

Composition of Forest Crops

The Forests: - The forests of Chatra South Division present a spectrum, in which one extreme is pure Sal forests and other extreme is predominantly miscellaneous forests. As we proceed from Hazaribagh towards Chatra, it is almost pure stand of Sal of Simaria. From Barger More onwards, the miscellaneous are conspicuous by their presence.

The Sal Forests: - This belongs to the type Northern dry Sal forests (5BC 1) as per-revises classification of forest-types by champion and Seth. The purity of Sal varies between Sixty to hundred percent. However, forests being natural growth of trees, they defy strict classification and forests of Chatra South area is no exception to this. Many of the Sal forests in this division, particularly of piri Range give an impression of moist Condition. In this area, the height of the trees reaches 70-80 feet with good girth size. Seedling regeneration is also present. Such conditions lead one to assess that these forests lie along the transitional line from northern tropical Moist

Deciduous Forests to Northern Tropical dry Deciduous Forests.

The Sal forests of Chatra South Division can be divided into following local sub-type:-

A) Inferior quality Sal forests or Hill Sal.
B) Inferior quality Sal forests or Hill Sal.
C) Rooted waste of Sal. This type is found mostly in Valleys and on gently sloping ground where the soil is deep and fertile. Almost pure Sal is found extensively in the plain forests of Simaria Range, Pitiz Bast of Chatra Range and parts of Lawalong Range. Crop varies between young sapling to pole state. The average height of crop is 45' to 55' and average diameter is 6". The quality of the crop is generally QIII/Q IV. Common associates of Sal in top canopy, are Asan, Sidha, Pandan, Siris, Kendu, Salai, Dhaura, Jamun. and few others like Bija Sal and Gamhar. The middle storey consists of Mahua, Bauhinia species, Bhelwa, Beri, Dukhkoraiya, and Bori.

The under storey consists of Phuldhawai, Galphulli, The common climbers are Mahulan, Latpalas, and Arar.

Inferior Quality: - This type is found on hills with gentle to steep slopes on northern aspect this type of Sal has height rarely exceeding 10 meters, There is a marked increase in Percentage of miscellaneous. The crop is of open nature. The common associates of Sal are Salai, Kendu, Khair, Sidha, & Rori, Kachnar, Harsingar, Phuldhwai and Bans.

Rooted Waste of Sal:- This type is typically bushy Sal full of stunted coppiced shoots. Indiscriminate grazing, cutting and fire are the main factors for this type. It is impossible to find a single sound pole or tree of any species whatsoever.

Mixed Miscellaneous :- This belongs to the type northern dry miscellaneous forests, the common species are Sidha, Dhauta, Asan, Karam. in comparatively less dry areas. In other areas, the common species are Salai, Sidha, Dhauta, Bel Permi, kendu etc.

The Salai Forests. :- There is no extensive occurrence of Salai in this division. Salai is found generally on southerly aspects, on hill tops and on ridges.

The Khair Forests:- Khair occurs almost over the entire area of the division. The quality of khair in Lawalong, Simaria, and Chatra Range is generally good. Khair trees are being cut illicitly at an alarming rate. The fall of Mahua flowers synchronises with leaf fall in forests. To get a clean floor, for easy collection of Mahua flowers, the villagers lit fire under mahua trees and it spreads over large area, burning the leaf litter, seedling regeneration and young plants. Fire is also deliberately caused by villagers to secure new shoots of grass in grassy localities for purpose of grazing. Sometimes the fires are caused by the careless discard of burning match sticks or biri stubs on foot path passing through the forests.

the evil effects of fire are well known. In the following lines, they are given in short.

Burning of leaf litter and humus means burning of nutrient. The nutrient cycle chain is snapped by fire, resulting in poor nutrient condition of forest soil.

The second most evil effect of fire is on the seepage of water, which ultimately affects the water supply. Due to repeated fire the soil gets baked and a home is lost. Due to this reason., The water absorption quality of soil is reduced, which tells upon sub soil moisture stress, resulting in poor growth and even death.

The micro-organism, so useful to the soil, are killed.

Ground surface is hardened making it difficult for tender root hairs to penetrate into the earth.

Mr. H.H. Haine, in his book " the Botany of Bihar and Orissa "quotes from the district Gazetteer (1917) about the rampant destruction of forests in Hazaribagh. It says,

"Unfortunately no report on the Hazaribag flora can omit the most striking fact about it i.e. its rapid disappearance, the forest is being most wastefully destroyed, and economical interest are becoming extinct. Mutilated stumps are all the remains of many valuable trees like *Dillenia aurea*, *Sterculia Villosa*, Kusum, Paisar, *Dalbergia latifolia*, soymida, and ail entress *excelsa*, where even ten years ago there was considerable Jungle. Whether one considers that it is as from effect on cultivated fields lying below the ruined Jungle on the loss to the villagers of then invaluable forest produce, or merely botanical loss, this is by far the most important fact about vegetation of Hazaribagh. "One has to only visualize the situation, about which Mr.

Hains Laments, after seventy two years and then only the forests appear before eyes, shorn of their primetime glory.

The reason for rampant destruction of forests can be summarized as follows:-

1. The Chatra South Division has about twenty four thousand house holds and they are totally depended on fire wood for heating their hearts. This area, being poorly developed agriculturally has no agricultural waste, worth the name for burning. On a very conservative requirement of 5 Kg. of fuel wood per day, the total annual requirement comes to an staggering 42,000 M.T. of fuel wood, which is turns equal to 140000 cubic meters of firewood.

2. Due to poor agriculture and lack of industrial activity in this area, the poverty is deeply entrenched. to earn an extra rupee, the easiest way is to cut a tree and sell it. Due to sharp increase in the prices of wood, this way of earning an extra buck is quite tempting.

3. Very old, unscientific and unproductive cattle rearing has its own sad story. During monsoon what ever land is available is brought under plough and to protect the crop from hungry, emaciated cattle, the villagers raise wooden fencing. Young Sal and Sidha shoots called kachra in local parlance is used for raising fence. The loss of young crop is on extensive scale. Thus it is not an common to find patches with Mahua trees and no young crop.

Grazing :- This aspect is also man made problem. The hordes of unproductive cattle roam freely in the forests to nibble away any thing that is green Uncontrolled grazing has resulted into conversion of good forests to scrub. Due to grazing, the ground becomes compact, which in turn makes the soil, hard and porosity of soil is lost. Thus the regeneration is very badly effected.

Frost :- Forest damage is not of common occurrence. In 61-62 winter, the damage due to frost was quite heavy in valleys and valley bottoms. in year 88-89 had damaged young's plantation and coppice shoots of sal.

Drought :- During the month of May and June the drought cause considerable damage to young seedlings, both of planted and natural species.

Lantana:- This is the most successful weed which has successfully established it self and in process of its establishment, it has driven out tree species. the incidence of Lantana is index of poor health of forests. when ever there is small opening, it comes to stay. In moist locality, Combretion decandrum is a problematic climber, which chockes the forests.

Utilization of forest produce:-

Agricultural customs and want of the people :- Agriculture is the main occupation of the people living within the boundaries of this division. Mainly santhals, Bhulyans, Birhors, Ganjhus, Goalas, Rajputs, Julahas, Kalals and other constitute the population.

There being little irrigation facilities, the agriculturists have to depend upon rain. Like all other places of Chotoangpur plateau, the main agricultural crop like rice, Maize, Surguja, till rahar, gram, and sugar-cane are grown where conditions are suitable for them.

People often emigrate to adjoining colliery and mica and other industrial area to work as labourers in order to supplement their income.

The forest division provides employment to some extent in activities like road repair, exploitation of coupe, collection of kendu leaves, plantations etc.

Unlike other parts of the Hazaribag district which abound in mineral wealth there are no mines and industries in the chatra civil sub-division. The result, therefore, is that this is the poorest part of the district.

The needs of the population, on the whole are few and simple. Their main requirements are fire-wood, poles and small timber and bamboo for house building and agricultural purposes and grasses and leaves for cattle fodder. There is a good demand for bamboos for basket making industry also. Mahua- corollas along with kend and piar fruits provide the poorer villagers with a substitute for the main food i.e. rice, during summer months of the year.

The need for fencing material is very great in this division because of the fact that all agricultural crops except rice have to be protected from menace of cattle. Therefore, a considerable amount of fencing material is consumed by farmers every year. The people use promising Sal saplings along with some thorny species. Unimaginable wastage can be seen almost everywhere every year. The fencing material used in the previous year is burnt as firewood or used as manure next year. Thus the availability of the produce is being grossly misused.

the following is the list of wooden articles in regular use and the species which are preferred. :-

USES	SPECIES
1	2
1. House Construction :-	
a) Beams & Posts	Sal, Asan, Mahua.
b) Ridge Piece	Sal, Asan, Kend, Sidha.
c) Rafters	Sal, Asan, Kend, Karam, Siha, Dhautha.
d) Door Leaves	Simal, Sal, Mahua, Kusum, Jamun, Paisar.
e) Door frames	Sal, Asan, Karam, Dhautha.
2. Furniture :-	
a) Bed Frames	Sal, Pandan, Karam, Siris.
b) Chairs	Sal, Karam, Paisar, Gamhar.
c) Tables	Sal, Karam, Paisar, Gamhar.
d) Stools	Sal.
3. Agricultural Implements:-	

a) Plough	Sal, Khair.
b) Eis	Sal.
c) Juwath	Gamhar, Salai & Piar.
d) Patta (levelling)	Sal.
e) Latha	Sal and Bamboos.
f) Khambha	SAI, Asan, Parmi, Salai.
g) Bahinga ples	Bamboos, Asan, Dhautha.
h) Tools handles	Bamboos, Dhautha, Sidha.
4. Carts:-	
a) Axles	Pandan, Dhautha, Sal.
b) Wheels	Pandan, Dhautha, Sal.
c) Spokes	Pandan, Dhautha, Sal.
d) Hubs	Pandan.
e) Yokes	Gamhar, Karam, Kend
f) Body Frames	Sal, Dhautha, Bamboos.
5. Miscellaneous : -	
a) Comb	Karam, Paprauntha.
b) Toys	Karam, Gamhar, Dudhkoraiya.

With the coming of state trading organization, there has been some changes in marketing of forest produce. In Chatra South Division the exploitation and marketing of forest produce is being done by chatra south state trading division. All exploited material is brought to the three central depots at chatra, Bagra and Lawalog. From there depots, the forests produce is disposed off either by auction or on depot rates and tram line sleepers to different collieries in Bihar is made from these three central depots and this is a major activity of state trading division.

Quite good number of Turis reside in this division. Most of them are landless and bamboo basket weaving is the main source their livelihood. Bamboo is given to them on nominal rates.

Turis weave basket out of these bamboos and sell them to middle man, who carries the baskets to far off places. Since marketing of bamboo baskets is not done by Turis themselves, they are denied fair price by the middle man. efforts should be made to encourage the Turis to form a co-operative so that they can under take marketing also. This will help them to increase their income.

Kendu Leaves and Other Minor Forests Produce:- Collection of kendu leaves and other minor forest produce like sal seeds, Harra, Aonla, Bahera, Mahulan, Leaves and their marketing is done by the Bihar Forest Development Corporation.

Current Prices of Forest Produce: - Since the coming of state Trading organisatin, Practice of selling forest produce from coupe has been abolished. Now, all sales are made in depots. Central depot rates are fixed by chief conservator of Forests State Trading Bihar each year and the forests produce are sold on this rate, the rates are as follows:-