



Depletion of Natural Resources and its Impact on Tribals in the Nilgiris District

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Abstract:

Natural resources are extremely valuable in the Nilgiris mountainous regions. The mere existence of the native tribal tribes is reliant on land, water and forests. Degradation of natural resources poses a threat to the tribal people of the Nilgiris region. This paper is an attempt to bring an awareness that these native tribes rely on these natural resources for their livelihood. The Nilgiris was chosen for the research for its abundant in natural resources and for its hilly environment. Data are acquired through stratified random sampling and taking up survey through questionnaire. The findings of this study reveal a higher level of connection between forest resources and tribal socioeconomic status. It was also discovered that, in addition to wreaking havoc on the ecosystem, the depletion of these resources poses a serious threat to the destitute tribals ability to survive.

Keywords: Depletion, Indigenous Communities, Natural Resources, Nilgiris

Introduction:

The Nilgiris district is located in Tamil Nadu northwest corner. The whole district is located in the Western Ghats and has a rugged topography. The Nilgiris (Blue Mountains) are one of the most biodiversity sections of the Western Ghats, with dry deciduous forests at its base, lush evergreen forests on the slopes, and a mosaic of stunted trees and grasslands on the mountain peaks. The Nilgiris have been designated as a biosphere reserve and include protected areas such as the Mukurthi National Park and the Mudumalai Tiger Reserve due to the presence of over 3000 plant species, 350 bird species, and 100 animal species. The indigenous communities and tribes in Nilgiris are Todas, Kotas, Irulas, Kurumbas, Paniyars and kattunayaka are largest population and are the earlier settled agriculturalist. Todas are pastoralist inhabiting the upper plateau. Kotas are artisans. Irulas, Kurumbas Paniyars and kattunayaka are Nilgiris oldest and historic tribes who were the early hunter-gathers but at present they practice settled agriculture. These tribes encounter varied challenges and obstacles in their day to day lives.

The tribal of the Nilgiris depend on the natural resources such as land, water and forest for their survival. Many unique flora and animals coexist with more than 20 distinct indigenous groups in Nilgiris, which is rich in biodiversity and cultural variety. More than 3000 square kilometers of the 5000-square-kilometer reserve are now protected areas, including animal sanctuaries, national parks, and tiger reserves. Large continuous areas of forest also come under the protected forest category; indigenous people live in

these reserved forests and rely on a variety of natural resources for their subsistence. This diversity of topography and temperature has resulted in severe vegetation composition gradients, ranging from thorny scrub forest dominating the north-eastern region to dry and moist deciduous forests and wet evergreen forests intergrading westwards.

There is a prime concern for depletion in the natural resources and disruption in lives of the tribal communities. The variety of circumstances that contribute to their depletion, disrupting the socio-economic and cultural lives of tribal. The reserve's ecological variety is mirrored by its cultural diversity. The reserve is under strain from a variety of factors that put in danger its diversity and richness. Invasive alien species growth, a lack of scientific evaluations of lesser-known species, unrestrained tourism, unsustainable and unplanned infrastructure development, and insufficient water resource management are just a few of the severe concerns facing the region.

Indigenous Communities in Nilgiris:

Nilgiris is renowned for the many ethnic tribes, their diverse tradition and lives. The Todas, Kota, Kurumba, Irulas, Paniya, and Kattunayaka are the primary ethnic groups in the district, and they tend to live in various altitudes, which explain some of their cultural differences. Gudalur Taluk is home to around half of the tribal population, with Kotagiri Taluk accounting for the other quarter. The tribal population in the taluks of Udhamandalam and Coonoor is 16 percent and 9%, respectively. The following table summarizes the population of the major Scheduled Tribes:

Community	Population
Kurumba	9023
Irula	9719
Paniya	8460
Toda	2001
Kota	2072
Kattunayaka	1543
Total	32818

Objective of the Study:

1. The major goal of this study is to learn more about indigenous communities and reliance on forest resources in the Nilgiris district's hilly areas.
2. To address agricultural and allied sector development with an emphasis on optimum resource use and convergence of current and new programmes for increased production, employment, and livelihoods.

Depletion of Natural Resource and Impact on Indigenous Tribes:

For Primitive tribes in Nilgiris District, the rise of cash crop cultivation and plantations has had important socio-cultural implications. The establishment of new economic hierarchies based on profit-based wealth and a monetary economy has been aided by new capitalist types of agricultural production, which have destroyed the equitable interdependence between different ethnic communities.

Regularization of land settlement, eradication of slash- and- burn agriculture, and confinement of previously semi-nomadic populations to defined village areas have resulted in a considerably more static population and the introduction of new individual forms of land usage and tenure ship. This new immobile lifestyle, along with large population expansion due to immigration, has exacerbated land constraints, resulting in lower land productivity, food insecurity, and the degradation of local knowledge of and symbiosis with the environment.

Estates and plantations have typically monopolized land usage at the cost of primitive tribes, who, as the least educated and with the least socio-political clout, have tended to be sidelined by district developments. Although many have succeeded in establishing themselves as small-scale farmers, the reliance on monoculture tea planting has rendered them vulnerable to market volatility, as seen by the recent drop in tea prices. Larger estates or higher caste, more powerful persons have been able to intrude on their territory due to unclear borders. Todas patta lands, in particular, have been encroached upon, mostly by plains immigrants. These immigrants grew crops, notably potatoes, on steeply sloping ground, resulting in soil erosion, instability, and a decrease in soil fertility.

Those tribal people who still pursue more traditional livelihoods based on forest produce face two interconnected challenges: first, the degradation of much of the forest area they rely on for subsistence, which has dramatically increased pressure on remaining resources, compounding the degradation of these ecological zones, and second, new legislation restricting use of the forest and grasslands in an attempt to protect the Nilotic biodiversity.

Study Area:

The study area is Nilgiris district which is situated in the state of Tamilnadu. It is stretched in an east-west orientation, with latitudes of 11° 30' and 11° 15' north and longitudes of 76° 45' and 77° 00' east. The Nilgiris are an ancient land mass that arose 70 million years ago at the confluence of two main mountain ranges at India's southern tip. The Nilgiris hills climb above 1000 meters above sea level, 57 percent of its surface, and 47 percent of that rises beyond 1800 meters, with the largest mountain at 2670 meters forming the pinnacle. The district has a total size of roughly 2551 km² and is one of the smallest in the state. The study focuses on the indigenous communities who don't know to expand their economy. These indigenous tribes depend on the natural resources for their livelihood. These natural resources are depletion by natural calamities and the highly official people try to befool the indigenous people and take away their property or their land because of their mere innocence.

Materials and Methods:

The study is empirical research which was carried in the Nilgiris district. The research focused on the indigenous tribes of the Nilgiris natives. A questionnaire was used to collect data. The questionnaire includes socioeconomic, demographic, and forest land status questions. The changes in forest-related resources over the previous decade and their effects on users. Questions about general perspectives of land resource depletion, its causes, indicators, and coping techniques were also included. The study's participants were indigenous groups who had participated in forest-related activities.

Findings and Results

1.1 Socio-Economic Status

Table 1.1 Socio-Economic Conditions of the respondents

S. No	Variables	Category	No. of. Respondent	Percentage
1	Gender	Male	38	38%
		Female	62	62%
2.	Age	18- 25	13	13%
		26-35	37	37%
		36-50	32	32%
		60 Above	18	18%
3.	Marital Status	Married	77	77%
		Unmarried	23	23%
4.	Educational	Illiterate	43	43%

	Qualification	Primary Education	37	37%
		Higher Secondary	12	12%
		Graduate	8	8%
Total			100	100%

The tribal of Demographic characteristics of the respondents in forest land is high on Female of about (62%), Aged from 26-35 is (37%), Marital Status married (77%), Education qualification Illiterate (43%). Few households were even entirely dependent on these resources and were having very small earnings through other sources. These households are faced with serious problems due to depletion of natural resources

Table 1.2 Gender Roles and Frequency of Trips for Various Activities

Activities	Carried Out By	Frequency of Trips
Collection of Fruits and Vegetables	Women	Occasionally
Collection of Fuel Wood	Both	Twice a Week
Construction Materials	Women	Daily
Collection of Fodder/Grass	Women	Daily
Collection of Medicinal Plants	Both	Occasionally
Hunting	Men	Seasonally
Broom Making	Women	Daily
Washing Clothes	Women	Occasionally

Most of the productive lands of the area are located in the hills. Therefore, these activities are quite time consuming. On the average tribal women spend about 5-6 hours per day in forestland related activities in collection of the products and their processing. Time spent in collection of products has close relation with the type of products and location of lands. For Instance vegetation type cane, a perennial plant previously found abundantly around the villages and usually used as a material for making handicrafts has become extinct from most parts of the region. Fire wood and grasses, being the most important resource have disappearing from the nearby location. Therefore, tribal women normally have to travel through long and difficult terrains

In addition to supplement domestic necessities, forestland resources are also used widely for income generation in most of the households. Differences were noticed in the amount of cash generated through these activities in different villages but on the average each household, engaged in forestland product collection, was earning more than 60% of the total household income from selling these products. Cash value of the products was relatively low in villages located close to the source region, whereas the monetary value of these products was substantially high in villages located away from the hills. However, the household residing close to the forestland were getting maximum benefits from these resources and heavily depend on the forestlands. Almost all of these products have decreased in all villages. Reasons for this decrease are both physical and social. These are the two major physical factors responsible for decreased productivity of forestland. Social factors which increase the vulnerability of natural vegetation include population pressure, raised life standard and dwindling role of social institutions. Time required to be spent in extraction of the forestland resources has increased in all areas as the hill slopes once providing all these resources are now bare and degraded. Tribal women have to travel longer distances to collect grasses. Time calculation for man was not possible as their involvement

was in discrete types of activities but according to their own estimate they spend twenty to thirty hours per year on the average. Details of village-wise time spend by tribal women is shown

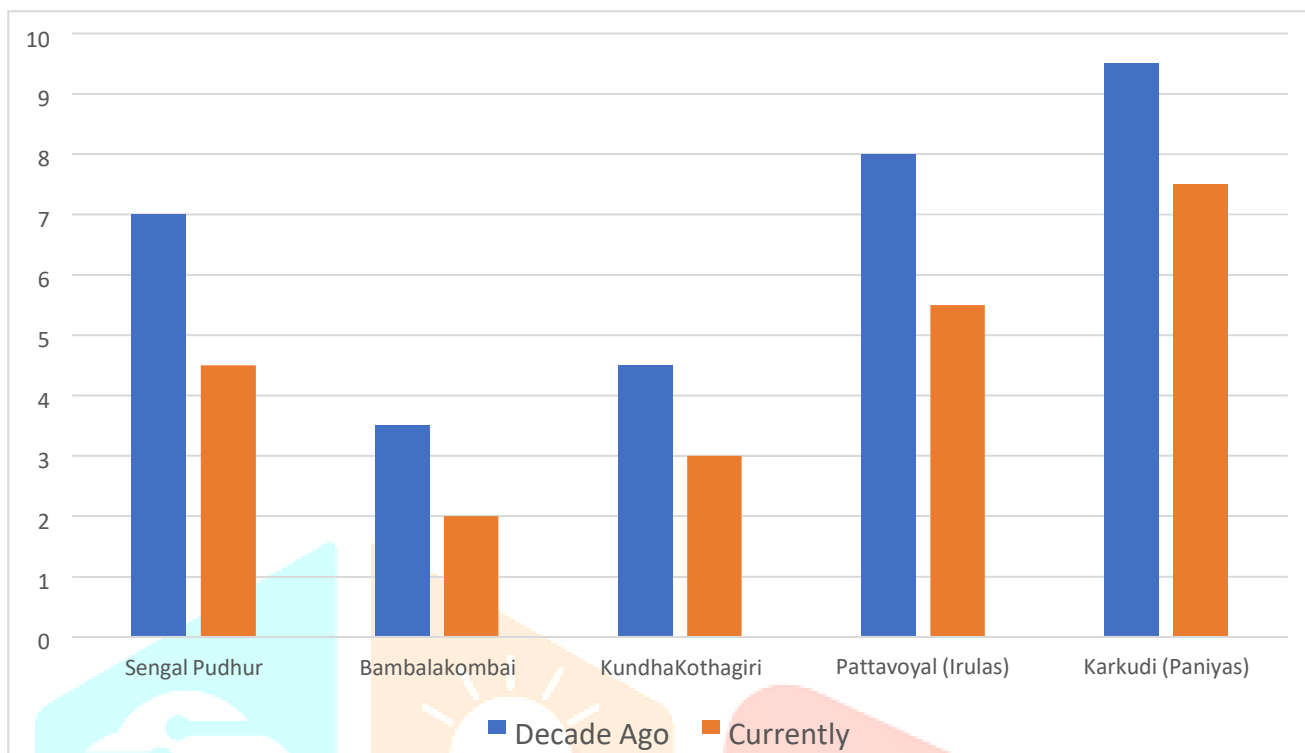


Figure 1.1 Village-Wise Time Spend by Tribal Women in Forests

Village	Average Time Spend in Forestland (Hours Per Day)	
	Decade Ago	Currently
China kurmbadi (Kurumba)	6-8	4-5
Nedugalcombai (Kurumba)	3-4	2
KundhaKothagiri (Kothas)	4-5	3
Pattavoyal (Irulas)	7-9	5-6
Karkudi (Paniyas)	9-10	7-8

Source: Fieldwork

The above table explains the overall working hours spend by the tribals in the forest in which the average time spend in Forestland a decade ago is Karkudi (paniyas). They spend about 9-10 hours in early decades and later it declined to 7-8 hours in the current period.

Dependence of Household on Forest Resources

INCOME	INCOME.FROM.FROEST			Total
	2000-3000	3001-5000	ABOVE 5000	
BELOW 5000	0	16	25	41
5001- 10000	8	13	14	35
ABOVE 10000	21	3	0	24
Total	29	32	39	100

Chi-Square Tests			
	Value	D f	Asymptotic Significance (2-sided)
Pearson Chi-Square	30.507 ^a	4	.000
Likelihood Ratio	34.369	4	.000
Linear-by-Linear Association	25.302	1	.000
N of Valid Cases	100		

There is significant difference between income and forest income P-value is < 0.01 significant $p < 5$.

Income derived through these products varies (Rs. 1,000 to 10,000/month) from village to village as well as from person to person based on location, resource availability and socio- economic conditions of the families. Their contribution also depends upon the availability of other sources of household income.

Those households which were earning more than 50% of their household income through selling of forest products depend primarily on firewood, wild fruits and vegetables. Income derived from forest is consumed in different sectors of household. Around one-third of tribal women income goes into food security while a good share of the income is spent on health. Others include house maintenance, celebrations, clothes, travelling, etc.

Conclusion:

To conclude this paper, it deals with the indigenous communities of Nilgiris district and use of natural resources by the indigenous settlers in Nilgiris. This was depleted by the exploitation of the higher official or community influences these tribes and taking away their land and property which naturally affect their livelihood as well as disrupt the natural resources. The natural resources are depleted because of over usage of land which leads to soil erosion. The deforestation led to cultivation of tea which monopolized the tribal communities. The overall income of the tribals when compared with forest income and other income, the other income plays a major role which exceeds than the forest income. The forest products are sold at minimal price which affects the lives of the native tribal of Nilgiris district. The questionnaire and survey helped to track down the depletion in natural resources.

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