

Food and Agriculture Organization of the United Nations

> ASSESSMENT OF THE POSSIBILITIES FOR INCOME DIVERSIFICATION THROUGH RURAL CRAFTS DEVELOPMENT

> > IN SUPPORT OF SMALL BUSINESSES AND JOB CREATION FOR WOMEN AND MEN IN RURAL COMMUNITIES IN THE REPUBLIC OF UZBEKISTAN

> > > **BUDAPEST-TASHKENT, 2019**

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ABBREVIATIONS AND ACRONYMS

BPA	Beijing Platform for Action
BWA	Business Women's Association of Uzbekistan
CACAARI	Central Asia and the Caucasus Association of Agricultural Research Institutions
FAO	Food and Agriculture Organization of the United Nations
ICARDA-CAC	International Centre for Agricultural Research in the Dry Areas in Central Asia and the Caucasus
ILO	International Labour Organization
MDGs	Millennium Development Goals
NGO	Non-Governmental Organization
URIKSBDE	Uzbek Research Institute of Karakul Sheep Breeding and Desert Ecology
SDGs	Sustainable Development Goals
VCA	Value chain analysis

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The report was produced over the period 2016 to 2017, within the FAO project: "The gender-sensitive value chain analysis of rural craft products made from wild and cultivated plants and raw materials of animal origin in Uzbekistan".

The project and the report was prepared under the guidance of Dono Abdurazakova, Senior gender and social protection advisor, FAO Regional Office for Europe and Central Asia (REU), who provided substantive contributions to the report and overall support.

EXECUTIVE SUMMARY

Rural crafts represent an important and necessary component of agriculture in which rural women play a key role. International experience demonstrates that rural crafts can make a significant contribution to the household economy and to the export potential of countries. The development of this sector requires minimal investment, infrastructure and training.

The promotion and support of rural crafts is particularly relevant in the context of the development of the countries of Central Asia, given the rich tradition in handicrafts in this region and considerable potential for creating new jobs and sustainable incomes. In addition, the preservation and development of handicrafts and artisanship play a significant role in strengthening family values and preserving national traditions.

In Uzbekistan, various types of employment have been introduced in recent years, in order to provide the working age population with jobs. The development of employment is one of the most important issues in the country. In particular, in order to meet the objectives of increasing both employment and the income of the population, favourable conditions for the development and support of various types of handicrafts have been created.

The FAO Regional Office for Europe and Central Asia (FAO REU) pays particular attention to exploring the possibilities for the development of the rural crafts sector as an important element in stimulating rural development. In this regard, it has provided technical and financial support to CACAARI for this study, which documents a value chain analysis of some rural crafts in Uzbekistan with the purpose of exploring and developing marketing strategies, increasing income and employment in the rural population, enhancing gender equality in rural development, and partnership development. The study focused on a gender-sensitive value chain analysis of the basket weaving sector and handicraft products made from goat wool in Uzbekistan, with the aim of exploring their potential for further development of the handicraft sector and artisanship in Uzbekistan.

Within the framework of this project, a workshop on felt was held. The purpose of the workshop was to familiarize participants with best practices in terms of producing household items made of felted wool from small ruminants and the development of skills for producing such articles. The research included: field visits to the regions of Samarkand and Namangan; interviews with the target groups – homebased workers and craftspeople; and a survey of outlets in the regions to establish the relevance of the handicraft business. The literature review, field visits and analysis of available

information enabled the team to undertake and draw conclusions from the results of a gendersensitive value chain analysis of rural craft products made from wild and cultivated plants and raw materials of animal origin.

The research findings demonstrate that homebased businesses have significant potential, which has not yet been fully realized. Unfortunately, very few women and men have access to the relevant information and knowledge that would enable them to develop skills for home production.

The study revealed that stereotypes play a crucial role in determining the gender division of labour in the household, the restrictions on women's activities, their use of resources and their impact on the decision-making process. Women and men have different roles and responsibilities in the value chain of homebased work. Men are usually responsible for tasks that require heavier physical labour. Women, in turn, are responsible both for daily, routine household activities and work in the fields. However, they may also play a major role in the home-based family business. At the same time, women do not always manage homebased family production, nor do they always take decisions on their own.

It can be noted that the development of homebased businesses which provide women with both paid work and unpaid work (like household chores), has, on the one hand, a beneficial effect on improving the role and status of women in family and society, as well as on the overall development of employment in rural areas. On the other hand, if this is not accompanied by measures to ease home-based labour, it leads to time poverty and increased physical exertion.

The present study concluded that despite the potential contribution that home-based businesses can make to rural development, several factors have hindered the development of wool production and processing. These factors include:

• Low demand and limited access to markets for wool, which significantly reduces the rate of return, due to an inefficient and unstructured interaction between the different actors in the value chain, particularly between raw material suppliers, manufacturers and sellers.

- The relatively low quality of mohair and down due to: the deterioration of the resource base; a decline in the quality of breeds; inefficient feeding and stock keeping; the absence of a single, centralized goat breeding program; and the low quality of the wool processing technology. The lack of practical, easy-to-handle devices and equipment for processing wool and down negatively affects the cost of fibre and products from fibre, and in most cases, this type of business employs women from lowincome families who use primitive methods of processing.
- A lack of capacity, awareness and knowledge among women and men involved in homebased businesses. Producers of down, mohair and wool often lack scientific, organizational and technical support to improve breeding and the quality of wool.
- A lack of small-scale innovation: The paucity of experts on and information about innovative technologies for harvesting, processing, manufacturing and selling products from goat wool, mohair and down, makes the sector uncompetitive and puts at risk the sustainability of incomes of families that depend on the processing of goat products.

A survey of sampled households in the Namangan region engaged in the production of mohair shawls from the wool of Angora goats demonstrated that assistance is required for the purchase of specific mini-machinery and carding equipment for cleaning wool, which can be used by the organization/s involved to demonstrate the value and efficiency of mechanization for craftspeople and homebased workers and assist in the dissemination of best practices.

There is also a need for a training and consultation program to develop and disseminate best practices in the use of materials from the wool of Angora goats and other wool of animal origin. This program could contribute to the development of felt manufacturing technology for producing environmentally-friendly and valuable products, such as gloves, socks, belts, slippers, sleeveless jackets, felt blankets and rugs.

This type of training and consultation program for home-based production of woollen products could include the following activities :

- 1. Regular consultations between experts and female and male home-based producers of goods from animal wool, on the proper care of animals and breeding of pedigree goats with high quality wool.
- 2. Capacity development on the optimization of value chains, including training on business planning and effective communication between value chain members.
- 3. Improving and delivering training courses on small-scale technologies and the basics of manufacturing products from the wool of animals, including the preparation and processing of wool, spinning, knitting and dyeing.
- 4. Organizing and conducting workshops on gender mainstreaming in the value chain, with the goal of improving gender relationships within the family and increasing income by optimizing the roles of women and men in the family and enhancing joint decision-making.
- 5. Organizing exhibitions/fairs about smallscale innovation, with the involvement of experts and the dissemination of information on innovative technologies for harvesting, processing, manufacturing and selling products made from animal wool, mohair and down.

Regarding the use of plant materials in basketry, it should be noted that:

1. Basketwork using plant materials imported from Turkey and China is expensive and unaffordable for the average buyer. Therefore, there is a need to further develop basketry in selected pilot areas via rural craft development projects. Such projects should also be included in the next national rural development programme of Uzbekistan.

- 2. Basketwork made from plant material is an environmentally-friendly product and has a higher value than products made from artificial materials. A "farmer to farmer" approach facilitated by the municipal government and Hunmarad Association would enable the dissemination of basket weavers knowledge at the district or regional level.
- 3. It is necessary to develop tutorials and information materials on the use plant materials in the production of household items in both print and video formats.
- 4. Business training on the optimization of the basketry value chain (including effective interaction between value chain members and business planning) is highly necessary.
- 5. It would be valuable to organize exhibitions showing products made from plant materials and disseminating information about innovative technologies for harvesting, processing, manufacturing and selling baskets, trays, ladles and other basketry products.

Awareness raising and training programmes in rural areas, particularly targeting women and the development of various crafts and types of home-based businesses, are in high demand and have large potential impact on improving the role of women in the household economy and on increasing employment in rural areas.

This gender-sensitive value chain analysis of handicraft products made from wild and cultivated plants and raw materials of animal origin in Uzbekistan will contribute to the development of more targeted and comprehensive strategies to improve the sustainability of agriculture and food security in the country.

PREFACE

Worldwide, the widespread development of industrial manufacturing, the introduction of the results of scientific-technical progress in production and the growing urbanization of society has affected the development of handicrafts and folk crafts. However, although large-scale industrial production is gradually occupying a larger proportion of the market and production, home-based handicrafts continue to exist, not as a vestige of the modern economy, but as a unique phenomenon, providing jobs and sources of income for millions of people.

Folk arts and handicrafts have flourished in Uzbekistan since ancient times, as part of the construction industry and the processing of metal, wood, leather and textiles. Today, handicrafts in Uzbekistan are widely developed, and provide the population with the goods and services needed for everyday life. Handicraft products include a range of items such as home interior products (for example, carpets, bedspreads, wall panels, tablecloths and bedding), utensils, furniture, clothes and accessories, among others.

As a rule, handicraft products are made by hand, by small-scale manufacturers, both in urban and rural areas. Based on ancient traditions, handicrafts represent an important element of the socio-economic development of cities and rural areas in the Republic of Uzbekistan. On the one hand, handicrafts are an important component of the country's cultural heritage, and on the other, they create opportunities for families and households to generate sustainable incomes.

From this point of view, handicrafts should be a focus of attention for the agencies responsible for economic development, so that they can increase their support through the further creation of favourable conditions for the development and dissemination of handicrafts.

BACKGROUND

This report, Assessment of the possibilities for income diversification through rural crafts development, was written at the request of FAO as a result of research and analysis carried out in two areas: (1) basket weaving, and (2) the production and use of goat hair, with the aim of exploring their potential for the further development of handicrafts and home-based production in Uzbekistan.

The exploratory phase of the project was conducted under the guidance of the Central Asia and the Caucasus Association of Agricultural Research Institutions (CACAARI) at the Regional Office of the International Centre for Agricultural Research in the Dry Areas in Central Asia and the Caucasus (ICARDA-CAC) in Tashkent.

The duration of the project was five months, from 1 December 2015 to 31 April 2016.

The handicraft sector in Uzbekistan is characterized by the active use of local raw materials. Agriculture and the natural conditions found within the country favour the development of a wide range of goods and services. However, despite the availability of various ancient and modern types of handicrafts – for example, carpet weaving, suzani, embroidery and wood processing and carving, which in recent years have received well deserved attention and popularity – there are areas that require further development. These areas have significant potential to create hundreds, if not thousands, of new jobs, and bring additional income to rural families and households. During consultations held in the preparatory phase of the project, basket weaving, processing and the use of Angora goat hair were identified as main subject areas of interest by stakeholders.

Therefore, this report explores the possibilities for the further development of folk crafts and handicrafts through increased access to livestock and raw plant materials.

The report considers the possibilities for the development of handicraft production using (1) wild and cultivated plants, and (2) livestock products, particularly the hair of the Angora goat. A key aim of the project was to collect and present information about the cost structure of production and the value chain of selected folk crafts and handicrafts. This information was collected during the field research in meetings and interviews with the producers. Based on the analysis of the gathered data, the present report recommends specific measures to link craftspeople with market opportunities.

GOALS AND OBJECTIVES OF THE STUDY

The main goals of the study were to:

- assess the opportunities for specific handicraft and folk craft development and their potential to stimulate rural development,
- 2. explore the opportunities for generating income through homebased rural entrepreneurship,

with the general aim of contributing to income generation and diversification of rural households, gender equality and strong partnerships in rural development in Uzbekistan.

The objectives of the project were:

- to identify and analyse the value chain of products made from wild and cultivated plants and raw materials of animal origin, taking into account the gender dimensions of the most popular and in demand types of handicrafts in Uzbekistan, and considering the potential for increasing household income and for the development of the raw material base, sales of finished products and distribution practices; and
- to elaborate recommendations for maximizing income and dissemination of best practices, based on in-depth analysis of individual households involved in handicrafts.

RESEARCH METHODOLOGY

The following methodology and step-by-step action plan were used in this study:

- 1. Prior to data collection, general background information on the FAO mandate was reviewed, along with information on the strategic goals and priority areas of the project for the development of small businesses in the basket weaving sector and in small handicraft production using the hair of Angora goats in the Republic of Uzbekistan.
- 2. In the first phase of the study, an analytical review of secondary data (literature review) on the use of wild and cultivated plants and raw materials of animal origin in handicrafts in rural and mountainous areas of Uzbekistan was carried out. In addition, a review of the regulatory framework was conducted in the context of the development of home-based production and handicrafts in the country, in relation to rural women and men in the selected value chain.
- 3. A workshop on felt was conducted, the purpose of which was to familiarize participants with best practices in producing household articles made from the felted wool of small ruminants, and the development of skills for making such articles. The workshop participants were encouraged to further disseminate the gained knowledge and best practices among other artisans and craftspeople.

- 4. Field visits to the Samarkand and Namangan regions were carried out, where interviews with target groups of home-based workers and artisans were conducted and a survey was distributed to outlets in the regions to study the relevance of handicraft products.
- 5. Primary and secondary data was analysed and the results of the gender-sensitive value chain analysis of products made from wild and cultivated plants and raw materials of animal origin were summarized.

Stage	Action	Timeframe	Result
1	Literature review and data collection through field visits in the regions of Uzbekistan		Data collected
2	Data analysis		Primary and secondary data (two expert reports) analysed, taking into account the requirements of gender-sensitive VCA
3	Workshop on felt		20 rural women and men trained and their skills improved; report written
4	Preparation of consolidated report		Draft version of the consolidated report is made available
5	Preparation of the final version of the consolidated report		The final version of the consolidated report is made available in Russian and English

Table I: Action plan of the research project

Based on the results of the study, the prospects and possibilities for the development of specific home-based handicraft and folk craft production were identified, and recommendations were developed for increasing production volumes, as well as the processing and export of basketry and mohair products.

In general, the main elements of the value chain were covered, including supply, processing, transportation and sale. Data were generated from the survey and local studies in order to identify the different practices across various segments of production, the current state of the basket weaving sector and the production of mohair products within small handicraft businesses.

The results of the study were based on:

- data collected by an expert on livestock and the synthesis of relevant information on the state of mohair goat breeding in Uzbekistan, including information on technologies, seasonality, productivity, the processing of raw materials, detailed types of labour and related costs, methods of work (manual or mechanical work) and other aspects;
- data collected by an expert on plants and the synthesis of relevant information on existing wild plants as well as plants that can potentially be cultivated in rural areas of Uzbekistan for use in basket weaving;
- synthesis of information on existing technologies, detailed types of plants and the cost of target
 plants (wild and cultivated), taking into account the conditions of agro-climatic zones and
 other relevant aspects, such as types of soil and land, seasonality and types of labour (manual
 or mechanized); and
- data from field research; experts carried out field visits to the Samarkand and Namangan regions to interview local craftspeople, home-based workers and private enterprises relevant to this study.

The data from the field studies were collected through individual meetings, conversations and in-depth interviews with craftspeople and other stakeholders, as well as in focus groups. A structured survey questionnaire allowed us to assess the situation of home-based production of crafts and the demand for handicraft and folk craft products, and to analyse the market based on a value chain analysis. In total, 69 individuals were interviewed, of which 24 were women and 45 were men.

The itinerary of the project's fieldwork was as follows:

(1) Samarkand region, Payariq district:

Six households (in the village of Cholmoili) involved in basket weaving were visited and studied, in order to assess the cost and technological data related to basketry, and to reveal the gender issues found within the processes of production and selling products at the market.

- (2) Namangan region, Chustki district:
- Meetings were held with the key representatives of khokimiyats (local authorities), the chairpersons of rural assemblies of citizens, and with different home-based producers, groups of distributors and other stakeholders.
- In the village of Varzik, the team visited nearby village pastures used for grazing Angora goats and other small ruminants.
- In the village of Karakurgan, the team studied the number of livestock (goats) in the households within the village and the market for the sale of raw materials and wools.
- In the village of Tepakurgan, the team visited the households engaged in the processing of wool from Angora goats.

In addition to the interviews with local craftswomen and craftsmen, meetings and interviews were arranged with the National Hunarmand Association.

During the course of the project, discussions were held with the Hunarmand Association regarding the joint organization of the workshop on felt in Tashkent (which took place on 04–08 March 2016 in Tashkent, and brought together more than 20 craftspeople from various parts of Uzbekistan¹), as well as issues related to the further development of home-based handicrafts in rural areas of the country, through the district and local divisions of the Association and its active members.

The experts carried out the research according to the schedule and based on the agreed methodology. They reported on the research results at the final meeting with representatives of FAO REU on 23 May 2016. Two research reports (on livestock and plants) were presented and discussed at the meeting in order to obtain feedback and develop the final version of the reports.. The conclusions and recommendations made during the meeting, the observations carried out at the workshop on felt, and participation in the international conference in Bukhara on 28 May 2016 (in particular, at the special session devoted to the development of handicrafts as a key factor in local development and tourism), also assisted the team in the finalization of the report.

¹ See Annex 1 for more information about the workshop on felt.

CHAPTER 1. Development of the handicraft sector in Uzbekistan: a brief overview

I.I. Economicaspects of handicraftdevelopment inUzbekistan

The concept of "handicrafts" is associated with manual labour. Due to the development of technology and improvements in production in various sectors of the economy during the 20th century, many traditional handicrafts have lost their former significance in everyday life. However, handicrafts continue to play a significant role in creating sustainable incomes, especially in the context of an excess of human resources and the need to create jobs in rural areas, as they do not require large investments.

An important aspect of handicrafts in Uzbekistan, as in other countries of the region, is its originality, artistry and connection with historical traditions. Despite the radical increase of industrially produced consumer goods and their local accessibility, the demand for artisanal and handicraft goods has not decreased. In the context of Uzbekistan, this demand is driven by the diversity and uniqueness of the handicraft products, which attract the attention of local citizens and tourists visiting the country.

Although handicrafts can be assessed from different perspectives (such as artistic or

educational), FAO is particularly interested in their economic significance. From this point of view, attention should be paid to handicraft development in the context of rural development, in particular in enterprise development, and in the improvement of rural employment.

In the Republic of Uzbekistan, emphasis is placed on providing employment to the growing working age population, and on creating conditions for the development and support of various types of handicrafts and cooperation between handicraft producers and larger companies (Atamuratova, 2016). The development of private entrepreneurship among the population is one of the key factors in the socio-economic development of the country. Indeed, according to modern economists, entrepreneurship is considered to be the fourth key factor of production, alongside labour, land and capital. The relationship between entrepreneurship and the social status of households is also important (Schumpeter, 2007).

From this point of view, home-based handicrafts should not be perceived as routine housework, but as the entrepreneurial activities of individuals and households, aimed at the production of socio-economic benefits. Craftspeople invest time, skills, resources and entrepreneurial capacities into their work, which results in income.

I.2. Regulations and legislative acts in the handicraft sector in Uzbekistan

Currently, there is a legal framework in Uzbekistan for the support and development of the handicraft sector. First and foremost, it is the Decree of the President of the Republic of Uzbekistan on Measures of State Support of Further Development of Folk Arts and Crafts and Applied Art, dated 31 March 1997. This decree and its provisions, for example, tax exemption for artisans and the establishment of a special association (National Hunarmand Association), has played a crucial role in the promotion of handicrafts in Uzbekistan.

Furthermore, there are a number of legal acts aimed at the development of entrepreneurship and home-based labour, which are also important for the handicraft sector. In particular, the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan (11 January 2006, No. 4), and the Regulation on Working from Home are of great importance for the development of the handicraft sector. These legal acts are based on the Decree of the President of the Republic of Uzbekistan (05 January 2006, No. Up-3706), "On measures to stimulate the expansion of cooperation between large industrial enterprises and home-based workers". This provision sets out the legal framework for homeworking in the Republic of Uzbekistan, including the procedure for the conclusion of employment contracts with home-based workers, providing them with raw materials, payment, labour protection and social insurance, as well as the control mechanisms for the application of tax benefits established for employers employing home-based workers. In accordance with "homeworking" is defined this provision, as work performed by an individual person (homeworker) to produce goods or provide services ordered by the employer in accordance with the concluded employment contract, from her/his home or from other premises belonging to her/him or members of her/his family. The homeworker is an individual, aged 16 years and older. There is no statistical data available, but it is clear that women constitute the majority of people involved in home-based labour.

Since 2009, home-based workers, including craftspeople and other entrepreneurs working from their homes, have been covered by the social insurance system.

The government and local authorities provide comprehensive support to home-based workers. For example, women are provided with loans. In the first quarter of 2015, the amount of provided loans reached 314.3 billion UZS, which ultimately helped in providing employment to more than 50 000 women in the course of the same year (UzDaily, 2015). Overall, in 2014, more than 222 300 jobs throughout the country were created through the development of family businesses, home-based labour and handicrafts (ITUC-PERC, 2015).

I.3. The institutional environment of the handicraft sector and home-based production

Hunarmand Association

The Hunarmand Association of the Republic of Uzbekistan was established in accordance with the Presidential Decree PD-1741, 31 March 1997, "On measures of state support of further development of folk arts and crafts and applied art", as a key organization for the support and development of handicrafts in the country.

The main activities of the Hunarmand Association are the following:

- "...to coordinate the employment activities of artisans, protecting their interests and rights provided to them by the legislation of the Republic;
- assisting the artisans in creating conditions for working from home, including supply of material and technical resources, tools, small machines, assistance in the products marketing, including export;
- market analysis and development of recommendations on the use of new types of local raw materials for producing highly artistic products;
- promotion, publicizing and advertising of handicraft products in Uzbekistan and abroad, the production of illustrated materials and catalogues, organizing exhibitions and auctions; and
- the preservation of traditions and the transfer of handicraft skills to young people,

organizing special training schools for artisans" (Adapted from the Charter of the Association, 2008).

Currently, the Hunarmand Association brings together up to 20 000 artisans, both women and men (the Association does not have sexdisaggregated data), and operates through its regional divisions. Further information is available on the Association's website: http:// www.hunarmand.narod.ru.

Local self-government bodies (mahalla)

In Uzbekistan, there is a unique (in terms of content and operation) institute for local self-governance – *mahalla*. A mahalla is meant to protect the interests of local residents, contributing to the improvement of social conditions through the creation of employment and by addressing family and domestic problems, and issues associated with family business.

Throughout the Republic, there are about 10 000 mahallas. The importance of these local self-government bodies centres on their capacity to support and protect the interests of various segments of the population and to create additional institutional conditions for homeworking and handicrafts at the local level. Therefore, the powers of these local authorities were expanded in accordance with the Law of the Republic of Uzbekistan called "On Local Authorities". The original functions of mahallas were broadened to include targeted social support and support in the development of small business and private entrepreneurship (especially family business, homeworking and handicrafts) ..

The Women's Committee and the Business Women's Association of Uzbekistan

The Women's Committee of Uzbekistan was established in 1991 and is the most influential women's organization in the country. The Decree of the President of the Republic of Uzbekistan, dated 02 March 1995, "On Measures for Strengthening the Role of Women in State and Social Building of the Republic of Uzbekistan", establishes an important role for women in the socio-economic sphere.

In May 2004, the Decree of the President "On additional measures to support the activities of the Women's Committee" was adopted. This decree proposed practical measures for the implementation of social and legal support for women, including addressing issues of women's employment, especially in rural areas, and their active involvement in entrepreneurial activities. To monitor the implementation of this decree, a special commission was created, which is headed by the Prime Minister of Uzbekistan.

Together with the Chamber of Commerce, the Women's Committee organizes an annual exhibition of products made by rural women, as well as various fairs, and undertakes other initiatives to promote handicrafts in the domestic market.

The Business Women's Association of Uzbekistan (BWA) is one of the first female, independent non-governmental organizations of Uzbekistan. Its primary goal is to assist and support women in realizing their potential in different economic spheres. The BWA is particularly active in the field of homeworking and handicrafts, training thousands of rural women and helping them create small businesses. The Association holds training sessions and provides consultation services and technical assistance in obtaining credit funds. Through its regional offices, it works on the ground with rural women.

The field studies conducted by the project in Namangan and Samarkand regions and meetings with various stakeholders highlighted the important role of the district and regional khokimiyats as the main implementers of state policy at all levels, and that of the mahallas as primary institutions in the implementation of government decisions, in particular in the implementation of state policy to support homeworking and increase employment. In this context, the consolidation of efforts by all stakeholders and participants that have direct and indirect relations to the development of homeworking and the handicraft sector, along with the district offices of the Hunarmand Association, is of crucial importance and is one of the main recommendations of the project.

Therefore, it is important to follow the institutional mechanisms that already exist in the country in order to further develop homeworking and handicrafts.

I.4. Gender dimensionsof home-basedhandicraft sector

In the era of the information society characterized by a growing number of women integrated into the economy, and by women's enhanced role in political and social life - the gendered aspects of home-based handicrafts share common and distinctive features with those found in large industrial and processing enterprises. Even though women and men work from their homes, they, and in particular women, are forced to combine business activities and home-based production with everyday work and household responsibilities. For home-based workers residing in villages, this includes work on the plot of land attached to the house and care for children, sick and family members. Difficult living elderly conditions and limited access to kindergartens may further increase time-burden of homebased workers, particularly that of women.

On the one hand, combining household work with home-based labour is beneficial because it offers flexibility; on the other hand, women experience a "double burden". Therefore, the economic efficiency and healthy social climate of homeworking depends on the effective and equitable distribution of responsibilities and roles among members of the family involved in home-based business.

Culture and traditions play crucial roles in determining the gender division of labour at household level, limiting the ability of women particularly in their use of resources and role in decision-making processes. While in Uzbekistan men are considered to be the stereotypical "head of the household" (family), women play an important and sometimes leading role in maintaining the livelihoods of their families, including home-crafts.

The vast majority of women and men who participated in this study believed that the man should be the main breadwinner and the decision maker in the rural household. At the same time, women spend more time on domestic work than men, who are often involved in work outside their home.

The legal framework for gender equality in the Republic of Uzbekistan

The regulatory framework for gender policy is based on the national legislation (Constitution, decrees and resolutions), and on several international initiatives, to which Uzbekistan has acceded (for example, the Beijing Platform for Action (BPA), the UN Convention "On the Elimination of All Forms of Discrimination against Women"), as well as on the Law of the Republic of Uzbekistan "On employment of population".

Consistent legal and institutional development of the national mechanism for the advancement of women started in 1995, when Uzbekistan ratified the UN Convention on the Elimination of All Forms of Discrimination against Women. Accession to the UN Convention and the Beijing Platform for Action adopted at the Fourth World Conference on Women (1995) provided the necessary international legal basis for the development of specific measures at national level for the implementation of international standards in legislation and the practice of state bodies. The Republic of Uzbekistan has made a commitment to achieve the Sustainable Development Goals (SDGs) by 2030, including SDG 5: "Achieve gender equality and empower all women and girls". It should be noted that Millennium Development Goal (MDG) 3: "Promote gender equality in all levels of education and empower women", was successfully achieved by the end of 2015.

An integrated approach to gender equality is one of the key national development issues in the Republic of Uzbekistan. This provides the ground for achieving gender equality in education and employment, and equal opportunities for women and men in the process of political decision-making (Centre for Economic Research, 2015). In view of the fact that a significant share of the population lives in rural areas where gender roles tend to be more conservative, the enhancement of the role of women in various sectors of the economy, and the creation of effective conditions and opportunities for equal access to education, employment and participation of women in all spheres of society, including decision-making, have become particularly important.

Indeed, as a result of comprehensive measures and the creation of an enabling environment conducive to gender equality since the early years of independence, gender parity was reached in 2009 in vocational colleges and the share of women in the employment structure has increased. For example, in the period between 2000 and 2013, the share of women in employment increased from 44 to 45.7 percent. In 2012, 40.4 percent of small firms and 13.7 percent of microenterprises were headed by women. The participation of women in mahallas has also increased. In the period 2006 to 2013, the share of women among chairpersons of mahalla committees increased from 9.6 to 25.6 percent (Centre for Economic Research, 2015). The development of the national gender machinery has also been progressing, starting with the founding of the Women's Committee in 1991, which is currently headed by the Deputy Prime Minister, who is also responsible for the issues of social protection of family, motherhood and childhood (The State Statistical Committee of the Republic of Uzbekistan on Statistics, 2016).

In Uzbekistan, a legal mechanism to ensure equality between women and men has been established. Article 46 of the Constitution enshrines the equal rights of women and men, and establishes a system of guarantees that ensure such equality. These guarantees include: providing women with equal opportunities in social, political and cultural activities, in education and training, and in work and in remuneration for it; special measures for the protection of labour and the health of women, and the establishment of pension benefits; creating conditions that allow women to combine work with motherhood; legal protection, and the material and moral support of motherhood and childhood, including paid leave and other benefits for pregnant women and mothers. Gender equality is also enshrined in the Civil, Labour, Family, Criminal and other codes.

On the agenda is the further development of favourable conditions for women workers, who combine work with household chores, raising their legal literacy to enable them to assert their rights to social services, especially when working from home; and the development of training programmes for persons returning to the labour market after a long break. Addressing gender stereotypes, especially in rural areas, requires constant awareness raising and an improvement in knowledge about the benefits of gender equality for society and family. Women and men have different roles and responsibilities in the value chain of homebased labour. Men tend to carry out activities that require heavier physical labour (for example, cutting off twigs, carrying bunches of branches and cutting wool). Men are also more likely to have the appropriate technical knowledge and skills (for example, driving and using agricultural equipment), as well as negotiation skills.

Women living in rural areas experience a large workload. They are responsible for daily, routine household activities, including working in the fields (for example, harvesting), milking cows and cooking. When they are engaged in home crafts, they can participate in income management and control small volumes of sales, among other activities. When leading a home-based family business, they have a major role in decisionmaking.

Women often produce a product, for example, downy shawls from the wool of Angora goats, while men are responsible for the transportation and support of women in the sale of the products.

In the surveyed households, women and men demonstrated different degrees of involvement, time spent and tasks performed in the value chain, but in most cases, there was a clear division of the roles between women and men based on family experience and optimal management of the home business.

With regard to decision-making, despite the fact that women perform most of the work, important decisions are made by men. However, decision-making about the family budget (for example, sale/purchase of raw materials) is largely determined by women, as they decide what and when to sell and buy.

Taking into account the fact that women are responsible for household chores, and often make a decisive contribution to the formation of the family budget, it is possible to conclude that women directly and indirectly determine the overall well-being both of individual families, households, and rural communities. Therefore, the degree and quality of their employment represents one of the most important factors in the overall development of rural areas.

The project's field visits revealed a few cases where women had become the head of the household. This usually happens when men migrate or are absent for other reasons. In such situations, women independently manage the funds, for example, to hire labour and purchase equipment, albeit with the consent and approval of the man who is away from home. When women need to negotiate with the suppliers of raw materials, they turn to the nearest male relative for help.

In rural areas, goods are mainly sold at the local and district markets. To transport goods to a major regional or city market is both time-consuming and expensive. Therefore, home-based workers and artisans prefer to sell goods without leaving their home or approach the nearest local market. An important part of this process is attributable to their experience, contacts and the quality of their products, which attract potential customers both from the village and from other areas.

The most convenient season for trade in handicraft products is summer. In most cases, the villagers store their products at home and when potential buyers come to rural areas, they engage actively in selling. Domestic storage of goods is an important part of the economy in rural areas. The local rural craftspeople and home-based workers can produce and store their goods, selling them at a higher price in smaller quantities.

Women and men take an active part in the sale of goods from home and buyers usually visit households. Negotiations with clients remain the prerogative of men, although in some situations men cannot agree with the buyer, insisting on the original price. At such moments, women sometimes offer their assistance: they convince men to slightly reduce the price, using the justification that on the next occasion, the buyer will contact them again.

The interviews demonstrated that unfortunately few women and men have access to the information necessary for the improvement of their home businesses. Often, home-based workers stated that they would like to know more about modern technology and efficient methods of production in order to increase sales and improve productivity, but that they do not know where to find this information.

The introduction of information and training programmes in rural areas, in particular targeting women, the promotion of specific handicrafts and related home-based business, could solve this problem. Mahalla communities could take the lead by providing villagers with learning and training opportunities. In the workshop on felt, organized within the same projects as this exploratory study, cases were presented, in which local representatives of the Hunarmand Association, mahalla committees and the Women's Committee could involve women in productive work, thereby improving the lives of their families. When engaged in joint labour, women and men are ultimately interested in increasing their families' incomes and meeting their practical and strategic needs. This type of training and dissemination of information can be organized in relation to almost all of the types of handicrafts and home-based entrepreneurship that are popular and prevalent in the area.

CHAPTER 2. Assessment of the current state of (1) production and use of goat hair, and (2) basketry

2.1. The current state of production and use of goat hair

Characteristics and main features of raw materials. Livestock represents one of the fastest growing agricultural sectors in Uzbekistan, accounting for 46.3 percent of agricultural goods produced in the country (State Statistical Committee of the Republic of Uzbekistan, 2014). The main producers of livestock products are small dehkan and private farms, which in 2014 were responsible for 98 percent of the total production (FAO, 2016b). The livestock sector, depending on the livestock keeping method, can be divided into intensive (animals are always kept in stables) and pastoral. Intensive livestock production is based on industrial methods of livestock breeding and is characterized by a higher concentration of animals per unit area and a higher degree of energy consumption. The products are processed in large and mediumsized enterprises and can be sold through a centralized system. Pastoral breeding of small ruminants - sheep and goats - is based on full or partial livestock keeping in different pastures. The products from small ruminants are sold in the form of raw materials, mainly locally due to the supply of small dehkan farms.

Livestock production in dehkan farms is of great socio-economic importance, as it is a key source of income and consumption for a significant number of rural families. In the first half of 2014, 886 135 tonnes of meat in live weight, 3 676 534 tonnes of milk, 17 263 tonnes of wool, and 901 944 pieces of Karakul felt were produced in the country. About 85–88 percent of cattle are owned by small dehkan farms, 9–11 percent by agricultural cooperatives, and 2.5–3.0 percent by farms (Uzbek Research Institute of Karakul Sheep Breeding and Desert Ecology, 2015).

Wool

Table 2: Demand for livestock products **Products** Farm animal Meat Milk Karakul Hides Livestock high high sufficient high Sheep _ sufficient average low Goats high sufficient low average Camels high sufficient low average

average

Table 2 shows that the highest demand among the population and the production entities is for meat and milk. The demand for pastoral livestock products is not high because it is not possible to sell the full amount of wool and hides from small ruminants (sheep and goats).

high

Horses

The main source of production of wool is through pastoral livestock, including sheep breeding, Karakul sheep breeding, goat breeding and camel breeding. The total numbers of small ruminants (sheep and goats) in Uzbekistan in 2015 are presented in Table 2.

sufficient

Table 3: The total number of small ruminants in Uzbekistan, per million head

Small ruminants	Total number	
All sheep	15	
Including:		
Jaidara	8.0	
Hissar	0.7	
Crossbreeds	0.5	
Karakul	5.8	
All goats Including:	3	
Angora goats	0.3	
Downy goats	0.1	
Coarse-wool goats	2.6	

Source: Uzbek Research Institute of Karakul Sheep Breeding and Desert Ecology, 2015.
Wool and its properties

Wool is hair of animal origin usable for felting and spinning. Wool can be homogeneous or heterogeneous. Homogeneous wool is composed mainly of the same fibre – down or transition hair. Heterogeneous wool consists of down, transitional hair, guard hair, dry and dead hair. Down is a fibre with a diameter of 11 to 25 microns. It consists of two layers – the cuticle and the cortex.

Considering the properties of wool, it is important to provide a definition of some of the main anatomical terms. The properties of wool reflect the quality of the products produced from it. Transitional hair is a wool fibre with a diameter of 37 to 39 microns and consists mainly of two layers (cuticle and cortex), and sometimes also a third layer, the medulla. Guard hair is a fibre with a diameter of 40 to 70 microns and consists of three layers - cuticle, cortex and medulla. Dead and dry hair are a coarser fraction of the guard hairs, with a diameter of 200 microns. These types of hair are considered to be of low value, and are characterized by their low spinning properties. Homogeneous wool is more valuable and is produced from finewool and semi-fine wool sheep. It has a staple structure. Heterogeneous wool is produced from semi-coarse wool and coarse-wool sheep. It is less valuable and has a mostly braided structure. In the assessment of wool, the following factors are taken into account: net output of fibres, natural length of fibres, their fineness, equality, elasticity, tensile strength, grease content and colour, among others. Depending on the abovementioned factors, wool is classified into classes and varieties.

Source: Yusupov, 2002.

In Uzbekistan, goats are bred in all climatic zones. They are easy to keep, adapt well to diverse environmental conditions and are very prolific. Goats can eat sparse and short grass, both on the flat plains and in mountainous areas. On poor pastureland with thin grass, where cattle, horses and even sheep remain underfed, goats are able to find enough feed and maintain productivity. Goats are more prolific than sheep, they seem to be less seasonally affected than sheep in relation to biological periods for mating/lambing, and three lambings can easily be obtained every two years.

Among all goat products, meat, milk, homogeneous goat down, mohair and goatskins are in the highest demand. Goatskins are considered to be the world's best raw material for the manufacture of fine and durable leather ("chevreau"). At the local markets, goats are valued for meat and milk. However, the demand for heterogeneous coarse wool from local goats is very low. Coarse wool is mainly bought by dealers for further processing in China. Homogeneous semi-fine goat wool mohair (hair of Angora goats) - is in high demand among the population, due to its technological properties (lightness, softness, relative strength, low thermal conductivity), and in particular among those engaged in the home production of wool. It is used for producing shawls, fabrics, felt and so on. The characteristics of this type of wool are provided below.

Wool productivity of Angora goats

Angora goats produce more clean wool per unit of live weight than other goat breeds. This breed was developed in Turkey (at the end of the 19th century), and is called the Angora breed. The primary product of Angora goats is mohair. Angora goats are characterized by their mobility and exceptional agility. They move in the mountainous areas on the most inaccessible slopes and eat the plants that grow in the highlands. Goats are less choosy about feed, in comparison with other kinds of cattle. If we consider the cost of feed for sheep for producing 1 kg of wool as 1 unit, then Angora goats consume 0.88 unit of feed to produce 1 kg of mohair. To produce the same amount of pure wool, American Rambouillet sheep consume 1.59 units of food. Mohair produced from young goats is 58-60 quality (25 to 27 microns), and from adult goats up to 40-45 quality (35 to 40 microns). All fibres have the same length and there is no layering. The average length of the fibres of adult goats is 19-20 cm, of adult female goats, 17-20 cm, and of yearlings, 17-21 cm. One undesirable feature is quick hair thinning and spring hair shedding starting from the first warm days of the year. The average annual wool production from adult goats amounts to 2.6 to 2.8 kg, from female goats, 1.7 to 2.0 kg and from yearlings, 0.9 kg. The live weight of Angora goats is several times lower than that of local ones, and they are rarely milked by people. The fertility of these goats is lower than that of local goats; they are more fastidious and appear to be more susceptible to diseases.

Source: Kiyatkin, 1968.

Goat breeding in the Namangan region. One of the biggest regions with well-developed agriculture in Uzbekistan is the Namangan region, located in the Fergana valley, with a total land area of 504 800 hectares, of which the agricultural area accounts for 287 000 hectares, household plots for 40 200 hectares and other land for 177 000 hectares. Approximately 2.5 million people live in this region, of whom about 890 000 live in rural areas. The area of land comprised of planted fodder crops constitutes 16 000 hectares. About 560 000 head of cattle and 630 000 head of small ruminants are kept in this region. More than half of the small ruminants are goats, of which about 2 000 head are kept by agricultural enterprises, 610 000 by dehkan farms and 20 000 head by farms. Annual production of meat accounts for about 50 000 tonnes; of milk, 430 000 tonnes; and of wool, 1 300 tonnes.

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Table 4:	Characteristics	of Namangan	region
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Indicator	Value
Population	2.5 million people
Including rural	890 000 people
Total land area	504 800 ha
Including	
Agricultural land	287 000 ha
Household plots	40 200 ha
Other land	177 600 ha
Area of planted fodder crops	16 100 ha
Cattle	560 000 head
Small ruminants	630 000 head
Including goats	
in the agricultural enterprises	2 000 head
in dehkan farms	610 000 head
in farms	20 000 head
Annual meat production	50 000 tonnes
Annual milk production	430 000 tonnes
Annual wool production	1 300 tonnes

Animal husbandry is common in all districts of the Namangan region, but most farms are located in the Chust, Pap, Kostanay and Chartak districts. The country's only breeding farm for the breeding of wool-bearing goats "Galaba" is located in Chust district, where the annual average number of goats reaches 65 000–70 000 head. After declaring independence in 1991, this sector was privatized, and the goats were distributed among the population residing in the villages of Karakurgan, Varzik and others.

In the district of Chust, there is a Rakhimov farm, specializing in breeding goats "Chust Tokhir Mirzo", which was developed in 2013, is located in the tract "Rezak soi". The farm appeared to have 10.0 ha of land for forage crops, 7.0 ha for grain crops and 1.5 ha for alfalfa and corn for grain. The farm has two cows, a horse, 255 sheep and goats and about 100 head of poultry. Annually, it produces two tonnes of meat and 2.2 tonnes of wool. The farmer is not engaged in the processing of products and sells all his products in the form of raw materials.

Consequently, there is a lack of jobs in the district of Chust, especially for women. People are not traditionally engaged in the processing of wool. As conditions are in place (e.g. local availability of raw material) minor investment would allow the establishment of both sheep and goat wool processing home-based businesses.

Breed	Hair type	Average production, kg	Length, cm	Colour	Purpose	Market demand
Local	Coarse, heterogeneous	0.9–1.5	10–15	Different	Felt, ropes, etc.	Low
Soviet Mohair	Homogenous, semi-fine, mohair, fibre fineness 27–39 microns	2.0-3.0	18–22	White	Shawls, scarves etc.	Good
Cross- breeds	Down, cashmere, fibre fineness 13–15 microns	0.3–0.5	6-8	White and black	Shawls, scarves etc.	Good

Table 5: Goat hair characteristics

The main characteristics of hair of different breeds in the country are presented in Table 5. The improvement of breeding characteristics relevant to the production of mohair, – including the elimination of dead hair, thinning of the fibre diameter, the achievement of uniformity and increasing the weight of mohair fleece – would have long-term positive impact, as the process of production and processing of mohair creates jobs, and in the end, increases the market value of mohair. Wool of a higher quality



Figure I: Shorn goat hair. © FAO/Suratbek Yusupov



Figure 2: The shorn wool drying under the sun.

© FAO/Suratbek Yusupov

would become more affordable and available for processing into yarn or finished textile products as well as for export. This may eventually also increase profits of women processing mohair into yarn and finished textile products.

The hair of Uzbek Black goats

Black goats differ from white Angora goats in terms of their size and the development of the bone structure. The former are large and occupy a middle position between the aboriginal and Angora goats: their head and feet are smaller and their horns are shorter and thinner. Their hair is not homogeneous and is clearly divided into coarse, shiny, short guard hair and thin matte down hair. Both types of fibres grow on all parts of the body, excluding the head and legs. The down hair is longer than the guard hair, and uniformly covers the whole body. Black goats are kept on pastures across the whole year. The fleece structure and physical properties of the down hair of Uzbek Black goats are similar to other breeds of cashmere goats (for example, Don, Altai Mountain and Kirgiz); they have short guard hair and longer down hair. Down is shed abundantly, starting

from the first warm days of spring. Down is combed out selectively, depending on the hair thinning, and once in early March. Average yields per adult goat vary from 500 to 600 grams, and per young goat during the first combing, from 300 to 400 grams. The average length of down hair of female goats varies from 8 to 9 cm and of male goats from 9 to 10 cm. The fibre diameter ranges within 15-21 microns; the average for females is 17 microns and for males it is 19 microns. The fibres of young goats are 1-2 microns thinner. The best flocks of Black goats were located on farms in the Pap district of the Namangan region and in the farm "Baisun" in the Surxondaryo region (Zelinsky, 1981). In recent years, the number of goats in these farms has decreased several times. Deeper field studies throughout the country are required to obtain more accurate data.

2.2. Value chain analysis of mohair products

In order to study the value chain of mohair production, interviews were conducted with the participants of various stages of the production and processing of products of small ruminants (sheep and goats).

The interviews with N. Kengaev, the Head of the Economic Department of the Chust Khokimiat, with S. Umarov, the Chairperson of the Kishlak Council of the village of Varzik, and with R. Normonov, the Chairperson of the Kishlak Council of the village of Karakurgan, revealed that during privatization, all goats from the state breeding farm were given to local dehkan farms. Currently, the number of goats kept by local dehkans can vary from 5–10 animals up to 300 head. Many of the farms in the area (approximately 500 households) have 5–10 goats, but there are also farms that keep up to 250–300 head.

Goats from different breeds produce wool of different quality. Average production from female goats per year is 1.2–1.5 kg, from male goats, 1.8–2.2 kg, and from yearlings, 0.9–1.1 kg. Goats are bred mainly for the production of meat and wool. The wool is shorn once a year in early April, mostly by hand. The cost of production of 1 kg of wool is 12 000–13 000 UZS. The selling price of 1 kg of wool of coarse-wool goats is 15 000– 16 000 UZS. Wool from the wool goats (mohair) is sold at 37 000–40 000 UZS per 1 kg and is sold at local markets.

Approximately 2 000 families in the village of Tepakurgan in Namangan district, and about 1 000 families in the villages of Madaniyat and Chor Kozar in Pap district are engaged in wool processing. These families buy mohair at the local markets, then clean, card, dry and comb it. They string the wool on a synthetic or cotton thread preparing a "woollen thread", which they then use for knitting shawls – "spider web shawls" from white wool and thick "warm shawls" from black and grey wool (see Figures 1–4).



Figure 3: Spinning goat hair into yarn. © FAO/Suratbek Yusupov



Figure 4: Knitting woollen shawls. © FAO/Suratbek Yusupov

The interviews with home-based workers revealed that from the production of 1 kg of mohair, a producer gains a profit of 25 000–28 000 UZS (37 000–40 000 UZS minus 12 000–15 000 UZS). The cost of cleaning, carding and drying the wool amounts to 2 000 UZS. From 1 kg of pure white wool, 10 "spider web" shawls are knitted, which are then sold at an average price of 15 000–18 000 UZS. This means that they can receive up to 100 000–110 000 UZS a day. Two to three women can

knit between three and five shawls a day (see Figures 4, 5 and 6).

Using black wool, women knit long pile shawls (see Figure 6). From one kilogram of black wool, four to five shawls are knitted. Two to three shawls are knitted per day, which are sold at a price of 30 000–40 000 UZS per shawl at the local markets. Often, these items are bought in bulk and transported for sale to neighbouring countries.



Figure 5: White woollen "Spider web" shawl. © FAO/Suratbek Yusupov



Figure 6: Long pile woollen shawl. © FAO/Aziz Rasulov

The technology of wool processing is based on manual labour at home. As shown by the studies carried out in the framework of this project, many stakeholders involved in the value chain production of wool of Angora goats use small equipment produced in China and Russia. For example, scutching is done by a scutcher "fleece" made in Russia, which can process 3.0 kg of wool in an hour (see Figure 7). Shawls are knitted using a Russian knitting equipment, called "Snowflake". The interviews with producers revealed that equipment made in China is not yet widely used. While the opening of representative offices and an official service centre of the Chinese manufacturer could increase the level of confidence in this equipment, at the time of the preparation of this report, the authors were not aware of any market research studying the demand for wool processing equipment that could justify further consultative actions and/or wholesale supply. It should also be noted that so far, there have been no detailed studies on supply and demand for domestic production of mohair, neither in relation to the domestic market, nor to the markets of neighbouring countries.

As shown by the Table 6 below, the most time-consuming stages of wool processing are spinning and knitting, which account for about 70 percent of the total amount of work. The process of spinning and knitting is associated with manual work that requires perseverance. According to the widespread gender stereotypes, hand-spinning and knitting represent work only for women as they are "more patient and assiduous by nature. Consequently, manual spinning and knitting are nearly always performed by women. When knitting machines



Figure 7: Special equipment for carding and scutching "fleece", made in Russia, in a household in the village of Tapakurgan, Namangan region. © FAO/Aziz Rasulov, 2016.

are available, which are thought to require more technical expertise and skills, men tend to get involved as well. Table 6 below shows the time spent per unit of product. The most popular products are mohair "spider web" shawls and black shawls.

Table 6: Time-dimension of Value chain analysis (VCA) of products made from the wool of the Angora goat: time spent by activity, per unit of product

			Main types	of products		
	White "spider web" shawls	Black down shawls	Scarves	Cardigans, sweaters	Socks	Mittens
1. Primary cleaning of wool from coarse impurities, manually	1 sheep 0.2– 0.5 hours	1 sheep 0.2– 0.5 hours	1 sheep 0.2– 0.5 hours	1 sheep 0.2– 0.5 hours	1 sheep 0.2– 0.5 hours	1 sheep 0.2 -0.5 hours
2. Washing at home (manually, using detergents)	2–3 hours	2–3 hours	2–3 hours	2–3 hours	2–3 hours	2–3 hours
3. Drying (carried out naturally, under the sun). The labour is expended only on putting the wool in the sun, turning it and collecting it afterwards. Not a laborious process.	6–7 hours	6–7 hours	6–7 hours	6–7 hours	6–7 hours	6–7 hours
4. Carding (automatic, is carried out with special Russian- made machines, quite old ones)	3 kg in 1 hour	3 kg in 1 hour	3 kg in 1 hour	3 kg in 1 hour	3 kg in 1 hour	3 kg in 1 hour
5. Spinning (by hand, for small amounts of wool, or with improvised devices)	Up to 1 kg in 24 hours	Up to 1 kg in 24 hours	Up to 1 kg in 24 hours	Up to 1 kg in 24 hours	Up to 1 kg in 24 hours	Up to 1 kg in 24 hours
6. Knitting shawls (carried out using Russian knitting machines)	1 shawl in 2–4 hours	Up to 1 kg in 24 hours	-	_	_	_
7. The artificial dyeing of yarn or finished products; only for black down shawl, for presentation purposes.	1 kg of production in 1–2 hours	1 kg of production in 2 hours	1 kg of production in 2–3 hours			
8. Drying and combing of finished products	1 shawl in 0.5 hours	1 shawl in 1 hour	1 shawl in 0.5 hours			
9. Selling products	diverse	diverse	diverse	diverse	diverse	diverse

The table was compiled by project experts S. Yusupov and B. Dosov.

Processors of wool gain up to 100 000– 110 000 UZS from the processing of 1 kg of wool. It is mostly women who are involved in this process and they do it in their free time at home. According to the women, this income is permanent, does not depend on the season and allows them to have better livelihoods than in neighbouring villages.

Based on the survey and interviews conducted by the present study, the authors of this report believe that for many families living in remote mountainous areas of the Republic, breeding wool (Angora) and downy (cashmere) goats could potentially become an important source of income. Therefore, providing smallholder farmers and rural women with opportunities for the production, processing and export of mohair, down and wool, should be considered a policy measure/ programme of key importance in improving rural livelihoods.

Such measures should specifically target rural women with a particular emphasis placed on improving the conditions of production and related labour and on the processing and marketing of products with added value.

Additionally, in-depth research is needed on the domestic and international demand for products made from Angora goat wool, as well as on identifying potential supply. Such research should also aim at documenting the current capacities of home-based workers engaged in the production of goods from Angora goat wool and their capacity development needs.

Organizing local fairs and promoting more active participation of home-based workers in national and international trade fairs of folk crafts and artisan products would be highly necessary to improve marketing of goods from Angora goat wool.

The mass media and ICT have a specific role to play in the capacity building of homebased workers and in strengthening their linkages with growing market opportunities.

2.3. The current state of the basket weaving sector

Characteristics and main features of the resource base

Basket weaving represents a type of handicraft associated with the processing of local plant materials. Basket weaving has considerable potential for the production of woven products in the form of household items, containers for various purposes (for example, boxes, baskets and vases), furniture (tables, chairs, chests and cradles) and others. Basketry is made from a variety of fibrous or pliable plant materials - anything that will bend and form a shape. Examples include willow, cane, corn, rice and mulberry, all of which are used in basketry in Europa and Asia. In Africa, Asia and South America, the biodiversity of these plant species is much greater. The technique of weaving from plant materials can be very diverse, and basketry is in increasing demand due to its ecofriendliness.

A variety of fibrous materials, widespread in the natural world, are used in basketry. Fibrous plants represent a group of plants, which provide the fibrous material for the manufacturing of coarse and fine fabrics. Fibrous plants can be divided into several groups depending on the application purposes:

- textile fibres for the production of yarn (for example, cotton, flax, hemp, dogbane and ramie);
- cordage fibres for the production of rope (jute, kenaf, *Abutilon*, hemp, nettle, *Crotolaria*, *Agave*, *Yucca*, *Dracaena* and many more)
- fibres for papermaking (mulberry tree, nettles, reeds, *Genista*);
- fibres for the production of brushes (*Andropogon*, palm trees, *Chrysopogon*, *Agave*, *Sorghum* and others)
- plaiting fibres for the production of braided articles (for example, *Typha*, willow, reeds, *Filipendula* and straw of cereals);

- filling fibres, serving as a stuffing material for pillows, furniture, safety belts, among others (for example, milkweeds, fireweed, cotton grass, *Typha* and dogbane); and
- fibres for the production of sponges and tows (*Luffa*, linden, chayote, pumpkin).

Among the 4 000 species of plants growing in Uzbekistan, there are sources of raw materials for a range of industries: food, paint, leather, pharmaceutical, hemp and jute, chemical, rubber and other industries of the national economy, and of course for manual labour.

Some wild species have long been used by the local population or industry, but the majority of them are yet to be harnessed. Insufficient use of available raw vegetal resources by local industries is most often due to a lack of knowledge and experience, or to the presence of imported products. However, there are plenty of wild-growing, fibrous plants in the country, and many of them have been sufficiently studied; therefore, industrial raw material-procurement in some areas may be initiated in the very near future.

Natural fibres, often referred to as vegetable fibres, are extracted from plants and in Uzbekistan can be classified into three categories, depending on the part of the plant they are extracted from:

- The first group of plants contains fibres in the bast layer of the stem. Separate (elementary) fibres of these plants are firmly glued together and during the processing of bast, long bundles are usually extracted, the so-called "technical fibre", consisting of separate elementary fibres. This type of fibre is obtained by processing the stems of famous bast plants: flax, hemp and kenaf.
- The second group of plants contains vascular-fibrous bundles in the leaves. Hard fibres are extracted from leaves. These fibres resemble the imported Manila hemp, New Zealand flax, *Agave* fibre, and so on.
- The third group represents plants that are not usually processed for fibre, and their leaves and stems are used entirely as a material for weaving.

The present study found that the plant material of two or three species is commonly used in basketry, while more than 15 species in the flora of the Republic of Uzbekistan are potentially suitable for basket weaving and for producing cords for lashing.

Field studies showed that the following plants are mainly used for basketry in Uzbekistan:

- Various species of willow
- Ligustrum
- Mulberry.

Species of willow

In Uzbekistan there are more than ten species of willow. Among them, there are small and large shrubs and trees reaching 25–30 m in height. Various species of willow differ from each other in terms of growth, leaf formation, catkins, bark colour and biological properties. A large proportion of willows grow in floodplains and can withstand prolonged flooding.

Willow is widely used in the national economy. The bark and leaves of the willow are rich in high-quality tannins (tannin content reaches 15–20 percent) and serve as the raw material for the leather industry. One-year-old willow twigs are used in basket weaving to produce baskets, furniture and fishing traps. Soft, lightweight wood is used as building and ornamental material, and also as fuel.



Figure 8: Willow. © FAO/Flora Kabulova

Preference is given to those willow bushes that grow on sandy river banks and are open to wind and sun. The twigs of these shrubs are not very long. During the summer they grow 100–120 cm. At the same time, they are very flexible, have little ability to change colour, are straight and have a small amount of heartwood. One-year or multi-year-old twigs are used for basket weaving. Various household items are made from willow twigs, for example, baskets, basket boxes, basket-bags, decorative objects, souvenirs, furniture and fishing traps.

Common Privet, or Ligustrum vulgare L.

Common Privet or Ligustrum vulgare L. is widely distributed in Central Asia. It is a deciduous, densely branched shrub that grows up to 5 m high. The leaves of Ligustrum are oval or lanceolate, glabrous, leathery, dark-green on top and lighter underneath. In the first year, privet grows fast, and is fairly cold-resistant - it can withstand a short-term temperature drop of up to -30°C. It is drought-resistant, tolerates different soil types, grows well on soils containing lime and even tolerates a little salinity. Privet grows well in urban conditions and can be easily trimmed, forming dense green hedges and various shapes which preserve the form. It reproduces by seed, root offshoots, layering, and hardwood and softwood cuttings. Privet is an excellent honey plant. Its durable wood is used for small handicrafts. Ligustrum twigs are used for weaving all kinds of baskets, trays, ladles, mats, curtains, among other items.



Figure 9: Common Privet. © FAO/Flora Kabulova

Species of Mulberry, or *Mórus álba*

Mulberry is a tree that grows up to 15–18 m high with a spreading spherical crown. The trunk and large branches are covered with greyish-brown bark. Leaves are broadly oval, sharply pointed, petiolate, 5–15 cm long and are located on shoots of two types: long vegetative and short fertile.

Leaves of white mulberry are the preferred food for silkworms and can be used in fodder for cattle and goats. The wood of mulberry is used for the production of household items, musical instruments, tableware and various souvenirs.



Figure 10: Mulberry shoot. © FAO/Flora Kabulova

White mulberry is also grown by gardeners as an ornamental plant: there are many garden forms of mulberry (weeping, pyramidal, spherical, multi-stemmed and dwarf crown) and a variety of leaves (large, small, narrow, concave, lobed and of golden colour). Mulberry is used for single or group planting and for green hedges, as it tolerates regular trimming.

Mulberry twigs are widely used for weaving all kinds of baskets, trays, ladles, mats, curtains, among others items.

2.4. Value chain analysis of basketry



Figure 11: Tray woven from willow twigs. © FAO/Flora Kabulova

Data obtained during the field visits revealed the presence of activities related to basket weaving from plant material by households in many districts of the Samarkand region and the additional income of rural households through the sale of produced goods. One of the main challenges faced by the research was the reluctance of artisans to respond specific survey/interview questions regarding their activities. Information about the raw materials used, manufacturing techniques and the amount of manufactured products was often not shared. Participants/ respondents neither specified the main costs of basket weaving in general, nor the cost of the products, in particular.

During the field research in the Samarkand region it was observed that in the district and regional centres, there are special places at the markets where wicker products can be sold. Some examples of these products include trays of various sizes, and baskets for food and ladles. These products are made mainly from Ligustrum twigs and less often from willow twigs. At the market in Urgut district – due to the fact that the market occupies a large area and there are many shops – some artisans carry their products around the market in order to sell them not only to market clients, but also to market traders. We also found that some artisans were not members of the Hunarmand Association. In general, these were people who were engaged in dehkan farming, as the main source of income in the family. They perform weaving activities from the beginning of October to the end of February, i.e. in the period of the year that is not the growing season. In autumn and winter the sap flow in the plants used for weaving stops and the twigs become flexible and strong. The revenues from selling basketry products is not only an additional income for many families, but it is also an important source of replenishment for many family budget.

Survey results of the current study showed that some artisans harvested *Ligustrum* shoots in the winter, which could then be stored for several years. In preparation for weaving, the shoots were covered with water and processed with smoke. Artisans learned the craft from their fathers, relatives, and acquaintances, which means that they did not receive any specific training.

The process of basket weaving

Processing of the raw materials is done mostly manually. Long, one-year-old shoots are cut, sorted by length and then woven. In some cases, harvesting is followed by, a waiting period of 20 days until the shoots wither. The production



Figure 12: Process of weaving at home, a tray for bread. Artisan: A. Kholboev. © FAO/Flora Kabulova

of more elegant products requires the removal of bark from the shoots. For this purpose, they are boiled for 2–3 hours in a large container; the bark can then be easily removed and the twigs become flexible and easy to weave. Some products are varnished and others are painted.

Artisans only use materials that have either been traditionally used in their families or in the area in which they live. In relation to the possibility of using other raw materials, participants said that they did not know them or that they did not know how to prepare them.

In some villages, whole families of five to six people are engaged in basket weaving. The older generations tend to be more involved in basket weaving, but 16 -17-year-old teenagers can also weave. As basket weaving does not require lengthy training and a high level of skills, any family member may be involved, but products are normally finished by the most experienced member. Basket weaving is performed by both women and men. Men are responsible for collecting/harvesting raw materials, while women and children are often engaged in the preparation of material for weaving or in the weaving itself. The person responsible for weaving within the household usually spends one day a week collecting the raw material and five days preparing the material and weaving.

Household items are usually made in the form of baskets, trays and ladles. During the visits to some districts of Samarkand region and other regions of the Republic, the research team observed that the most popular basketry products are trays for obi non (flatbread), baskets for food and ladles of different sizes. Also, basketry products are widely used in wedding and other ceremonies in Uzbekistan, for gifts, fruit, various sweets, pastries and obi non. These products are either sold at the market or they are woven to order.

Raw materials

The raw materials used for basket weaving in Uzbekistan are mainly willow and *Ligustrum* shoots. Willow grows in floodplains, and *Ligustrum* is found in villages as a green hedge. The costs of raw materials are rarely associated with their transportation; this occurs when they are not available in the area. There are no special operations involved in the production of plant material. In light of this, basket weaving is highly dependent on the availability of raw materials.

Basket weavers cut only the shoots of plants, so the rest of the plant is not damaged. Two cases of exception are the mulberry trees that are pruned in the period of feeding silkworms and the sanitary felling of willows that takes place along the canals.

The results of this study show that the basic material for basket weaving in Uzbekistan is willow and Ligustrum, and on a smaller scale mulberry, reed and other plants. No specific crops are grown with the purpose of serving as raw material for basketry. The population mainly uses willow, which grows in the floodplains and Ligustrum, which grows everywhere. In some areas, mulberry is also used. Mulberry is grown to feed silkworm caterpillars and therefore it is prohibited to cut shoots in planted areas in the winter. Shoots with leaves are used for feeding the silkworm, and the remaining bare branches are used to make different items, such as bird cages. In pet shops in Samarkand we saw birdcages of various sizes made out of mulberry. There are other types of plants in Uzbekistan suitable for basket weaving that are not used for such purposes, for example, marsh plants, the straw of cereal plants, and other species that are actively used in other countries.

Marketing

Artisans sell their products themselves at the bazaar in the neighbourhood. Some artisans give their products to local traders who frequently trade in the market or have an outlet there. The presence of permanent places for trade in basketry is attributable to existing demand. The survey showed that almost all products brought to the market are sold on the same day. For example, at the Siab market in Samarkand we saw a large variety of basketry, made for different purposes, which the sellers had brought from Tashkent (or Toytepta). In Urgut district, basketry brought from Kokand was sold.

In general, this study found that basket weaving is practised in many regions of the country but only by individual artisans. No companies or organized groups of artisans were identified in this field. Currently, basket weaving provides a reliable source of additional income for rural many families (although amounts could not be specified) and holds potentials for up-scaling.





Figures 13 and 15: Baskets at the Chorsu Bazaar, Tashkent. © FAO/Dono Abdurazakova



Figure 14: Siab Bazaar, Samarkand. The sellers of dried fruits are the main buyers of basketry. Photo of small woven trays: © FAO/Flora Kabulova

2.5. Benefits and challenges of home-based work (examples from basketry)

The following <u>benefits of home-based</u> <u>basketry</u> were identified by the study:

- a detailed business plan is not required nor is any fundamental training;
- limited start-up capital is needed;
- there are no rent or additional utility costs;
- no special equipment is required;
- the activity is low risk, because the amount of trial and wastage in production is low;
- it has virtually unlimited income potential;
- there are a wide range of solutions to improve performance;
- there are lower costs for the delivery of products/services;
- it provides the conditions for a healthy lifestyle;
- it creates the conditions for spending more time with the family;
- friends and neighbours can become involved in the work;
- flexible working hours are possible;
- there is a range of motivations for work: extension of a favourite hobby, earning a small additional amount of money or keeping mentally active;
- it provides opportunities for independence and flexible planning; and
- a great proportion of the profit can be retained.

The challenges of home-based basketry include:

- the success of home-based basketry businesses depends entirely on the individual's own investment efforts;
- it is difficult to determine the competitive prices;

- there is a lack of external support;
- producers may suffer isolation from society;
- home-based working space can be limited;
- conflicts may arise due to the combination of family life with business;
- it may be difficult to create and maintain a professional image;
- individual workload may significantly increase; and
- there is a strong need for a entrepreneurial personality.

2.6. The gender division of labour in the value chain (examples from the production and use of wool and basketry)

The project's gender-sensitive value chain analysis did not reveal any specific links between the profitability (efficiency) of the home-based business and the sex of the household. However, the most successful homebased businesses are those that are organized according to the principle of harmonious distribution of responsibilities within the family and the household at all stages of the value chain.

Work experience relates to efficiency and quality results. The most rapidly growing homebased businesses were those that had between two and five years of experience. According to the survey results, the increase in their annual income ranged from 15 to 50 percent.

The respondents stated that they did not encounter any problems in terms of decisionmaking about the distribution of income and profits from their home-based businesses. It was also observed that young people and women are more likely to invest profits in improving their domestic environment, while older family members and men are more likely to use profits to increase their savings. Middle-aged men prefer to reinvest profits in the expansion of production or in the creation of new business models.

As noted by most respondents, decisions relating to the production cycle within the homebased business depend on the knowledge and experience of the family members involved in the work at each stage of the production cycle. Our field observations confirmed that both women and men can participate in the process (see Table 7 below).

	Main types of basketry products in Uzbekistan							
Stages of the production process	Trays	Baskets	Ladles	Mats	Curtains			
Harvesting	Mostly men of all ages	Mostly men of all ages	Mostly men of all ages	Mostly men of all ages	Mostly men of all ages			
Preparation of material for weaving	Mostly women, and (young) men	Mostly adult women, and (young) men	Mostly women	Mostly women, and (young) men	Mostly adult women			
Weaving	Mostly adult men and women	Mostly adult men and women	Mostly women	Mostly adult women	Mostly adult women			
Varnishing or painting	Mostly young men and women	Mostly young men and women	Is almost never done	Mostly adult men and women	Mostly adult men and women			

Table 7: The gender division of labour in the technological process of basket weaving

The present study shows that young men and women prefer to deal with products that have a faster production cycle. For example, producing one unit of ladles, trays or baskets takes less time than the production of one unit of mats and curtains (see Table 8 below).

Table 8: Time spent per unit of output, in minutes

	Main types of products						
Stages of the production process	Trays	Baskets	Ladles	Mats	Curtains		
Harvesting	20	20	3	20	30		
Preparation of material for weaving	10 (women and men) 20 (youth)	10	3	20	30		
Weaving	60	90–120	20	120–180	300		
Varnishing or painting	30	30	Is almost never done	60	80		
Total approximate time spent per unit of production	120	180	40 (including cleaning)	300	440		

Although women spend less of their total working time on homebased crafts than men, the number of women involved in, for example, basket weaving is higher than the number of men (see Table 9 below). For example, a craftsperson from Jomboy district in Samarkand region noted that within his family, three women and two men were involved in basket weaving, but that the men spent more of their working time on weaving than the women, because the latter had to perform household chores as well. Men are also more involved in the stages where the work requires more energy or in the activities that take place outside the home.

	Main types of products							
	Trays	Baskets	Ladles	Mats	Curtains			
Women								
20–30 years	40%	30%	30%	15%	10%			
30-45 years	50%	40%	20%	25%	10%			
45–55 years	60%	50%	30%	50%	30%			
Men		*						
20–30 years	40%	50%	30%	10%	10%			
30-45 years	60%	70%	60%	20%	30%			
45–55 years	70%	70%	70%	50%	50%			

Table 9: Average time spent on basket weaving, regardless of the stage of the process

Table 10: The ratio of men and women (in households) involved in basket weaving

	Main types of products								
1	Frays	Ba	skets	La	dles	Ν	lats	Cu	rtains
Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
40%	60%	50%	50%	40%	60%	30%	70%	50%	50%

Mainly women are engaged in the production process of goods made from the wool of Angora goats (see Table 11 below). This may simply be explained by the traditional division of labour between women and men, which have evolved along norms regulating the level mobility and the type of work assigned to women and men in Uzbekistan. Men have traditionally been engaged in work outside their homes, while women have been responsible for household chores. Moreover, working with wool is considered monotonous work that requires perseverance and patience rather than heavy physical labour. Table 11 presents information about the level of engagement of women and men (of distinct age groups) in the different stages of the wool production process.

Table 11: The participation of women and men of different ages in the value chain of production of goods from the wool of the Angora goat

	Stages of the production process	Participation of women and men (by age)				
1.	Primary cleaning of wool from	Women of average age 20-50 years;				
	coarse impurities, manually	men of 20–25 years				
2.	Washing at home (manually, using detergents)	Women of average age 20-50 years				
3.	Drying (carried out naturally, under the sun)	Women of average age 20–30 years;				
		men of 20-40 years				
4A.	Carding (manually, with special combs, for small amounts of wool)	Women of average age 20–50 years; rarely, men of average age 20–25 years				
4B.	Carding (automatically, carried out with special Russian-made machines, typically old machinery – the Chinese carding machines are not yet widespread)	Men of average age of 20–40 years				
5A.	Spinning (by hand, for small amounts of wool)	Women of average age 20-40 years				
5B.	Spinning (with improvised devices)	Women of average age 40–50 years				
5A.	Knitting (manually, for small amounts of work/orders)	Women of average age 20–50 years				
6B.	Knitting (using Russian-made knitting machines)	Women of average age 20–30 years; rarely, men of average age 20–40 years				
7.	The artificial dyeing of yarn or finished products	Both women and men, mostly of 20-40 years				
8.	The drying and combing of finished products	Mostly women of 20-40 years				
ЭА.	Selling products from home	Mostly women of 30–50 years				
9B.	Selling products at the market	Mostly women of 40–50 years				

To categorize the manufacturing process of woollen products as an easy task is incorrect. The story presented in the box below reflects the many aspects of the production of woollen products in the home. Knitting as a source of income and a method for improving the social climate within the family

I remember how three decades ago, in the time of the Soviet Union, when I was a schoolboy, I helped my mother to earn extra income for our family. My dad had left our family and did not help us; he only sent us a little money once every six months or a year. So, my mother was practically the head of our family and the only breadwinner. She worked as an engineer at the Design Institute, but because she had no higher education, only technical education, her salary was not high. She had three children, including me, and I was the only boy in the family.

Knowing how hard it was to live on a low income, our neighbour, an elderly Russian woman, took pity on us and decided to teach my mother to knit shawls from the wool of Angora goats. She taught her not only knitting, but all the stages of the technological process, from the procurement of untreated wool to the sale of the finished shawls at the market. I helped my mother as best I could, both with everyday household chores and in her new occupation. The learning process was not easy and took more than a year before our products became in demand.

During the day, my mother worked at the Institute, and in the evening she knitted, while we, her children, did all the remaining household work and prepared wool and yarn for knitting. My mother never rested, and knitted even on weekends, or we went to the market to buy wool or sell woollen shawls. My older sister also helped our mother knit shawls.

I remember that I wanted to go outside and play football with the neighbouring boys, but I did not have time for it, because after school I was doing my homework, and combing and cleaning the wool. At first I helped and then I independently painted shawls made from black wool. Without painting, the shawls were not always monochrome, and customers preferred more monochromatic and dark colours. I always invented new methods of dyeing. Dyeing is done by boiling at a low temperature, and it was a very important moment. In the event of an error, a costly and timeconsuming shawl was subsequently sold at a very low price, as a defect product. For example, if boiled at a high temperature the shawl shrinks, reduced to almost half its size, and of course, no one wants to buy a small-sized shawl.

Together, spinning and knitting represent timeconsuming and monotonous work, and can therefore be considered as a boring job. However, in a family setting, these forms of work are carried out mechanically in the same room, which provides an opportunity and time to talk with each other. In those days, there were no gadgets and social networking; television was limited, and family conversations during work were very useful and interesting. During those conversations, my mother brought us up and educated us, we shared our views and knowledge with each other. Therefore, I believe that a process that brings people, family members, together in achieving common goals, is creative and enabling, not only from an economic (material) point of view, but also from moral and cultural points of view.

It should be noted that we did not use any special knitting machine, firstly because they were very expensive, and secondly, they were designed for high production volumes. For our family of four, a knitting machine was not appropriate as it would have required the use of a full working day for all family members. My mother had a job, and we, her children, went to school. We didn't live in luxury, but we ate well, because we had additional income from a small family business.

In modern times, with the development of technologies and their relative accessibility, as well as with the development of market relations, more and more types and volumes of woollen products and their substitutes have entered the market. The prices of products made from wool-substitutes have become more affordable. But the demand and price of shawls from the wool of Angora goats remain almost unchanged, for it is the original product that is in demand throughout the former Soviet Union and beyond. The process itself, the experience and knowledge needed for the manufacturing of shawls can be transmitted from generation to generation, from masters to disciples, providing households, especially those headed by women, not only with economic benefits but also with social ones, thereby contributing to the preservation and maximization of the economic, cultural and educational values of society.

(Bakhodir Dustmukhamedov, Fergana region)

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CHAPTER 3. Conclusions and recommendations

Handicrafts, folk crafts and home-based artisanship, especially in rural areas, represent an important and necessary component of rural development, in which rural women play a key role. The development and promotion of rural crafts is particularly relevant in the context of the overarching development goals of the Republic of Uzbekistan. The country has established the necessary legal and institutional framework for the development and support of various types of handicrafts.

The present study points out that socio-cultural characteristics combined with centuries-old traditions, and the stereotypes arising from these play a crucial role in the gender division of labour. Women and men have different roles and responsibilities in the value chain of home-based work. Men are usually responsible for tasks that require leaving the household for longer periods, heavier physical labour (such as harvesting raw material) or the use of technology (processing by machines). Women, in turn, are responsible for routine, daily household chores, including work in the fields nearby the household. As consequence, for instance, women are more involved in the production and processing of Angora wool, which is a traditionally undertaken as homebased, manual (therefore time-consuming) work. It has been observed, that women running homebased businesses, play a major role in household decision making in general.

Thus, the development of home-based handicrafts, with the involvement of rural women as major beneficiaries, would provide them with the opportunity to get a paid, formal employment at the same time as enhancing their role and status in the family and society.

Furthermore, it should be noted that homebased produced handicrafts, beside their large potential for increasing employment and raising income of rural households, do not require significant public investment. Flexibility, an uncomplicated production process, the availability of resources and the existence of markets for handicrafts call for the creation of favourable conditions for their development and dissemination as additional sources of livelihood.

However, the potential of handicrafts and folk crafts, as a source of income diversification, rural employment, has not yet been fully realized. As demonstrated in the interviews with craftspeople and artisans, the proportion of women and men with access to information and knowledge about home crafts is low. Uzbek home-based workers show strong interest to know more about modern technology, methods for the handicraft manufacturing and the diversity of commercially viable products. Unfortunately, this kind of information and knowledge has mainly been passed on from generation to generation, or from masters to apprentices strictly involved in a particular craft. Open and accessible information, or specialized courses in rural areas are almost absent. According to the respondents of the survey of the present study, manuals on the implementation and application of home-based crafts are not sufficient. Instead, it would be necessary to introduce practical courses that would include not only the transfer of knowledge on technical and technological aspects of certain types of home-based handicrafts, but would also increase knowledge about market opportunities, and opportunities for purchasing resources and selling finished products.

Awareness raising and training programs on various types of handicrafts are in high demand in rural areas and are potential tools for the economic empowerment of rural populations, particularly women.

Local markets are little competitive and nonstimulating. Currently, there is no optimal/ sustainable balance of supply and demand for basketry and goat wool products due to the underdeveloped market and infrastructure. In addition to these, effective institutional mechanisms – that would facilitate the effective marketing of home-made products – are absent.

It should be noted that nowadays, due to the development of technologies and their relative accessibility, as well as the development of market relations, more and more types and volumes of woollen products and substitutes have entered the market. Products made from wool substitutes, which are sold at local and neighbouring markets, are imported from China and have become more affordable for the population. However, the demand for and price of shawls made from the wool of Angora goats remain almost unchanged, because this is the original product that is in demand throughout the geographical area of the former Soviet Union and beyond. It should be noted that the cost of woollen products produced at home is not much higher than the cost of consumer goods made from artificial substitutes of wool. Further development of market relations between the participants of the value chain could optimize the increment of added value in favour of producers or reduce the number of intermediaries in the domestic chain. This, in turn, can reduce the cost of production.

Another important factor in the optimization of the value chain of basketry products and goat wool products is the improvement of cooperation between producers at geographical and segmental levels. The national Hunarmand Association established in Uzbekistan contributes to the development of folk crafts and handicrafts in the domestic market of Uzbekistan and promotes national products in foreign markets. Nevertheless, programmes to enhance cooperation between producers of specific/selected handicrafts would greatly contribute to local and foreign market penetration.

This research – "Gender-sensitive analysis of the value chain of handicraft products made from wild and cultivated plants and raw materials of animal origin" – is meant to serve as a contribution to the development of more focused and comprehensive strategies to improve the sustainability and efficiency of folk crafts, particularly basket weaving and goat wool handicraft products

FAO may play a catalytic role in the development of handicrafts, by improving the interactions between the different actors in the value chain and other stakeholders, by enhancing their technical capacity, by creating and improving the platform for cooperation, and by facilitating the dissemination of best practices in homebased crafts, in particular handicraft products made from wild and cultivated plants and raw materials of animal origin.

3.1. Conclusions and recommendations to improve the production of handicrafts made from the Angora goat wool

The following factors hinder the development of production and processing of wool:

• Low demand and limited access to markets for wool, which largely reduce the rate of return; this is also the result of an inefficient and unstructured interaction between different actors of the value chain, particularly between raw material suppliers, manufacturers and sellers.

- The relatively low quality of mohair and down, due to: the deterioration of the resource base; decline in the quality of breeds; inefficient feeding and stock keeping; the absence of a single, centralized goat breeding program; and the low quality of wool processing technology. The lack of practical, easy-to-handle devices and equipment for processing wool and down negatively affects the cost of fibre and products from fibres. In most cases, this type of businesses employ women from lowincome families who use primitive methods of processing.
- A lack of capacity, awareness and knowledge among women and men involved in homebased business. The producers of down, mohair and wool often lack the scientific, organizational and technical support to improve breeding and the quality of the wool.
- A lack of small-scale innovation: there is a paucity of experts on and information about innovative technologies for harvesting, processing, manufacturing and selling products from goat wool, mohair and down, which makes the sector uncompetitive and puts at risk the sustainability of incomes for families that depend on the processing of goat products.

Main recommendations to improve Angora wool handicraft products are:

1. A survey of sampled households in the Namangan region engaged in the production of mohair shawls from the wool of Angora goats demonstrated that assistance is required for the purchase of specific mini-machinery and carding equipment for cleaning the wool. Piloting these machines in the organization(s) and/or households involved will demonstrate the value and efficiency of mechanization for craftspeople and home-based workers, and will assist in the dissemination of best practices. The involvement of the regional divisions of the Hunarmand Association and the khokimiyats and mahalla committees are indispensable to enhance partnerships/ cooperation and local ownerships of such initiatives, i.e. to ensure effective implementation and the sustainability of the interventions..

2. There is also a need for a consultation and training program to develop and disseminate best practices in the use of wool from Angora goats and other wool of animal origin. This program could contribute to the development of felt manufacturing technology for producing environmentally-friendly and valuable products, such as gloves, socks, belts, slippers, sleeveless jackets, felt blankets and rugs.

The proposed consultation and training program could include the following aspects for the effective development of home-based production of woollen products:

- a) Regular consultations between experts and female and male home-based producers of goods from animal wool, on the proper care of animals and breeding of pedigree goats with high quality wool.
- b) Capacity development on the optimization of value chains, including training on business planning and effective communication between value chain members.
- c) Improving and delivering training courses on small-scale technologies and the basics of manufacturing products from the wool of animals, including the preparation and processing of wool, spinning, knitting and dyeing.
- d) Organizing and conducting workshops on gender mainstreaming in the value chain, with the goal of improving gender relationships within the family and increasing income by optimizing the roles of women and men in the family and enhancing joint decision-making.
- e) Organizing exhibitions/fairs about smallscale innovation, with the involvement of experts and the dissemination of information on innovative technologies for harvesting, processing, manufacturing and selling products made from animal wool, mohair and down.

- 3. Providing smallholder farmers (especially those in remote areas) with opportunities to engage in/improve the production, process and export of mohair, down and wool should be considered a policy measure of key importance. Such measure or related programme should specifically target rural women with a particular emphasis a.) on improving the conditions of production and labour, and b.) on the processing and marketing of products with added value.
- 4. In-depth research is needed on the domestic and international demand for products made from Angora goat wool, as well as on identifying potential supply. Such research should also aim at documenting the current capacities of home-based workers engaged in the production of goods from Angora goat wool and their capacity development needs.
- 5. Organizing local fairs and promoting more active participation of home-based workers in national and international trade fairs of folk crafts and artisan products would be highly necessary to improve marketing of goods from Angora goat wool.
- 6. Harnessing the mass media and ICT to play a specific role in the capacity building of homebased workers and in strengthening their links with growing market opportunities.

3.2. Recommendations to improve the production of the handicrafts made of plant materials

1. As raw materials for basketry, artisans widely use plant materials such as willow twigs, privet and mulberry. From the twigs of the abovementioned plants, they weave baskets, trays, ladles and other household items. Artisans mainly collect the materials in the natural habitat, but the amount of naturally grown plants is insufficient for the broader development of the craft. Thus, the creation of willow nurseries for basketry would be worthwhile. To ensure good local cooperation, functional partnerships and national ownership of such nursery project, the involvement of the Hunarmand Association and national experts in plantgrowing is recommended.

- 2. Basketwork using plant materials imported from Turkey and China is expensive and unaffordable for the average buyer. Therefore, there is a need to further develop basketry in selected pilot areas via rural craft development projects. Such projects should also be included in the next national rural development programme of Uzbekistan.
- 3. Basketwork made from plant material is an environmentally-friendly product and has a higher value than products made from artificial materials. A "farmer to farmer" approach facilitated by the municipal

government and Hunmarad Association would enable the dissemination of basket weaver's knowledge at the district or regional level.

- 4. It is necessary to develop tutorials and information materials on the use of plant materials in the production of household items in both print and video formats.
- 5. Business training on the optimization of the basketry value chain (including effective interaction between value chain members and business planning) is highly necessary.
- 6. It would be valuable to organize exhibitions showing products made from plant materials and disseminating information about innovative technologies for harvesting, processing, manufacturing and selling baskets, trays, ladles and other basketry products.

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Annex 1. Workshop on felt

Within the research phase of the project, "Opportunities for the development of handicraft products made from wild and cultivated plants as an additional source of income for rural residents", and in partnership with the Hunarmand Association, the workshop "Technology of embroidery on felt" was conducted. The workshop was held from 04 to 08 March 2016.

Workshop participants included leaders and activists of the Hunarmand Association, and craftspeople and artisans from the regions. Kendje Tohtosunova, an experienced trainer and artisan on felt, was invited from Kyrgyzstan to lead the workshop. She has participated in international fairs and exhibitions for many years and continues her activities within a family business.

The aims of this workshop were to: familiarize participants with the best practices in producing household items made from felted wool of small ruminants; develop skills for producing such items using best practices; and disseminate knowledge and experience among craftspeople and home-based workers.

The workshop on felt was very important for all participants, including representatives of the Hunarmand Association, and enabled them to assess and identify opportunities for the development and dissemination of this experience in Uzbekistan. In particular, during the workshop, interesting proposals for the development of felt crafts were made. Felt products are both eco-friendly and harmless and are very useful and popular among the population. One artist and designer from Bukhara proposed new design drawings for felt craft and expressed her willingness to refocus her activities in this field.

The workshop on felt also provided participants with examples of how to involve women in income generating activities. An activist from the Women's Council of the mahalla of Kibray district spoke about the benefits of home-based labour, for example, bringing relatives together and alleviating conflict between daughtersand mothers-in-law. She observed that when family members are engaged in the same work, it benefits the whole family.

Participants noted that a series of similar workshops, with the participation of representatives from all regions in Uzbekistan, could extend the experience of felt craft to others, first at regional and district levels, and then at the level of mahallas.

The development of home-based handicrafts is important in solving social problems in rural areas; therefore, the state program for the development of handicrafts aims to create additional jobs. Each khokimiyat could lead this work in its own district, by creating the conditions and possibilities needed for the further development of handicrafts and homebased production at district level.

