

WOMEN'S LIVELIHOOD FROM HOMEMADE BEER (CHHYANG) & WHISKY (RAKSI) IN A PERI-URBAN VILLAGE: A CASE STUDY OF GHUMRACHOK IN BAJRAYOGINI VILLAGE DEVELOPMENT COMMITTEE, KATHMANDU DISTRICT

Ashok Rajbanshi

INTRODUCTION

Use of alcoholic beverages like whisky and beer is closely related to the caste system of Nepal. King Jayasthiti Malla (1382-1395 AD) of Kathmandu first decreed the law that stratified the whole Nepali society based on division *Tagadhari* (Brahmin, Chhetri and Thakuri) and Matwali (Tharu, Gurung, Tamang, Newar, Rai, Limbu, Sherpa, Jirel, Sunuwar and others). The former group was not permitted to use alcohol while the latter was (Subba et al., 1995). Tamang community has a long tradition of consuming alcoholic liquors such as beer (*Chhyang*) and whisky (*raksi*), especially during cultural and religious festivals and social gatherings. The festivals celebrated by them are Maghe Sakranti, Chaite Dasain, Baisakh Purnima, Bada Dasain, Tihar and Lhosar. They also celebrate Kul Devata Puja called Dewali annually. And the major social rituals observed by them are Births, *Pasni* (initial rice feeding ceremony at the age of 5 months for daughter and 6 months for son), *Chhewar* (initial hair cutting of male child at the age of 3 or 5 or 7 or 9 or 11 years), marriage, *Budho Pasni* (rice feeding ceremony for old man/woman on the attainment of 84th birthday) and death rites. None of these rituals are complete without the use of liquors. So these beverages are the integral part of their socio-cultural lives. Traditionally all the households of Ghumarchok (a Tamang village of Bajrayogini VDC) produced these beverages for their domestic purposes. Among the alcoholic beverages, *chhyang* (beer) is very popular and people of all age groups take it as a dietary food that provides energy and nutrients to one's body. Naturally it is the women who prepare those alcoholic beverages at their homes. And they have learnt this indigenous skill from the elderly women family members. Earlier brewing was totally a cultural activity. But now these alcoholic drinks are the major source of economic support in some of the poor households in this village. These homemade liquors are quite cheaper than the factory products for many locals and other low-income consumers. These alcoholic liquors produced here are considered to be good, because they are produced for their own home consumption without using any chemicals, preservatives and additives. Of course the dangers of excess alcohol consumption and the impact this can have on personal health and family status are well known. The purpose of this paper is not advocating alcoholism, but to highlight the real potential for rural and peri-urban small-scale business offered by brewing activity.

Many households of Ghumarchok village are taking this business of homemade liquors as a supplementary income to their livelihood. In the mean time the government for increasing its revenue banned production of homemade brewery in operation without a license. Actually the share of the alcohol revenue is important in the Nepalese economy, so the government does not want to control and stop the production and use of alcohol. Rather it wants to discourage the home brewers to expand the market of big commercial producers. But the amount of home-brewed production as well as consumption is not decreasing. About 65 and 50 households produced beer and whisky, respectively are for sale in this village. Many other households frequently conduct this activity as a safety net for their livelihood strategy.

CONCEPTUAL FRAMEWORK

Seventy percent of the world's poor are female (HDR, 1995). In the recent years there has been an increasing awareness that, as development has proceeded or not proceeded, in Third World countries the impact on men and women has been different (Pearson, 1997). Some of the inequalities between men and women are there from the ancient past and are deep rooted in the society. Although involvement in the economic activity is a necessary pre-condition for the attainment of gender equality in the economic sphere, it is in itself not sufficient, partly because not all economic activities are empowering, and partly because additional measures are required to promote gender equality in other spheres (legal, political etc.) Masika & Joekes, 1996). The economic dimension is central to achieving gender equality, overall. Both WID (Women in Development) approaches in the 1970/1980s and current gender and development (GAD) approaches recognize the importance of access to income and employment as key to achieving gender equality. Whilst employment can provide a livelihood, most livelihood of the poor is based on multiple activities. In both rural and urban contexts the vast majority of the poor have individual, household and community survival strategies. These may include employment, but go beyond this to a range of other economic activities that include informal sector work, exploitation of common property resources, shared rearing of livestock and reliance on social networks for mutual support as well as a number of other mechanisms for coping in times of crisis (Sida, 1995; Chambers, 1995). Rural livelihood is increasingly understood to comprise diverse activities such as cultivation, herding, gathering, small-scale artisan works and trading, that go beyond agricultural production per se.

With respect to the treatment of gender issues in the sustainable livelihood literature, WID perspectives are prevalent. A disaggregate approach is taken with attention to the different activity profiles of men and women, to the sexual division of labor, and to women's heavy workload in natural resources use, especially of common property resources such as water and forests. From the environmental and natural resources perspectives concerns related to preservation or enhancement of the productive natural resources base at local and global levels are emerging. With respect to the local level questions, they are raised about whether livelihood activities maintain and enhance resources or deplete resources. At a global level attention has focused on how livelihoods are threatened by international trade and other agreements that reduce claims and access to common

property resources' through 'appropriation and exclusion by the powerful' (Chambers Conway, 1992).

Agriculture is the most dominant economic activity in Nepal. Some 24 percent of the population in urban areas and 81 percent in rural areas are engaged in agriculture. The proportion of women engaging in agriculture is larger than that of men. According to Nepal Living Standard Survey (NLSS), conducted in 1996, 79 percent of employed men and 94 percent employed women are in agriculture. However, in the non-agricultural sector, women's share has declined. This too indicates an encouraging concentration of women in agriculture (Acharya, 2000). The increasing "feminization in agriculture" (ADB, 1999) demands improvement in agricultural trade and agro-based cottage industries, if women's socio-economic status is to be enhanced. Due to the impact of urban influence and globalization, women feel free to work outside their homes, particularly, in the peri-urban areas. In addition to that women from marginal communities used to engage themselves in various indigenously self-employed economic activities from the earlier times. With the rising family expenses and limited income generations, contribution of women to household livelihood security is growing. Documenting women's actual economic activities began only in the early 1970s. The women's movement and the UN Decade for Women gave an impetus to women's studies, and a variety of literature and documents have now added depth and legitimacy to women's productive role in the national economy.

It is worth mentioning here that the Status of Women in Nepal project (CEDA, 1979) provided the first input to planners and program implementers, with substantive women specific data as well as policy recommendations which helped them to design projects that recognize and build upon the important roles of women in the subsistence rural household economy (NPC, UNICEF, 1992). It was only after this well documented study that the country, for the first time, recognized and specifically included a women's section in its Sixth Five Year Plan in 1985. Following the Sixth Five Year Plan, the Seventh (1985-1990), the Eight (1992-97), the Ninth (1997-2002), and the Tenth Five Year Plans (2003-2008) also incorporated separate Women in Development chapters in their documents. Accordingly, the government developed programs focusing on women's productive role. Women specific projects/programs were developed to provide employment opportunities with an assumption that access to income would lead to empowerment of women. However, some of the government policies are detrimental to the livelihood of indigenous artisan works of marginalized women, because of lack of understanding and micro level data, information on women's employment and income and their socio-economic status. Thus the present study of Tamang women's livelihood from brewing homemade beer and whisky will be helpful to suggest measures to raise the status of working women and their families in Nepalese society on the one hand and also provide necessary data and information for policy formation for empowering women in general, on the other.

STUDY AREA

Ghumarchok village lies in ward-number 8 of Bajrayogini village development committee in Kathmandu district, Nepal (see Map). It is a highland village, located in the southern slope of Manichud hills in the northeastern part of Kathmandu valley. Its altitudinal extent varies between 1500 to 2000 meters above the mean sea level. The northern part of the hills of this village merges with the Shivapuri Mountains of Shivapuri National Park. Many perennial springs originate in this highland area and flow southwards in the catchment areas of Bagmati River, which provide much of Kathmandu's drinking water. In order to protect the watershed from rapid degradation, the government initiated the Shivapuri Watershed and Wildlife Reserve Project (SWWRP) in 1972. Since then the Tamangs of this village have shifted to agricultural activity as their major occupation for sustaining their livelihood. Before that the local Tamang community was mainly dependent on the forest resources of this area for their livelihoods.

Most of these highlands are covered with rocky soil unsuitable for cultivation. So most of the highland areas are covered with shrub land and forest. However, the sloppy areas around the Ghumarchok village are cultivated making terraces, where upto three crops are grown per year. They are maize, millet and wheat. Due to closeness to markets of Kathmandu city, more and more farmers are starting to produce cash crops like squash and potato, which are more demanding in the markets. Meanwhile increasing liberalization process has made agricultural activity unsustainable for most farming households. Besides, the growing population could not be absorbed in this traditional occupation due to limited cultivable land area.

Out of the 305 households, presently residing in this village, 302 are Tamangs. As described earlier, brewing homemade whisky and beer is a socio-economic necessity of their way of life. And many households have started to conduct this brewing activity to enhance income for sustaining their livelihood in the absence of alternate employment opportunities. As the brewing activity is done entirely by women, households without female working members do not involve in this business. Similarly the abundant availability of fresh water from the mountain springs and firewood from the forest around the village (most villagers collect the firewood illegally from within the national park) are most favorable natural factors for the growth of brewing activity in this village. In other words, both natural and cultural factors have contributed to the household brewing works in this village to a great extent.

SIGNIFICANCE OF THE STUDY

There has been almost no any research on the brewing of homemade alcoholic drinks and its contribution to family income. This is one of the major activities of Tamang women to sustain their household livelihood. Tamangs are, no doubt, a marginalized community, living in the hilly areas of central Nepal, particularly around the Kathmandu valley. Home brewing of whisky and beer are considered illegal activity in Nepal. This is the burning example of how state policies, rules and regulations are intervening in the means of livelihoods of a

marginal community who are compelled to be marginalized further. In this situation this study attempts to find out different aspects of this activity and how they cope to manage their activity to sustain their livelihood.

Natural resources are the bases for the livelihood of poor and marginal people living in the rural and peri-urban areas. Due to increasing demands for natural resources such as water, land, forest products the traditional means of livelihood in the peri-urban areas are threatening. In this context, it is equally important to preserve the niche production of mountain community women. On the other hand, in the absence of alternate income generating activities, this brewing activity is going to be the main source of income for most Tamang women and their households' livelihood in the future also. Thus, such studies covering the economic activities of marginal indigenous ethnic communities living in the peri-urban areas are of immense significance in the view of social equity, poverty alleviation, sustainable use of natural resources and development in general.

STUDY METHOD

When I conducted PRAs for identifying the major economic activities in this village, people were reluctant to accept this brewing business as a source of income. In the very beginning they did not even want me to know that such activities takes place in this village. Perhaps they were afraid that this was an illegal economic activity and they did not like to confess doing this work before the strangers. Later I found many household women brewing in their courtyards and backyards during my observation walks around the village. During the same walks around the village I also found that there were more than a dozen of *bhattis* (public drinking places), especially selling and serving local homemade whisky (*raksi*) and beer (*chhyang*) in the Ghumarchok village alone. Similarly, I found more than 60 *bhattis* in lowland Sankhu, where a major portion of *Chhyang* and *Raksi* were supplied from Ghumarchok. So I easily came to the conclusion that producing homemade *chhyang* and *raksi* are one of the major economic activities of most households in this Tamang village.

After a week I developed some intimacy with the local village people by visiting their houses, *bhattis* and taking local *chhyang*. Most information on this indigenous practice was acquired through field observations, inspections, participations in their social life and events. Then I prepared a set of questionnaire form to be asked to the local brewers. With the assistance of local social worker Mr. Bir Bahadur Bhan, I managed to interview a brewing woman from a household. After this I interviewed 29 *Raksi* producer seller households and 42 *chhyang* producer seller households with the questionnaire form prepared beforehand by snowball sampling method. All the respondents were women. I verified these facts and figures of questionnaire surveys through interviews and interactions with the local people and *bhatti* owners. Most of the quantitative data were acquired by this household questionnaire survey. In addition to this, focus group discussion with the producers was also conducted to familiarize with the problems. And key informant interviews with some of the major *bhatti* owners in Sankhu, Ghumarchok and Baudhda were also conducted for getting the necessary information.

OBJECTIVES OF THE STUDY

The general objective of this study is to explore various aspects of household brewing activity of the Tamang community and assess the impact of this activity on their livelihood in the study area. The specific objectives of this study can be categorized as the following:

- (i) To examine the brewing methods and factors influencing households brewing activity;
- (ii) To examine the market area of the brewery products;
- (iii) To calculate the tentative amount of profit earned by this business and to assess the contribution of this household business on the family livelihood expenses;
- (iv) To identify the problems faced by brewing households and suggest recommendations to overcome them.

LIMITATIONS OF THE STUDY

Most of the women interviewed in this study were illiterate. So exact quantitative data regarding the grain used (inputs) could not be obtained from them. However, they were able to tell the average amount of grain used for each time and the output (*chhyang/raksi*) produced in a normal case. Such input output data had to be verified by a few key informants. Similarly there was found to be a high risk of product failure due to many reasons. The wastage of resources during such occasions could not be found out due to lack of reliable records. In addition to that actual contributions of this brewing business to the household livelihood expenses could not be calculated in the absence of records of their sales and expenses made for the households. Since every household who had the surplus brewery products used to sell them in the market, the number of seller households would vary each year.

BREWING METHOD

For brewing *raksi* and *chhyang* Tamang households practised the traditional method, which is described below.

First of all, the grain (wheat, millet or maize) from which the liquor is brewed is thoroughly wetted for one whole day. Next day this wetted grain is steamed and then spread on the floor to cool down. Later the cooled grain is grinded and yeast is added to it and allowed to ferment. The amount of yeast (locally known as *marcha* or *manapu*) being added to the grinded grain depends upon the purpose of brewing, i.e. two pieces of yeast (*marcha*) cakes (one yeast cake weighs about 25 grams) are mixed with 15.8 kg. (five *pathis*) of steamed grain for brewing *chhyang* (beer) and 15 pieces of yeast cakes are mixed with the same amount of grain for brewing *raksi* (whisky). (Note: 1 *pathi* of maize or wheat is equal to 3.16 kilograms; 1 *pathi* of millet is equal to 3.63 kilograms). Usually there are two types of yeast used by those brewers. They are Newari yeast (*marcha*) made of rice and is white, and Tamang yeast made of millet and is

dark in color. The Newari yeast cakes are smaller and weigh only 6.7 grams per piece while the Tamang yeast cake weighs 25 grams per piece.

The solution of boiled grain, water and yeast is stored in a big earthen vessel (called *ghyampo* in Nepali) for 3 to 6 days for fermentation to prepare *chhyang*. After this it emits a sweet smell. Some amount of cold water is added to it and this solution is stirred with a wooden stirrer and is allowed to settle overnight. Next day, a clear white liquid is seen on the surface with the residue settled at the bottom. This white liquid is *chhyang* and is ready to be consumed. While at least 7 days storing of solution of grain, water and yeast is required for making *raksi*. The vessel containing the solution is well covered with thick cloth so as to protect it from the heat generated during the fermentation of the mixture in the process of *raksi* formation.

Generally other commercial *raksi* producers of Kathmandu valley add sugar to the above mixture to produce larger amount of *raksi* (whisky). But the local Tamang household producers do not add sugar. Because they believe that the *raksi* produced by adding sugar is not healthy for the consumers causing chest burning.

After 7 to 10 days the solution is ready for distillation process to extract the *raksi* from it. For this process the solution is put into a copper vessel (*phosi*). An open mouthed earthen vessel (*potasi*) with eight or nine small holes at the bottom is kept over the *phosi*. A pointed copper vessel is fitted over the *potasi*, keeping the narrow pointed part inside the *potasi*. Inside the *potasi* a small pot for collecting distilled *raksi* is placed at the bottom. Cold water is filled in the pointed copper vessel. After this the *phosi* is heated enormously from below resulting the solution to evaporate and distill when it comes in contact with the cool surface of pointed copper vessel and drops off distilled *raksi* that begins to collect into the small pot placed inside the *potasi*. The quality of *raksi* (content of alcohol) depends upon the heat generated from below, and the first distilled *raksi* is of high quality with high alcohol content. The cooking period is also crucial to monitor under cooking results in low alcohol contents since over cooking can produce a *raksi* with a burnt taste and aroma, which is unacceptable to the consumer. The local Tamang women usually do not separate the previously distilled *raksi* from the proceeding distillation, which occurs after replacing the warm water with cool water from the pointed copper vessel over the *potasi*. Hence the quality of *raksi* produced by these Tamang household brewers is not so good in terms of alcohol content. Generally these small-scale home brewers of this village prepare either *chhyang* or *raksi* but not both for sale.

FACTORS INFLUENCING HOUSEHOLD BREWING ACTIVITY

Although, almost all the households of Ghumarchok village brew homemade *raksi* and *chhyang* for their domestic consumption mainly during the festivals, farming season and social gatherings, certain households brew these items for sale too. As the brewing activity is done entirely by women, households without female working members are rarely involved in this business. Major factors influencing the brewing activity in this village can be categorically presented as follows:

SUPPLEMENTING INCOME FOR SUSTAINING LIVELIHOODS

Major economic activity of almost all the brewing households is agriculture. This is shown in Table 1 for both the *raksi* and *chhyang* producing households.

Table 1: Major economic activities of the brewing households

Economic Activities	Number of Households Brewing <i>Chhyang</i> for sale	Number of Households Brewing <i>Raksi</i> for sale
Agriculture	42	22
Wage labor (unskilled)	-	2
Wage labor (skilled)	-	3
Livestock keeping	-	2
Total	42	29

Source: Field Survey, 2061.

Above Table shows that 100 percent of the *chhyang* producing households and 76 percent of the *raksi* producing households have agriculture as their main economic activity. They are underemployed or unemployed in the agricultural sector due to seasonality of the agricultural works and smaller size of the household holdings. So none of the *raksi* producing households can sustain for a whole year with their farm production, and only 3 households engaged in brewing *chhyang* for sale can sustain for 12 months or more by their farm (agricultural) output. Table 2 shows the number of months sustained from their own farmland production.

Table 2: Sustained number of months of the brewing households from their farmland

Number of Months Sustained	Number of <i>Raksi</i> Producing Households	Number of <i>Chhyang</i> Producing Households
Less than 4 months	10	9
4-7 months	17	27
8-17 months	2	3
12 months and more	0	3
Total	29	42

Source: Field Survey, 2061.

Besides the cereal grain and yeast the brewing households need not spend any money in other inputs for producing *raksi* and *chhyang*. Rather they are always ready to utilize their surplus labor and time in any income generating activity particularly during off-season farming. Thus due to unsustainable

farmland production and lack of alternate employment to supplement income, they prefer brewing that is so familiar to them.

FAVORABLE SOCIAL CONDITION

Brewing *chhyang* and *raksi* is socially and culturally accepted activity in the Tamang community. Every sort of women (young/old and rich/poor) is involved in this business. Although the brewing work has been going on in this village from generations traditionally, the present generation of women, brewing for sale have started this job only after 2045 B.S. (1988-89). There is only one woman who has been producing *raksi* before 2045 B.S. (1988-89). Table 3 presents the starting year of brewing homemade *chhyang* and *raksi* for sale by the households.

Table 3: Starting year of brewing for sale by the number of households

Starting year	Number of <i>Chhyang</i> Producing Households	Number of <i>Raksi</i> Producing Households
Before 2045 B.S. (before 1988-89)	0	1
2045 to 2050 B.S.	13	6
2051 to 2055 B.S.	6	13
2056 to 2060 B.S. (1999-2004)	23	9
Total	42	29

Source: Field Survey, 2003-2004.

More than 50 percent of the *Chhyang* producing households have started this business only after 2055 B.S. And the average age of *chhyang* brewing women is 39 years. The oldest woman brewing *chhyang* is 65 years old and the youngest is 23 years of age. Similarly maximum age of the *raksi*-brewing woman is 60 and the minimum is 17 years old. On the whole the average age of the brewing women is 31 years. Eighty five percent of those women are married and the rest are unmarried. All the profits earned through this business go into the pockets of women brewers. Male family members do not get any share from that income. Almost all the married women in this business spend a large part of their income on household expenses. All of the brewing women are illiterate and are continuing this work as an indigenous household level business in the absence of other income generating employment.

EASY AVAILABILITY OF CEREAL GRAIN FOR EXTRACTING CHHYANG AND RAKSI:

Brewery products are extracted from cereal grains like maize or wheat for *chhyang* and millet for *raksi* production in this village. Wheat is used for *raksi* production only when millet is not available. One *pathi* of millet (3.63 kg.) is required to extract one *pathi* of *raksi* by distilling the work 8 or 9 times. And ten liters (three *pathis*) of *chhyang* is produced from one *pathi* (3.16 kg.) of grain. hence the amount of production of *chhyang* and *raksi* directly depends upon the amount of cereal grains used. Table 4 shows the consumption of cereal grains (maize/wheat) by different households for brewing *chhyang* last year 2003-04 (2060 B.S.).

Table 4: Amount of cereal grain consumption for *chhyang* production in 2060 B.S.

Number of Households	Grain Consumption/ Household Per Year in Kilogram	Total Grain Consumption in Kilogram
6	126.4	758.4
3	158.0	474.0
3	252.8	758.4
8	316.0	2528.0
3	379.2	1137.6
2	442.4	884.8
4	474.0	1896.0
1	568.8	568.8
7	758.4	5308.8
1	948.0	948.0
3	1137.6	3412.8
1	1264.0	1264.0
42		19939.6

Source: Field Survey, 2061.

Table 4 shows that 47.6 percent of the households use 316 kilograms or less grain for producing *chhyang*. Only 12 percent households use 948 to 1264 kilograms of cereal grain to produce *chhyang* for sale. All the *chhyang* selling households consumed 19939.6 kilograms of grain for this purpose in the year 2003-2004 (2060 B.S.). Most households use wheat for brewing *chhyang* in the summer because wheat is harvested in the month of May/June. Similarly most households use maize for this purpose in the winter because maize is harvested in the months of September/October. However, they use any of the two grains according to their preference, if they have to purchase it from the market. Most households visit nearby Sankhu bazar for purchasing grains and yeast for this purpose.

Table 5 (below) presents the consumption of cereal grain (millet) by different households for brewing *raksi* in the year 2003-2004. All the *raksi* producing households consumed 15500.1 kg. of cereal grain (millet) for this purpose in that year. If millet is not available wheat is used for brewing *raksi*. All the *raksi* producing households consumed 15500.1 kg. of cereal grain (millet) for this purpose last year.

Table 5: Consumption of millet for brewing *raksi* in the year 2003/2004 (2060)

Number of Households	Grain Consumption per Household/year in Kilogram	Total Grain Consumption in Kilogram
1	217.8	217.8
3	272.25	816.75
1	290.4	290.4
3	363.0	1089.0
7	435.6	3049.2
2	508.2	1016.4
1	544.5	544.5
2	580.8	1161.6
1	609.84	609.84
3	635.25	1905.75
1	726.0	726.0
1	813.12	813.12
1	907.5	907.5
1	1045.44	1045.44
1	1306.8	1306.8
29		15500.1

Source: Field Survey, 2061.

Out of the total *raksi* produced seller households use 38 percent more than 544.5 kg. of grains per year, while the rest 62 percent consume 544.5 or less cereal grain for this purpose. If the cereal grains are not available in their homes, they can easily purchase it from the nearby market center of Sankhu bazaar mainly.

ABUNDANCE OF COMMON PROPERTY RESOURCES-WATER, FIREWOOD

After the cereal grains the other important inputs for producing *chhyang* and *raksi* to boil the grain and distillation process are firewood and water. The major source of firewood for all the brewery producer sellers is Shivapuri National Park area. They collect the firewood especially during the dry winter season, when the wood is dry and light. They store it for almost a whole year and use it according to their needs. During rainy season it is usually difficult to collect firewood because of wet, heavy wood, slippery and muddy track and occurrence of leeches. though there are half a dozen of community forests in their village, they prefer to collect firewood from the national park illegally for they have to pay Rs. 5 per person/day for collecting wood from the community forests and the community forests are opened to collect firewood only for two weeks in one year. Only few households have limited private trees or firewood source. So they prefer to collect the firewood first from the nationalized park. In the past borrowing firewood from the national park was difficult due to strict guarding by the security persons mainly in the years from 1990 to 2000. Then one had to pay Rs.

150 as fine for a bundle of firewood if caught by a guard red-handed with the firewood. Now all the security check posts have been removed from the national park area due to Maoist insurgency activities.

Generally it is estimated that a bundle of firewood weighing 20 kilograms is required to extract a *pathi* of *raksi* by distilling the wort 8 or 9 times. However, most brewing households use agricultural byproducts like dried maize stem, rice husk, dried husks of maize, dried leaves and others to economize the firewood. Availability of fresh water is a very important aspect for the occurrence of household brewery activities in this village. All the brewing households fetch water from the public taps, which are fed by the perennial springs flowing from Manichud forest in Shivapuri National Park's mountain area.

FREQUENCY AND PRODUCTION OF BREWERY PRODUCTS

Almost all of the households start brewing *chhyang* from the month of February-March in the spring season. And the frequency of brewing *chhyang* varies between 4 to 40 times per annum. Table - 6 reveals the frequency of brewing *chhyang* and *raksi* by the number of households in the year 2003/2004.

Table 6: Frequency of brewing *raksi* and *chhyang* by the number of households

Frequency Per year	Number of <i>Raksi</i> Production Households	Number of <i>Chhyang</i> Production Households
Less than 10 and 10 times	0	19
11 to 20 times	17	9
21 to 30 times	9	9
31 to 40 times	3	5
Total	29	42

Source: Field Survey, 2003/2004 (2060 B.S.).

As spoilage of the *chhyang* is quite rapid, it cannot be stored longer and has to be prepared frequently. In the case of *raksi* the households conduct the brewing work mainly in the winter and dry summer season, though some households produce *raksi* during the wet rainy season also in a limited extent.

Definitely the amount of production of both the brewery products (*chhyang* and *raksi*) are directly correlated with the amount of cereal grain used and the frequency of brewing provided that everything is normal. Last year (in 2060 B.S.) 63,037 liters of *chhyang* worth of Rs. 6,05,760.00 and 14,219 liters of *raksi* worth of Rs. 444080.00 were produced in this village by those producer sellers. Number of households and their yearly production of *chhyang* in the year 2060 B.S. (2003/2004) is given below in Table 7.

Table 7: Yearly production of *chhyang* by the number of households in 2060

Production of <i>Chhyang</i> in liters/years	Number of Households
333 to 666	9
667 to 1332	14
1333 to 2664	13
2665 to 3330	2
3331 to 3996	4
Total	42

Source: Field Survey, 2003/2004.

In the year 2060 B.S. (2003/2004), six different households produced 399.6 liters of *chhyang* each. And this was the minimum quantity produced by a household in that year. In the same year one household produced 39,996 liters, which was the maximum quantity produced by a single household in the village. More than 50 percent of the households produced less than 1332 liters of *chhyang*. In the same year, one household produced 200 liters of *raksi*, which was the minimum quantity produced by a producer seller household. And the maximum quantity of *raksi* produced by a single household was 1199 liters in that year. The following Table shows the number of households and their production of *raksi* in the year 2003/2004.

Table 8: Yearly production of *raksi* by the selling households

Production of <i>raksi</i> in liters/years	Number of Households
0 to 333	8
334 to 666	17
667 to 666	3
667 to 999	3
1000 to 1332	1
Total	29

Source: Field Survey, 2003/2004.

Eighty six percent of the producer seller households produced less than 666 liters of *raksi*/year.

MARKET AREA OF THE BREWERY PRODUCTS

Almost all the households' homemade *chhyang* is consumed within Ghumarchok village and Sankhu area (lowland market center). During the summer rainy season many temporary *bhattis* (village bars) are open in the village. Local people are the customers. Local *chhyang* accounts for a very large portion of intra-village money flows, and particularly of trans-gender cash flows between men and women (McCall 1996; Tellegen 1997). Although a considerable proportion of women drink *chhyang*, the customers are primarily the men. No doubt, this is a reliable way of earning income for women. Many women prefer to sell the homemade brewery products - *chhyang* and *raksi* to permanent village bars (*bhattis* and restaurants of Sankhu, Ghumarchok and other adjacent villages. As there are a number of village bars and restaurants (14 *bhattis* in Ghumarchok area and 65 *bhattis* and restaurants in Sankhu) in this area, the

demand for the homemade brewery products is still high due to its cheap price and freshness. The restaurants and the village bars pay Rs. 9.60 for a liter of *chhyang* and Rs. 31.23 for a liter of *raksi* to the producers. This price is too cheap in comparison to the machine produced large-scale wine products. Taking advantage of the peri-urban location, some of the *raksi* producers (about 10 households) of this village sell their homemade *raksi* to the *bhattis* and restaurants of Jorpati, Baudhda and Chabahil of Kathmandu municipality. They use public buses for this purpose and get Rs. 36.0 for a liter of *raksi*. But *chhyang* is not supplied to the city area due to its high demand in the local village bars, spoiling nature and nasty odor. From the very earlier times, there are many *bhatti* shops in the outskirts of Kathmandu city. These shops located outside the city core attract customers from both the rural and urban areas. Baudhda, Jorpati and Chabahil localities are such fringe areas located in the north-eastern part of Kathmandu city.

INCOME FROM BREWERY PRODUCTS SALE & ITS CONTRIBUTION TO THE LIVELIHOOD OF WOMEN HOUSEHOLDS

Usually 10 liters of *chhyang* is produced from 3.16 kilograms of grain (wheat or maize). It is calculated that 3.16 kilograms (1 pathi) of cereal grain need Rs. 45.00 to convert it into 10 liters of *chhyang*, which cost Rs. 96.0. Thus each *chhyang*-producing household got 113 percent net profit from this business. Similarly it is calculated that Rs. 48.0 is required to produce 3.33 liters of *raksi* is Rs. 104.0. Thus each *raksi*-producing household got 117 percent net profit from this business. In this way we can calculate the tentative profit made by each brewing households from the Table - 4 and 5 presented above. So it is a very prosperous business. Last year one household gained a net profit of Rs. 20,400.00 by producing *chhyang* worth of Rs. 38,400.00. Another *raksi* producing household gained a net profit of Rs. 20,160.00 by producing *raksi* worth of Rs. 37,440.00. But we should not forget here that the cost of heavy labor input has not been included. Anyway, home brewing of *chhyang* and *raksi* business is not going to be checked anymore in the absence of alternate business, equally profitable.

All the profits earned by this activity go in to the hands of women. And 85 percent of the total women engaged in this work are married. Those who spend their income from brewery business into the household are married women. They spend their income from brewery business into the household basic needs particularly food and clothes. Rest 15 percent unmarried women, who are free to spend the profit to their personal needs. They also have to contribute to their households' daily needs.

According to the field survey data, out of the total brewing households (i.e. 71), 51 percent have an annual income of less than Rs. 50,000.00, 38 percent have an annual income between Rs. 50,000.00 and Rs. 1,00,000.00 and the rest 11 percent have more than Rs. 1,00,000.00 per annum. Average profit from *chhyang* production among the *chhyang*-producing households is found to be Rs. 7,662.14, which is more than 15 percent of the total annual income for the 51 percent households having an income of less than Rs. 50,000.00/annum. In the same way, average profit gained by *raksi* producing households is Rs. 8,245.52,

which is more than 16.5 percent of the total annual income for the 51 percent households having less than Rs. 50,000.00 income/year. Hence it is revealed that brewing is the third or fourth important income generating activity for most poor and marginal households after farming, wage labor and/or livestock keeping.

So this activity is very important for sustaining household income to support the livelihood.

MAJOR PROBLEMS

Major problems encountered in this activity are heavy labor inputs and the relatively high risk of product failure. The process is fairly time consuming. Hence the labor input required in this business is far greater than the output produced, when measured in terms of monetary value. Another problem is concerned with the health of brewing women due to heavy physical labor and smoke inhalation during the burning of firewood as firewood is the major source of energy in this village. Consequently most of them are suffering from various respiratory diseases. ASADC 'rule of thumb' estimates that on an average between 1 and 2 kg. wood-fuel is required to produce 1 liter of local beer (Kaale, 1990). Abundant requirement of fresh water also cause for concern over environmental-degradation and the time required by women to collect firewood and water.

Distillation process for extracting *raksi* needs a number of different metal and clay vessels that the poor households are not able to purchase. So they have to hire them from somebody in the village. As a result of this the profit earned is affected.

The government's policy towards this cottage industry is not favorable. Accordingly home brewing of any alcoholic beverages without a license is illegal and can be punished severely. Because of these government rules the brewing women have to face difficulties now and then in transporting the products to the markets of Kathmandu city. Such rules and regulations are against the socio-cultural norms of an indigenous community and their means of livelihoods. And the frequent anti-alcohol movements targeted to the prohibition of alcohol are also creating problems. Such movements basically weaken their significance in the sense that they have revitalized the black market for multi-national products and inhibited the home production from indigenous technology closely associated with the livelihood of the poorer households on the one hand and are less sensitive to cultural and ritual aspects of majority of the people on the other.

Finally, the major problem is the unequal competition in the market with the machine made mass-produced alcoholic products, which have increasingly threatened this cottage and household level industry, employing a large number of marginalized groups of women.

CONCLUDING REMARKS AND RECOMMENDATIONS

The important aspect of this activity is that it is totally controlled by the women. So it has a significant role in gender empowerment. It is a traditional work developed into a new economic opportunity with market demands in the

peri-urban and urban areas. The indigenous skill of brewing can be regarded as a human capital, substantiated as a key to successful livelihood diversification of the poor and marginal community. Expansion of opportunities for diversification give poor and marginal individuals and households more options to improve livelihood security and to raise their own living standards. Such income generating capabilities of women, also improve the care and nutritional status of children since a high proportion of cash income in the hands of women tends to be spent on family welfare.

In the absence of alternate income generating activities, they are not going to give away this business in the near future, despite of hard work required for this. The government and the concerned authorities have not done any notable work to provide them employment opportunities to lead a sustainable livelihood. Thus it is not justifiable to snatch their traditional means of livelihood by declaring it an illegal activity. It is rather better to regularize their activity by imposing quality control methods on their brewery products and environmental rules to protect forest and water resources for their sustainable development and uses.

There are a few simple improvements that can be made to the traditional brewing process that will significantly improve the quality of the product, minimize the risk of product failure and enhance their income to support their livelihood. Those improvements should be concerned with attention to hygiene, use of quality raw materials, controlled time and temperature of boiling and fermentation, addition of sufficient yeast, filtration, bottling and pasteurization. The local brewing women should be trained to improve their traditional process of brewing. Government, NGOs and donor agencies should not ignore and under-value the significance of brewing and come forward with necessary programs for timely improvement of this artisanal activity.

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ANNEX

