

CHAPTER VI

FORESTS

The forests of the Koraput district are all owned by the Maharaja of Jeypore, with the exception of some comparatively insignificant areas belonging to mokhasadars and inamdars, who are tenure-holders under the Maharaja. In some cases, as in that of the large Ambodala mokhasa in the Bissamkatak taluk, these proprietors have surrendered by agreement the control over the forests in their estates to the Maharaja. The Madras Forest Act of 1882 is in force, and under it the Maharaja's agents are empowered to prosecute persons offending against the Act and the Rules framed thereunder. This power has not been extended to any of the minor proprietors.

GENERAL
DESCRIPTION

At present an area of 1,544.53 square miles has been classified as 'reserved lands' and 100.61 square miles as 'protected lands'. Thus 16½ per cent of the total area of the district is now protected by law against disafforestation. Of the total area reserved and protected 1,393.67 square miles lie in the Koraput subdivision and only 251.47 square miles in the Rayaghada subdivision. Nowrangpur, Jeypore and Malkanagiri are the most heavily afforested taluks, though there are extensive tracts of forest still unreserved in all the three taluks of the Rayaghada subdivision. Koraput and Pottangi are relatively bare of forest growth.

No detailed description of the Jeypore forests has ever been published, nor has any botanical survey been carried out. The following notes are extracted from a report by Mr. J. W. Nicholson, I.F.S., Conservator of Forests, Orissa, who visited the district in May 1937:—

'The forest on the 2,000-foot plateau is typically *sal* of a moist peninsular type, the average quality being III. A few patches of teak occur locally. The whole crop was at one time under shifting cultivation and the forests now comprise pole crops in various stages of growth. Large trees are scarce. These forests are those of the most economic importance.

'In the north of the Malkanagiri taluk there is *sal* forest mainly of quality III but equalling II in places. It is very remote from any market. The *sal* disappears about 14 miles north of Malkanagiri, giving way to forest of a dry mixed type. Teak occurs in patches. The forests are usually very open and grassy and economically are of little value except for their excellent grazing. The hill ranges which occur on this plateau support dry mixed forest with bamboos, which find a market at Rajahmundry, whither they are floated down the Sabari and the Godavari.

'The taluks of Koraput and Pottangi are on an undulating plateau averaging 3,000 feet above sea level, and containing peaks above 5,000 feet in height. Above 4,000 feet there is little forest growth, uncultivated grass lands being the usual vegetation. Below 4,000 feet the vegetation is typically forest wherever the population is scanty.

In the more densely populated areas, as in the hills to the south of Koraput, repeated shifting cultivation over a long period of years has reduced the forest to an open scrub type or barren soil. The existing forests have all been under shifting cultivation. They contain deciduous species such as *dhaura*, *sahaj*, *kerla*, *bija*, *toon*, *simul*, etc., which occur elsewhere in Orissa, mixed with representatives of the Southern India flora. A curious feature of the deciduous species is that they lose leaves in the hot weather for a very short period. The probability is that these hills originally supported a sub-tropical evergreen type of forest which has been largely replaced, through repeated burning, by species typical of drier zones. Bamboos are common locally but they are of poor quality and they probably obtained a footing only as a result of shifting cultivation. The forests in these ranges are of great climatic importance. They will never be of great economic importance for timber supply unless by natural or artificial means the percentage of valuable species can be increased.

In the Rayaghada subdivision the main geographical features are the low-lying valleys of the Vamsadhara and Nagavali rivers and the high hills, rising up to nearly 5,000 feet, which flank them. In the hills and valleys of the Vamsadhara basin, especially along the upper reaches, *sal* is the dominant species. The forests are of potential economic importance but owing to shifting cultivation large *sal* trees and pole crops are at present scarce. In the Nagavali basin, except along higher reaches on the left bank, *sal* is very rare and the forest is mainly of the semi-deciduous type found in the central plateau which adjoins the hills along the right bank.

'The most interesting feature of the Jeypore forest flora is the distribution of *sal*. Over practically the whole of Orissa *sal* forest is dominant on any soil which suits its growth. In Jeypore there are large tracts, e.g., the Koraput plateau, where the climate and soil is suitable for *sal* but the latter is not found. In Malkanagiri the *sal* stops at about the same southerly point as it does in the adjoining Bastar State. It is of quite good quality where it ceases and, as there is no apparent change in climate or soil, it would appear that the great Indian *sal* belt is here advancing gradually southwards and south-westwards. The rarity of *sal* in the Nagavali valley can also be explained on the theory that the *sal* belt was advancing from the north-east until shifting cultivation, through its destruction of most seed trees, checked further progress. The absence of *sal* on the central plateau can be imputed to the fact that if the forests were once of a damper more evergreen character conditions would have been unfavourable to the establishment of *sal*.'

The Madras Forest Act was extended to the Jeypore estate in 1891, when it was under the management of the Court of Wards. Reservation began in earnest in 1900. By 1907 an area of 324 square miles had been reserved. Since then steady progress has been made year by year and the total area now reserved or protected is 1,645.14 square miles. The largest single reserved area is the Kondakamberu block in the Malkanagiri taluk, which extends over 133 square miles. Next come the Behada reserve in the Nowrangpur taluk and the Dharamgad reserve in the Jeypore and Malkanagiri taluks, with 111.50 square miles and 94 square miles respectively. The work of reservation is by no means complete, and indeed it has not yet begun in the Bissamkatak taluk or in the portion of the Pottangi taluk that was formerly included in the Pachipenta estate. An area of some 400 square miles has been proposed for reservation and at least an equal additional area is suitable for it. Eventually an area of 2,500 square miles should be reserved or protected.

The forests are administered under the Jeypore Forest Rules framed under section 26 of the Madras Forest Act. The Chief Forest Officer is empowered to institute prosecutions and, with the permission of a Taluk Magistrate, to compound offences. Officials of the department have been empowered to seize forest-produce which is the subject of a suspected offence. The whole administration is under the general control of the Agent to the Governor.

None of the forests in the estate have been declared 'reserved forests' under section 16 of the Madras Forest Act and for this reason the use of the term has been avoided in this chapter. Section 26 of the Madras Forest Act allows the Government to make rules for the administration of forests standing on land that has not been included in reserved forest and it is under this section that the forests in the district are administered. The elaborate preliminaries of a regular forest settlement need not be gone through before these rules are applied. But on the other hand the application of the rules does not act as a legal bar to the accrual of new rights in the forests, and the penalty for infringement of the rules is lighter than that prescribed for acts prohibited in 'reserved forest'.

Land at the disposal of the estate (which excludes raiyati and communal lands) has been divided under the rules into three classes, namely 'reserved land', 'protected land' and 'unreserved land'. Declaration of land as 'reserved' requires official notification by the Government. As a preliminary the Special Assistant Agent is required to inspect the proposed block and to satisfy himself that sufficient forest has been excluded to meet the domestic needs of the inhabitants of adjacent villages, and for shifting cultivation by members of the hill tribes. The proposals are then scrutinized by the Conservator of Forests from a technical point of view before submission to the Government for final sanction.

The Agent to the Governor is empowered to notify lands to be 'protected'. Protection is only resorted to in areas where,

owing to the absence of extensive forest, reservation would cause hardship to the local inhabitants. Its object is to protect existing forest growth from shifting cultivation, its worst enemy. Protected forests are conserved solely for the use of the neighbouring villagers, and are not designed for exploitation by the estate. Except that shifting cultivation is prohibited there are no more restrictions than there are upon unreserved lands.

The constitution of protected lands began in 1916. It has been found in some cases that the measure of protection given is not enough to save the forests from rapid deterioration, and the Agent has been empowered to prohibit grazing or the removal of produce from these forests. These powers have usually only been exercised by imposing temporary prohibitions for periods up to five years.

These forests are guarded by officials of the forest department of the estate. No experiments have yet been tried in placing them under the control of the villagers, but the latter have recently in not a few cases themselves taken the initiative in protecting small areas of unreserved land where firewood is scarce. A few of the mokhasadars also make some attempt to conserve their forests, but without legal sanction not much can be done.

RIGHTS AND CONCESSIONS

In unreserved land villagers are allowed to graze and remove forest-produce for their domestic needs without payment. Twenty-four species of trees have however been declared to be 'reserved' and four species to be 'prohibited'. Members of backward tribes are allowed certain concessions which are denied to the more advanced inhabitants of the district. These tribesmen are described as 'privilege-holders', and forty-three tribes in the district have been notified as such. They are allowed, provided they obtain specific permission beforehand, to fell trees, including reserved species below two feet in girth, for their domestic needs. In protected lands *podu* cultivation is prohibited, but all the other concessions allowed in 'unreserved' land are in force.

Inhabitants of the district are given general concessions in regard to timber and grazing in reserved lands. Timber is sold at two-thirds the rates fixed for export purposes. The grazing rates are abnormally low, being two annas for a bullock or buffalo per annum, one anna for a calf and one and a half annas for goats. The hill tribes are also given the right, except in a few small blocks where the game is preserved for the Maharaja's shooting, to hold beats for game in reserved lands during the Chaitra festival. Fishing concessions within reserved lands are also accorded to these tribes.

Cultivators belonging to tribes not notified as privilege-holders are permitted to remove wood of reserved species for their domestic requirements on payment of an annual composition fee, which is known as 'plough tax' or 'nongol panno', varying from annas 4 to Re. 1 a year according to locality. In certain ranges where the privilege-holders require trees of a larger girth than the permitted two feet for making their

ploughs they are also required to pay a fee, but at a lower rate than the non-privilege-holders. This composition fee is unpopular, both among privilege-holders and others. But the concessions allowed to villagers, and especially to those of the hill tribes, are much more generous than in other zamindaris of Orissa.

For purposes of forest administration the district is divided into two divisions, which coincide with the Government administrative subdivisions. The Koraput subdivision, which contains eleven forest ranges as well as a twelfth in the Madras Presidency, is under the Chief Forest Officer with headquarters at Jeypore. The Rayaghada subdivision, consisting of five forest ranges, is under a Divisional Forest Officer at Rayaghada. The subordinate staff of rangers and foresters are practically all untrained.

The cost of maintenance of the forests is approximately a lakh and a half, of which a lakh represents pay of establishment and the remainder is expenditure on conservancy and works. The yearly revenue is approximately four lakhs, the main heads being—

	Rs.
Timber—	
(1) On contracts	1,10,000
(2) On permits	75,000
Minor forest-produce—	
(1) On contracts	50,000
(2) On permits	15,000

A sum of Rs. 23,000 is realized from plough tax and this has been included above in the figure for receipts from timber on permits.

There are four main timber leases, of which the most important is that given to Messrs. H. Dear & Co., for the extraction of sleepers in *sal* forests in the Nowrangpur, Jeypore and Malkanagiri taluks for a period of twenty-five years from 1922. During 1935-36 this Company extracted 74,304 broad-gauge sleepers, 29,477 metre gauge sleepers and 130,796 cubic feet of specials. A four years' lease was granted in 1936 to Mr. H. Tulloch for the Bissamkatak and Gudari ranges, a five years' lease from 1937 to the Bengal Timber Trading Company in the Rayaghada and Gunupur ranges, and a ten years' lease from 1937 (in renewal of a previously existing lease) to Sri D. Venkataramayya for Malkanagiri, Motu and Ramagiri ranges.

Myrobalans, tamarind fruits and lac are the main items of minor forest-produce. In 1935-36 myrobalans yielded a revenue of Rs. 14,900 and tamarind Rs. 34,000. Lac is cultivated in the Pannabeda Muttah in the north-east of the Nowrangpur taluk, the *kusum* tree being used as the host. Cultivation is not done on a large scale, and is attended with difficulties, as there is a market for the crop in the Raipur district just over the river Tel, and unless it is carefully guarded it is smuggled out of the estate without payment of royalty.

MANAGEMENT

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It cannot be said that the Jeypore forests are scientifically managed. Silviculture and working plans are almost non-existent. The staff, who are for the most part without technical training, are preoccupied in guarding the forests against destruction by the hillmen, who have for centuries been accustomed to consider themselves entitled to do as they liked with all forest growth. No attempts have been made to improve the existing crops. It can indeed be said that the economic exploitation of the Jeypore forests has scarcely begun. But there is cause for satisfaction with the results of forty years' enforcement of the Forest Act. Very extensive areas of forest have had a rest from the continuous depredations to which they were formerly subjected and natural regeneration has had a chance. The work that has been done is without doubt of inestimable importance to the extensive deltaic tracts in the East and West Godavari districts which depend to such an extent on Koraput for their summer water-supply. Much still remains to be done in the way of further reservation as well as for the improvement of existing forests. In broken and mountainous country like Koraput it is unsafe to allow the area under forest to drop below 25 per cent of the whole at the minimum. National interests require that the present 16½ per cent of protected land be raised to the necessary 25 per cent. Reservation is still being steadily pushed on and it may be anticipated that the desired figure will be attained within another fifteen or twenty years.

SHIFTING
CULTIVATION

Shifting cultivation, which is known in the district as *podu* or *dongara* cultivation, has done incalculable damage to forest growth in the past and is still the most serious problem of forest administration. Even at the present day it is a practice which the authorities can only aim at controlling and not at suppressing. As early as 1872 Mr. H. G. Turner, then Special Assistant Agent, brought to notice the destruction that was being caused by the hillmen's reckless habits. He wrote: 'I can myself call to mind a score of hills that have been completely cleared of forest within five years. I have hunted bison in rough jungles that have now no vestige of existence. Old men point to country where there is now not a copse large enough to hide a *sambhur* for hundreds of square miles and tell me that, in their youth, that land was covered with jungle. When civilization pushes back the wilder members of the hill tribes into the yet unconquered jungle, they commence upon it by felling and burning virgin forest on the side of the hills. One would imagine that they would attack the fertile valleys in the first instance. But these pioneers of civilization are generally without ploughs and they cannot keep down the grass with their hoes. The hill-felling will continue until every acre within the village bounds has been exhausted, and it is not till then that the raiyat will begin to manure his low-lying lands. Nor will the hillside be ever suffered to regain its lost function of supplying water for the country round about it; for, when its wood is nearly large enough to become of use in this way, some poor and lazy raiyat will be attracted by the prospect of an easily raised crop, and will destroy the young jungle again. It is not easy to assess the

enormous loss that the raiyat entails on himself by these operations, for he grows his rice in terraces hollowed out of the water courses that spring from the bottom of the slopes of these hills. Within my own circle of observation, I can point to one or two villages where some five years ago two crops were raised, but where there is now no water for the second.

The administrative experience of three-quarters of a century shows that Mr. Turner, who at that time could only look back upon eight or nine years of Agency administration, has exaggerated the rapidity with which forest destruction is affecting the climate and appearance of the Koraput country. Though *podu* cultivation is by no means extinct the 3,000-foot plateau is still well watered and summer crops of rice are grown in nearly every village. Nor, it seems, has the appearance of the plateau greatly changed within the last sixty or seventy years. Early reports show that when Koraput was chosen in 1870 as headquarters for the administration the country round it was completely bare of tree growth, as it is now. It seems likely that the transition from evergreen jungle to the bare hill slopes that are now to be seen was spread over centuries rather than decades. Colonel Beddome, a former Chief Conservator of Forests in Madras, thus described the process as it is seen on the 3,000-foot plateau: 'The burning is (at first at least) very superficial and the stumps, or a greater portion of them, at once begin to grow again; and when the cultivation is abandoned, which it generally is after two years, the forest soon begins to recover itself. The evergreen trees suffer more than the others and these are more or less absent at first and for some years rank grass and much thorn and coarse undergrowth hold sway and fires periodically sweep through and it is not till the growth arrives at an age of some twenty years or more that there is any chance of much humus being added to the surface soil and then fires are soon excluded, seedlings have a chance and shortly afterwards rattans and tree ferns appear. The evergreen trees increase in number and the undergrowth quite changes its character When a tract is allowed forty or fifty years to recover, it appears to return almost to its pristine vigour and form, and many seedling trees in time make way; and unless the base of the older trees be observed, a forester even might be deceived, and fancy that he was in a virgin forest. It is, however, only in a few tracts, chiefly on the eastern and western *ghats* of the plateau where the hills form chaos, that the forests are allowed a rest of any long duration. About the more accessible and less densely-forested portions they are felled over every eight, ten or fifteen years and never have a chance of recovering. They have a wretched, stunted appearance, are very dry and more or less impenetrable from a tangled rank undergrowth and there are no seedlings; nothing, in fact, but the coppice growth, generally of only the quicker-growing but poorer sorts of timber.'

The prevention and control of *podu* cultivation have for many years been among the chief preoccupations of Agency officers. Education and continuous propaganda have effected something, the reservation of forests and the prosecution of

offenders a good deal more, but the practice still persists and it seems impossible at present to find any means of abolishing it without arousing the greatest discontent among the hill tribes. The most primitive tribes are the worst addicts, and as these inhabit the remotest parts of the district control of the practice is especially difficult. The forests that are suffering on the most extensive scale at present from shifting cultivation are probably those of the Puttasinghi hills in the Gunupur taluk, where the hill Savaras live, and those in the country of the Bonda Porojas in north-eastern Malkanagiri. The Savaras have on several occasions recently burned down and cultivated hill slopes within reserved lands in defiance of prohibition. The policy hitherto adopted in dealing with *podu* cultivation has been to permit each family of hillmen to fell a reasonable extent of unreserved forest, which varies with circumstances, for this purpose on payment of an assessment of an anna or two an acre. But all cases of such cultivation without permission are dealt with under the law by prosecution or levying a compounding fee. The system cannot be said to work well and it is the exception rather than the rule for a hillman to apply for permission. Applications have to be presented in writing and necessarily the passing of orders take some time. The hillman scorns such formalities and generally cuts down the portion of jungle which attracts him most without a thought of asking for permission. A better policy would be to set aside in each village a certain limited area within which *podu* cultivation will be permitted and to prohibit it rigidly elsewhere. But it will not be possible to initiate this until a forest survey of the whole estate, with a demarcation of all reserved and protected lands, has been completed.