

TRADITIONAL COTTAGE INDUSTRY DEVELOPMENT IN THE UPPER ANDHIKHOLA WATERSHED, NEPAL: PROBLEMS AND PROSPECTS

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Introduction

The middle mountains of Nepal, hereafter referred to as the hills, are geologically young and fragile; the growing population has accelerated pressure on agriculture and generated forest encroachment, leading to soil erosion and fertility decline. As a result, watersheds are undergoing numerous problems such as soil erosion and landslides. Small land-holdings combined with scarce off-activities have exacerbated poverty. It is believed that more than 42 percent of the mountain people in Nepal are living below the poverty line (NPC, 1998). For sustainable mountain conservation and development there is a need to alleviate pressure on agriculture through the promotion of cottage industries. Bhattachan (1997) stated that traditional artisans remain in a medieval world. Small-scale garment-making, shoe-making, farm equipment manufacture, metal pots, and ornaments, can help to generate employment and income opportunities for mountain people.

While off-farm activities can make an important contribution to watershed conservation and development, watershed management projects implemented in Nepal have constantly neglected their promotion. The overwhelming majority of mountain people in Nepal depend on agriculture for subsistence (MOF, 2000). Despite strenuous efforts they have not been able to increase production and satisfy basic needs due to limited crop production and scarce off-farm employment opportunities. Some of the progressive farmers in favourable locations have adopted new technologies, like improved varieties of crops and breeds of livestock to increase their household income, but due to lack of marketing facilities they have not been able to benefit from these activities.

Traditional artisans like blacksmiths (*Kami*), goldsmiths (*Sunar*), tailors (*Damai*), and cobblers (*Sarki*) are some of the groups traditionally engaged in cottage industries because land was not allocated to them for their profession in antiquity. With the growing influence of the market economy over the years, such practices have gradually dwindled, as villagers can buy readymade agricultural equipment and garments at local market centres. Nowadays most of the local artisans are confined to repair and maintenance of used clothes, old shoes, and old agricultural equipment. Little attention has been paid to promoting indigenous small industries. The local moneylenders charge very high interest rates for the loans that they provide to local entrepreneurs.

In the past, some attempts were made to improve rural industries. The Department of Rural Cottage Industry Development as well as some NGOs conducted skills' development training in different districts. Cottage industries need to be developed to create employment and income opportunities for watershed settlers. In particular, the increased income will generate demand for different kinds of services, which will provide work for unemployed and partly employed people. The main objective of this study is to examine the prospects for the promotion of selected cottage industries.

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Study area profile

Syangja is a mountain district. Prithibi Highway is located in the Western Development Region of Nepal and passes through the middle of the district. The total area is 1 076 km². There are two municipalities and 60 village development committees (VDCs). The study area, the upper Andhikhola Watershed, covers three sub-watersheds of three small tributaries namely the Phedikhola, Badkhola, and Andhikhola. The watershed covers 14 VDCs and one municipality. Even though the study area is small, the biophysical and socio-economic environment varies from place to place (Figure 1).

Topography and climate

The topography is mountainous ranging in elevation from 750 to 2 000 metres above sea level (masl). The lowest altitude is 750 masl at the banks of the Andhikhola. In general, temperature and precipitation vary with elevation and slope aspect. Below 1 000 m, the climate is sub-tropical. These are mostly river valleys and lower ridge slopes where the annual average temperature is above 20°C. A warm humid climate is found between 1 000 and 2 000 m. Most agricultural land is found in areas with sub-tropical and warm climates. Cooler temperatures are found over 2 000 masl. The annual average temperature is between 10 and 15°C.

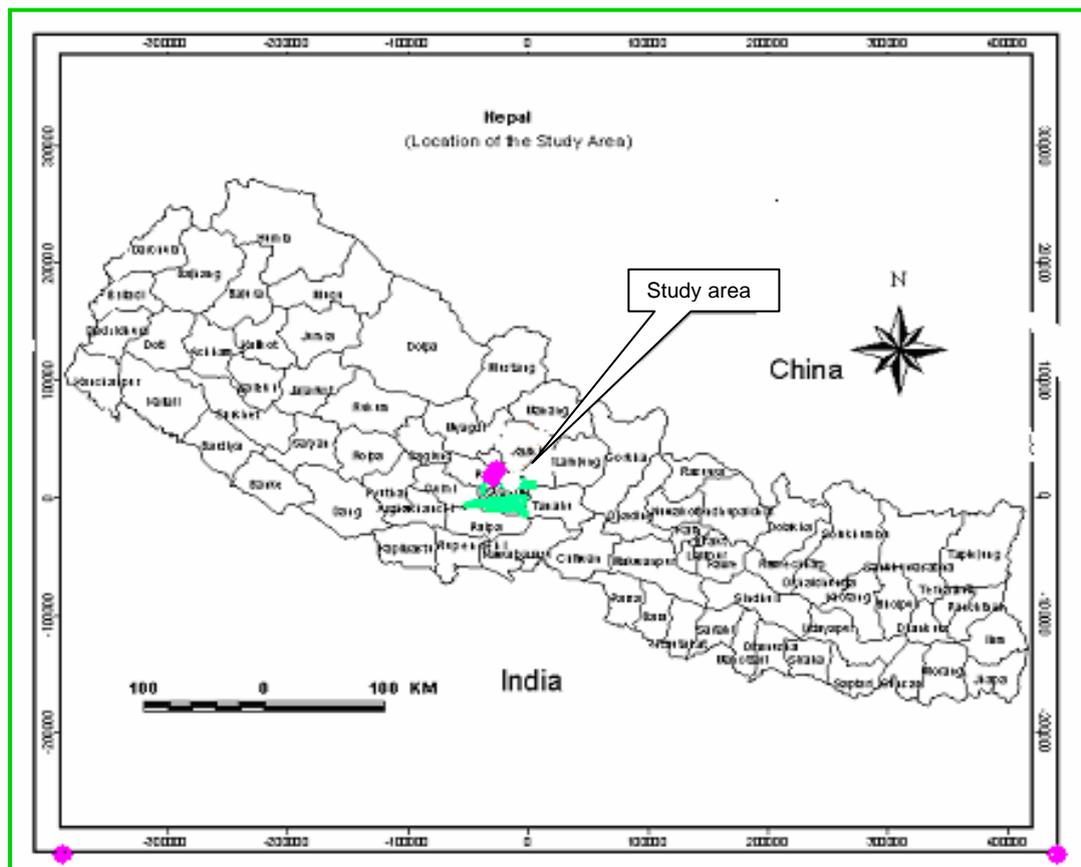


Figure 1. Location of the study area in Nepal

Distribution of households and population

The distribution of the occupational and other ethnic groups in the different VDCs of upper Andhikhola Watershed is shown in Figure 2.

Skills' development training

A total of 598 women were involved in advanced garment training conducted by the cottage development committee of Syangja. A maximum of 225 Brahmin women but only 27 women from the tailoring ethnic groups were trained, indicating a strong ethnic training bias (Figure 3).

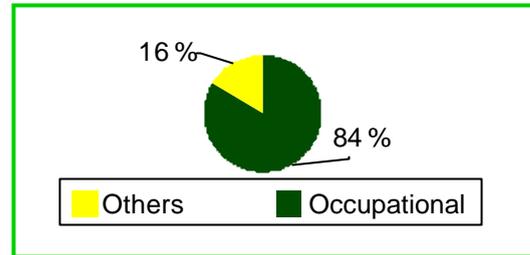


Figure 2. Distribution of households of occupational and other groups

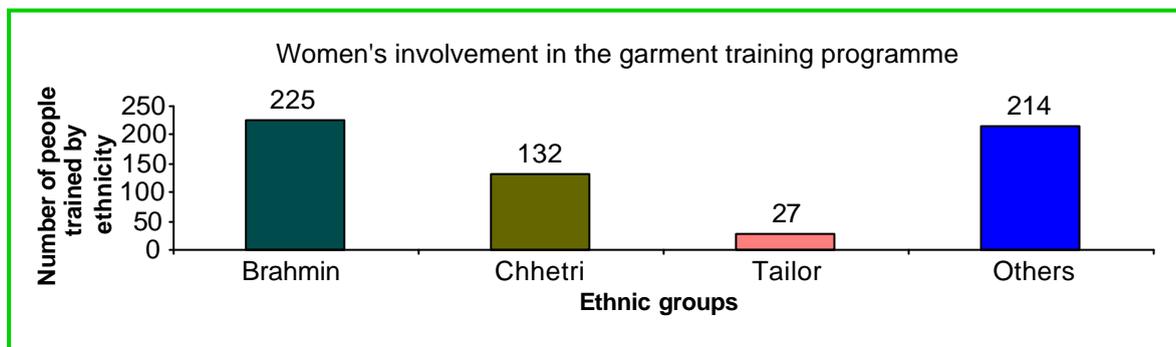


Figure 3. Women's involvement in the garment training programme

Traditional cottage industries

Rural entrepreneurs found it difficult to support themselves via their trade alone. Therefore, they had to identify another occupation to make a living. Livestock, agriculture, and labour were common sources. On average, cottage industries contributed 83 percent of the household's income whereas income from agriculture, labour, and livestock raising amounted to 9 percent, 5 percent, and 3 percent respectively (Figure 4).

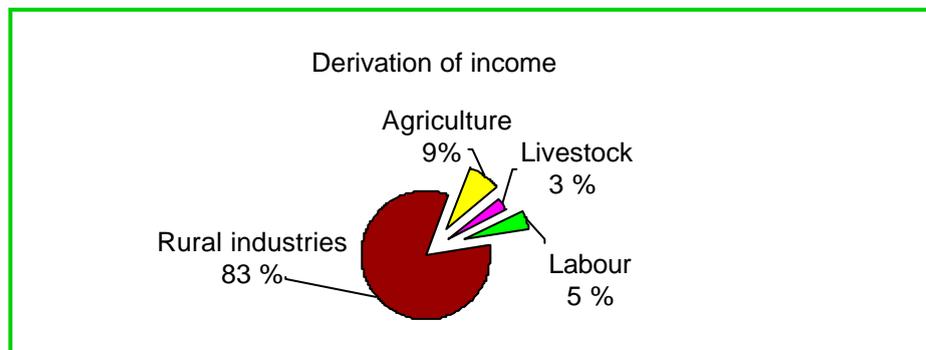


Figure 4. Mean distributions of income sources for rural entrepreneurs

Table 1 lists the different land-holdings of rural entrepreneurs.

Table 1. Land-holdings of rural entrepreneurs

Land type	Frequency (n=60)	Percentage	Average land-holding (in <i>ropani</i>)
<i>Khet</i>	11	18.3	0.80
<i>Bari</i>	20	33.4	0.89
<i>Kharbari</i>	4	6.6	0.18
<i>Khet</i> rented	2	3.3	0.03
<i>Bari</i> rented	2	3.3	0.03

20 *ropani* = 1 hectare

Khet = lowland; *Bari* = upland

The occupational ethnic groups had basic income from the land whereas other ethnic groups depended mainly on agricultural production.

Farmers grew rice, wheat, potato, maize and millet. The cropping pattern was rice + wheat, rice + potato, rice + wheat + maize, rice + potato + rice in *Khet* whereas maize + millet relay cropping characterized *Bari*. In some areas where it was climatically feasible, fruit trees were grown and generated some cash income from fruits like oranges.

Livestock

Most of the farmers raised buffalo and bullocks in the watershed area. But cottage industry entrepreneurs raised very few animals and the income from animal products and animal sale was very small. Overall, the economic contribution from livestock was 3 percent *per annum* for rural entrepreneurs (Figure 5).

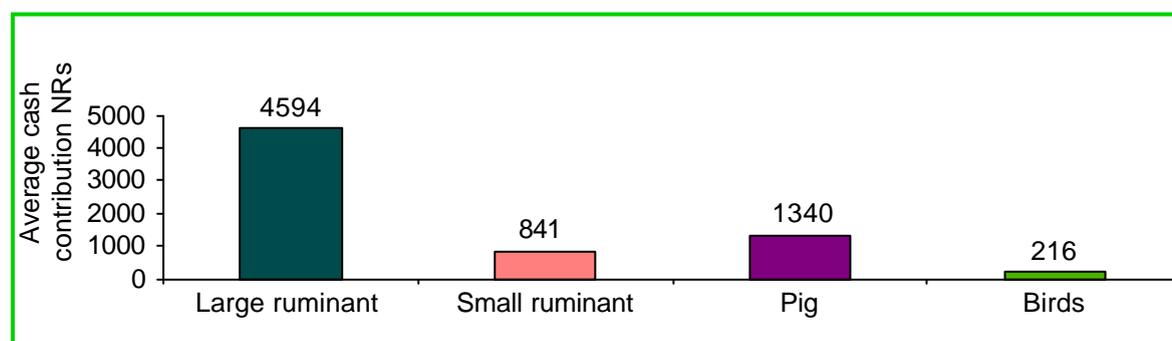


Figure 5. Mean income derived from livestock

Family size and age structure

The mean family size of the responding households was seven. Seven percent of males and 8 percent of females were below five. Fifteen and 13 percent of males and females were between six and fifteen; the economically active male population mean was 26 percent and 25 percent for females. Three percent of males and females were above 61.

Educational status of the family members

The percentages among men for zero schooling, primary level, and secondary plus higher secondary level attainment were 24, 41, and 35 respectively. For women in the cottage industry, the percentages were 46 (zero schooling), 30 (primary passed), and 24 (secondary plus higher secondary education attainment) (Figure 6).

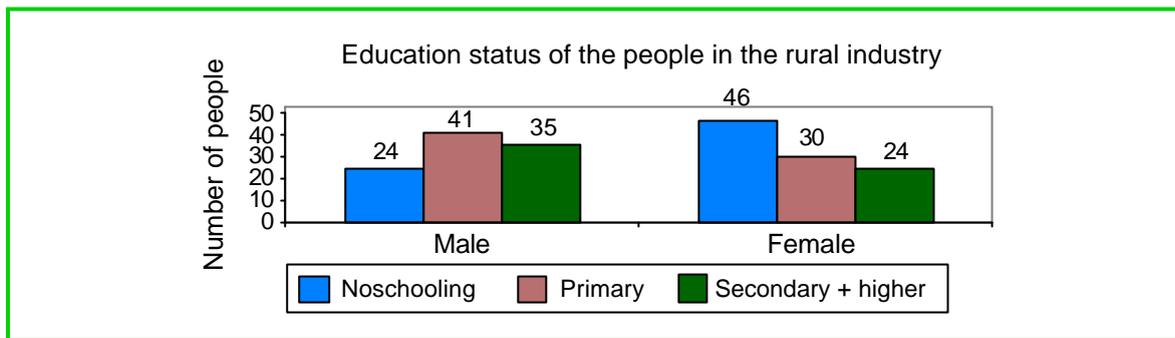


Figure 6. Educational status of people involved in cottage industries

Occupational status of entrepreneurs involved in cottage industries

Occupation-wise, the percentages for entrepreneurs were: agricultural tools and utensils (88 percent), leatherwork (100 percent), ornaments (100 percent), tailoring (88 percent), smithying (12 percent), and garments (8 percent). The majority of the entrepreneurs had some minor occupations as well. Women’s involvement was: 75 percent (agricultural tools and utensils), 40 percent (leatherwork), 71 percent (ornaments), and 68 percent (garments). Minor employment comprised agricultural labour and waged labour.

Employment situation in cottage industries

Entrepreneurs and their family members only worked part-time in cottage industries. The average maximum number of employment days for men was 25.17 in January and the average minimum number was 22.1 in June. Women’s average maximum employment days were 14.02 in March and the average minimum days were 13.8 in November and December (Figure 7).

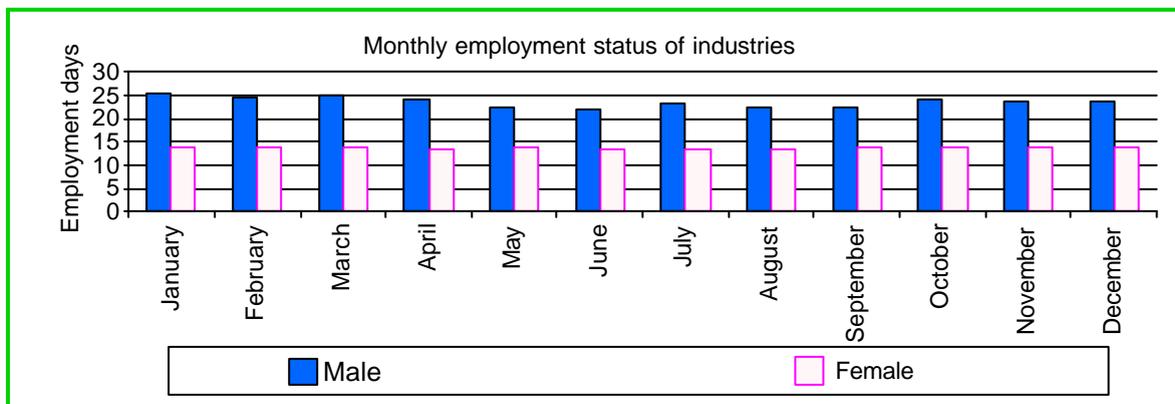


Figure 7. Monthly employment status in cottage industry

Agricultural production of cottage industry entrepreneurs

Rural entrepreneurs produced goods and provided services to the settlers. Most of the entrepreneurs had little land and they cultivated different types of crops, but the quantity was small. The mean production was 391 kg (rice), 160 kg (wheat), 169 kg (maize), and 209 kg (millet). Some pulses, vegetables, ginger, and fruits were also grown. This production contributed to annual income by 18 percent.

Waged labour of the entrepreneurs

A total mean of NRs10 845 per annum was generated from waged labour whereas blacksmiths, cobblers, and tailors generated on average NRs2 990, NRs4 898, and NRs2 957 per annum respectively (Table 2). Goldsmiths and their families were not involved in agricultural labour or otherwise.

Table 2. Average annual income from waged labour by type (NRs)

Type of industry	Number	Mean
Blacksmiths	14	2 990
Cobblers	5	4 898
Goldsmiths	16	-
Tailors	25	2 957
Total	60	10 845

Production performances and market situation

The four major traditional industries in the study area were: agricultural tools and utensils, ornaments, shoe-making, and tailoring. The comparative advantages across the industries were the raw materials purchased by the customers themselves in order to prepare the goods that they required. Therefore a large amount of capital was not required to establish an industry.

The micro industries were in poor physical condition. Some were established in animal sheds and others in the open air. Most had very limited space no matter if the workshop was owned or rented. Sixty-five percent of the respondents said space was adequate and 35 percent reported that space was inadequate.

The average cost for shed construction was NRs1 900. The average depreciation of the shed/building was calculated at NRs158 *per annum*. Similarly, the average cost of machines and equipment was NRs7 933 and the average machine and equipment depreciation was NRs793.

Ownership of sheds/buildings

In the study area, 20 percent of the entrepreneurs operated their enterprises in their own sheds/buildings while 58.3 percent worked in rented space, and 21.7 percent had no sheds/buildings.

Accessibility

From the business point of view, many entrepreneurs rented houses near the road head and district headquarters to run their enterprises. Road-head and headquarters-based industries charged their customers in cash unlike the village-based industries where the barter system was predominant.

Equipment used and its condition

Table 3 shows the distribution of equipment in the different industries. The leather industry required only a few tools that were cheap to produce. Most of the equipment was manual.

Table 3. Machine and equipment used

Industries	Own equipment		Rented equipment		Minor tools	
	f	%	f	%	f	%
Agricultural tools and utensils (n=16)	15	94	-	-	1	6
Leather goods (n = 5)	2	40	-	-	3	60
Ornaments (n = 14)	14	100	-	-	-	-
Garments (n = 25)	21	84	4	16	-	-

f = frequency; % = percentage; minor tools = sickles, needles, hammers, hooks, and sharpeners

Capital investment situation

Only 18 percent of the entrepreneurs received loans from the bank. In some instances, banks provided loans to establish new industries but the money was insufficient to run the businesses smoothly. The number of enterprises started with funds obtained from moneylenders was larger than those financed by banks. Table 4 shows the capital investment deviations across different types of industries. Ornament industries invested more capital in comparison with other industries. The capital profit ratio is the higher the investment the higher the profit.

Table 4. Capital investment deviations

Industry	Capital investment	Capital investment ratio	Capital profit ratio
Agricultural tools and utensils	15 655	0.04	0.02
Leather goods	13 000	0.03	0.06
Ornaments	345 962	0.88	0.14
Garments	17 693	0.05	0.05
Total	392 310		

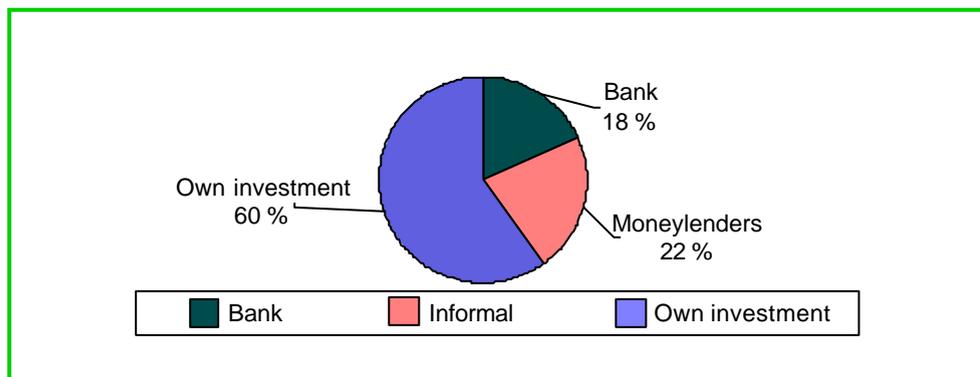


Figure 8. Sources of capital investment by industry

Adequacy of capital

Overall, less than 50 percent of the entrepreneurs took loans either from a bank or borrowed money from local moneylenders (Figure 8). According to 47 percent of the respondents, the amount of credit they received was inadequate. They wanted additional credit from any other source to expand their enterprises because their income was insufficient. Fifty-three percent of the entrepreneurs said that the flow of their loans was adequate (Figure 9).

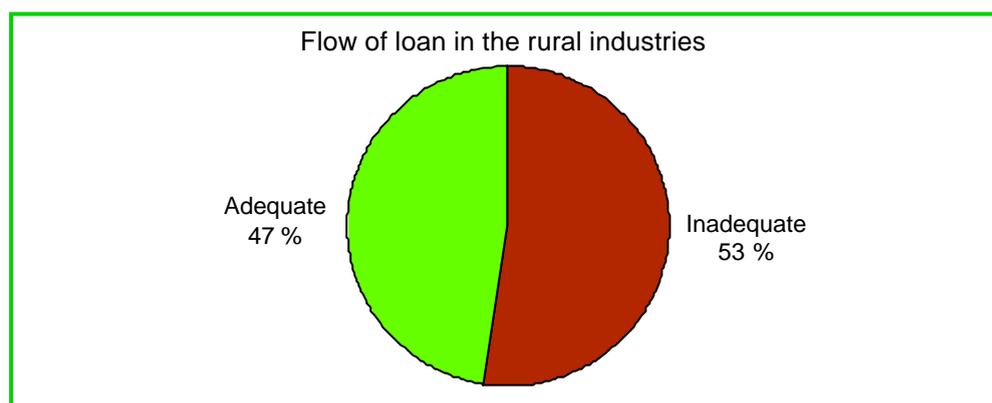


Figure 9. Flow of loans in cottage industries

Table 5 details the adequacy of capital investment by type of industry.

Table 5. Adequacy of capital

Industry	Frequency	Percentage
Agricultural tools and utensils (n = 16)	7	25
Leather goods (n = 5)	1	4
Ornaments (n = 14)	5	18
Garments (n = 25)	15	53

Interest rate

Banks charged interest at 18 percent while private moneylenders charged rates ranging from 22 to 60 percent *per annum*. Banks had one policy for investment. Banks in general did not provide credit to the four traditional industries cited. Some banks provided loans to small industries on the recommendation of the District Rural Industry Development Office (DRIDO). In addition to the letter of recommendation, the loan seekers needed to provide a land certificate as collateral to receive a loan from a bank. The loan amount ranged from NRs5 000 to NRs30 000 only. Even though the bank interest rate was low in comparison with private moneylenders, entrepreneurs were discouraged by bank bureaucracy to obtain a small amount of credit. This study considers that the bank policy must be changed in favour of cottage industries so they can obtain credit from banks easily to promote their activities.

Mode of payment for goods

Payment was made in cash and kind. The average annual income made by blacksmiths in cash was NRs11 179, including in-kind values, for each household. Dealers in agricultural equipment and utensils,

sold kitchen utensils in exchange for grain, but in the market area, blacksmiths sold their goods for cash. Building construction materials like shutters, grills, gates, and railings were sold for cash.

Dealers in leather and ornaments sold goods for cash. The average income for a cobbler was NRs57 850 *per annum*, while the average income for goldsmiths was NRs100 714 *per annum*. Tailors earned an average annual income of NRs4 080.

Iron goods

Blacksmiths produced three types of goods: (1) farm tools such as sickles, spades, ploughshares, knives, and axes; (2) kitchen utensils and vessels (limited demand as people were increasingly turning to manufactured utensils available at local market centres); (3) grills, shutters, iron gates, and water tanks used for constructing buildings. However, due to restricted construction activities only four enterprises were making such products and in limited quantity. In most instances, the households provided the raw materials for such products. Products were made and paid for according to agreement with the customer. Only a few entrepreneurs were modifying their products according to changing demand for products. Entrepreneurs involved in making construction materials developed skills while working in cities like Kathmandu and Pokhara. They were well aware of the increasing demand for building materials and thus likely to be successful.

Tool repair

Blacksmiths also repaired agricultural tools and equipment, and utensils. Tool sharpening and repair were normally carried out during crop planting and harvesting. Many tools needed repair, as agriculture was the major occupation of the local people.

Employment

The iron goods industry provided employment to both skilled and unskilled household members. About 69 percent of the household members were skilled. Most of the artisans developed their skills from their traditional work while a very few people also received training either from government training institutions or from private enterprises. At least three persons were required to operate a smithy. Thirty-one percent of unskilled household members, mostly women and children, were employed as labour for blacksmiths.

Raw materials

Charcoal was an important raw material and was available locally. Blacksmiths needed iron rods and sheets for making tools and building construction; corrugated iron sheets for water tanks; and brass, aluminium, and copper for making different types of kitchen utensils. They had to purchase these raw materials from outside the district, mostly from Pokhara and Bhairahawa. In most instances, customers provided raw materials for preparation of their items.

Marketing

The supply of goods was entirely based on local demand, as most of the customers were local people. Agricultural tools were exchanged for grain. Some village blacksmiths sold their products in the

market. One blacksmith manufactured different items in his village and sold them at district headquarters. There is good potential for employment and income generation in this industry.

Garment production

Trousers, shirts, coats, blouses, *Kurtha Surwal*, *Daura-Surwal*, and petticoats were the common garments produced by tailors. The customers purchased cloth by themselves and placed orders for specific garments with the tailors. Payment was either made with grain or in cash.

Employment

Tailors also employed skilled as well as unskilled household members — 96 percent were skilled and 4 percent were unskilled. Most of their skills were traditional. Only a few tailors received formal training either from government training institutions or from private enterprises. At least six months were needed to develop tailoring skills.

Materials

Apart from cloth, tailors needed different kinds of materials such as thread, lubricants, charcoal, zippers, and buttons. Some of these materials were locally available and some needed to be purchased from district headquarters or from Pokhara.

Marketing

Tailors rarely prepared readymade clothes for sale. Customers brought their own cloth and placed their orders with the tailors.

Income

The level of income varied according to the number of customers. In addition, there was variation in terms of the number and types of garments produced and repaired. The yearly average income of individual tailors was NRs29 368.

A case study of Amber Tailoring

Amber Bahadur Darji, a literate traditional tailor left his village of Kekmi for Bhairahawa to receive advanced training in tailoring in 1972. After completing a six-month training course, he joined Jujubhai, a reputed garment enterprise in Kathmandu Valley. There, he learned to prepare modern garments like coats, trousers, shirts, and traditional Nepalese garments like *Daura-Surwal*. He worked very hard and became an expert in garment management within six years. In 1982, he returned to Syangja and established a tailoring shop named “Amber Tailoring” at district headquarters. With the additional machines he also started hiring manpower. He trained his neighbours in sewing and cutting and became a trainer as well as an entrepreneur. He had more than 10 sewing machines and three-interlock machines. Within the last 20 years, he has purchased 15 *ropani* (1 hectare = 20 *ropani*) of land, worth NRs50 000 and a garment factory at district headquarters from his own earnings. His family consists of seven members. His five children have received a good education at an English-medium boarding school.

Amar said: “I am going to apply for a loan of NRs600 000 from a bank to establish a bigger garment industry. But my intention is to use this loan to send my son abroad for higher education. I think if I had had a good education I would have become a big industrialist.” He thought that his son would be a good designer and would introduce new designs for garments. He further said that the government policy did not favour tailors because the free import of readymade garments had suppressed their markets in this decade.

Garment production

Amber Tailoring produces trousers, shirts, blouses, and coats. The yearly production is illustrated in Figure 10. The total production of garments in one year was 1 200 shirts, 360 blouses, 240 pairs of trousers, and 84 coats.

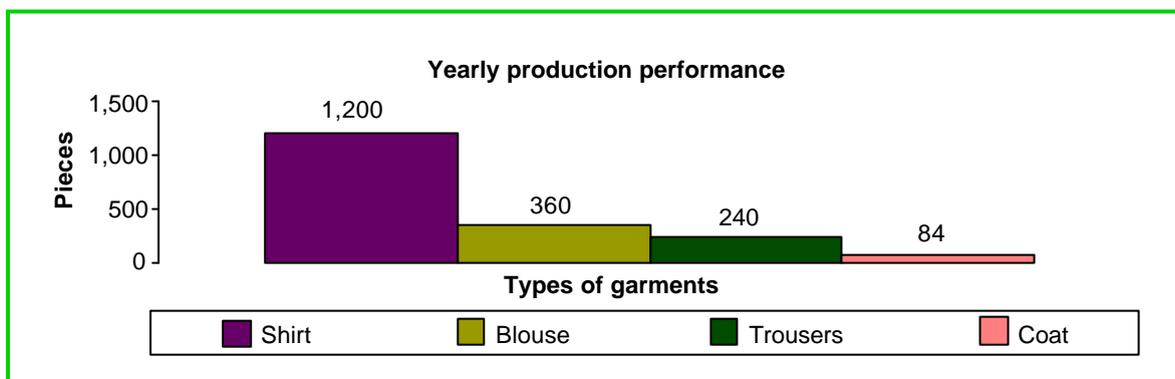


Figure 10. Yearly garment production (Amber Tailoring)

Income generation

Amber Tailoring generated income from different garment production and repair. On the basis of items, the highest income of NRs84 000 was generated from shirts and the lowest (NRs7 200) came from blouse production (Figure 11).

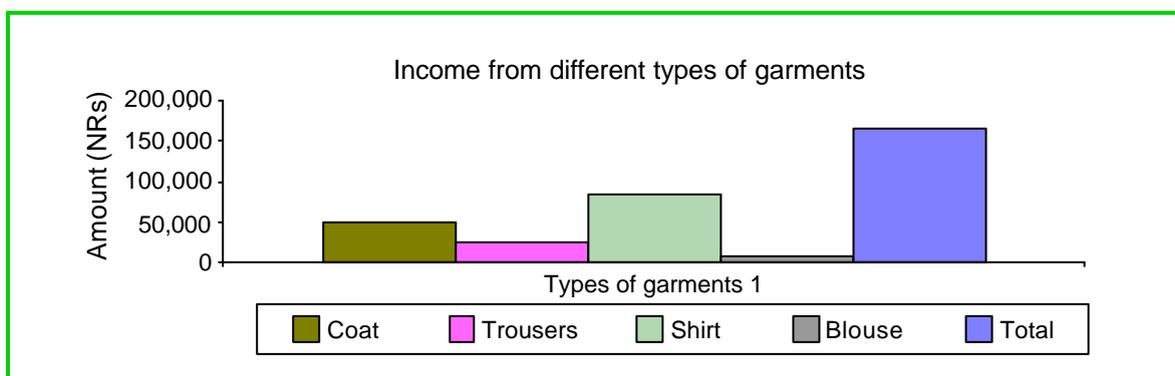


Figure 11. Income from garments (Amber Tailoring)

Income and expenditure of Amber Tailoring

Amber Tailoring initially invested NRs50 000 to establish the business. NRs41 000 bought sewing and interlock machines. In one year the cost for variables was NRs4 768, to purchase needles, thread, machine oil, lining material, buckram, buttons, chains, hooks, and chalk. Two people were employed at the rate of NRs1 500/month/person. Depreciation was calculated at the rate of 10 percent as the life of the machine was assumed to be 10 years. House rent was NRs6 000/year. Interest was calculated at the rate of 18 percent, as the banks charged the same rate for loans. The calculated net income was NRs105 732. Amber Tailoring was successful because the entrepreneur had developed skills in designing, stitching, and preparation of garments as well as making better quality cloth. People around district headquarters knew the quality of the work. Training, capital, and good entrepreneurship are the major factors for improving rural industries.

Viability of selected cottage industries

Viability vis à vis demand

Half of the blacksmiths said that there was good demand for agricultural tools and equipment, kitchen utensils, and building construction materials (Table 6). Four-fifths of the entrepreneurs engaged in the leather industry perceived that there was good demand for their products.

Table 6. Demand for goods (multiple response)

Entrepreneurs	Percentage
Blacksmiths (n = 16)	50
Cobblers (n = 5)	80
Goldsmiths (n = 14)	71
Tailors (n = 25)	84

Rural artisans who had diversified into basket making had better incomes. The demand for building construction materials was increasing, as more new houses were being constructed. Similarly the demand for modern shoes was also increasing every day, as younger generations preferred such products.

Viability vis à vis infrastructure, technology, and market accessibility

The study area was accessible by road; the market was linked to Pokhara and district headquarters. The infrastructures necessary for the development of rural industries were in poor condition. Almost all of the equipment was manual and required extra labour. These were critical problems.

Viability vis à vis raw materials

Except for leather workers and jewellers, entrepreneurs reported that raw materials required for their industries were available locally, although some industries purchased inputs from nearby towns. With regard to the prices of raw materials, for tool-making, quality iron was quite expensive. Charcoal was NRs210 per large bamboo basket. The price of leather per square metre was NRs344. The prices of

gold and silver were NRs8 650/*tola* (11.66 grams) and NRs154/*tola* respectively. The prices of raw materials for garment industries were different.

Viability vis à vis energy

Energy is one of the most important factors in cottage industries. Entrepreneurs used four types of energy: charcoal, gas, electricity, and petrol. Blacksmiths and goldsmiths used charcoal for melting and moulding iron, copper, brass, aluminium, gold, and silver. Jewellers used gas- and petrol-fuelled instruments for carving ornaments. Industries involved in metalwork used electricity particularly for moulding metal. With regard to prices, charcoal was NRs11/kg, petrol was NRs50/litre, gas was NRs450/cylinder, and electricity was NRs6/unit. In general, energy was expensive compared with Pokhara and Bhairahawa (i.e. petrol and diesel).

Viability vis à vis manpower

Manpower is another important factor for the sustainability of cottage industries. All rural entrepreneurs had traditionally acquired skills passed on to them by their fathers and grandfathers. Some artisans had upgraded their skills by attending training organized by government institutions while others had improved their skills by working with industries in cities. All industries had skilled manpower. The Department of Rural Industries Development was supposed to conduct training every year but adequate training was not conducted. Nearly 57 percent of the entrepreneurs said that there was no problem in obtaining skilled manpower.

Opportunity for skill upgrading and diversification

There are number of institutions providing opportunities for skill development. People can approach the Rural Industry Development Office and receive general and advanced training for upgrading their skills. In some cases, INGOs and NGOs provided skills' development training in collaboration with DRIDO in Syangja. Also, there is the Council for Technical Education and Vocational Training (CTEVT) in different parts of the country where training is provided.

Entrepreneurs' attitudes

The positive indicators were credit, marketing, production, modification, diversification, and training. Across the industries 86 percent (ornaments), 40 percent (leather goods), 25 percent (agricultural tools and utensils) and 16 percent (garments) of the entrepreneurs said there were marketing problems for their products.

Strengths, weaknesses, opportunities, and threats (SWOT) analysis of rural industries

SWOT (strengths, weaknesses, opportunities, and threats) analysis is a standard way to measure capacity and assess the situation of an organization in the public domain. Strengths and weaknesses are factors internal to the organization and opportunities and threats are external factors. SWOT analysis serves as a basis both for analysis and development of an appropriate policy for action. It is a useful means to assess the functional capacity of an organization and to find hidden factors that constrain effective functioning.

Tables 7, 8, 9, and 10 detail the SWOT analysis for the various industries under study.

Table 7. SWOT analysis of tool- and equipment-making industries

Parameters	Strengths	Weaknesses	Opportunities	Threats
1 Skill	Traditional skill Traditionally trained manpower available	Lack of skills diversity and improving the quality of products Lack of manpower with advanced training	DRIDO can arrange skill development training GOs and NGOs can help too	The concerned agencies may not be able to provide training for all Possibility of disappearing indigenous technology if training not provided
2 Demand for goods	Very limited local demand for traditional products	Very limited demand for traditional products	Possibility to tap demand through diversification and improved products	Inability to compete with improved goods
3 Capital investment	Very small	Inadequate capital	Possibility of the provision of formal credit on group liability basis	Banks may not provide loans without collateral
4 Access to market centre	Some industries have access to market centres	Majority of industries have no access to market centres	Enable industries to shift to local market centres	Industries may not be able to compete with other industries
5 Infrastructure				
Workshop condition - ownership - raw materials	Basic facility - own shed - some raw materials locally available	Workshop and its poor condition	Upgrade workshop with loan from bank	Not possible if credit is not provided
Equipment	Entrepreneurs have own equipment	- Fe, Cu, Al, and brass need to be imported; equipment is old and manually operated	Regular supply	Low quality of goods produced
Energy	Availability of charcoal locally	Industries in the village cannot afford electricity	Low cost and rural electrification may be possible in future	Rural electrification may attract capitalists and poor people may lose their jobs
6 Attitudes	Easy to enter industry	Society has given low status to people involved in traditional industries	Recognition of the value of work	Economically and socially backward people may not recognize the value of work

DRIDO = District Rural Industry Development Office

Table 8. SWOT analysis of leather goods' industries

Parameters	Strengths	Weaknesses	Opportunities	Threats
1 Skills	Traditional skills	Lack of skill diversity and improving the quality of products	DRIDO can arrange skill development training	The concerned agencies may not be able to provide training for all Possibility of disappearing indigenous technology if training not provided
Traditionally trained	Lack of manpower manpower available	NGOs can help with advanced training		
2 Demand for goods	Very limited local demand for traditional products	Very limited demand for traditional products	Possibility to tap demand through diversification and improved products	Inability to compete with improved goods
3 Capital investment	Very small	Inadequate capital	Possibility of the provision of formal credit on a group liability basis	Banks may not provide loans without collateral
4 Access to market centre	Some industries have access to market centres	Majority of industries have no access to market centres	Enable industries to shift to local market centres	Industries may not be able to compete with other industries
5 Infrastructure				
Workshop condition	Basic facility	Poorly managed workshop	Upgrade workshop with loan from bank	Not possible if credit is not provided
Equipment	Entrepreneurs have own equipment	Old and manually operated	Establish modern equipment	Low quality of goods produced
6 Attitudes	Easy to enter industry	Society gives low status to people involved in traditional industries	Possibility of recognition of the value of work	Economically and socially backward people may not recognize the value of work

Table 9. SWOT analysis of ornament-making industries

Parameters	Strengths	Weaknesses	Opportunities	Threats	
1 Skills	Traditional skills	Lack of skill diversity and improving the quality of products	DRIDO can arrange skill development training	Concerned agencies may not be able to provide training for all Possibility of disappearing indigenous technology if training not provided	
	Traditionally trained manpower available	Lack of manpower with advanced training	GO and NGOs can help to arrange training		
2 Demand for goods	Limited local demand	Very limited demand for traditional products	Possibility to tap demand by producing cheap metal ornaments	Inability to compete with imported goods	
3 Capital investment	Large amount of capital compared to other industries	Inadequate capital	Possibility of the provision of formal credit on group liability basis	Banks may not provide loan with out collateral	
4 Access to market centre	Some industries access to market centres	Majority of industries have no access to market centres	Enable industries to shift to local market centres	Industries may not be able to compete with other industries	
5 Infrastructure	Workshop condition	Narrow workshop and poor condition	Possibility to upgrade workshop using loan provided by bank	Not possible if credit is not provided	
	Ownership				Own/rented shed
	Raw materials	Some raw materials locally available	Costly raw materials; Au, Ag, and chemicals have to be imported	Regular supply of raw materials	Regular supply may not be enough
	Equipment	Entrepreneurs have their own equipment			
Energy	Availability of charcoal locally	Industries in the village cannot afford electricity and gas	Rural electrification may be possible in future	Rural electrification may attract capitalists and poor people may lose their jobs	
6 Attitudes	Easy to enter the industry	Society gives low status to people involved in traditional industries	Possibility of recognition of the value of work	Economically and socially backward people may not recognize the value of work	

Table 10. SWOT analysis of garment industries

Parameters	Strengths	Weaknesses	Opportunities	Threats
1 Skills	Traditional skills	Lack of skill diversity and improving the quality of products	DRIDO can arrange skill development training	The concerned agencies may not be able to provide training for all Possibility of disappearing indigenous technology in case advanced training not provided
	Traditionally trained manpower available	Lack of manpower with advanced training	GOs and NGOs can help to	
2 Demand for goods	Very limited local demand for traditional products	Very limited demand for traditional products	Possibility to tap demand through diversification and improved products	Inability to compete with improved goods
3 Capital investment	Very small	Inadequate capital	Possibility of the provision of formal credit on group liability basis	Banks may not provide loan without collateral
4 Access to market centre	Some industries access to market centres	Majority of industries have no access to market centres	Enable industries to shift to local market centres	Industries may not be able to compete with other industries
5 Infrastructure				
Workshop condition Ownership	Basic facility Own shed	Workshop and its poor condition	Possibility to upgrade workshop using loan provided by banks	Not possible if credit is not provided
Raw materials	Some raw materials locally available	Cloth, needles, thread, buttons, have to be imported	Regular supply	Low quality of goods produced
Equipment	Entrepreneurs have own equipment	Old machine and manually operated		
Energy	Availability of charcoal locally		Rural electrification may be possible in future	Rural electrification may attract capitalists and poor people may lose their jobs
6 Attitudes	Easy to enter the industry	Society gives low status to people involved in traditional industries	Possibility of recognition of the value of work	Economically and socially backward people may not recognize the value of work

Conclusions

Traditional rural industries in the upper Andhikhola Watershed produced different products. Entrepreneurs from occupational ethnic groups were manufacturing agricultural tools and utensils, leather goods, ornaments, and garments through inherited skills and knowledge. A few entrepreneurs had attended advance skill development training. Entrepreneurs were partially employed in their businesses. Entrepreneurs needed to produce diversified and improved products according to the market demand. The entrepreneurs required advanced training on skill development and product diversification. Entrepreneurs needed to improve basic infrastructure, like sheds and buildings to facilitate operations. Tools and equipment were in very poor condition, being old and manually operated.

Capital investment in most industries was very low. Entrepreneurs had lack of capital and could not get bank loans due to lack of collateral. Entrepreneurs engaged in similar industries can form groups and get credit from the bank on a group liability basis as well as selling their products in market centres. Cottage industry goods have a good potential market, because of cheap labour cost. Cottage industries cannot be sustained without the provision of credit and advanced training.

Cottage industries need to be exempted from different types of taxes to enable them to compete with imported goods. As the price and supply of raw materials depend on Indian markets, the government should have a policy for traditional cottage industries. Likewise a policy should be devised to provide credit for entrepreneurs on a group liability basis taking into account their poverty and lack of collateral.

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