

## **Status of Dependency of Villagers on Forest for their Livelihood**

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**Abstract:** *Present study is the outcome of Status of Dependency of Villagers on Forest for Their Livelihood which was conducted at village Dunga, Dehradun, Uttarakhand state in India. Village surrounded by the Sal forest include all basic facilities and people fulfill their personal needs and collect fuelwood for cooking as well as heating and fodder for feeding the cattle. Main tree species present are Sal, Dhau and Mulberry for feeding cattle as well fuelwood. Medium farmers contribute maximum with 35% of land availability and most of the villagers are involved in agriculture for supporting their livelihood. Villagers mainly rear cow as cattle. Agri-horti-silviculture system is the most favored in the village. Problems of wild animals in the agriculture fields are the main constraint mainly done by monkeys and wild boars.*

**Keywords:** *Livelihood, fuelwood, socioeconomic, wild animals.*

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### **1. INTRODUCTION**

It is a well known fact that rural people are dependent on nearby forest upto some extent for their livelihood. Fuelwood, fodder and timber is extracted out from the forest by them but its certified quantification is still a question mark. The goal of socio economic study with dependency of people on forest is recommended time to time by many researchers to quantify the exploitation of forests by people. The main motto is generally to bring about socioeconomic development, usually in terms of improvements in metrics such as GDP, life expectancy, literacy, levels of employment, etc. Socioeconomic study of villages is mainly for understanding the present condition of villages regarding the lifestyle, education status, health status, water hazards, food scarcity and overall development of rural areas. To find innovative solutions for socially, economically or environmentally based issues and to satisfy the needs of members and users which have been ignored or inadequately fulfilled by the private or public services (Myers, 1990). People of villages surrounded by forest are totally dependent on forest for their livelihood. Mostly villagers are dependent on firewood for cooking and heating whether they are having gas connections. In this category another important aspect is cattle rearing e.g. Cow, Buffaloes, Goat etc. for which they have to depend on forest as they obtain fodder such as grasses, leaves of important forest trees etc (Nautiyal *et. al.*, 2005).

An intensive survey can help to gather all above written information that can work as a base for further development of any area by government and other organizations. Keeping in mind the objectives for the study were to study the social status, to quantify the forest produce exploitation by people and to study the specific constraints related to the development of the village.

### **2. MATERIALS AND METHODS**

The study was conducted at village Dunga, Dehradun, Uttarakhand, India. Village Dunga is a small village at the north-west direction of District Dehradun with an altitude of 600-650m. Longitude is 78.04°E and Latitude is 30.46° N. Climate is sub-tropical. Temperature ranges from 18.7°C to 36°C during summer and 5.2°C to 23.4°C during winter. Soils are mainly Alluvial type and are very good fertile especially for the Agricultural crops. Most of the soil is rich in minerals and nutrients as due to the availability of forest. The average rainfall of the area is 2073.3 mm The area is 85% surrounded by forest which includes the most important tree species of *Shorea robusta* (sal) and the associated species like *Mallotus philippinesis* (kamela), *Syzyium cumini* (jamun), *Grevelia robusta*, *Grewia optiva*, *Anogeissus latifolia*, *Terminalia spp.* etc.

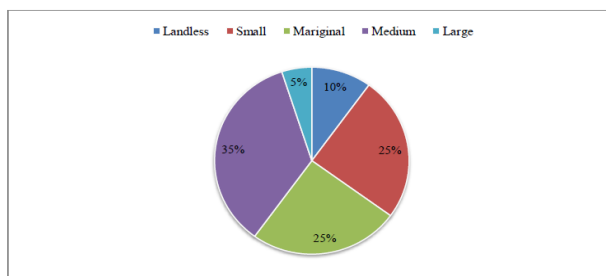
#### **2.1. Sampling Procedure**

For the selection of samples, simple random sampling technique was adopted. Firstly, a complete list of households was prepared and selection of household was done randomly. Data was collected

through the well framed questionnaire. Secondary information was received from Head of the village, Officers at Beat Office (Forest chowki), Teachers at primary as well secondary school, Block officer, Employee at Health Care Centre etc.

### 3. RESULTS AND DISCUSSION

#### 3.1. Categorization According to Average Land Holding

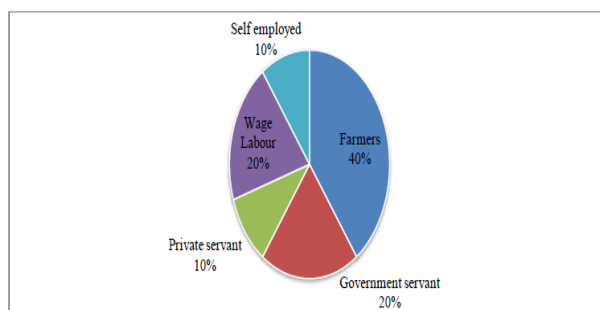


**Plate1.** Medium farmers contribute 35%. The minimum number of category of farmer was Large Farmers they were just 5%, of land. Marginal Farmers contribute 25% in the village.

#### 3.2. House Condition

Only 10% houses in the village were Kaccha houses i.e. house made up of mud and clay. Whereas, other houses were made up of brick, concrete and cement.

### 4. OCCUPATION



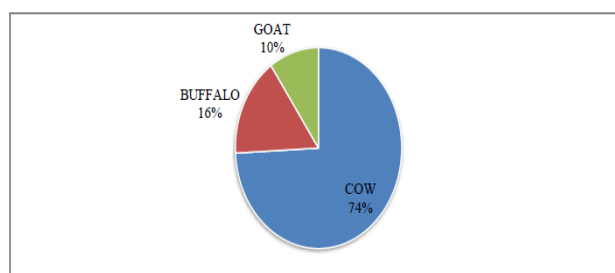
**Plate2.** According to data 40% of the villagers were involved in farming, 20% were Government servant and 20% were working in private sectors. 10% were engaged in self employment whereas 10% were working as Wage.

#### 4.1. Basic needs

**Table1.**

Basic facilities	% of families availing the basic facilities
Electricity	100 %
Water supply	100 %
Toilet facility	100 %

#### 4.2. Cattle Status



**Plate3.** The results indicated that most of the people at village use to rear Cow as the main cattle which contributed as 74% of the total population of cattle. As they mainly rear it for milk and gain some money by which they provide a support to their livelihood and with this a part was also used for food. For feeding the cow they mainly use leaves of forest tree such as Shorea robusta (Sal tree), Anogeissus latifolia (Dhau, axelwood),

## Status of Dependency of Villagers on Forest for their Livelihood

*Morus alba* (Mulberry) etc., next was the grasses they obtained from nearby Forest or from the market at suitable rates and sometime they used to cultivate on their fields. One of the product called as Cattle feed which is a complete food obtained from market was also used by the villagers. Next important cattle was Buffalo which contributed 16% to the total population. Ten per cent of the total population was the goat population.

### 4.3. Cropping Pattern

Table2.

Cropping Pattern		
Rabi(Winter season crops)	Zaid	Kharif(Rainy season crops)
Wheat( <i>Triticum aestivum</i> ) Barseem( <i>Trifolium alexandrinum</i> ) Fodder	Vegetables (Seasonal) Ladyfinger( <i>Abelmoschus esculentum</i> ), Brinjal ( <i>Solanum melongonum</i> ) etc.	Paddy rice ( <i>Oryza sativa</i> ) Maize ( <i>Zea mays</i> ) Lentil ( <i>Lensculinaris</i> ) Blackgram( <i>Cicerarietinum</i> )

### 4.4. Consumption of Forest Product by the Villagers

Table3.

S.No.	CATEGORY(land Availability)	FUELWOOD(tonne/year)	FODDER(tonne/year)
1.	LANDLES	2.48	1.48
2.	MARGINAL	1.4	2.5
3.	SMALL	2.15	2.5
4.	MEDIUM	1.9	4.8
5.	LARGE	3.6	0

### 4.5. Fuel Wood Consumption

The types of fuelwood consumed mostly by the villagers are *Shorea robusta* (Sal tree), *Acacia nilotica* (Kikkar), *Mangifera indica* (Mango) etc. With this some amount of dry leaves and dry grasses was also utilized by the people.

### 4.6. Fodder Consumption

The highest amount of fodder is consumed by medium farmers i.e. 4.8 tonne/year and followed by marginal and small farmers with value of 2.5 tonne/year. Landless villagers has removed 1.48 tonne/year fodder from forests in the form of leaves, whereas, large farmers did not take any fodder from nearby forest.

## 5. FOREST DATA

Dunga Forest Chowki (Bakrana Beat), Dehradun Division, covers five village Panchayats. Villagers enter forest area for firewood and fodder. Villagers were allowed to collect grasses and firewood from the ground in the form of small fuel wood. There were complaints of disturbance regarding wild animals as upto 90% of sown crop used to damaged. Several forest protection operations were also been done there i.e., preparation of fire lines to avoid Forest Fires during the summer season and regular monitoring of the forest area nearby the village. Cases of illicit felling were recorded as nil. The common problem for all villagers were wild animals attack specially monkeys and wild boars, some were also affected by rabbits and Munjtak (barking deer). These wild animals used to damage the agricultural crops, vegetables, fruits etc. as well as they entered to their houses and also do harm the domestic animals.

## 6. CONCLUSION

The village possesses most of the basic amenities to sustain itself but still it lacks the coordination in implementation of any of the various beneficial governmental programmes. Basic facilities like electricity, water supply and toilets were present at village, which is a point of appreciation. School facility that is both primary as well as secondary was available at the village. Maximum number of people at village are literate. Maximum population of the village is dependent on farming as the main occupation. From the complete study, results clarify about the dependency of village people on the forest due the unavailability of life sustaining commodities. Nearby Sal forest, A boon to village as the people obtained most of the important facilities like Fuelwood for cooking as well heating, fodder for cattle, medicinal plants (only 1%) etc. from the Forest. No special steps had been taken yet to control the increasing effect of wild animals specially Monkeys and Wild boars as they destroy their

85% of the crops per year. Overall a dual scenario has been observed during this project. On one hand the villagers benefit from the presence of all essential amenities to have a meaningful life but simultaneously a good population of the village complain about the ignorance and lack of concern by the so called governmental departments which is revealed by the socio-economic condition of the residents of the village. The study reveals the dependency of people on local forest for their sustenance, which is resulting in rapid depletion of forest resources as well deteriorating the peaceful environment of the village. And further it can also motivate the people to migrate towards urban areas in search of jobs. Fodder and fuelwood plantations should be established on terraced land under an agro-silvicultural system and on community land with this pressure on forest can be reduced for which a proper understanding of the socioeconomic necessities of the rural population is essential. It is also to be noted that their future generation is also ready to repeat the same vicious circle, but the question is whether they will ever find the alternates for their livelihood or shall they perish or migrate after the depletion of the available resources.

#### **REFERENCES**

- [1] Aggarwal A, Paul V, and Das S. 2009. Forest Resources: Degradation Livelihoods, and Climate Change, pp. 91-108 In Datt D and S. Nischal, 2009, Looking Back to Change Track. New Delhi: TERI pp 219.
- [2] Bahuguna V K and Upadhyay A. 2002. Forest Fires in India: Policy Initiatives for Community Participation. *International Forestry Review* 4(2):122–127.
- [3] Hira-kuri, S.R. 2003. Can Law Save the Forests? Lessons from Finland and Brazil. CIFOR, Bogor, Indonesia. 120 pp.
- [4] Landell-Mills, N. and Porras, I.T. 2002. Silver bullet or fools' gold? A global review of markets for forest environmental services and their impact on the poor. IIED, London. 254 pp.
- [5] Mirjam, A. R.-T., & K. Freerk, W. (2012). The Scope For Improving Rural Livelihoods Through Non-Timber Forest Products: An Evolving Research Agenda. *Forest, Trees and Livelihoods* , 15, 129-148.
- [6] Myers, N. 1990. The biodiversity challenge: Expanded hot-spot analysis/*The Environ.*, 10, 243-256.
- [7] Nautiyal, S. 2005, *Interaction of biodiversity and economic welfare-a case study from Himalayas of India*. *Journal of Environmental Informatics* 6(2): 111-119.
- [8] Wollenberg E. and Ingles A. (eds.) 1998. Incomes from the forest. Methods for the development and conservation of forest products for local communities. CIFOR, Bogor, Indonesia.
- [9] World Bank. 2002. A revised forest strategy for the World Bank Group. World Bank, Washington, DC.

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