Forest Resources and Growth of Tribal Economy: A Study in the District of Keonjhar

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ABSTRACT

The tribal economy is largely affected by forest resources since they mainly live in and around forest areas. But due to increase in population, deforestation on various grounds and excess pressure on forest resources, their income is decreasing. Social forestry, though a welcome step, cannot be treated as a perfect substitute of natural forest. We can neither ignore the interest of the scheduled tribes constituting 8.6% of our population, nor can we afford lose our rich forest resources. At present the per capita income of tribal is only 56% of the per capita income of India. The pressure on forests for Non Timber Forest Products (NTFP) will increase further till we provide them the alternative sources of income. Hence, time has come to make appropriate policy decisions which can ensure their economic growth and protection of forest resources simultaneously. And for the successful implementation, tribal’s involvement is necessary. Their knowledge, culture, tradition, custom, beliefs, practices, opinions, view points and suggestions need to be considered while making plans, policies, schemes, etc., for their economic development. Keeping the objectives, namely protection of forest resources and growth of tribal economy a survey was made in the district of Keonjhar, Odisha. Both primary and secondary data have been collected for the study. As per our findings Goatery, Poultry, Horticulture, Medicine and Spice plants, Sal Leaf Plate making etc., could become the viable sources of income for tribal’s economic growth. The lesser the dependence on forest the more will be the protection and sustainability of forest resources. If solar power could be made a substitute of firewood for cooking purpose, it could perhaps be the most viable step towards protection and sustainable use of forest resources.

KEYWORDS: NTFP, Tribal, Social Forestry, Goatery

INTRODUCTION

The economic development of tribal is inevitable for India's economic development. As per census 2011, the tribal population constitute 8.6% of India & 22.13% of Odisha's population, respectively. Forest and Tribal are like the two sides of a coin. They usually live in and around forest areas. More than 70% of the tribal live within a range from 0 to 5 K.M. from the forests. The natural resources available around the dwelling places impact the economic condition of the people. Forest resources are usually found in hilly areas. Rain water carries the fertile upper coat of the soil and deposit them in plain area-making it more and more fertile. That’s the reason while people in plain/ coastal area depend more on agricultural production, river and seas, the people in hilly areas depend more on forest resources.

Initially people were using forest resources for making house-hold items but gradually they felt the need, value and importance of non-timber forest products. Forests serve us in many ways like they give us flowers, fruits, roots, leaves, branches, barks, firewood and hundreds of such other products. Besides, they also give us oxygen, shade, medicinal plants, protect us from cyclone, soil erosion, provide food and shelter to birds and animals etc. It is learnt from a study that one leafy-grown up tree could produce as much oxygen as is required by 10 persons in a year!

Deforestation, population growth, people’s (both tribal & non-tribal) free access to forests, unprecedented growth in the demand for forest products, etc., have put a big question mark on the sustainability of forest resources and quantum of income of the poor and simple tribal.

The main causes of deforestation could be attributed to the exponential growth of population, increased demand of land for housing and agricultural purpose, construction of road and railways, establishment of industries, extraction and transportation of mineral resources and lack of awareness and so on. Social Forestry- no doubt a welcome step but it can’t be a substitute of natural forests. Even though as per recent Government (Odisha) records the forest area has increased a little bit, but it cannot be the reality. If the assertion is wrong, how wild elephants are trespassing human habitats and cities- which was something unheard earlier?

The above mentioned facts compelled us to think again and again as to what should be done to ensure the economic growth of the tribal along with sustainable use of forest resources. Now we have a constantly rising population in one hand while on the other hand there is drastic reduction in forest resources leading to unexpected load on it.
After going through the available literature in this respect, it is observed that ever since independence, whatever steps have been taken for the tribal development, the schemes, plans culture, view point, idea, opinion and suggestions have either been ignored or not given due importance. They have simply been thrown upon them. As a result of which, such programmes have not been fully successful as desired.

**Objectives and Methodology:**

The objectives of the study are based on protection of forest and economic growth of the tribal. Thus the major objectives are,

1. To study the economic growth of the tribal,
2. To study protection of forest resources.

The sample under consideration for the present study is from the data collected both from the primary and secondary sources. The analyses have been made of the state of Odisha and Keonjhar district of Odisha. Data has been collected with regard to total population of Odisha and Tribal population of Odisha, forest coverage, per capita forest coverage, both from primary and secondary sources which have been presented and analysed in a very lucid manner through diagrams.

Development of tribal economy with their small and unirrigated land-holdings cannot even be thought of. A particular source of income gets destroyed or affected adversely when excess pressure is applied on it. Thus, unless and until we provide alternate sources of income to them, destruction and deforestation will continue. We would like to clarify here that the tribal are not the only ones responsible for lass of forests—rather non-tribal are more to blame. From our study we have observed how traditionally the tribal are worshippers of nature. That's why it has become imperative to discuss as to how economic development of tribal and protection of forest resources can be done simultaneously.

There is a proverb in English “the wearer knows where the shoe pinches”. Thus, without involving the tribal in the decision-making process, the success of such policies can’t be ensured. Hence, we decided to take their suggestions for their economic development while ensuring protection and sustainable use of forest resources. The question put on them was how to protect forest resources while ensuring rise in their income. Instead of giving them alternative options to answer, we sought their suggestions. Their suggestions concentrated on the following—goatery (goat farming), poultry, horticulture, leaf-plate making, apiculture and sericulture etc. We requested them to rank their suggestions. Astonishingly of the total respondents of 400 persons 97% opined for goatery, 80% for poultry, 70% for horticulture, 40% for apiculture and 55% for pressed leaf plate and cups. Keeping the above mentioned objectives, we made a primary survey amongst the tribal in the district of Keonjhar, Odisha.

**Brief Profile of Keonjhar District:**

Keonjhar district lies in the northern part of Odisha, between 85°11’ to 86°22’ East longitude and between 20°1’ to 22°10’, North latitude. The district is bounded by Jharkhand state in north, Jajpur, Angul and Mayurbhanj districts in the south, east and west respectively. It has a geographical area of 8303 sq. km. and a population of 18.01 lacs (census—2011), the density of population is 217 persons as against 270 persons per square kilometre of the state. There are 13 blocks, 3 subdivisions, 13 tehsils and 2122 villages. The Scheduled Tribe population is 8,18,878 which is 45.40% of total population (third largest in the state first being Mayurbhanj and second Sundargarh). The literacy percentage is 68.20 as against 72.90 of the state. The climatic condition of the district is hot with high humidity during March to July and cold during November to February. Average rain fall of the district is 1910.1mm (2011). The district is very rich in mineral resources like iron ore, manganese, quartzite etc. In 2010-11, 1133 mines were operating in the district which includes 86 iron ores, 29 manganese and 7 quartzite mines. Keonjhar district is also endowed with natural tourist places like Sandha, Bada-Ghagara, Sitabinnj, Khandadhar, Gundicha-Ghagi, Gonasika, Handibhanga, Murga-Mahadev and so on. Twenty five types of schedule tribes reside in the district which includes Juang, Bhuyan, Bhumij, Santhal, Kolha; Munda, Kissan etc.

<table>
<thead>
<tr>
<th>ODISHA</th>
<th>2001</th>
<th>2011</th>
</tr>
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<tbody>
<tr>
<td>Population</td>
<td>3,68,46,600</td>
<td>4,19,74,218</td>
</tr>
<tr>
<td>Tribal Population</td>
<td>81,45,081</td>
<td>95,90,756</td>
</tr>
<tr>
<td>Forest Coverage (Area in sq. Km.)</td>
<td>50,347</td>
<td>48,903</td>
</tr>
<tr>
<td>Per Capita Forest Coverage (in sq. km), A. General B. Tribal</td>
<td>0.0013</td>
<td>0.0011 0.0051</td>
</tr>
</tbody>
</table>

(Sources: The Economic Survey of India, The Economic Survey of Odisha, NET)

**Data Analysis and Findings:**

From the above mentioned data, we find 21.67% & 39.31% of the total area of India and Odisha, are covered by forests. In Odisha, the total forest area was 50,347 sq. km., and 48,903 sq. km., population was 3,68,46,600 & 4,19,74,218, the tribal population was 81,45,081 and 95,90,756 and the per capital forest coverage was 0.0013 sq. km. & 0.0011 sq. km. in general while it was 0.0062 sq. km. & 0.0051 sq. km. respectively in 2001 and 2011. The above mentioned data shows the decrease of per capita forest coverage.

**Diagram No.01**

Diagram No. 01 shows the total population of Odisha in the year 2001 and 2011, respectively. In 2001 the population was 3,68,46,600 and 4,19,74,218 in 2011. This shows the decadal growth of 13% in population of Odisha.
Diagram 02 shows the tribal population of Odisha in 2001 and 2011. In 2001, the population was 81,45,081 and 95,90,756 in 2011, registering an increase of 14,45,675. This shows a decadal growth of 17% which is 4% above the decadal growth rate of total population of Odisha during that period.

Diagram 03 shows the total forest area of Odisha in 2001 and 2011. In 2001 it was 50,347 sq. km. and 48,903 sq. Km. in 2011. This shows that there is a net decrease of 1,444 sq.km. registering a decadal decrease of 2.87% in forest coverage.

Diagram 04 shows the per capita forest coverage in Odisha in 2001 and 2011 (general). They are 0.0013 sq.km. and 0.0011 sq. Km. respectively, in 2001 and 2011. Thus, the per capita forest coverage has gone down by 15.38% in the last decade.

Diagram 05 shows the per capita forest coverage of the tribal of Odisha in 2001 and 2011, which are 0.0062 sq. km. and 0.0051 sq. km. respectively (total forest area / total tribal population). This shows a decadal fall of 17.74% in the per capita forest coverage of tribal.

Diagram 06 shows the present per capita income (general) and the per capita income of tribals in India which are Rs. 1,35,048 and Rs. 75,216 respectively. This shows that tribal’s per capita income is only 55.70% of the general per capita income which simply reflects their poor financial condition.

Very dense forest of Odisha and Keonjhar

<table>
<thead>
<tr>
<th>Year</th>
<th>Odisha</th>
<th>Keonjhar</th>
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<tbody>
<tr>
<td>2001</td>
<td>27,972 Sq. K.m</td>
<td>1669 sq. K.m</td>
</tr>
<tr>
<td>2011</td>
<td>7060 sq. K.m</td>
<td>308 sq. K.m</td>
</tr>
</tbody>
</table>

In Diagram No. 07 (a) the very dense forest in Odisha was 27,972 sq. km in 2001 which has gone down to 7,060 sq. km in 2011! This shows a decadal fall of more than 75% which is something unbelievable!

Very dense forest (Keonjhar)

In Diagram No. 07 (b) very dense forest area of Keonjhar district is shown. It was 1669 sq. km. in 2001 which came down to 308 sq.km. in 2011, showing an unbelievably decadal fall of nearly 82%!
The per capita income of tribal in India is regular income exceeding rupees one lakh. A cluster true that the government has not done anything in this Rs.75, 216 which is their proposals are. A brief description of their suggestions SHGs in some places are also involved in making pressed sal-

**Diagram No. 08**

Diagram No. 08 shows that out of a total of 400 respondents gave their rank as follows:
- Rank-1 Goatery i.e. goat farming (97%),
- Rank-2 Poultry (80%)
- Rank- 3 horticulture (70%),
- Rank-4 Sal Leaf plate making and (55%)
- Rank 5 Apiculture & Sericulture (40%).

Their suggestions made think deeply. We wanted to inquire as to why they have suggested these things after making discussion with them we are convinced as to how viable their proposals are. A brief description of their suggestions and our findings are given below. Besides it is also assessed in a study that on an average nearly 30% to 40% of their come from forests. As has already been mentioned, nearly 70% of the tribal live in and around forest areas and as such their economy is substantially affected by forest resources.

The per capita income of tribal in India is Rs.75, 216 which is approximately 55.70% of the per capita income of India. This shows their poor economic condition. Their main sources of income are agriculture, collection of NTFPs, and labour. However, growth of population, deforestation, people’s free access to forests, unprecedented growth in the demand for forest products, etc., have put a big question mark on the sustainability of forest resources & quantum of income of the poor & simple tribal.

There has always been a demand for the country mutton and country-chickens of hilly areas, everywhere. Its taste is unique. As per tribal’s version, the preventive power of country goat & chicken is much more in comparison to the hybrids. The feeding cost of goat is very less since they mostly eat varieties of leaves -which is freely available in the forests and they like it. If each household is provided with one male goat & three to four female goats, in an ideal atmosphere, within a period of two years they can get regular income exceeding rupees one lakh. A cluster approach shall be more beneficial to them for they can take the goats for grazing on a sharing basis which won’t hamper their other works. Similarly, if goatery is promoted by self help groups it can also be more effective. Similarly, tribal’s income can be substantially increased by encouraging them to go for country-poultry also. Of course, unlike goatery the feeding cost of chicken will be comparatively more. It is not true that the government has not done anything in this respect, or it is a new proposal, but what we feel that it has not got the desired/ required integrity and importance—else their economic condition could have been quite different.

Secondly, the soil and climatic condition of hilly areas are quite suitable for horticulture. Now-a-days, in many areas of Keonjhar district, hybrid mangoes of very good quality are being produced in plenty, mainly in Telkoi, Banspal, Harichandanpur & Sadar block. Quite a sizable portion of the total production is exported to cities like New Delhi, Kolkata & many other places. Besides several truckloads of ‘ambasadha’ (dried mango-juice) specially made from ripe country-mango juice, are being sent to Mumbai and other places. Similarly ‘ambula’ –the dried raw mango pulp has also got a high demand both by the poor and rich. Both ambasadh and aambula, if produced and marketed properly could bring substantial economic progress of the tribal. Therefore, much importance need to be given on planting of fruit-bearing trees like mango, sapodilla, jackfruit, lemon, banana, lichi, guava, custard apple, tamarind etc. The responsibility of the horticulture department in this respect is more.

Similarly priority should also be given on plants used for spices like black-pepper, cinnamon, turmeric, ginger etc along with plantation of medicinal plants—because every day the demand for such products is increasing throughout the world. The demand for such natural products far exceeds the supply.

From time immemorial, there is a continuous demand for sal-leaf plate and cups. Sal trees are found in plenty in most forests of Odisha. Thousands of tribal are engaged in plucking, sal leaves, stitching them with the help of bamboo or neem sticks, make the plates and cups sell them in the market and maintain their families. Now-a-days in many places such plates and cups are pressed with a machine so as to give it a better shape and look. Not only the people but SHGs in some places are also involved in making pressed sal-leaf plates—the demand for which is not confined to our state or country, rather now-a-days these are exported to countries like Germany. The demand for leaf-plates has gone up substantially, particularly after the government imposed ban on single use plastics. It is also a welcome step that on demand of the state government, the central government has lifted GST on leaf plate making.

The success of the above mentioned things could ensure economic development of tribal, only when the government will give maximum importance on animal husbandary, horticulture, ensure availability of goods produced and marketing--- protecting the poor and simple tribal from the exploitation by middlemen. Proper training and awareness programs should also be made for them whenever and wherever required. In tribal communities females are found to be more conscious and laborious in comparison to their male counter parts, hence effort should be made to involve more females for the fruitful implementation of the above activities.

**Conclusion**

The economic development of the tribal could only be ensured only when we could ensure them multiple sources of income. It will not only improve their economic condition but also reduce their dependence on forests and lesser the
dependence on forest resources, the more will be the protection and sustainability of forest resources. In this context it is worth mention that if solar power could be made a substitute of fire would used for cooking purpose, it could perhaps be the most successful and strongest step towards the protection of forest resources.

Reference:
[9] International Master of Science in Rural Development, Ghent University, Belgium