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REPORT  
MAY 2022

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# EU – NEPAL TRADE AND INVESTMENT PROGRAMME (TIP)

## FIBRE VALUE ADDITION THROUGH COMBING AND SORTING –

Consultant report on training of trainers and Chyangra farmers



In collaboration with



International  
Trade  
Centre



This project is funded by  
the European Union

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## Introduction

This final report summarises the entire contract period during which the consultant performed this task. The consultant fulfilled all the points of obligations according to his TOR at the beginning of the contract and subsequent additional requirements and wishes from the customer (ITC). Also, the report contains the main key points that the consultant met during the performance of this assignment and offers practical recommendations for the further support of fibre value addition at farm level in the project area.

## Chronology of completed tasks

1. The consultant has prepared and sent to ITC and national stakeholders a first draft of training material targeting fibre value addition at farm level on March 07 2022.
2. A first feedback from national stakeholders received on March 11 and a second feedback received on March 14. Some additional requests on training material and the ToT process itself sent by ITC to the consultant.
3. The training material, incorporating the feedback received from Chyangra Pashmina stakeholders was finalized and sent by consultant to ITC on April 08, 2022.
4. Pre- and post-test for ToT participants was prepared and sent to ITC for translation to local language.
5. The consultant visited the project area (Nepal, Upper Mustang) to perform his next duties in place (April 21- May 07 of 2022).
6. Meeting with the main national stakeholders (NPIA and NFPPL) held on April 21- 22 in Kathmandu. The discussions were on: overall pashmina fibre processing in Nepal; how to set up a grading system for Nepal pashmina, local pricing scheme for pashmina supplied by farmers; training of farmers, availability of combs for farmers, etc.
7. ToT conducted for lead farmers, Chyangra Pashmina farmer association members, NPIA members, representatives of NARC and local officials on April 26-27 in Lomanthang, Upper Mustang.
8. Screening of farmer trainers and preparing them for farmer level training held on April 28 in Lomanthang. 14 farmers were selected as local trainers.
9. The consultant participated in farmer trainings which were held in 6 different villages of Upper Mustang (April 29 – May 03). Location recommendations were given to local trainers to improve their ability to train farmers on pashmina goat combing and grading.

## Training of trainers (ToT)

ToT was conducted for lead farmers, Chyangra Pashmina farmer association members, NPIA members, representatives of NARC and local officials on April 26-27 in Lomanthang, Upper Mustang. During the first day, training participants learned about the structure and types of goat wool fibres; information about cashmere overall and instructions on cashmere goat combing. Before starting the training, the participants were given a pre-test prepared by the consultant. The idea of this pre-test was to clarify how much participants know about cashmere fibre and production. Overall, 31 participants participated during the first training day and all of them were performed a test. The pre-training test consisted of 20 questions on: cashmere fibre, combing, quality, production and goat management. Each correct answer to the question was equal to one score and incorrect answer was a zero score. The mean score of pre-tests was 12.7 (min. 5 and max. 18 score). The composition of the participants was as follows: from fibre processing companies and NARC- 6 persons; from farmers- 17 persons; from vets- 6 and farmer association – 2 (altogether 31 participants).

The second day of the ToT started with a goat combing demonstration on a farm nearby Lomanthang village. Each participant was involved in the combing process and tried goat combing in the field. This demo took half a day. In the afternoon participants learned about different variations of cashmere quality. They learned how to determine quality of different cashmere fibres such as the diameter, length, sort, etc. using the different samples brought by the consultant and also collected from local goats during the goat combing demonstration. Also, they learned how to grade the combed cashmere according to colour and coarse fibre contamination.

Figure 1 ToT participants are learning different types of cashmere fibre. Photo by Sabyr Toigonbaev.



At the end of the ToT training participants were given a post-test. The same 20 questions were distributed to participants. Here, the mean score of post-tests was 17.2 (min. 13 and max. 20 scores). This high score means that the ToT participants have learnt the training material well.

Based on the post-training test results 14 farmers were selected as potential trainers for the farmer training. A pair of two trainers should go to their village to train farmers on cashmere goat combing and grading.

#### *Screening of trainers and preparation for farmer level training*

On the day following the ToT, a brief overview of the previous day's ToT was organized for the selected 14 farmers. The purpose of this meeting was to recall the training program and adapt it for the upcoming trainings for farmers. The participants shared their opinion on what they consider important for farmers. Then the participants were divided into 4 groups to develop a training program. Each group developed its own version of the program. After the presentation of all 4 groups, all participants jointly developed a single training program. This program took into account suggestions from all groups and some recommendations of the consultant. The program was designed so that a farmer could understand the nature of the training. The program was written manually on a flipchart and each group of trainers copied it for themselves to prepare for the trainings.

Figure 2 Selected trainers are preparing training programm for farmers. Photo by Sabyr Toigonbaev.



#### *Trainings for farmers in different villages*

The new trainers conducted trainings in their villages. The number of participants of each training differed (between 14 to 30 farmers), depending on the size of the village and the organization of trainers. As election campaigning was underway in all villages of Nepal, in many places the trainings started late because many farmers needed to meet with election candidates. The trainers had to wait until the farmers were released.

Trainings were held in rural clubs, schools, a health centre, and a local municipality building. Each trainer first conducted the theoretical part of the training using flipcharts, and then conducted a demonstration of goat combing. Farmers were provided with leaflets in Nepali and combs for goat combing at the end of the training. Since the trainers themselves are local farmers, they conducted the trainings in their own language or dialect, because not all farmers (40-50%) of Upper Mustang understand Nepali. Using local trainers for training gave good results, because they spoke the local language and can explain the training material thoroughly. In terms of gender, in almost all places about half were women, and by age the majority of trained farmers were young people.

During the trainings, goats were brought to demonstrate the goat combing process. In some places (especially in the lower villages of Upper Mustang) we saw goats that had already moulted their cashmere down. Nevertheless, local farmers said that so far there are very few such moulting goats in the village, and it is too early to comb all the goats in a row. This demonstrated that farmers did not know the exact and right time of goat combing, as they are waiting until all of goats in the flock shed and signs of moulting would be visible on 50-60% of the flock.

#### *Sampling process preparation training*

#### **Significance of cashmere fibre sampling.**

The participants of the training were familiarized with the envisaged cashmere fibre sampling for lab testing to determine an independent assessment of the fibre quality that could be obtained from Mustang, especially with regard to fibre diameter, length and strength. Moreover, sampling will also allow for investigating the ratio of cashmere down to guard hair, the yield of cashmere down, purity, morphological structure of the fibre, etc.

## **Sampling season**

The sampling process needs to be done in late winter or early spring, when the cashmere fibre is fully grown over winter but before the cashmere goats have started to moult their cashmere undercoat. This would be in mid-April or early May.

## **Age and sex of goats to be sampled**

Cashmere samples should be collected from the goats older than 1 year old, both sex of goats.

## **What we need to collect the samples**

The sampling process required special scissors and combs, marker for recording sample packets, plastic packets, ear tags, punch for ear tagging, notebook for recording the information about samples.

## **Quantity of the samples**

The fibre quantity for the sampling depends on the laboratory. A minimum of 10 grams and more per sample might be required.

## **How to get the sample for testing**

Samples should be taken by shearing method with special scissors or by the combing method with the combs. Depending on which fibre parameters will be tested, samples could be taken by shearing method from certain square cm areas using special tools. For the combing method of sampling there would be no need to consider the sampling square area. But for both methods the place of sampling on the goat body is very important.

## **Sampling team**

The team should consist of a minimum two persons: one for taking samples and one for recording the data. It is recommended to provide additional special detailed training right before the sampling process from a specialist on the sampling. The team should know the local area and language, be familiar of goat biology to recognise the sex, age (by teeth), colour, breed and etc. of the goats. They could be vet specialists or farmers who know writing and have communication skills.

## **Systematic approach for sampling**

The envisaged sampling process should be designed early next year by an international expert with support from local stakeholders. How many samples, which regions and villages, number of samples per farmer and etc. will be designed according to project funds and research purpose.

Figure 3 Farmer training in Lomanthang. Photo by Sabyr Toigonbaev.



#### *Testing of combs produced in Nepal*

During the combing training we tested locally produced metallic combs. Local combs produced by a local blacksmith according to a sample comb from Kyrgyzstan. Nepali made combs were tested and showed its appropriateness to utilise it for combing cashmere goats. These locally produced combs are exactly made as they should be, including the material that it is made, the dimensions, weight and the design of the combs.

After testing these locally made combs, it is recommended to produce more and distribute to farmers as soon as possible.

Figure 4 The comb made in Kyrgyzstan on the left and in Nepal on the right.



Photo by Sichan Shrestha.

Figure 5 Testing of locally made combs.



Photo by Sabyr Toigonbaev

#### *Visit of the NPIA Cashmere warehouse in Upper Mustang and recommendations*

On May 2, we were at the NPIA cashmere fibre warehouse. They bought about 3,700 kg of cashmere from farmers last year and still store it in the village of Charang in Upper Mustang. All fibre was pressed and packed in polyethylene films (inside) and polypropylene bags (on the outside). Since there was no representative of the buyers (NPIA) during our visit to the warehouse, we could only see one open bag. Based on a visual inspection of this one bag of cashmere a low quality of cashmere was obvious. A large amount of coarse fibre (guard hair) and dandruff was apparent. Approximately 50% of the inspected cashmere was cashmere of the third grade, 30% of the second grade and only about 20% of the first grade in terms of the content of the coarse fibre and dandruff.

Figure 6 Cashmere fibre at NPIA warehouse collected in 2021



Photo by Sabyr Toigonbaev

Possible explanations for the relatively poor quality:

1. Farmers carry out goat combing very late, when remaining guard fibres also start to shed.
2. All cashmere was bought together as one grade; there was no sorting by colour and the content of the coarse fibre.

#### *Challenges for farmers*

*Veterinary questions.* Farmers complained about the lack of support regarding the expense of veterinary medicine, – and the unavailability of vaccines, outbreaks of diseases, attacks on goats by predators, etc.

*The price of cashmere.* During a meeting with the NPIA, it was said that they were buying cashmere at a price of 4,500 Nepali Rupees (NR) per kg during the 2021 season. But, during meetings with farmers and during trainings in villages, farmers stated they only received about 2,900 NRP per kg. The difference was cashed-in by middlemen.

*The distance between the collection point* (so far only 1 point in Lomanthang) and the villages if far. It is difficult for farmers to bring (or would require large transportation costs) their cashmere to the cashmere collection points.

**Challenges for buyers.** Buyers complained about the quality of cashmere purchased in 2021 from farmers. According to them, farmers, in order to get more volume, specially add a saline solution to cashmere, and also mix the wool of different animals (sheep wool, yak down and etc.). Many farmers sold low-quality cashmere: a lot of coarse fibre and dandruff in it.

### *Recommendations*

#### **Establish a transparent cashmere pricing policy.**

Establish close contacts between buyers and farmers creates transparency and could ensure that farmers receive the full price for their fibre. For this to achieve, it is recommended to distribute informational advertisements about the price of cashmere via local TV, radio, phone, mail, informational banners, etc. in every village and local markets, etc. That would motivate farmers to directly bring their harvest to the collection centres.

#### **Differentiate the price by introducing sorting/grading**

Prices for harvested cashmere should be differentiated, i.e. the price should correspond to a certain quality, with each grade representing a price differential. This would motivate farmers to start sorting/grading and will reward farmers that bring a higher quality of cashmere than those who do not. Without a price differentiation, farmers will not strive to improve the quality of their cashmere by proper and timely combing, cleaning of cashmere before sale, sorting by colour, etc.

#### **Open collection points in villages.**

The existence of intermediaries between farmers and buyers will lead to a loss of farmers' trust in the process if they hear that some peers received a higher price. NFPCs should open cashmere collection points in each or several nearby villages.

#### **Train cashmere collectors on cashmere quality.**

Buyers should prepare trained cashmere collectors in villages and collection points. The lack of special knowledge of cashmere collectors about the quality of cashmere will lead buyers (NPIA) to pay high prices for low quality cashmere.

**Train more farmers on combing.** Farmers should harvest cashmere in a timely manner to get more volume and a higher quality.

**Provide more combs to farmers.** Buyers, possible with the support of development partners should work on increasing the number of combs, with a minimum 1 comb given to one farmer family. That will allow farmers that have not yet started combing to do so in the future.

#### **Strengthen the Chyangra farmers' association.**

Buyers and development partners should build the capacity of the association, including training on institutional development; strengthen their role in organizing the supply of cashmere, training farmers, disease prevention, etc. Some financial support might also be required.

To attract more members the association might consider giving privileges to when selling cashmere compared to other farmers. For example, giving a slightly higher prices for cashmere sold by members of the association. Since members would have received training on cashmere, they are more likely to deliver quality cashmere.

## ANNEX I    TERMS OF REFERENCES

### Description of Duties/Responsibilities

Under the direct supervision of the ITC Programme Manager and Head, Fibres, Textiles and Clothing and the overall guidance of the TIP project manager, the International Consultant shall be responsible for undertaking the following duties/tasks under this assignment:

1. Get familiar with the project and the work so far undertaken. This includes the strategy development document elaborated, the analyses of backward linkages and farmer situation as well as existing material and projects that support goat farmers.
2. Based on the work already undertaken by the project, including a first outline of training material targeting fibre value addition at farm level, and corresponding Standard Operating Procedures for fibres harvesting, handling, fibre value addition and traceability, prepare detailed training brochures in English with graphics and illustrations for farmers on fibre harvesting and storage. Coordinate with national consultant to arrange translation into local languages. This includes:
  - Basic methods and explanations on fibre harvesting (combing), storage, handling and grading for ordinary farmers
  - More technical information on cashmere and cashmere goats, and basic background on goat husbandry for formally educated local professionals, i.e. the para vets from the gaunpalikas, district officials, Mustang Chyangra Farmer's Association, relevant NPIA members that interact with farmers and others.
3. Undertake training in max three districts of lead farmers as well as educated local professionals, i.e. the para vets from the gaunpalikas, district officials, Mustang Chyangra Farmer's Association, relevant NPIA members that interact with farmers and others on fibre harvesting and storage. The project will intend to gather to the maximum extent trainees into one central place.
4. When undertaking the training, support the envisaged fibre sampling process by educating all trainees on the importance of the exercise and on appropriate sampling methods. Advise local officials and NPIA on how they should undertake the sampling process to get optimal data out of the process and supervise the process (in a pilot area) if feasible.
5. Advise local officials, NPIA and the Mustang Chyangra Farmers' Association on how to set up a grading system for cashmere, including an appropriate pricing scheme for cashmere supplied by farmers.
6. Provide a final concise report with major findings and recommendations to further support fibre value addition at farm level.

### Expected Outputs and Timelines

1. A first outline of training material targeting fibre value addition at farm level elaborated. (15 February of 2022)
2. Presentation of the training material to national stakeholders (virtual) (28 February 2022)
3. Finalized training material incorporating the feedback received from CP stakeholders (15 March of 2022)
4. Training conducted of lead farmers, association members, local officials (where appropriate) and advise on sampling provided (latest by 30 April 2022)
5. Report on the activities undertaken, including detailed recommendations on the continuation of training activities for farmers, the sampling process and required follow-up activities (30 May 2022)

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