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A STUDY ON UTILISATION OF FOREST RESOURCES IN JAWADHU HILLS OF TIRUVANNAMALAI DISTRICT

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Abstract

This present study focus on utilisation and benefits of forest resources in tribal communities' people in jawadhu hills of Tiruvannamalai district. Forest plays a crucial role in the economic and social well being of people particularly in rural areas of Tamil Nadu. The State has over 12% of Reserve Forest Area as protected areas. Forests have economical, ecological, and recreational values, known collectively as environment services and benefits derived from forests include grazing, hunting, shade, forest foods in the form of tree leaves, wild fruits, nuts, tubers and herbs, tree bark form medicinal purposes, and non-wood products such as honey. The livelihood of the tribal depends in different degrees upon on access to forest resources. Collection of firewood, medicine, fruits and other forest resources is a responsibility of women. Males on the other hand are responsible for collection of poles and honey most rural poor people rely directly and indirectly on forests for their livelihoods. In Jawadhu Hills, Many of the villages of tribal households in Jawadhu Hills come under the extractive reserves are forest areas inhabited by tribal population granted long term rights to forest resources which they collectively manage (Joint Forest Council). But the extractive model based on village forest council is appreciated because of its economic viability, environment conservation and social equality. The economic benefits of forests have been subordinated to the principal aim of environmental stability. The government policies majority focus on tourism development activities in the study area.

Keywords: Utilisation, Forest Resources, Village Forest Council, Tourism Development. Economic Benefits.

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INTRODUCTION

Forest is a peculiar organism of unlimited kindness and benevolence and makes no Demands from Human beings for its sustenance of its life activity –**Gautama Buddha**

The forests have economical, ecological, and recreational values, known collectively as environment services. The extensive benefits derived from forests include grazing, hunting, shade, forest foods in the form of tree leaves, wild fruits, nuts, tubers and herbs, tree bark form medicinal purposes, and non-wood products such as honey. People in most developing countries often depend on extracting resources from nearby forests for their livelihoods, whether for consumption or fuelwood or as a source of income. forest area have been under commercial plantations, diverting natural forests into fast growing pulp, matchwood, plywood and other economically important hardwood species. Forests help in recharging both the surface and ground water resources in a sustainable manner. The area covered by forests in Tamil Nadu is 22,877 sq. kms. Of the 16 major categories of forests, 9 are present in Tamil Nadu. The State has 36 forest sub types, the highest number among all the Southern States. Forest plays a crucial role in the economic and social well being of people particularly in rural areas of Tamil Nadu. The State has over 12% of Reserve Forest Area as protected areas. Efforts are on to include more areas under this category. For overall development of the villages adjacent to the forest area and biodiversity conservation it has been proposed to rehabilitate the ecologically degraded forests.

JAWADHU HILLS

The Forests under government management in categories like reserve and protected forests. Other categories include community, local common and private forests, aggregating into unclassed forests. The legal categories of lands indicate the intensity of regulation on the use of these lands as forests. Forests have traditionally been the habitats of tribal communities. Jawadhu Hills is located in the Tiruvannamalai District of Tamil Nadu state. Jawadhu Hills have a length of 4 kms and a maximum width of about 40 kms. It is a part of the Eastern Ghats of India. The centre and south of Jawadhu Hills consist extensive undulating plateau with large valleys ranging between 500 mtrs and 800 mtrs. Kambhangudi Malai is the highest peak in Jawadhu Hills having more than 300 feet height. Jawadhu Hills consists of steep rocky and precipitate soils. The climate is favorable to the growth of sandalwood trees. The total population of Jawadhu hills is over 45000 as per the 2001 census of India. The marketable

products of the Jawadhu Hills are sandalwood, Bamboos, firewood, Tanbark, Gallnut and Tamarind. Tamarind is the important Non Timber Forest Products (NTEP).

The contributions of forest products to the household economy measured in terms of the ratio of total cash and in-kind income and the degree to which tribal households are integrated into the cash economy. In subsistence oriented tribal household, more than half of the cash income comes from selling forest products. They tend to be located in relatively remote areas with abundant forests and limited transportation infrastructure. The land which they cultivate is licensed land; ensure the rights of sales only to a tribal and access to other forest resources is open. In the Jawadhu Hills range, these tribal household tend to invest very little effort in cultivation and rely on NTFPs which has been declining as a result of overexploitation, inefficient management and loss of habitat. The plight of the tribal people to large extend depends on the historical resources and tenure claims for their survival. The livelihood of the tribal depends in different degrees upon on access to forest resources. Much of their uses are to meet the subsistence needs but the cultural survival of the tribal depends on the production and marketing of NTFPs.

STATEMENT OF THE PROBLEM

The present study has been jawadhu hills also face the problem amount of timber and non-timber forest products illegal extraction. The tribal people culture, behavior, and utilization of forest resources is to cultivate farm products like firewood grasing and a medicinal plant other spices for generating a source of income and secured the life. Tribal claims that illegal often coincides with a breakdown of authorities without replacing them with effective authorities. The survivals of effective and honest foresters have to face problems co-workers and illegal fellers.

The tribal people cultivated products are having more market potential and difficult to marketing the products in the market. There is a lack of infrastructural facilities, pricing system and difficult to stock the finished products. It will affect the tribal people economic growth and the standard of living. Tribals living in remote forest areas include provision of drinking water facilities, employing them in anti-poaching activities, construction of check dams in Reserve forest areas and forest protection works like fire line scrapping works, urban/street

planting, supply of seedlings to the public, creation of eco-awareness among local people and improvements of roads in forest areas.

The problem of overharvesting, especially firewood occurs with rapidly rising commercial value. There is no mechanism to give incentives for tribal to conserve these resources for long-term use. The weakness of institutions customary or government is another factor causing adverse effects of commercial extraction induce tribal households to lax their customary rules and less concerned with the long-run sustainability rather than short-run benefit. Conditions of open access often prevail. The hunting and trapping often exceeds sustainable forest rates. Hunting is often not meant for domestic consumption but for commercial exploitation. Some senior tribal people accepted a drastic disappearance of many animals in the jawadhu Hills in the past ten years.

REVIEW OF LITERATURE STUDY

Getrude Sithole (2013) local people should be educated about rules that regulate access to forest resources and common rules be set at the local level Different members of the households were found to be responsible for collecting different forest resources. Collection of firewood, medicine, fruits and other forest resources is a responsibility of women. Males on the other hand are responsible for collection of poles and honey most rural poor people rely directly and indirectly on forests for their livelihoods. How to ensure that poor people have rights and opportunities to access forest resources, as well as responsibilities for the sustainable management of forest resources, access to forest resources lack effectiveness. Consequently, there are problems of deforestation, degradation, illegal harvesting, and lack of involvement by community members to manage forest resources.

Yadav et al. (2003) state that, forest, people rely on forests and trees for fodder and bedding materials, for timber and poles for houses and agricultural implements such as ploughs and for fuel wood, which is the most important, and often the only source of energy for cooking and heating for most rural households. In the study area firewood, poles and honey are harvested from the community forests whilst the natural forest provides firewood, poles, seeds, medicine, fruits, leaves, roots, and honey. Forest resources in the natural forest are accessible to any

community member and outsiders thereby leading to the forest resource being open to extraction to anyone. The forest resources that are open to extraction include firewood poles and fruits. It is also worth mentioning that, the rules that regulate access to forests are not well enforced by traditional leaders and the state.

THEORETICAL FRAME WORK OF THE STUDY

Mc Sweeny (2004) observes that the forest resources have influenced the livelihood of the forest communities. Forest people poor sell forest products not only to smooth their income but also to meet sudden cash requirements during any medical emergency. The use of forest resources for subsistence acts as a 'safety net' for the poor and any earnings from the sale of forest products helps to mitigate the loss of income due to agricultural crisis.

IMPORTANCE OF FORESTS

Forests supply timber, fuel, pulpwood and other varied products, which in turn support major industrial activity in various sectors and provide large scale employment. Finally, forests are the home of wildlife, and afford important aesthetic and tourist values. They have vital biological importance because of the flora and fauna associated with them.

A majority of NTFPs in Jawadhu Hills is for medicinal use. The genesis of India native medicines of Ayurveda and Sidha can be traced to what called ethno medicines is practiced by the tribal communities. It is observed that the tribal knowledge of medicine is either on the verge of extinction or being destroyed. At present tribal depend more on trained doctors of town which give them immediate relief from pain. It is reported that forest herbs and leaves are the best medicines for immunity, fertility, abortion, asthma etc. The poor households with surplus labour and low opportunity cost accept less paid wage employment .Some of the tribal households undertake intensive forest agriculture. To indicate that tribal no longer depend forest for improving their livelihood but search for opportunities that give better opportunity cost.

VILLAGE FOREST COUNCIL

In Jawadhu Hills, Many of the villages of tribal households in Jawadhu Hills come under the extractive reserves are forest areas inhabited by tribal population granted long term rights to forest resources which they collectively manage (Joint Forest Council). The extractive reserves are state owned where the rights of forest are allocated only to the tribal people. This arrangement is viewed attractive because it appears socially just form of forest land use for promoting socio-economic development of tribal and environment conservation. There is socio-economic and conservation implications of tenure arrangement.

TRIBAL CULTURE

The tribal dependants on the fertility of the forest areas are basically to meet their agricultural needs. They use the edibles among the wild fruits, leaves and roots besides honey, majority of the forest depending tribal in jawadhu hills build their houses with bamboos, forest leaves and hay. Majority of these are substituted by concrete houses at present. The expansion of agricultural activities, grazing activities and the social activities like worshiping deities into the tribal habitats have forced malayalis tribal into the interior forest. Intensive commercialisation forced many of the male members to work as manual labourers in the agricultural fields of the plains, wage labourers in the forest department and the migrant labourers outside the forest. The degradation of forest further accelerated the push factors and the extension of activities such as commercial gathering and fuel. Better transportation facilities between forest market and the outer towns change the culture of the younger generation.

OBJECTIVES

The following objectives based on study area

1. To study on socio-economic conditions of the sample respondents in the study area.
2. To analyses the utilisation and benefits of forest resources in jawadhu hills in Tiruvannamalai district.
3. To find out the suitable policy suggestions and improvement of forest resources in the study area

METHODOLOGY

The present study is undertaken in "the study on utilisation of forest resources in jawadhu hills of Tiruvannamalai district" this study basis on primary data. I have selected two villages each villages namely Kovilur (100) Melsilambadi (100) collected total 200 sample through interview scheduled from multi-stage random sample method. Selected villages a jawadhu hills on the basis of more forest resources utilisation in the study area. In order to test formulated on objectives on the basis hypothesis the following tools are used in addition to tabulated and percentage analysis and F test models were used.

Table-1
Socio-Economic conditions of the sample Respondents

S.No		Village Name		Total (200)
		Kovilur	Melsilambadi	
1	**Sex**			
	Male	64 (32.0)	73 (36.5)	137 (68.5)
	Female	36 (18.0)	27 (13.5)	63 (31.5)
2	**Age**			
	Below 20	12 (6.0)	7 (3.5)	19 (9.5)
	21-40	36 (18.0)	53 (26.5)	89 (44.5)
	41-60	48 (24.0)	27 (13.5)	75 (37.5)
	Above 61	4 (2.0)	13 (6.5)	17 (8.5)
3	**Marital status**			
	Unmarried	11 (5.5)	22 (11.0)	33 (16.5)
	Married	85 (42.5)	78 (39.0)	163 (81.5)
	Widow	4 (2.0)	0 (0.0)	4 (2.0)
4	**Educational qualification**			
	Primary	35 (17.5)	21 (10.5)	56 (28.0)
	High school	28 (14.0)	49 (24.5)	77 (38.5)
	Higher secondary	30 (15.0)	25 (12.5)	55 (27.5)

	Colleges	7 (3.5)	5 (2.5)	12 (6.0)
5	**Occupation**			
	Government employee	3 (1.5)	8 (4.0)	11 (5.5)
	Private employee	33 (16.5)	41 (20.0)	74 (37.0)
	Agricultural labourers	49 (24,5)	37 (18.5)	86 (43.0)
	Business	5 (2.5)	8 (4.0)	13 (6.5)
	Others	10 (5.0)	6 (3.0)	16 (8.0)
6	**Household income**			
	Less than 10.000	10 (5.0)	22 (11.0)	32 (16.0)
	10.001-50.000	52 (26.0)	68 (34.0)	125 (62.5)
	50.001-100.000	33 (16.5)	6 (3.0)	44 (22.0)
	Above 1lacks	5 (2.5)	4 (2.0)	9 (4.5)

Source: Computed from primary data

In the table 1 shows that socio economic conditions of the sample respondents in the study area. Out of the 200 sample respondents 36.5 percent are the male categories in Melsilambadi and 18.0 percent male in high Kovilur village categories in the study area. According to age group out of 200 respondents 26.5 percent in between age 21-40 under the categories is high level in Melsilambadi and 24.0 percent in between 41-60 categories is high level in Kovilur village in the jawadhu hills more than living in tribal communities. It is also clear that majority of the sample respondents 24.5 percent in high school level studies in Melsilambadi village and 15.0 percent is higher secondary in highest level in studying in tribal communities in Kovilur village in the study area. It is also low level in education on both villages in at 3.5 percent and 2.5 percent in jawadhu hills in the Tiruvannamalai district.

It is majority of tribal people major occupation in 24.5 percent in highest categories in agricultural labources in Kovilur and 20.5 percent in high level in Melsilambadi village in major occupation in study area, it almost in working agricultural labources is high because in land utilisation pattern in more than workers in jawadhu hills. According to household income is a family income earning from agricultural activities, business, MGNREGA and forest income is a

highest level between 10.000-50.000 income group 34.0 percent and 26,0 percent in both villages . It is also lowest level income between above one lacks is 2.5 in kovilur and 2.0 in Melsilambadi in the study area. Finally jawadhu hills people socio –economic conditions is very low level. So to tribal communities living conditions unsustainable growth to attaining in the people. Because below poverty line an ill literatures, low level income and unemployment in the study area. So government to given on empowerment to women and employment opportunities in particularly study villages in a jawadhu hills, Tiruvannamalai district.

Table-2

Utilisation and Benefits of forest Resources and village wise classification of the sample respondents in study area

S.No	**Forest Resources**	**Village Name**		Total (200)
		Kovilur	Melsilambadi	
Utilisation of forest Resources				
1	Fire wood	146 (73.0)	54 (27.0)	200 (100)
2	Grasing	91 (45.5)	109 (54.5)	200 (100)
3	Herbal medicine	120 (60.0)	80 (40.0)	200 (100)
4	Honey	140 (70.0)	60 (30.0)	200 (100)
5	Fruits	164 (82.0)	46 (18.0)	200 (100)
6	Medical plants	84 (42.0)	116 (58.0)	200 (100)
Benefits of forest Resources				
1	Temporal closure forest	119 (59.5)	81 (40.5)	200 (100)
2	Fuel wood collection	94 (47.0)	106 (53.0)	200 (100)
3	Grasing	122 (61.0)	88 (39.0)	200 (100)
4	Fodder	86 (43.0)	116 (57.0)	200 (100)
5	Medical plants	133 (66.5)	67 (33.5)	200 (100)
6	Others	111 (55.5)	89 (44.5)	200 (100)

Source: Computed from primary data

Result

Sources of Variation	Dependent Variables 'F'value				
F – Value	9.91*	10.67*	11.81*	4.87*	9.56
R^2	0.69	0.71	0.76	0.58	0.47

Table 2 exhibits the factors determining utilisation and benefits of forest resources according to village wise classification. It indicates that the value of co-efficient of determination R^2 measured that collection of fuel wood, the value of inputs have jointly explained about 69 percent of variation in the value of output. It is due to the fact that out of 100 percent of variation in the value of output, the given 6 independent sources of inputs contribute maximum to the tune of 69 percent and the remaining 31 percent is determined by the factors other than the specified one. Further, one may infer from the table that the value of F ratio is found to be statistically significant and it is measured on R^2 among the ratio of utilisation and benefits of forest resources.

Further, the table examine the factors determining utilisation and benefits of forest resources among the collection of timber materials according to occupational and caste wise classification. It indicates that the value of co-efficient of determination R^2 measured the collection of timber materials jointly explained by 71 percent of variation in the value of output. It implies the fact that out of 100 percent of variation in the value of output, the given 6 independent sources of inputs contribute maximum to the extent of 71 percent and the remaining 29 percent is determined by the factors other than the selected one. Further, one may notice from the table that the value of F ratio is found to be statistically significant and it is measured on R^2.

Moreover, the factors determining utilisation and benefits of forest resources among the collection of fodder and dung manure according to occupational and caste wise classification. It shows that the value of co-efficient of determination R^2 measured the collection of fodder and dung manure jointly explained about 76 percent of variation in the value of output. It implies the fact that out of 100 percent of variation in the value of output, the given 6 independent sources of inputs contribute maximum to the extent of 76 percent and the remaining 24 percent is determined by the factors other than the selected one. It is fact that the selected independent

sources of inputs, variation due to caste, variation due to education, variation due to occupational status, variation due to caste and occupational status, variation due to education and occupational status are positively related to the value of output. It shows that by increasing use of these inputs, the value of output can be increased. Further, one may observe from the table that the value of F ratio is found to be statistically significant and it is measured on R^2.

It shows that by increasing use of these inputs, the value of output can be increased. Further, one may infer from the table that the value of F ratio is found to be statistically significant and it is measured on R^2.

Rest of them the table analyse the factors determining extent of employment on forest resources among the collection of fruits and others according to occupational and caste wise classification. It measured that the value of co-efficient of determination R^2 indicates the collection of fruits and others have jointly explained by 47 percent of variation in the value of output. It implies the fact that out of 100 percent of variation in the value of output, the given 6 independent sources of inputs contribute maximum to the extent of 47 percent and the remaining 53 percent is determined by the factors other than the selected one. It is fact that the selected independent sources of inputs, variation due to education, variation due to education and occupational status are positively related to the value of output. It shows that by increasing use of these inputs, the value of output can be increased. Further, one may notice from the table that the value of F ratio is found to be statistically insignificant and it is measured on R^2.

DEFORESTATION IN A TRIBAL VILLAGE

In jawadhu hills the species richness of tropical forest eco-system is in the brink of extinction and the forest eco-system is warned of the perils of deforestation. Jawadhu hills known as sandalwood which spread fragrance is one of the fast vanishing species due to the effects of human activities on the functioning of eco-system. The linked threats of modernisation on deforestation and species extinction became primary concerns. Some argued that the extraction of non-forest resources by the tribal may lead to biotic impoverishment. It may be due to over harvesting, reduced populations of dispersal agents through hunting beneath adult trees.

But it is felt that extractors are the beneficiaries of forest resources hence they have in incentive to maintain the resources. The biotic impoverishment will continue within extractive reserves as long as cattle are viewed as the main investment of surplus income. But the extractive model based on village forest council is appreciated because of its economic viability, environment conservation and social equality.

CONCLUSION

The contribution of forest resources to the livelihood strategies of poor people has long been appreciated as significant. Most rural poor people rely directly and indirectly on forests for their livelihoods. How to ensure that poor people have rights and opportunities to access forest resources as well as responsibilities for the sustainable management of forest resources,

The economic benefits of forests have been subordinated to the principal aim of environmental stability. The government policies majority focus on tourism development activities in the study region. The tribal people are the distinct group and the economic growth is based on their resources and demand for the farm products.

Forest management is essential to promote economic development by maintaining and even increasing production while maintaining or improving ecological conditions. The way of life of malayalis tribe is customary management of forest. The practices are founded on acquiring flora and fauna sustainably for generations living in forest area. In the traditional tribal culture, the community leader decides the pattern of cropping, time of sowing, hunting and other social and economic activities.

The farm products has to more cultivated in particular seasons, geographical location, and unique in its quality. The state government has to set up the cluster for the tribal farmers' is to procurement of farm products in seasonal time periods and store it in the warehouse.

The government has to support the cluster through marketing extension activities by procurement of products for sales through the civil supplies distribution system and government cooperative retail outlets in the state. The marketing is very helpful to the customer to purchase the spices products and benefits to the tribal people.

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