

Importance of Bamboo in Poors' Livelihood in Nepal

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Abstract

This study reveals the value of bamboo to uplift the economic status of poor in rural Nepal. In-depth study on bamboo uses has been made in Koshi zone of Nepal. Interview with bamboo entrepreneurs, household observation, group discussion and in-depth study has been carried to garner more reliable information. Bamboo plantation in private land and commercialization of its product is a usual practice since time immemorial and well known as a key source for income generation to sustain the livelihood of marginalized and landless people. Poor, Dalits and ethnic communities are found more dependent on bamboo as it is easily available and cheap in comparison to other materials. Skilled poor people were found economically empowered by weaving different types of bamboo products focusing on traditional as well as modern market demand, selling and utilization of earned money to uplift the livelihood of the family. Especially women from marginalized community were found benefitted from bamboo species since they are able to send their children to the school. Bamboo is playing crucial role to uplift the economic and educational status of the deprived people in rural area of Nepal. Study found most of the bamboo resources are not fully utilized due to lack of proper management system. Traditional knowledge and skills on bamboo handicraft are not transferred to new generation due to changing occupation. Therefore, an integrated effort is required to develop bamboo entrepreneurship, promotion of cottage industries and conservation of traditional knowledge system to reduce the poverty in Nepal.

Key words: Marginalized, rural livelihood, ethnic community, Dalits, traditional knowledge, entrepreneurship

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1 Introduction

Nepal is rich in bamboo species. More than 40 species of bamboo found throughout the country. Generally most of the people living in the rural area do not had easy accessibility to modern commodities in the past so that they had to rely upon forest plants as a substitute to fulfill their basic needs. Bamboos have historical and cultural connection in Nepalese society. It has pivotal role in subsistence farming system of the poor and disadvantaged people having traditional skills in bamboo handicraft. In Nepal every farmer has two to ten clump of bamboo in their private land as it is indispensable in their livelihood and used in almost all the aspects of life from construction, marriage to death. They are mostly found in private land, common land, riverbank as well as roadside and somehow in natural forest. Marginalized people do not have sufficient land to cultivation food grains also don't have their own bamboo clump. They are full of skills to weave varieties of bamboo products which are essential for subsistence farming system. Varieties of bamboo have varieties of uses as they have different capacity in flexibility and durability. There was a culture to move in villages to provide service by weaving bamboo products by Ethnic communities and Dalits specially the (Bishwokarma-Chitre). These groups had got very few money from this job and had got three times meal during this time in untouchable behavior however, the utensils they made are used in touchable manner. Presently, very few youth of ethnic group in the eastern part of the county were found involve in this business supported by various I/NGOs. Traditional knowledge and modern techniques are supporting to improve their livelihood and get education for their children.

World market demand is increasing for new products from bamboo, but the traditional skills are being vanishing due to globalization. In Nepal, there have not been serious attempts for proper management and utilization of bamboo; however the resource is abundant in the country. Most of the national level forest plans are focused on the tree and timber management plan only. The roles and the potentiality of the bamboo species in regard to uplift the livelihood of the poor and marginalized community are ignored by the state. There is fear from the loss of the indigenous knowledge and skills of bamboo handicrafts because the indigenous people are under extreme pressure to change their way of thinking, decision-making and

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harvesting natural resources for livelihood due to rapidly increasing population, poverty and modernization. Keeping all these important things in mind, this research has been conducted in eastern part of Nepal.

2 Materials and Methods

This research has been carrying on from December, 2013 in Koshi zone of Nepal. The four districts of Koshihill have been selected for the research purpose. Research is going on by door to door visit to observe their day to day activities in relation with bamboo utilization, domestication and commercial status. This makes easy to establish the rapport with local people to obtain interesting information and to apply selected methodologies. People were happy to lend their time and knowledge. Dalits, Ethnic communities and Bhraman, Chhetri families were visited and observed the dependency on bamboo.

A representative sample reflects the actual characteristics of the population accurately and without bias. It is necessary to develop a sampling procedure that reduces sampling error to a tolerable and acceptable level. An attempt was made to follow all the steps and sampling procedure carefully in this study. The total 128 households of Urathe Community Forestry Users Group, living surrounding the forest is the target population for this research work in Terhathum district. It is a mixed community where 21 were the Dalit household. Sample was taken using systematic method of sampling for which sampling interval was calculated as: $K = N/n$; where, K = sample interval, N = total population and n = sample population.

First sample (n_1) was taken randomly. The next sample was taken as n_1+5 . In my case the first sample was the first household from the list of ward office, second subsequently was 6 and similarly thereafter, results in total sample of 22 households from the village. Same method was applied in Ghorlikharka VDC in Dhankuta district sampled of 50 households from the mixed community of the area.

A group discussion with community people was conducted to get more information about the potentiality of bamboo species in Sankhuwasabha district. Semi- structured interviews with key informant, participant observation, private land observation, listing varieties of bamboo and its products were carried in Bhojpur district. Similarly, photography, data storage and transformation and data analysis were conducted to complete the research work.



Figure 1 Visited Dalit household

3 Results

The analysis begins with basic information of bamboo species in the study area and local pattern of domestication and utilization. The present study revealed 5 species having multiple values which are being

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used for different purposes by local users. However, study focused on bamboos having potentiality for contributing to the local economy and their significant role in subsistence farming system for their better livelihood. The results are presented in the form of table, diagram, figures and synthesized text.

Bamboo Found in the Study Area

This study found 5 types of bamboo in Koshi hill having multiple values which have market potentiality for different purposes.

Table 1 : Details of the Bamboo

Scientific Name	Local Name	Importance	Character	Economic Potentiality
<i>Bambusa balcooa</i>	Dhanubans	scaffolding, fencing, house construction, fodder	Hard, elastic and durable nature, long node, non edible	High value for scaffolding, construction green, houses, poultry farming, house
<i>Dendrocalamus hamiltonii</i>	Tama, choya	food value, medicinal value, Scaffolding, roofing, fences, house, weaving, domestic utensils	Soft, durable, edible, short but big node	High demand of shoot, bamboo mat weaving
<i>Arundinaria intermedia</i>	Malingo	utensil (Dalo, doko, soli leaf umbrella, mandro, bhakari, book racks handicrafts, stiks, fodder)	Soft, elastic and durable nature	High price of handicrafts
<i>Dendrocalamus hookerii</i>	Bhalu bans	weaving, construction, fodder, food	Soft, elastic and durable nature short and big size	High price of handicrafts
<i>Dendrocalamus patellaris</i>	Liyas/Murali	Flute, weaving, fodder	Soft, elastic and durable nature	roofing materials and domestic utensils for subsistence farming system

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Gender Based Involvement in Bamboo Enterprise

The study revealed that there was no female involvement in bamboo weaving work in the past. They support in other house-work and collect the bamboo fodder to their cattle. Male are defined as the bamboo worker, like roofing, house construction, fencing and weaving varieties of bamboo products. However, new bamboo enterprises are found involvement both male and female in bamboo activities. Collection of and splitting is a very tough job which has been done by male. Weaving activities are equally participated by male and female these days. The research revealed that women of this group have less access to education, health services, credit facilities and productive employment opportunities and they have limited access to economic resources. Therefore, they have started to involve in such cash income activities learning by doing. According to the enterprises survey 66% male are involved in bamboo activities and only 44% female were found involved, however, female to male wage equality ratio stands at 0.62.

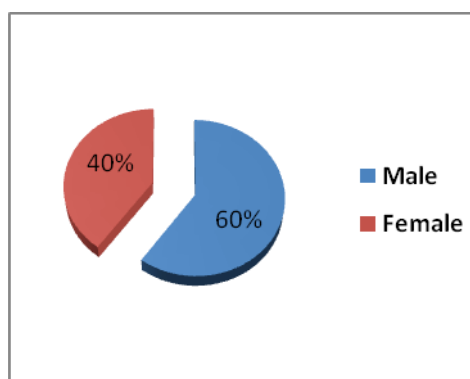


Figure 2 Male and Female involvement in Bamboo work

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Caste Based Involvement

This study found farmers are not engaged in full-scale bamboo enterprises but they have just started to understand the value of cash income from bamboo business. Some cash income has been generated by the farmers who have started to sell some different items of bamboo nearby market and at household as well. Some modern products of bamboo with high demand for decorative propose have been started by new youth of Ethnic community getting hadsome money. According to the survey conducted by this study about 67% of Ethnic community(Rai) were found bamboo weaving activities from the past. About 29 % of Dalits community people were found to have bamboo weaving skills and only 4% of Bramin family found in bamboo weaving in eastern Nepal.

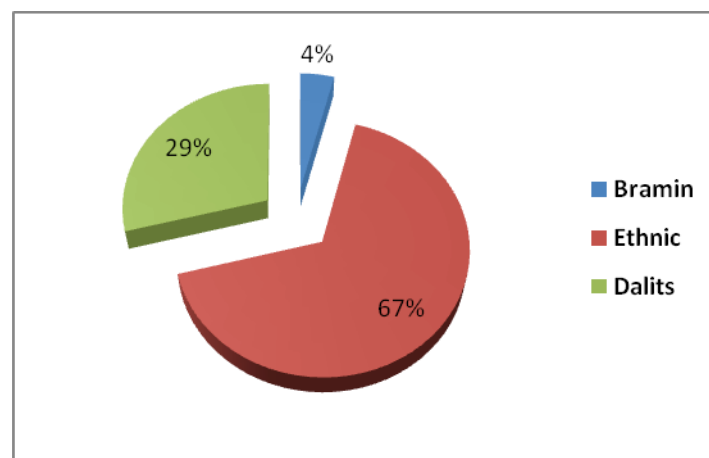


Figure 3 Involvement in Bamboo weaving work

Utilization of Bamboo in Nepal

According to the household survey, in depth study and participant observation, 80% of utilized bamboo in Nepal has been used in scaffolding, construction of greenhouses for vegetable farming , poultry farms ,pig farms, fencing and supports for tomatoes and 12% is found used in enterprises of bamboo products and 8% of bamboo is being used as vegetable and pickle. Youth returned from abroad realizing the importance of bamboo skills have started to develop bamboo entrepreneurship in their own experienced.

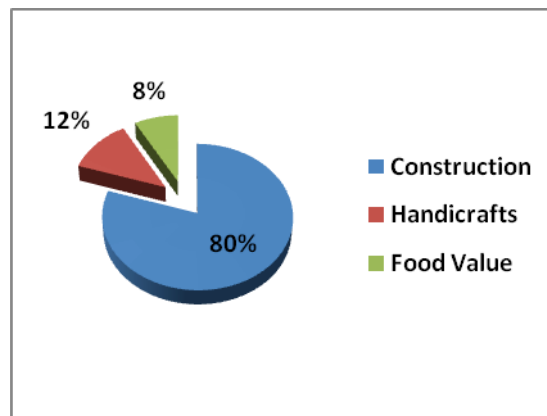


Figure 4 Bamboo Used in Nepal



Caste and Poverty

Study area were selected from mixed settlement pattern. A large number of Brahmin family were found involved in domestication and plantation of bamboo on their own land followed by ethnic group and aborigine people. Dalits were found having insufficient private land as no bamboo clump in their own, but they are full of skill to prepared beautiful products. They collect bamboo species from the natural forest and prepare handicrafts and sell within village and nearby market. Most of the Dalits and marginalized people have bamboo houses and fences. Bamboo has been playing vital role in the life of poor and marginalized people in Nepal as they have less farmland and no bamboo clump. They have less opportunity to get government jobs and don't have money to invest in large business. They have no alternatives to run their livelihood except the bamboo handicraft. They are able to send their child to school from this income. The bamboo clump owners are also getting hand some money by selling bamboo to these groups and enterprises. Plenty of bamboo clumps are available in Nepal with economic opportunities but very less is in used.





Potentiality in bamboo enterprises

It has been observed that the uses of bamboo in modern commodity have not been explored however it has great potentiality in modern world. The historical uses of bamboo are being replaced by plastic products. But as the modern market study shows, a new market is emerging in urban areas for handmade functional and decorative objects. In housing sector, an interest is growing for low cost annexes, restaurants, weekend homes and even residential homes. In this urbanization and modernization of the life style, traditional bamboo craftspeople can easily catch up the modern commodity if provided adequate support (marketing skills, additional knowledgebase and proper policies) from government side. Abundance of bamboo species and the skilled man-power are available in the country therefore, there is great potentiality of the bamboo industries that produce required commodities to the modern market. The multi stakeholder forestry program funded by SDC has been supported to the bamboo entrepreneurs in Dhankuta, Terhathum and Bhojpur districts providing training and equipment to produce modern bamboo products. After getting this opportunity by the marginalized community of the community forestry users in various villages of the districts, earning handsome money, however, they have to purchase the clump from land-owners. Male and female are getting equal wages due to efficient equipment made the task easy and fast. The marginalized households have started to send their children for proper education. The study found that more than 80% of bamboo clump are untouched yet in the rural area of Nepal due to inaccessibility.





Case Study: The president of Simaldhunga Nangla Udhog Bhim Bhahadur Limbu and his partners from Terhathum district say; "We can get bamboo without any difficulties from forest as well as land owners and can sell any part of the country any time because bamboo is considered as grass. NTFPs and other wood based products need more procedure that we are not able to buy and sell due to forest law of Nepal. We have less land without irrigation facilities that could support us hardly for four months. Due to less rainfall in this decade we are unable to cultivate food stuff even in the rainy season and getting less product from our farmland though we spent more time due to lack of such opportunities. We can weave bamboo utensils in our leisure time though we are in old aged without any difficulties. We can earn about 6000/- NRs in a week that is sufficient to buy food stuffs and fee for school children. Thank you very much Multi Stakeholder Forestry Program for showing us useful road map for a brighter future of our children and us". This study found income from bamboo is much more than forest products and agricultural products with small efforts.



4 Discussion

Bamboos are utmost interest to the human beings. Our ancestors also prepared varieties of domestic utensils, house construction, fencing, greenhouse structures and many religious rituals from mature bamboo, roots are used to decorate the houses and the shoot and succulent stems for vegetable and pickle. Today, our existence can still not be imagined without bamboo as it has deep relationship with our customs and culture. Plenty of bamboo species are available in all part of the country. Unsustainable level of harvesting is being practiced in the natural forest as the common property sand free access of the people. Some of the seniors had started domestication of useful bamboos as they did not have easy access to modern commodity. They had great knowledge regarding the uses of bamboo and practiced at local level, however, who did domestication and protection but had no culture in bamboo weaving. They depend on Dalit and Ethnic community paying some grains and money. Presently, bamboo is mostly available in private land of Nepalese farmers. Ethnic communities are involving in bamboo entrepreneurship for their subsistence livelihood. Most of the skilled Ethnic community did not pass the knowledge of bamboo weaving to new generation due to changing occupation. Very few Dalits and ethnic community transferred the knowledge to their youth. Presently very few Bamboo weavers were found having vast knowledge and practices of bamboo weaving. Study found that women from poor family are interested in bamboo weaving enterprises if they get some support. Those who have skills in bamboo crafting are unable to invest in advanced instrument and cannot make their business plan. They need some support from all part of the society to promote the enterprises that could increase the job and income which could supports in poverty reduction and increase the level of education.

5 Conclusion

The present study indicates the study area harbor a high diversity of useful bamboo species. Despite gradual socio-cultural transformation, the inhabitants have remarkable skill and knowledge of bamboo and their uses. Bamboo have been playing crucial role in the livelihood of subsistence farmers in the area. Poor were found rely on bamboo-based products for their livelihood. The increasing demand of bamboo products gains the positive response to domestication of it and proper utilization. Dalits and Ethnic community would like to get some support to promote this profession however; they are unable to invest for such potential professions due to poverty. The study concludes that most of Ethnic and Dalit have less land for agricultural production which is not sufficient to feed their family more than 5 months and bamboo craft making is only the alternative income source to cope with this food insecurity situation as it is the traditional occupation of Ethnic and Dalits households for hundreds of years.

As they say bamboo species are playing important role in the economic enhancement of the farmers specially the poor, women, Dalit and ethnic in the area. The domestication of bamboo species found quite few in

Dalit families, however, they rely on NTFPs available in the forest area near the settlement. This study found income from bamboo is much more than forest products and agricultural products with small efforts. The government of Nepal should encourage and support to the farmers for the large-scale production of bamboo in days to come. There is great potentiality of bamboo handicraft industries in Nepal as there is huge number of untouched bamboo clumps in the area. Therefore, it is essential to promote cottage industries and bamboo entrepreneurs and find market linkage for bamboo products for the benefit of the society and the nation.

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TO Conference Authority: The study is going on still Feb.2015, therefore the rest findings of the research will be presented in the conference.

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