

CHAPTER II

Description of the forests

Composition and condition of the crop

1.2.1 Forests of this division fall under the following classification as given by champion and Seth in "A Revised Survey of the forest types of India".

- i) Dry peninsular Sal Forest 5B/C(O)
- ii) Northern dry mixed deciduous forest 5B/C2
- iii) Dry deciduous scrub 5B/DSI

1.2.2 Dry Peninsular Sal Forest

This type mostly occurs in the plains and lower reaches as well as sheltered depressions in hilly areas. Sal is practically pure in the plains except where it has been ousted partly or wholly due to continued selective felling and grazing.

1.2.3 Condition of the crop

Condition of the crop shows all round deterioration. In most of the Sal areas the crop is not allowed to grow beyond the pole stage due to continuous hacking. Crop at places do not also grow beyond the bushy stage. Excessive grazing and fire are also the causes of such condition. Sheltered valley bottoms contain stems of 8" to 10" diameter. General crop diameter is 4" to 6". Density of the crop varies from 0.4 to 0.6 with large blanks scattered here and there.

1.2.4 Coppicing vigor is good, but the shoots are generally failing to grow in the face of persist ant felling and hacking.

1.2.5 Main associates of Sal are Terninalia tomentosa, Diospyros melanoxylon, Buchnania lanzon, Anogelssus latifolia, Madhuca indica, Lannea Coromondolica, Lagerstromia parviflora, Adina cordifolia, Semuda febrifuqa etc.

1.2.6 The shrub associate in dry and eroded areas is Casearia tomentosa, Woodfordia fruticosa, with thorny bushes of Gardenia, Randia, Flacourtia, Carissa and Zyzyphus. Croton oblongifolius, Holarrhena antidysentrica, Wedlandia tintoria, are found on moisture sites.

1.2.7 Hetropogon Contortus, is the main grass.

1.2.8 Northern Dry Mixed Deciduous Forests:

This type generally occurs on the upper reaches of the hills, which carry Anogeissus latifolia and Boswellia Serrata with the usual associates like Terminalia tomentosa, Lagerstromia parviflora, Lannea coromodilica, Madhuca indica, Acacia Catechu. In the upper reaches bamboo occurs in localized patches in some of the areas. The incidence of Boswellia Serrata increased on the higher slopes. Aegle marnelos is also met with.

1.2.9 Condition of regeneration in most of the places is unsatisfactory and blanks are increasing Average density of the crop is 0.2 to 0.4.

1.2.10 Dry deciduous shrub

This occurs on dry eroded sites which have suffered so much in the past that tree species have almost been vanished, and only the thorny ones have been able to hold the ground. Gardenia gummifera, Randia dumetorum, Acacia Catechu, Zyzyphus, Carissa, Holarrhena are present. Khair is also seen increasing number.

1.2.11 No bamboo crop is seen only the culms are met in the old bamboo areas.

1.2.12 Khair:

Khair is present in some areas of Dumdumi, Mohandih, Dubrajpur, Debipur, Baghayathar felling series.

1.2.13 Salai:

Salai are very few. Present only in mixed forests. Regeneration of salai is very poor. Mostly it is found on hill tops.

1.2.14 Climbers:

Butea superb, Bauhinia vahlii, Acasia pinnata, Asparaqus racemosus, Combretum decandrum. Climbere are present.

1.2.15 Plantations:

Most of the plantation works taken up are of Acasia species. Acasia are found in Durgapur, Dubrajpur, Domohani, Gaisara, Devipur and Sonahara felling series.

1.2.16 Injuries to which the crop is liable:

In spite of the good coppicing vigor of Sal the existing Sal forest is getting poorer year by year. The factors those are operating severely against the conservation of the forest are mentioned below in the order of severity:

- i) Felling and hacking
- ii) Grazing.
- iii) Fire.
- iv) Soil erosion.

The lack of protection of the forest has resulted in such degradation. The pressure of population on the forest is very heavy. The abuse of privilege granted to the public for removal of dry and fallen wood on head loads is worth mentioning. There forests are too poor to shed enough dry twigs and branches to be removed by the head-loaders in a bonafide way. What they actually do, is to hack the green saplings, allow it to dry, for some days, and subsequently remove it. Though Sal, which us the common

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1.2.4 Coppicing vigour is good, but the shoots are generally failing to grow in the face of persistent felling and hacking.

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The lack of protection of the forest has resulted in such degradation. The pressure of population on the forest is very heavy. The abuse of privilege granted to the public for removal of dry and fallen wood on headloads is worth mentioning. These forests are too poor to shed enough dry twigs and branches to be removed by the head-loaders in a bonafide way. What they actually do, is to hack the green saplings, allow it to dry, for some days, and subsequently remove it. Though Sal, which is the common species in the Division is capable of yielding vigorous coppice shoots, they have little prospect against large scale hacking. In fact, most of the areas are not allowed to put on even on season of growth. Thus coppice areas are failing to show up. The failure of coppice is so wide spread that in the last Plan hardly 16 felling series were left with some produce that could yield. The present stock mapping shows even poorer crop leaving not a single felling series to be prescribed for productive felling. Since the head-loaders are mostly women the forest staffs fear and do not arrest them on account of political overtones Sal twigs and leaves are also in great demand in and around the locality even upto Patna for use as datwans and dona pattals. This trade is highly detrimental on the

regeneration of sal. The grazing stock is thus dwindling fast and the coppiced areas are not allowed to show up.

1.2.17 Grazing is enormously high and much beyond the grazing capacity of the forest. Cattle and goats damage the young plants directly by grazing and browsing. The buds, young leaves and succulent twigs are preferred by these animals as a result of which the plant is not allowed to come up. Even if it comes up, the leading shoot is lost and the plants get stunted and bushy. Intensive grazing render the ground more compact.

 Fallen leaves, twigs and grasses on the soil are constantly being used by the cattle which deprives the soil of the formation of humus. Soil fertility and porosity get lost in the process. Moisture retention capacity of the soil also become very low year to year rendering the land ultimately denuded.

1.2.18 Fire is the most potent source of destruction of regenerated crops. Fire sweeps the forest atleast once in a year and at times twice. Fire engulfs all the young regenerated shoots thereby suppressing the growth of water storeys as well as the main crop. Firelines are not maintained and attention to fire protection is almost nil. Since the soil is mostly rocky and has become almost barren so the carbon and minerals deposited by the burning of leaves and twigs are swept away in the forest rain adding nothing to the nutrients of the soil. Fire in addition to regular grazing also suppress the growth of grass resulting in loss of grazing potential gradually. Forest fires are most caused by human beings. Smoking habit of the firewood cutters and application of fire for mahua flowers collection are the main caused of forest fire.

1.2.19 Soil erosion

 This has proved to be a great danger to the conservation of the forest in Deoghar Division. Almost 90% of the total area suffer from erosion. Erosion is mostly of two types, sheet erosion and gully erosion. Gullies upto depth of 10' has been recorded during stock mapping. Due to sheet erosion entire upper soil gets washed away. Humus is rarely met with on the forest soil. However, whatever nutrients and minerals are fed to the soil by the crop and the carbon cycle and nitrogen cycle in the environment most of it gets washed away with the top soil.

Due to loss of soil fertility the general crop condition is very poor. Some soil conservation measures have been taken up during the last period of the working plan. Attention has been paid only for replanting the area. Average success of plantation has been achieved. Plantation of *Acacia auriculiformis* has been generally done. Except plantation other adequate soil conservation measures have not been taken up, due to which depth of gullies are increasing, and continuing sheet erosion result ultimately in exposing the rocks, under the soil, thus rendering the area unfit for plantation.

CHAPTER – III
Utilisation of Produce

1.3.1 Agricultural Customs

Since the area is industrially poor, the main occupation of the people is agriculture. Traditional method of ploughing is in vogue in this district. Country ploughs and bullock carts are in operation. As the land is mostly undulating, main crops of Kharif and maize. Upland cultivation is done at places. Tendency of growing more rabi crops is gradually on the increase. Irrigation facilities are poor and hence provision of employment all the year round by agricultural occupation is not possible. Labourers have to depend on other source of income in the lean seasons. Unemployed and marginally employed labourers are more in the district. Removal of timber from the forest and selling it in the local market has become the easiest source of livelihood.

1.3.2 Wants of the population

Main demands of the people are firewood, house building timber, agricultural implements, and small requirements of Datwan and leaves for Dona pattals. The list of common requirements are given below:

Articles

I. Agricultural implements	Species preferred	Corresponding girth in cms (overbark)
Ploughs	Sal, Mahua & Khair	90.00
Axe-handles	Dhaw	60.75
Latha	Sal	60.00
Khamba	Doka (Lannea)	90.00
II. Housing		
Ridge pieces	Sal, Asan	60.75
Posts	Sal, Asan, Sidha	60.90
Bafters	Kend, Mahua	40.60

Chawkhats	Sal, Mahua, Karam	90.15
Doorleaves	Sal, Karam, Bija, Kathal	20.18
III. Furnitures	Sal, Karam, Gamhar, Bija	60.15
IV. Cart	Sal, Dhaw, Karam	45.12
V. Fuel	All species	-
VI. Datwan	Sal twigs	-
VII. Dona Pattal	Sal Leaves	-

1.3.3 Market and Marketable Products

The forest of this Division is deficient in meeting the local requirements of sawn timber, large sized poles and even ploughs for which the people have to depend on bigger hats and depots fed from outside e.g. Barhat, Deoghar, Gangta, Madhupur etc. Which is fed from the forests of Dumka and Monghyr and other timber yielding areas in the State and even outside the state.

1.3.4 Firewood and small sized timber is sold in local hats, the former as headloads or bhangi loads.

1.3.5 Kendu leaf is the most important minor forest produce. Of late it has become a rich source of revenue. Government have nationalized the trade since January, 1973. The plucking season is from April to June.

1.3.6 Other common items of minor forest produce are donas and pattals made up of leaves and flowers and seeds of Mahua.

1.3.7 Lines of Export

Since the forests are deficient little is exported outside the Division except Kendu leaves. The network of P.W.D. roads, fed by kachha and morrum roads serve the area quite satisfactorily, except the forests lying between suiya and Simultala. The main rail heads are Jasidih, Madhupur, Karmatanr which export little forest produce except pattals and twigs for datwan.

1.3.8 Method of Exploitation

In the right burdened forests, right holders coupes were first handed over to the village panchayats for distribution of the forest produce among the right holders. The surplus, left were sold by auction in the succeeding year. Forest produce is mostly removed on heads or carts. Since the quality of the forest is very poor very less number of coupes have been proposed in this working plan.

1.3.9 Current prices

The current rate of different labourers fixed by the department is mentioned in the Appendix. Simultaneously the prevailing market rates are also listed in the same Appendix.