this, the Social Forestry & Extension Division has carried out case studies for various key non-wood forest products in order to better understand and highlight the constraints faced in sustainably managing and trading these, said NWFPs. These case studies were carried out through literature review, followed by primary data collection through interviews and focus group discussions with traders & harvesters in select areas of Bhutan and finally analysing these acquired data to come up with results and insights.

It is therefore my pleasure, to impart the knowledge gained through these extensive exercises so that the future of Bhutan's NWFP resources as well as NWFP based enterprises may be secured and significant strides may be taken towards achieving economic self-sufficiency.



(Lobzang Dorji)

**Director**

**Department of Forests and Park Services**



## Low Altitude Medicinal Plants in Langthel Gewog, Trongsa

### 1. Medicinal Plants

Bhutan is also known as *Menjong Gyalkhab*, meaning the land of medicinal plants. To date, more than 600 medicinal plants have been identified in Bhutan, and at least 300 medicinal plants are commonly used for preparing traditional medicines (Wangchuk and Tobgay, 2015).

The *National List of Essential Medicines* (revised every three years) defines the traditional medicines used in Bhutan. Only traditional medicines that are in that list are produced and used in the traditional medicine system (MSPCL, 2018). Currently, the *National List of Essential Medicines (2016)* contains 114 traditional medicines. The raw materials for the production of these traditional medicines include around 300 raw materials (incl. medicinal plants, raw materials of mineral and animal origin). Presently, 85% of the raw materials are sourced in Bhutan, the rest from India (MSPCL, 2018).

MSPCL (former Pharmaceutical and Research Unit under Institute of Traditional Medicine Services) is responsible for the production of traditional medicines in Bhutan. Besides the traditional medicines based on the *National List of Essential Medicines*, MSPCL also produces 19 other natural health promoting products such as herbal teas, turmeric capsules, *Cordyceps* products, incenses, soaps, hand sanitizer, etc. (MSPCL, 2018).

To sustain the production of traditional medicines in Bhutan, Lingshi under Thimphu and Langthel under Trongsa were selected as collection centres for high altitude (sNgo-sMen) and low altitude (Throg-sMen) medicinal plants, respectively (Wangchuk, 2015). Trongsa Dzongkhag has emphasized the promotion and sustainable utilization of medicinal plants in the district. The harvest of medicinal plants is one of the main income generating activities in Langthel Gewog (Wangchuck *et al.* 2011). Medicinal plants were sourced in the past directly from individual villagers. Since the formation of NWFPs management groups (2008), medicinal plants are sourced from formal and registered groups. Normally, around 30-50 low altitude medicinal plants are required on an annual basis, however, this depends on stock and production capacity of MSPCL (MSPCL, 2018).

#### 1.1. Low Altitude Medicinal Plants (Throg-sMen)

Wangchuck *et al.* identified 113 *Low Altitude Medicinal Plants* (LAMP) in Bhutan. From these, 64 medicinal plants are collected within the country and 28 species are imported from India. However, 16 of the imported medicinal plants from India are actually growing abundantly in Bhutan; 12 medicinal plants were found cultivated and four species are growing wild.

The majority of 74 medicinal plants were observed in the sub-tropical zones of Bhutan, which fall within the altitudinal ranges of 600–1800masl. Langthel Gewog in Trongsa was found to host the maximum number of LAMP with 46 species (Wangchuck *et al.* 2011).

Since 1967, LAMP for traditional medicines' production were sourced from Namther community in Langthel, Trongsa. However, it is only recently that a formal NWFPs Management Group, *Namther Throgmen Tshogpa*, was formed for the collection of LAMP. Until few years ago, LAMP were also sourced from the Dangdung Management Group in Langthel, Trongsa. However, this NWFPs Management Group stopped operating in 2016, as members lost their interest and villagers currently generate income through the Hydropower project (e.g. sell of vegetables, house rent etc.). LAMP are also sourced from other groups in Gelephu (e.g. Gooseberry), Sarpang, Mongar, Lhuentse, Wangdue and Zhemgang (MSPCL, 2018). A small-scale basic processing equipment with a drying unit has been established by MSPCL in Langthel, Trongsa by MSPCL (Tobgay, 2008).

## **2. Value Chain**

The core value chain involves few stakeholders; the Namther Throgmen Tshogpa (NWFPs Management Group) responsible for the wild harvest of LAMP, MSPCL responsible for the processing of traditional medicines and Ministry of Health, Department of Traditional Medicines for the distribution and marketing of traditional medicine remedies (Figure 1). The value chain is supported by stakeholders in the Ministry of Agriculture and Forestry (Department of Forests and Park Services, Zhemgang Range Office, RNR Yusipang and National Biodiversity Centre) as well as in the Ministry of Health (Department of Traditional Medicines) as well as operates under the Policies, Rules and Regulations of these two Ministries.

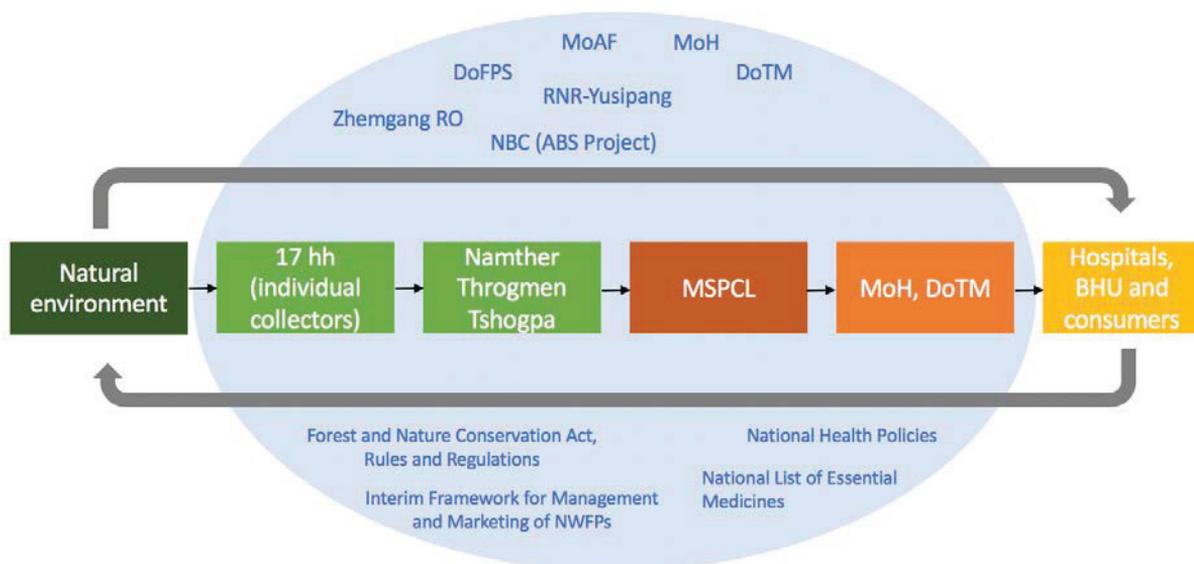


Figure 1: Value Chain of Lower Altitude Medicinal Plants harvested from Langthel Gewog, Trongsa

## 2.1. Namther Throgmen Tshogpa (NWFPs Management Group)

### i) Group management and governance

The Namther Throgmen Tshogpa (NWFPs Management Group) was established in 2009 with 20 female household members. With support from the Beat Forestry Office Langthel, the group's Management Plan (last Management Plan 2014-2018) is currently under revision. A major issue in the Management Plan is group membership and the committee elections. Firstly, the group lists 20 household members, however, active in the harvest of medicinal plants are at the moment 17 households (six households from the list are passive members but three additional households are actively involved). The group raised the question of fairness, as only active household members contribute through royalty to the group's saving fund, however, all listed household members are entitled for the benefits of the saving fund. Secondly, the group expressed the wish to change the group's committee members based on a rotation system (in contrast to election system) in order to have all members once taking the responsibility of leadership.

## ii) Wild harvest of medicinal plants

The wild harvest of medicinal plants is based on orders from MSPCL (former Pharmaceutical and Research Unit under Institute of Traditional Medicine Services). The Namther Throgmen Tshogpa harvest LAMP according to their Management Plan. Currently, there are 17 active collectors (households).

MSPCL seeks the overall permit from the Department of Forestry and Park Services (DoFPS) and sends the list of required medicinal plants to the Namther Throgmen Tshogpa. Normally, the list is received in the month of December. After receiving the list, the Namther Throgmen Tshogpa holds a meeting and distributes the harvesting quantities of each medicinal plant equally among all active households.

The harvest of medicinal plants takes place on individual level. In general, the season starts in December or January and lasts for around one month. Some medicinal plants are easy to harvest (e.g. Indian Gooseberry) while others more difficult.

Medicinal plants are normally harvested by women. In the past, the collectors were trained by MSPCL on sustainable harvesting practices for medicinal plants. For harvesting various materials are used, such as sickle, hoe, axe, spate, fork, gloves, gum boots, polyethylene bags, depending on the specific medicinal plant to harvest. The collectors of Namther Throgmen Tshogpa follow in general sustainable harvesting guidelines for medicinal plants. Moreover, as limited quantities of medicinal plants are harvested there is currently no resource deterioration.

## iii) Local processing and value addition

The medicinal plants are dried at the collector's home. Normally, the harvested parts of each medicinal plant are dried on tarpaulin sheets outside the house. Leaves take around 3-7 days, whereas rhizomes take up to 1 month to dry.

The drying unit established by MSPCL and three small electric dryers which were provided to the Namther Throgmen Tshogpa are currently not used. Main reasons are i) the medicinal plants turn black and are thus of inferior quality and ii) the electricity bill is too high.

## iv) Marketing

MSPCL is informed when the required quantities of medicinal plants are harvested, dried and ready to sell. This is usually in the month of February. MSPCL then comes to Namther to collect the medicinal plants for the

Namther Throgmen Tshogpa.

The medicinal plants are sold in three sub-groups directly to MSPCL. The three sub-groups make sure that the required quantities of medicinal plants are met through a system of helping each other. For example, if one group member couldn't harvest its share of medicinal plants, then another group member shares pro-bono its excess quantity.

MSPCL pays to the three sub-groups directly in cash and on the site. The leader of the sub-group then divides the income equally among its sub-group members. In 2018/2019, the pro-bono harvested in total 13 medicinal plants worth Nu. 93'300 for MSPCL (Table 1).

MSPCL is the sole buyer of medicinal plants and the demand is currently very limited. The group Namther Throgmen Tshogpa is very interested to harvest medicinal plants based on interest and as income generating activity. The interviewed reported that they have enough capacities to harvest higher quantities of medicinal plants. However, at the moment there is no demand besides the small quantities sourced by MSPCL.

#### v) Income generation

From the selling price, 5% are paid to the group's saving funds (according to Management Plan actually 10%). The savings funds accumulated through the selling of medicinal plants until now Nu. 29,219.39 (22.08.2018). So far, no money from the savings funds was withdrawn by the Namther Throgmen Tshogpa.

The income per household from the harvest of medicinal plants averages to minimum Nu. 5000-6000 per household to maximum Nu. 20,000 per household. This income is important for the members of the Namther Throgmen Tshogpa, as it is used to send the children to school and to pay small bills. In 2019, the income of group members averaged Nu. 5213.80 per household.

*Table 1: List of harvested medicinal plants in Langthel Trongsa (2018/2019)*

Scientific name	Dzongkha/local name	English name	Part used	Medicinal value	Quantity	Price
<i>Phyllanthus emblica</i>	Amla/Kud	Indian Gooseberry	Fruit (no seed)	Febrifuge and heals bad-m.khris	200	170
<i>Choerospondias axillaris</i>	Kurmalezewa	Nepali Hog plum	Fruit	Febrifuge, cardiac-tonic and cures snying-tshad (heart disorder)	30	160
<i>Cautleya spicata</i>	Mayfrang		Rhizome	Anti-coagulant, attenuant, febrifuge and cures bad-rlung	50	95
<i>Asparagus racemosus</i>	Nakhachung		Root	Anti-ageing and prolongs life-span. Allays rlung-nad, chu-ser-nad, grang-nad and gab-tshad	100	195
<i>Bombax ceiba</i>	Pemageysar	Cotton tree	Flower	Cardiac-tonic and febrifuge for heart disorders	30	90
<i>Sapindus rarak</i>	Nakapani		Fruit (no seed)	Excellent emetic	50	60
<i>Justicia adhatoda</i>	Khagshale	Malabar nut	Leaves	Febrifuge and heals khrag-tshad, m.chin-tshad, and m.khris-tshad. Anodyne for khrag-g.zir	40	55
<i>Aristolochia griffithii</i>	Langthangbongrube		Stem	Febrifuge, blood purifier, anodyne for blood disorders and serves as analgesic for khrag-khrug. Refrigerant for flo-tshad, m.chin-tshad, rgyu-tshad, g.nan-tshad, and rim-tshad.	50	90
<i>Butea parviflora</i>	Rongkalazewa	flame-of-the-forest/bastard teak	Seed	Anthelmintic, vermifuge and anti-bacterial. Eupeptic and optimizes stomach heat for good digestion.	30	205
<i>Symplocos sumuntia</i>	Dumbushing/Zhim		Leaves	Febrifuge and heals 'gram-tshad arising due to chronic lung and kidney diseases.	20	100
<i>Euphorbia royleana</i>	Lushing	Sullu spurge/Royle's spurge	Succulent stem	Laxative and purgative. Demulcent and heals skin diseases. Hydragogue and allays chu-ser-nad. Also generates bodily heat. (skin allergies!)	10	245
<i>Acorus calamus</i>	Sokata/Shudala		rhizome	Eupeptic and allays indigestion. Generates bodily heat and heals gag-lhog.	50	55
<i>Milletia pachycarpa</i>	Chakatramig		Seed	Allays kidney disorder	30	150

## **2.2. MSPCL**

In 1998, the present modern manufacturing and laboratory facilities was established as Pharmaceutical & Research Unit (PRU) under Institute of Traditional Medicine Services. In 2011, the PRU was renamed as Menjong Sorig Pharmaceuticals and was operating directly under the Department of Traditional Medicine Services, Ministry of Health. In January 2017 it was reformed as Menjong Sorig Pharmaceutical Corporation Limited (MSPCL). MSPCL now comprises of Corporate service Department, Production & Engineering Department and Quality Assurance & Research Department (MSPCL, 2018).

Currently 128 Essential Traditional Medicines are produced for the Ministry of Health in different dosage forms: Tablet, Pill, Capsule, Syrup, Powder, Herbal mixture, and Ointment. Additionally, around 19 varieties of herbal products such as herbal teas, Cordyceps products, incense powder, incense sticks, Royal Turmeric capsules, etc. are manufactured for commercial sale to generate additional income for the cross-subsidization of essential medicines production that are distributed free of cost by the Ministry of Health.

The Royal Government of Bhutan continues to preserve and promote the traditional medicine system by effectively integrating it into the overall national health care delivery system. Today, there are 51 traditional medicine units attached to the district hospitals and basic health units in view of the national health policy of integration.

## **2.3. Supporting stakeholders**

### **i) DoFPS, MoAF**

- Approve NWFP strategies, management and harvesting guidelines and frameworks disseminate information on available NWFPs
- Conduct research on NWFPs, especially on domestication, propagation, resource assessment, product development and the ecology of NWFP species based on request from stakeholders
- Review requests and provide necessary services to cottage-based industries, institutions and individuals to meet their NWFP requirements
- Coordinate between stakeholders involved in NWFP management and marketing
- Support field divisional and park offices in preparing NWFP Management & Marketing plans, NWFP resource assessments and field surveys upon request
- Develop strategies, management and harvesting guidelines and frameworks

ii) RNR-Yusipang

- Medicinal and Aromatic Plant (MAP) Programme shall collaborate related to the cultivation of medicinal and aromatic plants.

## 2.4. Rules and regulations

i) Forest and Nature Conservation Act, Rules and Regulations

*The Forest and Nature Conservation Act of Bhutan, 1995*, defines medicinal plants as “Forest Produce” (p. 2) and that the Ministry may issue rules regulating the collection, cultivation, possession, sale, import and export of medicinal plants (p.11).

With the *Forest and Nature Conservation Rules of Bhutan, 2006*, medicinal plants are defined more specifically as “Non-Wood Forest Produce” (p. 4) and, unless a written permission from the Department of Forests, the collection of medicinal plants in Government State Reserved Forests is not allowed. Moreover, the use of medicinal plants as raw material for traditional medicine is regulated as follows; ...the sanction for allotment of forest produce required as raw material for indigenous medicine shall be processed by the Department and allotment of the same shall be done by the DFO/PM on ensuring the sustainability of these species. Royalty shall be levied at commercial rate. However, if any restricted species is required the case shall be forwarded to the Ministry. Small quantity of forest produce required as raw material for indigenous medicine, by the village Dungshtosh shall be sanctioned by DFO/PM at commercial royalty provided ... (p. 54).

The *Forest and Nature Conservation Rules and Regulations of Bhutan, 2017*, state that the Department shall regulate the collection of medicinal plants as a raw material for cottage industries based on their requisition (p. 43) and that the collection of medicinal plants in stated reserved forest land is restricted, except with special permit under the Rule or Management Plan issued by the Ministry/Department under the Act (p. 120).

ii) Interim Framework for Management and Marketing of Non-wood Forest Products, 2011

Based on the framework there are two ways of legal harvesting NWFPs, including medicinal plants; i) through an approved Community Forest (CF) management plan, ii) through an approved NWFP management and marketing plan according to the framework. If harvesting of NWFPs occurs in an established CF then the Forest & Nature Conservation Act, 1995 and Chapter IV of the Forest and Nature Conservation Rules, 2006, apply. The

framework is developed for the management and marketing of NWFPs from Government Reserved Forests (GRF), CF and from Private Registered Land (PRL). Moreover, the framework defines NWFP species that can be collected, marketed and traded provided harvesting guidelines are strictly followed. The framework lists in total 60 NWFPs, out of which 30 are used in some form as medicine. However, from the 13 medicinal plants collected by Namther Throgmen Tshogpa, only three species are listed in the framework.

iii) National Health Policies

Medicines Act of the Kingdom of Bhutan, 2003  
 Bhutan Medicines Rules and Regulations, 2012  
 National Medicine Policy 2007

### 3. Constrains and opportunities

	<b>Constrains</b>	<b>Opportunities</b>
<b>Wild harvest of raw materials</b>	Some medicinal plants are difficult to harvest  Group membership is considered unfair (some members don't harvest but will get the benefits from the savings fund)	Revise membership criteria with the revision of the new Management Plan
<b>Processing and value addition</b>	Drying unit and small driers are currently not used, limited local processing and value addition	
<b>Marketing</b>	Demand is limited and MSPCL is the sole buyer of medicinal plants	An opportunity could be to link the group directly to an end buyer in Bhutan or outside (e.g. cosmetics industry)

A major constrain for the Namther Throgmen Tshogpa is the limited demand for medicinal plants. Currently, MSPCL is the sole buyer of LAMP and its required quantities are very limited. The Namther Throgmen Tshogpa would be very interested to supply medicinal plants to further buyers. **An opportunity could be to link the group directly to an end buyer of medicinal plants, be it in Bhutan or outside (e.g. cosmetics industry).**

According to MSPCL, the formalisation of wild harvest through NWFPs Management Groups has positive as well as negative aspects. The positive aspects are i) legal aspects of sourcing from formal groups (negotiations,

contracts/agreements, defaulting penalties) and ii) benefit for the community and more equality. The negative aspects are i) dependency on performance of NWFPs Groups and ii) no alternative, if the group(s) defaults or fails to fulfil the requirements. MSPCL faces certain difficulties, as LAMP have to be source from various NWFPs Groups and various locations, which makes it a costly process. Therefore, MSPCL is also supporting the cultivation of medicinal plants.

In addition, post-harvest technology and drying of medicinal plants requires improvement according to MSPCL. Currently, only drying and simple sorting/grading takes place on the site. However, the drying unit at Langthel is not used anymore. Training, tools and equipment for value addition are important and the NWFP Groups should be supported in this endeavour.

For Higher Altitude Medicinal Plants (HAMP), there are currently not enough collectors and the demand of MSPCL cannot be met. A way forward may be the revision of price negotiations and costs, e.g. as in Access and Benefit Sharing Projects where premium prices are paid in addition to benefit sharing with the communities.

To maintain sustainability in the traditional health system in Bhutan, sourcing of medicinal plants from Bhutan is key. An Action Plan with defined milestones for the wild harvest of medicinal plants should be envisaged.

#### 4. References

- *MSPCL, 2018: Interview with Mr. Thukten Choeda, Chief Executive Officer and Mr. Sherab Tenzin, Associate Director, 3<sup>rd</sup> December 2018.*
- *Tobgay, S. (2008): Consultant report on developing a national strategy for NWFP development in Bhutan, (March).*
- *Wangchuk, Phurpa, Pyne, Stephen G., Keller, Paul A. (2011): Ethnobotanical authentication and identification of Khrog-sman (Lower Elevation Medicinal Plants) of Bhutan. Journal of Ethnopharmacology 134 (2011) 813–823*
- *Wangchuk, Phurpa, Tobgay, Tashi (2015): Contributions of medicinal plants to the Gross National Happiness and Biodiscovery in Bhutan. Journal of Ethnobiology and Ethnomedicine (2015) 11:48*

**Annex 1: List of interviewees in Langthel Gewog, 27-29 December 2019**

<b>NWFP/CF group, Department, Organisation</b>	<b>Interviewees</b>	<b>Designation</b>
<b>Trongsa Range Office</b>	Mr. Sethey Adhivari	Forest Ranger, Beat Office Langthel
<b>Namther Throgmen Tshogpa (20 households)</b> (17 women)	Yeshey Wangmo Lhadon Phub Lhamo Yeshey Tshomo Namgay Chungwa Sonam Choden Pema Yuden Lhamo Rinzin Wangmo Pema Yuden Chungwa Kuchumo Karma Yangzom Lemo Kingzang Lhadon Deki Chungwa Ugyen Mo Tandin Pema	
<b>Dangdung Management Group</b>	Informal meeting with 6 women	

## **Annex 2: Discussion Notes MenjongSorig Pharmaceuticals Cooperation Limited**

3 December 2018

### **MenjongSorig Pharmaceuticals Cooperation Limited**

(state owned enterprise)

Kawang Lam, Kawajangsa, Thimphu

Mr. ThuktenChoeda, Chief Executive Officer

Mr. Sherab Tenzin, Associate Director

*ITMS has been reorganized into Department of Traditional Medicine Services (DTMS) under Ministry of Health, Faculty of Traditional Medicine and MSPCL.*

### **Traditional Medicine**

- List of traditional medicines (called essential medicine list), every 3 years the list is revised. Only medicines that are in the list are produced in Bhutan. Currently, the list contains 124 traditional medicines.
- Besides the above list of medicines, MSPCL also produces 19 other natural health promoting products such as herbal teas, turmeric capsules, Cordyceps products, incenses, soaps, hand sanitizer, etc.
- Raw materials currently in use around +/- 300 ingredients (incl. plants, minerals, etc.). 85% of raw materials are sourced from Bhutan, the rest from India.
- Differentiation in High Altitude Medicinal Plants (HAMP) and Low Altitude Medicinal Plants (LAMP).

### **Sourcing of medicinal plants**

- In the past (since 1967) medicinal plants were sourced by informal groups. The then ITMS organised the required collection permits. A collection team went to villages and organised the collection of medicinal plants, e.g. equally distributed the required collection quantities of medicinal plants to villagers.
- Since the formation of Community Forestry/Non-Wood Forest Product groups MSPCL orders the required amount of medicinal plants from these formal groups. The CFs/NWFPs groups are responsible for the permits from local authority, organise the collection of the required quantities of medicinal plants and pay the royalty while MSPCL seeks the overall permit from the Department of Forestry & Park Services headquarter.
- Positive aspects: legal aspects (negotiations, contracts/agreements,

defaulting), the groups are responsible, more benefit for the groups, more equality within group members

- Negative aspects: MSPCL too dependent on CFs/NWFPs groups, not possible to source from others, if the group(s) defaults or fails to fulfil the requirements.

### **Low Altitude Medicinal Plants**

- Until few years ago, MSPCL also sourced LAMP from CF Dangdung, Langthil, Trongsa. However, farmers in Dangdung are not interested anymore and the group is currently not active.
- Since 1967, LAMP requirements for traditional medicines production were sourced from Namther community in Langthil, Trongsa. However, it is only recently (maybe around 2015) that it has formalized community group for the medicinal plants. MSPCL has an agreement with CF Namther. MSPCL sends the list of required medicinal plants once a year (around November-December) and the group collects the required quantities. Normally, around 30-50 LAMP are required, depends on stock and production capacity of MSPCL.
- LAMP are also sourced from other groups in Gelephu (e.g. Gooseberry), Sarpang, Mongar, Lhuntshe, Wangdue and Zhemgang.

### **Chirata (*Swertiachirayita*)**

- Small quantities are sourced from Lauri, Samdrup Jongkahr.
- Chirata is required around 10-20 kg per year and used only in few numbers of traditional medicines, it is used as a tension medicine.

### **Satuwa (*Paris polyphylla*)**

- Not used in traditional medicine in Bhutan, no product currently contains *Paris pollyphylla*. However, maybe some of the imported Ayurvedic medicines from India contain Satuwa.

### **Challenges/improvements**

- Value addition: Post-harvest technology and drying of medicinal plants requires improvement. Currently, only drying and sorting/grading takes place. Small drying unit at Langthil (by ITMS), however, not used so much anymore as the new road by-passes the drying unit.
- Training, tools and equipment are important, support for the groups is required.
- HAMP (Lingzhi, Thimphu; Dagala): harvest in monsoon season,

problem of drying and quality, also few people are interested to collect medicinal plants (in contrast to cordyceps).

- LAMP (Langthil, Trongsa): sourcing from various places/groups, makes it costly. MSPCL would prefer to source only from 1 or 2 groups, turmeric is in need, now turmeric cultivation started in Zhemgang by two women groups, cultivation in Ada Rukha in Wagdue.
- Take up cultivation of medicinal plants, MSPCL is keen on supporting such endeavours.
- In general, there are not enough collectors of medicinal plants, as now permits are required and individuals cannot easily collect medicinal plants. Presently, groups are not meeting the demand of MSPCL, how to motivate people for the collection of medicinal plants?
- Revision of price negotiations and costs can be done, e.g. In the Access and Benefit Sharing Project (NBC) premium prices for products were paid in addition to percent share of the profits from sale of those products.
- Sustainability: source also in the future all the plants Bhutanese traditional medicine requires to maintain traditional health system in Bhutan.
- Come up with Action plan and define milestones for collection of medicinal plants