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## **Forest Resources and Its Conservation of Kolhan Division, Jharkhand** **Arpana Premi Lina Oraon**

*Research Scholar, (RGNF), Dept. of Geography, Ranchi University, Ranchi, Jharkhand, India*

### **Abstract**

*This paper brings out the issues related to natural resource exists and its conservation. The natural resource such as forest and forest products were found as a basic source of survival for living organisms during the initial period. Later, the natural resources started degrading slowly and steadily due to increased human activities. In the beginning, natural resources were the primary assets for the growth of agriculture, industry, urbanization etc. subsequently, increased anthropogenic activities started degrading the forest cover on a large scale through extending the agricultural landscape and other developmental activities in Kolhan Division. The importance of traditional knowledge regarding resource conservation, protection of sacred grooves, endangered species etc started declining in this time. Innovativeness and policy framework for resource conservation and utilization became unfriendly in addition to gradual decline of community management. The key findings of the study point to major gaps existing such as between line departments and institutions in the promotion and management of forests, human welfare, agriculture, animal husbandry etc. moreover, people tend to be more inclined towards the utilization of natural resources rather than conservation. From an observational and practical point of view, the natural resource has been declining rapidly. Therefore, this study strongly suggests that a due attention be directed toward developing people- friendly and environment friendly conservation strategies.*

***Key Words: Anthropogenic, natural resources endangered, decline, people- friendly.***

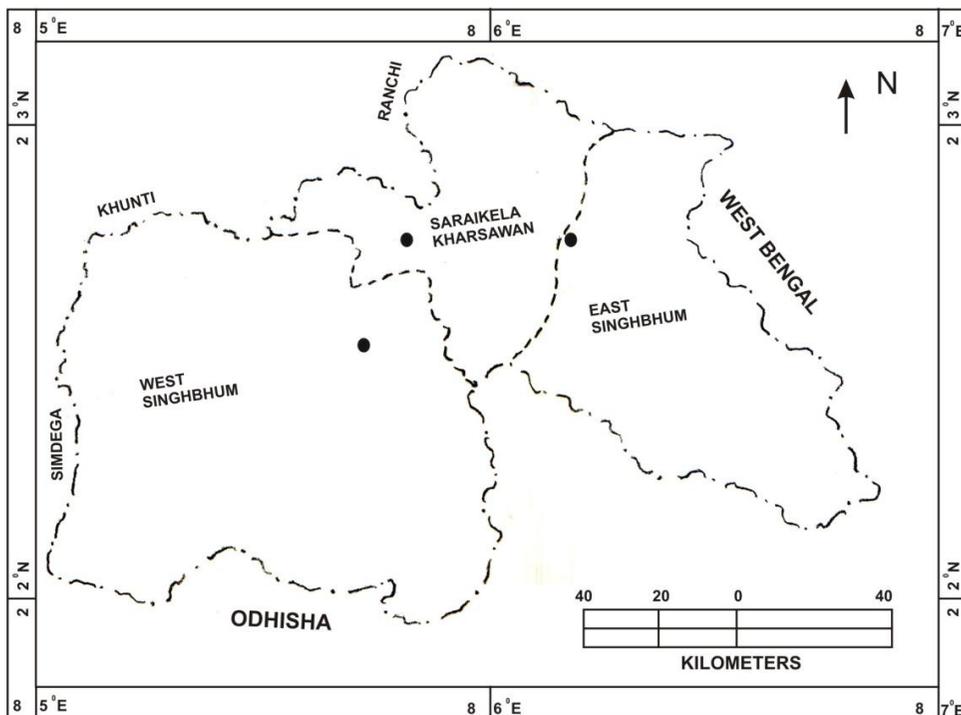
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**Introduction:** Forest resources constitute one of the most prominent geo-ecological features in the world. Man's needs have been supported by the great variety of life on earth. There are some aspects where humans are directly or indirectly dependent on trees. Trees are foundation on which the entire realm of the biosphere exists. It is now widely accepted that the future of food health and livelihood security depends upon the attention paid to proper conservation of natural resources which is much needed financial investments in the forestry sector. The forests are crucial for humankind, but there is an ever increasing demand for the forest resources for goods and services. The management of natural resources is a scientific approach for utilization and conservation of land, water bodies, soil systems, plants and animals to enable the people to fulfill the requirement so that along with the present generation the future generations would also be benefited. Therefore, the management of natural resources is combination of scientific and technical understanding of the same. This study mainly focuses on conservation of forest resources in Kolhan Division.

**Study Area:** The Kolhan Division which forms the south-eastern portion of Jharkhand state, is situated between 21°58' to 23°36' North latitude and between 85° to 86°54' East Longitude. On the north spread the Ranchi and Purulia district of West Bengal, on the west it is bounded by the area of

Simdega and Sundargarh district of Odhisha, on its south lies the Keonjhar and Mayurbhanj districts of Odisha and on the east it is bounded by the Medinipur district of West Bengal. According to its natural boundary in the north, region is separated from the Ranchi plateau by the scarp region mainly of the Dalma Volcanic, in the Baitarni River for a great distance. In the west no natural boundary seems to separate this region from Ranchi plateau and the Gangpur region of Odisha. To the south Dhalbhum the region is separated from the Mayurbhanj district of Odisha by a natural scarp. In the south- eastern extremity the Subarnarekha River separates the region from the Mayurbhanj. In the north- east especially to the north of the Dalma ridge and to the east no natural boundary is present to separate the region from the Ranchi plateau, the Manbhum plain and the lateritic Midnapore plain of West Bengal. This region contains the two incomplete drainage basins- the Subarnarekha, and the Baitarni. The region has area of 13,440 sq.kms. Kolhan Division is one of the five divisions in the Indian state of Jharkhand. The division comprises three districts, namely East Singhbhum, West Singhbhum and Saraikela Kharsawan. Headquarter of the division is Chaibasa.

## LOCATION MAP



SOURCE-CENSUS OF INDIA, 2011, DIRECTOR, CENSUS BOOK, JHARKHAND

**Methodology:** The present study is based on primary and secondary data. Identified the area of forest by the help of Toposheet no 73F, 73J, scale of 1:250,000. After identification, field was visited. The primary data and information which were collected during the field survey in June 2015. Forest resource data which was taken from department of forest, East Singhbhum and West Singhbhum in the year 2015. During this observation we found the loop holes. Then studied the previous literatures. Information and data collection was done. The data comprised of print form. The collected data have been processed by analytical and simple statistically form. Then data was

formulated in descriptive form including tables, diagrams, graphs and maps. Further discussion and planning has been done for the betterment of Kolhan Division.

I have used one percentage formula i.e

$$\text{Percentage formula} = \frac{\text{Total forest Area}}{\text{Total Geographical Area}} \times 100$$

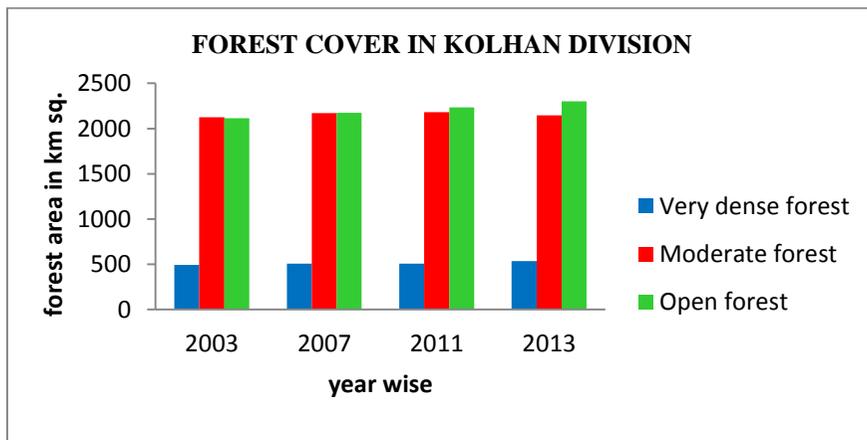
**Discussion:** There was a time when this region was virtually uninhabited by human beings and it was the Mother Nature in its pristine glory that ruled the region. The Bihar district gazetteer, Hazaribagh discloses that the Emperor of Magadh Empire, Jarasandh used to release his defeated enemies in the forests of this region in the hope that the wild animals would devour and finish them off.

Today, forests cover an area of 23,605 sq km to the Jharkhand state, which is about 29.61% of its total geographical area, which places Jharkhand at 10<sup>th</sup> place among all the state and union territories of India. As per *Forest survey of India 2003* report forest cover is 28.5% of the geographical area whereas tree and forest cover is 34.78% of the geographical area. Forest cover is not uniformly distributed throughout the state. Kolhan Division consist three districts i.e. East Singhbhum, West Singhbhum and Saraikela Kharsawan.

**Forest Cover in Kolhan Division (area in km sq.)**

	2003	2007	2011	2013
<b>Total Geographical Area</b>	13,440	13,440	13,440	13,440
<b>Very dense forest</b>	495	506	506	536
<b>Moderate forest</b>	2,126	2,170	2,180	2,147
<b>Open forest</b>	2,113	2,173	2,233	2,300
<b>Total</b>	4,734	4,846	4,919	4,983
<b>%</b>	35.22	36.05	36.59	37.07

Source- FSI-2003, 2007, 2011, 2013.

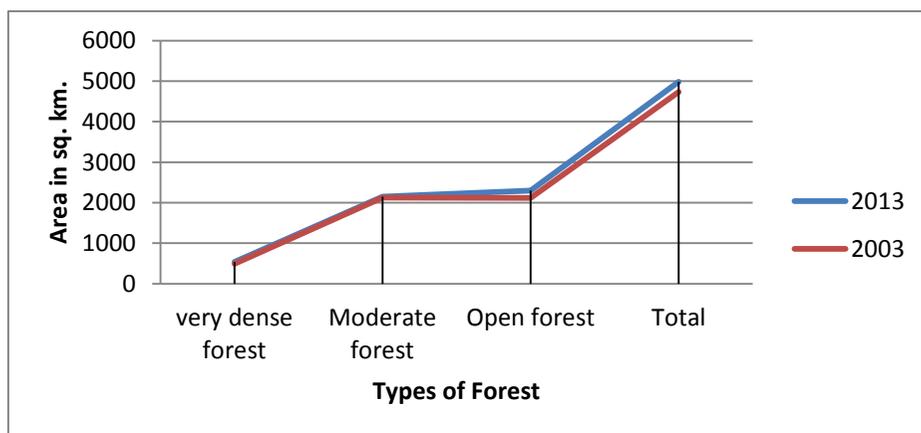


**Forest Cover Change Matrix In Kohan Division (area in km sq.)**

	2013	2003	CHANGE
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<b>Total Geographical Area</b>	13,440	13,440	-
very dense forest	536	495	<b>+41</b>
Moderate forest	2,147	2,126	<b>+21</b>
Open forest	2,300	2,113	<b>+187</b>
<b>Total</b>	<b>4,983</b>	<b>4,734</b>	<b>+249</b>
%	37.07	35.22	<b>+1.85</b>

Source- FSI- 2003, 2013.



The total area under forest account for 243652.34 hectare which constitutes 21.10% of the total geographical area of Kolhan division which is 11.90% below the desired 33% required to maintain ecological balance, control pollution etc. The East Singhbhum, West Singhbhum and Saraikela Kharsawan are forested with 20.75%, 21.08%, and 21.55% respectively. Saranda, Dalma and Dhalbhum are densely forested area. The total area under forest account for 4,983 sq. km. which is constitute 37.07% in the year 2013 and 4,734 sq. km. which is constitute 35.22% in the 2003 that is the total geographical area of Kolhan Division. The division constitutes vey dense forest, moderate forest and open forest. Here, the changes we have seen in above line graph that shows the area of forest cover increase 1.85% from year 2003 to year 2013. If the total forest area remains unchanged, the proper execution of working plans- a century old device in forest management- would ensure a steady output of the different forest products, unless there is a deliberate attempt to change the product mix in the forests. The steadily increasing output of the main forest products till about the middle of the seventies was due to over- exploitation of the forest. Obviously, this could not have gone on indefinitely. The inevitable decline started thereafter, and is continuing. The decline cannot be attributed to the loss of forest area through legal processes for irrigation, roads, railways, industry, mines and other purposes. While the forest area to be preserved for steady exploitation has been steadily and sharply declining, it is amazing that the cost of protecting the forest area and exploiting it legally has increased many times, in real terms. While the declining forests area and cover on the one hand and the growing population on the other have reduced the availability of the necessary resources to the people of the first type, the restrictions on their traditional rights from time to time by the forest department have made the more aggressive or the needy and desperate ones to break the law and steal, thereby contributing to the destruction of forest resources.

**Importance of Forest:** It is now widely accepted that the future of food, health and livelihood security depends upon the attention paid to the proper management of natural resources vis a vis  
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much needed financial investments in the forestry sector. The forests are crucial for humankind, but there is an ever increasing demand for the forest resources for goods and services. A well- managed forest is a constantly self renewing resource and provides a wide range of benefits at local, national and global levels. Some of these benefits depend on the forest being left untouched or subject to minimal interference while others can only be realized by harvesting the forest. Among the most important roles of forests are sustainable production of wood and timber products, provision of food, shelter and energy, mitigation of climate change, conservation of water and soil as well as for recreation and ecotourism. Forests are also important repositories of biological diversity.

**Possibility of Development:** There is an extensive scope for development for the forest of this division. The methods of extraction and conversion are still primitive and do not permit of economic exploitation of many products. The difficulty in extraction from interior parts leads to wasteful methods of conversion. Extraction of big logs, beams and sleepers alone pays while the small timber, firewood and even poles are left to rot and decay in the forest. All these products can be brought to the market by using better methods of conversion and extraction and by making move wagons available. There is also a great scope for developing trade in minor forest produce such as, myrobalans, barks for tanning industry, tubers for manufacture of starch, medicinal herbs and root (like Chiraita) used in the manufacture of indigenous drugs etc. various measures have been undertaken by the Forest Department for improvement of the forests. The introduction of more intensive management has led to better utilization of the forest produce while intensive silvicultural operations improve the crop itself.

**Conservation of Forest Resources:** Forest resources are utilized by modern man not only for his household needs but also for continuing the processes of a complex society, which requires paper for functioning. I need not refer to the story of the New York Times, which consumes a big chunk of forest every day. Especially since independence in India large scale deforestation has occurred either for locating major industries, water management schemes, mining etc. or for commercial purposes. Both the uses require clear felling of the trees. Even in cultivation clear felling is not resorted to. The tree stumps remain and help regenerate the trees from new shoots. Many kinds of trees are spared from burning by the cultivators in their self- interest. Trees yielding edible and non edible oil, many varieties of food trees, trees on which the silk or tassar worms grow by feeding on the leaves or the tree on which stock lac organisms grow, trees with edible leaves, flowers etc. are left standing in the area. The local people persuing food gathering and hunting do not destroy neither the animals and birds huts nor plant resources wantonly. As a matter of fact, the local hunters do not kill wild animals during the period the animal are pregnant. Hence they conserve nature in their own interest. Similarly, the food gatherers leave a portion of the tubers, yams or roots in the ground the villagers dig up for food. Therefore, the tribal people on no account destroy the forest resources, but on the contrary, they conserve the forest resources. Forest land has traditionally been defined based on a combination of current use and biological potential or capacity. Less frequently economic criteria setting priorities for land allocation have been utilized. The process of dynamic land use and periodic changes in the face of changed local conditions and priorities have frequently 'locked in' definitions of "forests" almost to the exclusion of consideration of relative land use values. Forest land use is also closely tied to legal and political issues of land tenure and ownership. Most frequently forest land is considered as a State responsibility, subject to governmental decision-making and control. Less frequently private ownership arrangements are allowed to shape or influence forest use. Reforestation has perhaps been driven by commercial timber interests, where achieving high rates of forest growth are central to maintaining or increasing timber harvest and

correlated production of forest products. However, forests are increasingly seen as promoting many objectives, including soil conservation, protection of habitats, watershed maintenance, and related conservation and environmental purposes. The establishment of forest plantations is more frequently related to these objectives for forest cover rather than a strict product or utilitarian purpose. Strategies for reforestation and afforestation that are purpose-driven with non-timber objectives will in all likelihood grow in importance within the Region, requiring new approaches and means to achieve the intended objectives. Economic justification for the strategies of reforestation and afforestation need to be clearly established and linked to specific policy objectives and goals, allowing for the potential for competing interests. Prioritization of efforts based on goals will be certainly needed in the future as investment resources will be scarce. Institutional arrangements for reforestation and afforestation will need reexamination in light of changing social conditions and concepts of land tenure rights.

Conservation goals, broadly defined, recognize that certain lands and forests have potentially greater value in non-timber use. Such alternative uses may require mutually-exclusive land allocation, as is frequently done in the case of wildlife reserves, many parks and primitive/wilderness reserves, watersheds, or related areas. Maintenance of habitat for species of endangered wildlife or flora is a growing area concern. Strategies and policies to efficiently recognize these interests in the allocation of available forest lands and resources directly impact the nature and level of timber-related activities. Where total independence in use is not required, increased restrictions and constraints on forest management for timber purposes can be anticipated. The preservation of forest ecosystems and 'wilderness' areas can be expected to rise on government agendas, reflecting about resource conservation.

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