

Chapter 5

Misuse of Forest - Crime and Punishments

Using something beyond the socially or legally preset barriers may be considered as its misuse. Until something is viewed as improper, being detrimental to the interest of the society as a whole or restricted with the effects of a promulgated law either explicitly or implicitly, that may not be called as misuse. Such acts or practices shall rather be considered for the time being as ‘use’ and not as ‘misuse’. Collection of forest produce, grazing of cattle, extermination of wild carnivores and even shifting cultivation in an era of underdeveloped tools to clear up the land; all such acts in historical perspectives were once felt to be essential for sustenance of the human race and could not be branded as ‘misuse’ in any sense as those were later on portrayed after the British, with their superlative legislative skill started making laws over the subjects, primarily for their own imperial objectives.

Before the British annexation, forest resources were abundant at least in the hilly terrains of south Odisha in contrast to the need of the people, sparsely inhabiting in the areas. In absence of communication or logistic, its density was well maintained by nature until the same was subject to mass scale harnessing by the British themselves for different purposes or for getting revenue out of the normal practices of the tribals like grazing, fishing or collection of firewood. All such acts were rapidly covered under the restrictive covenants under the garb of protection, conservation and management of forest resources and manifested in the form of different statutes on the relevant subjects of forest, wildlife and minerals. The concept of ‘misuse’ was an outcome of such legal provisions which emerged with its associated terms like legal prosecution for violation of a set of formulated laws.

Paleo-botanical evidences amply testify that the geographical spread of India had a dense cover of forests some 250 million years ago. A large portion of the subcontinent was covered with thick forests teeming with wildlife. The Dravidians and later the Aryans cleared the forests and built shelters for themselves. The history of forest legislation in India commenced with the Aryans. They developed a reasonable perception of the value of the forests to mankind and felt the need to conserve them. The protection of forests became a moral and religious duty of the people. During the reign of Emperor Chandragupta Maurya there was a well-established forest administration with a

Superintendent of Forests appointed for that purpose. Certain Acts such as the unauthorised killing of elephants were banned. In the reign of Asoka, the administration took up additional responsibilities for raising trees and to protect forests. Several restrictions were also placed on acts such as felling of trees and hunting of wild animals in specified forest areas. This indicates the level of awareness that existed even at that time about the need of protection of forests through adequate legislation.¹

The chronicles of Meghasthenes, Fa-Hien, Hiuen-Tsang and I-tsing reveal the presence of protected imperial forests in the Indo-Gangetic plains. Right from Asoka's times, the policy of plantation of trees at avenues and beside the roads, protection of animals and forests have been pursued by a long line of rulers, emperors and chieftains, until Sher Shah's times and even then, up to the 16th and 17th centuries. Indiscriminate cutting of forests and mass hunting of animals for sports began with the fall of the Mughal rule due to lack of a strong central power. The British plundered the forests for teak wood for their Navy and merchant ships and valuable wood for railway sleepers. But when it was realized that the destruction of forests was detrimental to the Imperial British rule, there raised a consciousness and need to work on the forest resources on a scientific basis.²

Indian teak has been found in ancient Babylon and Nineveh ruins. The entire Arabian Peninsula used Malabar teak for building materials and even the Arabian *Dhows* used to be constructed with hard wood from Western *Ghāts*. The Portuguese also used Indian teak to repair their ships. The East India Company and the British Indian Government exploited the valuable timber from Indian forests, for commercial purposes and for building of ships. On 10th November 1806, the Madras Government appointed Captain Watson from Police department as the first 'Conservator of Forests' for preserving forests and to ensure supply of good quality teak to the British Admiralty. But the tribals felt aggrieved with this as against their rights of free access to the forests and amidst disputes, the post was discontinued in 1822. Instead, Teak plantations were set up by the British on the Malabar Coast and by 1888, over 3500 acre of prime teak plantation was grown under professional forest management techniques.³

In early times the plains of Ghumsar were marshes, extending as far as the line of low hills on the coast. The Ghumsar forests were situated in the Ghumsar and Soradā *Zamīndāri* States, at the time of British occupation of India. The first expedition against the Ghumsar *Rājās* was launched by the French troops led by Conte de Bussy in 1757. He had difficulties with the bamboos which, it appears, covered densely in the plains. In 1766, the British ousted the French and settled down in Gañjām town, at the mouth of river

Rushikulyā, to trade and to extract tribute.⁴ There followed a succession of inconclusive expeditions against Ghumsar and the other *Zamindāri* Estates who seemed to be tiresome about the remittance of tributes. In 1832 an expedition was led by Mr. Russell, the then Commissioner of the Board of Revenue who founded the Russellkoṇḍā town. Ghumsar and the adjoining Soradā *Zamindāris* were annexed by the British in 1836. Mr. Russell gave an account of the forests of Ghumsar. The bamboos covered the low country and the *Dāmmar* tree (*Sāl*) grew everywhere. The tree in some places grew to a great size, had very small branches and few leaves and the ground beneath was almost free from undergrowth and brambles.⁵

Before 1851 nothing very definite seems to have been written regarding the forests. Between 1851 and 1863 the authorities were content with turning the forests to profit by leasing them to sleeper contractors. In 1861, a forest tax was imposed. In 1863 a report shows that the forests had already been denuded of good large timber. Mr. Gamble reported on the district in 1884 and laid the foundations of proper management of forests. Up to 1900 however extraction of sleepers was permitted unhampered by silvicultural rules, and immediate profit was the main consideration. Up to 1907 the greater part of the forest appears to have been burnt over during most hot weathers. Under the permit system the forests had been for many years at the mercy of the timber and fuel dealers. The hill forests being less accessible had suffered less than the plain forests.⁶

5.1 Forest Policy in Retrospect

As soon as the East India Company acquired political control over South India by the end of the 18th century, attempts were made to explore forests for timber as it was then required for shipbuilding. From 1830 onwards, regular reference on timber trees was reported to the Government. Some military officers were specially deployed to undertake the task. In 1848, Captain J. Michel of the Madras Native Infantry was deputed for eight months to investigate the condition of the Teak forests.⁷ In 1852, Captain Rundal extensively toured in the forests of the Eastern *Ghāts* and reported upon the indiscriminate exploitation of forests by fuel wood contractors.⁸ After the report, Hugh Cleghorn, the First Conservator of Forests of south India toured the same location of the Eastern *Ghāts*.⁹ These explorative expeditions provided ample knowledge on the forests of the area and their constituents. By 1850, most of the forests were explored. The need of the forest resources was further augmented because of the introduction of the Railways in 1854 and its massive timber requirements. With the introduction of railways in India, the exploitation of the forests began on a large scale. The year 1855 was the beginning of a

systematic forest policy. The then Governor General, Lord Dalhousie issued a memorandum of the Government of India dated 3rd August 1855, which was known as the Charter of Indian Forests. In 1856, Dietrich Brandis was appointed as the first Inspector-General of Forests by the Government. It was under his guidance that the Forest Department was organized, and the Forest Act was enacted. To regulate forest management, preservation and exploitation of the forests the Indian Forest Act, 1865 was promulgated. For the first time an attempt was made to regulate the collection of the forest produce by forest dwellers. Basically, it was an attempt to regulate the practices of the local people under the force of law.¹⁰ To curtail the shortcomings of IFA 1865, another Act was passed in 1878 which empowered the government to acquire land over which rights were claimed by private individuals.

Forest products had typically been divided into two main categories viz. timber and non-timber forest products or NTFPs. The timber category usually included sawn wood, pulp, panel boards and other building materials. The NTFP category included everything collected mostly for food, through a range of medicinal plants, resins, wax and essential oils for their chemical components, Fibres such as bamboos and others used for weaving and structural application.¹¹

The IFA, 1878 was aimed at increasing the control of the government over the forests. Under this Act the forests were divided into Reserved, Protected and Village forests. The people were required to record their claims over land and forest produce in the proposed RF and PFs. The practice of trespass and pasturing of cattle were prohibited. A duty on timber was imposed. Certain acts were declared as forest offences and appropriate punishment was prescribed under that Act.¹² The Madras Presidency refused to implement the Act of 1865 on the plea that the rights of the villagers over wastelands and jungles were considered important as the Board of Revenue held.

The Madras Government appreciated the need to have a forest act for scientific and effective management of forests and moved forward to pass its own Forest Act of 1882. The MFA 1882 was extended to the Jeypore estate *vide* the Government Notification No. 268 dated 23.06.1891 on the application of the guardian to the minor *Rājā* of Jeypore as it was then under the management of the Court of Wards.¹³ Then the *Rājā* of Jeypore under the provision of the section 26, 32 and 35 of the MFA framed rules from time to time to regulate the access to the forests as well as use of specified forest produce. The Jeypore Forest and Wasteland Rules were consolidated and notified *vide* the Government of Madras Notification No. 433, dated 13.11.1895.

The said rules prescribed for the creation of RFs and unreserved lands out of the forests and wastelands at the disposal of the Estate. The rules also provided for the establishment of Forest Check Gates and *Nākās* for the inspection of the forest produce in transit; collection of the prescribed seigniorage for the use of forest produce and punishments for violations of the said rules. In 1897, the Jeypore Forests and Waste Land Rules were framed under section 26 of the MFA. These rules authorised the Agent of the Agency tracts to constitute and declare reserved lands to enable them to protect against *Poḍu* cultivation and other denudations. In the subsequent years, during the rule of *Mahārājā* Sri Vikram Deo III, the British officers continued to manage the affairs of the Estate under an agreement. Forest gates and checking stations at different places were established and notified. Mr. C. E. Eber Hardie was posted as the Chief Forest Officer from 1901 to 1907. Thus, the forest administration in Jeypore was organised. During the early stage of forest conservancy, no major practice of exploitation of forests was started and the collection of the charges for removal of different forest produce by local people remained the main source of revenue from forests.¹⁴

During that period the MFA, 1882 was in force in the districts of undivided Gañjām and Korāput, the Bālligudā and G. Udayagiri *Tāluks* of the undivided Phulbāni district. Under the MFA there were two classes of forests i.e. Reserved forests and Unreserved forests. Chapter II of the Act dealt with the RFs and the rules framed under Section 26 of the MFA while Chapter III governed the management of the unreserved forests. These rules were different in the Gañjām plains and each of the Agency areas i.e. Pandākhole, Chañdragiri, Thumbā, Pāralākhemuṇḍi *Maliāh*, Chakāpād and Bālligudā. The *Zamīndāri* areas like Jeypore, Dharākote, Pāralākhemuṇḍi, Khallikote and Āthagada had their own rules framed under the MFA, 1882.¹⁵

The increasing importance of forest especially timber based revenue led the British rulers to reserve or notify more and more areas as forests under various forest laws and rules, imposing restrictions upon the tribal using these forests. Restrictions on shifting cultivation on areas designated as forests were one of the key strategies for increasing the commercial value of these lands. These restrictions were often instrumental in sparking tribal unrests. The takeover of forest lands was based on non-recognition of customary tribal land rights over these areas by the state. Often such notifications were carried out without proper survey and settlement of even recognised rights of permanent cultivation. In Jeypore *Zamīndāri* an area of 1615 sq. miles was declared as RLs and PL by 1939, as these categories did not require the estate to do detailed settlement of rights before

notification. In these Reserved and Protected land, clearing of land for shifting cultivation was expressly forbidden.¹⁶

The colonial government asserted control over extensive forest lands. The degradation of forests by the middle of the twentieth century had been partly blamed on the accelerated felling performed during the crisis of the two world wars. Moreover, forest-based industries had expanded in numbers after the two world wars.¹⁷

5.2 Misuse of Forests

Misuse of forests was mainly categorized under the following heads:

1. Unauthorised grazing
2. Shifting cultivation
3. Exploitation of timber or firewood
4. Putting Fire for charcoals or clearing of forest land
5. Mindless and careless methods of collection of timber by licence holders and sleeper contractors
6. Illegal Hunting or Poaching
7. Unauthorised collection of grass and forest produces.

However, extensive damage was also commonly occurred by malicious natural forces like:

1. Damage by draught
2. Spreading of Fungi
3. Bending of *Sāl* poles
4. Browsing by *Sambar*

5.2.1 Forest Exploitation by Grazing

The utilization of grass was one of the most important factors in maintaining the agricultural prosperity of India, when considered from the point of view of grazing and fodder. Under ordinary circumstances grazing was most injurious to forests, at the same time it was essential to the welfare even to the existence of agricultural population.¹⁸

It may appear paradoxical today but, sometimes the people were making strong representations for disforestation due to some strenuous reasons. In the Letter No. 5385-3-F-186/39, dated 31st August 1939, the Conservator of Forests, Mr. F. A. A. Hart wrote to the Secretary to the Government of Orissa, Education Department for the disforestation of an area of 17 acres from Dhimirijoli Reserved Forest Block in Russellkoṇḍā Division. The area was inspected by the Conservator of Forests and by Mr. D. H. Khan, the WPO.

Both were of the opinion that the area should be disforested. The area was situated on the Russellkoṇḍā-Gallery road and juts out like a tongue across the main road. It carried a forest crop of little value and was required as a grazing ground. Its reservation was only a source of embarrassment to the villagers. Accordingly in exercise of powers conferred by section 24 of the MFA (Madras Act V of 1882), the Governor of Orissa was pleased to direct the portion of Dhimirijoli Reserved Forest, in notification No. 414, dated the 16th December 1887, published at page 996 of Part I of the *Fort St. George, Gazette*, dated the 20th December 1887 to be declared as reserved under section 16 of the said Act, which ceased to be reserved with effect from the date of that notification.¹⁹

But often the disadvantages of grazing far outweigh the advantages. Where grass and herb growth were excessive, grazing may lessen the herbaceous covering and help natural regeneration to become established.

Although the cattle play an important role in our rural economy, the problem of grazing has not so far been given due consideration. The term *Gochar*, meant to the land exclusively assigned for grazing of cows at every village boundary but it was usually a barren land with unpalatable grass or a dusty field lacking any fodder. Stall feeding was practiced only by a handful of the rich section. The forests were therefore looked upon as the only grazing ground and the source of supply of fodder.²⁰

During those days the forests in general were primarily managed to produce timber, firewood and other forest produces. Production of trees and the provision of grazing were always of conflicting demands on land which could overlap only up to a certain extent. When the limit of safety was exceeded by excessive grazing the balance was upset and both the tree growth and the pasture began to deteriorate. It would therefore, important to conceive that the optimum balance between the plant cover and the adverse factors of grazing ought to be maintained to perpetuate the forest as well as the pasture. This was the primary reason that augmented the control of unlimited grazing in the RFs. The principal forms of damage by grazing were:

1. Direct damage to young trees by browsing, trampling and crushing, amounted sometimes to the complete elimination of those that would form the future forest crop, which caused lasting destruction of forests.
2. Hardening of soil by trampling, which produced conditions unfavourable to regeneration and tree growth and deterioration of the quality of the forest.

3. Removal of vegetative cover, which resulted in soil erosion and sterilisation and increased run-off. On the steep slopes trampling combined with the destruction of vegetation resulted in the formation of screeds and the exposure of bare rock. In dry localities the destruction of shrubby undergrowth by browsing had an adverse effect on the natural regeneration of trees which required protection from the sun in the young age.
4. Deterioration in the quality and yield of fodder grasses, as the succulent annuals were replaced by coarse and unpalatable perennials. Such regression could be prevented to some extent by periodic closures.

Goats are the worst browsers and then came the position of the sheep. So, they were not allowed within the reserved forests. Cows and buffaloes would not ordinarily browse unless there was dearth of grass. Grazing had the following injurious effects on a forest:

1. Seedlings and saplings were browsed down.
2. Young growth was crushed by trampling.
3. The removal of grass and other vegetation exposed the soil and removed manurial matter.
4. Heavy grazing and browsing might be reduced the protection to soil afforded by grass and shrubs that made it vulnerable to erosion.

The amount of damage done by grazing depended on three factors as enumerated below:

5.2.2 Kinds of Cattle

Grazing included browsing, though strictly the term 'browsing' implied to eating of vegetation other than grass and herbs and was more harmful in forestry than grazing proper. Goats were the most destructive animals as they nibble off the shoots of the trees and young growth that caused considerable damage. They eat everything that came in their way. Sheep were less destructive, as they preferred grass wherever they got it. The damage done by buffaloes was enhanced by the crushing and trampling of young growth. Cows and bullocks are being considered less harmful of all grazing animals as they preferred grass but owing to their numbers, they were the chief source of damage in the plains.²¹ Wild elephants sometimes broke down poles and saplings in regeneration areas and plantations. Sometimes they did serious damage to bamboos in places where they were of value. Other animals such as deer also did considerable harm when their numbers

became excessive, but the damage done by such animals was small when compared with the damage done by millions of cattle which graze in forest areas.

The damages to the young plants caused by browsing of sheep and goats was irreparable and their admission into the forest had been considered incompatible with the aims and objectives of forest management. The creation of special fodder reserves under strict rotational control was indicated towards that purpose.²² Proper management of the forests was felt to be essential to maintain supply of timber, fuel and other forest produce to the villagers and good grazing grounds for their cattle.

5.2.3 Season of Grazing

The season, in which grazing was in most demand and in which more harm would be caused by the activity varies locally. In many parts of the country, the dry season was the season of heavy forest grazing owing to scarcity of fodder outside. In many rice-growing districts, forest grazing was required in the rains, as the cattle could not be admitted into the fields while rice crop was on the ground. In the hills, the incidence of grazing in the lower forests was greatly increased during the winter. Most damage was done in the hot season when the grass and herbage dried up. Grazing in the dry season also led the danger from fire and it might have been necessary to close forests during the fire season. Bamboos were very vulnerable during the rains as that was the time the new shoots appear.

5.2.4 The Number of Cattle per acre

The greater the number of cattle admitted per acre; the greater would be the damage done to the forest. So, it was advisable to fix the maximum number of animals which may be allowed to graze over a given area.

The National Forest Policy on grazing lays down as follows:

The controversial question of grazing in the state forests called for a clear definition of the policy. All the acts of grazing in the forests particularly unlimited or uncontrolled grazing was compatible with scientific forestry. At the same time grazing do takes place in forests and must be accepted as a fact. There were indeed circumstances in many regions where a moderate amount of grazing did little direct harm and many even did a great deal of indirect good in reducing the risk of fire and in suspending regression at a desirable stage. But efficient forest management required that grazing should be regulated about the time and place, as also about the admissibility of the number of cattle.

The formulation of the grazing policy was based on the following cardinal principles:

- A. Continuous grazing on the same areas by large herds was destructive of the better strains of the grasses and led to a deterioration of the grass complex. Wherever it was permitted and was in great demand, efforts should be made to introduce rational grazing, the benefits of which should be explained and demonstrated to the villages.²³
- B. Chief forest grazing had a demoralising effect and led to the vicious spiral of reckless increase of cattle. Inadequate forest grazing reduced quality of the herds and further increased in the numbers to affect the fall in quality. Free and indiscriminate forest grazing was, therefore, a serious disservice to cattle breeding. The notion that a farmer's wealth must be reckoned in terms of the number of cattle he owned, regardless of quality, was one of the causes of India's uneconomic cattle wealth and must be combated.
- C. Grazing should not be looked upon primarily as a source of revenue. But the simple and the obvious way of regulating and controlling grazing as also improving the quality of both of grazing and cattle themselves, was to institute a reasonable fee for the privilege of grazing.
- D. Grazing must not be allowed in regeneration areas and young plantations during such periods as the seedlings require for establishment; otherwise, they stood in danger of being browsed or trampled upon.
- E. Grazing incidents should be kept at a minimum in Protected Forests.²⁴

The average numbers of sheep, cows or bullocks and buffaloes that grazed annually in the RFs and reserves of Chatrapur Division during the period 1936-37 to 1938-39 was 37,922,588 and 3,770 respectively which was equivalent to 28,433 cow units. The total average area of RFs and reserves that remained open to grazing annually during the same period was 197,528 acres of which about 79,000 acres were un-grazable owing to inaccessibility. Thus, the effective area open to grazing was 118,528 acres which worked out to an incidence of 4.2 acres per cow unit.²⁵

5.2.5 Regulations on Grazing

To minimise the injurious effects of grazing, it was felt necessary to control it carefully. The chief measures that had been taken in that direction were as follows:

1. The management of the forests was so ordered that forests under regeneration could be closed for grazing for a long enough period to allow the regeneration process to become fully established.

2. Grazing may be allowed in the forests for a limited period in the year.
3. The herds should be under the charge of responsible herdsmen. Cattle should be grazed over the whole open area and not kept for too much period in one area.
4. Cattle may be provided with bells so that the straying animals may be detected.
5. The number of cattle per acre may be kept limited to prevent overgrazing. In forests where rights were admitted, the maximum number of cattle was usually fixed under the forest settlement.
6. Grazing fee were to be compulsorily levied.
7. Grazing was to be controlled by forming a grazing working-circle under the working plan.
8. Adequate fencing was emphasised around the areas closed to grazing.²⁶

Selected coupes were being closed to grazing for three years after completion of main felling. Teak plantations were to be closed for grazing for ten years including the year of working. Sandalwood plots were to be closed to grazing until the trees planted were well beyond risk of damage by grazing.

The remainder of the working circle were closed for grazing except to browsers, subject to following restrictions imposed:

1. No goats or other browsers were to be admitted.
2. The DFOs were at their discretion temporarily close grazing in such open areas as may be considered to have been subjected to over grazing and require rest, as also areas in which thinning, or cleanings have been carried out wherein the DFOs opinion, such closure was necessary for protection or regeneration therein. The DFO should however require consulting with the Agent before closing any block in Agency Areas to grazing.
3. The maximum number of cattle that may graze in any forest were to be calculated at the rate of six acres per head of buffalo, four acres per head of cow or bullock and two acres per head of sheep. In calculating forest areas available for grazing all rocky and hilly areas were excluded.
4. The divisional Forest staff were responsible to see that grazing was distributed over the whole area and not concentrated in areas adjoining boundary lines.
5. No cattle may be allowed to be grazed in RFs unless accompanied by a grazier.

6. The lopping of branches for fodder was strictly prohibited.
7. The grazing year was set to run from 1st July to 30th June following and all grazing permits were subject to expire on 30th June following the date of issue.²⁷

5.2.6 Rules and Conditions for Issue of Grazing Permits

1. The reserved forests in a district should be divided into grazing blocks. A grazing block might consist of one reserve or several or even a part of a reserve.
2. Grazing blocks should be roughly sub-divided into compartments so that one or more compartments may from time to time, be entirely closed to grazing or browsing.
3. The following fees would be levied for each grazing block:
 - a. For buffaloes Re. 0-6-0 per head,
 - b. For bulls, cows, horses, ponies and asses Re.0-3-0 per head,
 - c. For sheep Re. 0-1-6 per head and
 - d. For goats $\frac{1}{2}$ *Annā* per head.

In case of cattle from other districts or areas reserved for cattle breeders or in any other special circumstances, rates more than above may, with the prior sanction of Government were levied. A calf still drawing milk from its mother i.e., up to about six months old and accompanied its mother but not driven independently could graze freely. Calves admitted free at the beginning of the year as being under six months old might be allowed to graze free for the whole of the first half of the year but should pay a half rate for the second half-year; while calves entering the second half of the year, free as being under six months might be permitted to graze free for the whole of the second half. The grazer's own estimate of the age of a calf might be accepted in all but glaringly misstated cases.²⁸

4. Some special provisions prescribed under the rule were:

The prescription in rule III, of a scale of fees for each block did not preclude the DFOs from sanctioning free of charge the exchange of a permit for another in tracts in which nomadic grazing was customary and regarded as unobjectionable.

If the licensee wished to sell some of the cattle he was grazing, his license might be altered on application free of charge and a new license might be granted without fee to the purchaser of the cattle if he also wished to graze them in the same block; provided that the total number of cattle licensed to graze did not exceed that for which the original licensee paid fees.

General permits issued to foreign grazers should contain a note prohibiting grazing in any block which it was considered necessary to reserve for the special use of cattle.

Permits for each of the four classes of animals enumerated in rule III were of different colours and were to be issued either singly for an individual animal or collectively for the same class of animals in group.

Permits in a different colour was also being used for special licenses.

The permits were printed in the prescribed format with a counterfoil.²⁹

5.2.7 Grass Cutting

Cutting of grass in a forest was considered far less harmful in its effects than grazing since this practice was associated with considerable benefits as well. In case of grass cutting, a certain amount of manurial matter was removed from the ground and the soil was subjected to increased exposure, although, there was a threat of cutting of the tree seedlings in the process. On the other hand, removal of grass greatly reduced the chances and severity of fire and secured more favourable conditions for the establishment of natural regeneration. Where grass-cutting and grazing were extensive, it was customary for villagers to burn the grass areas every winter to stimulate fresh growth. This practice was objectionable in the hills as it tends to increase the chances of erosion, but it was often claimed as a good practice and if the claim would be endorsed, it was felt to be difficult to stop such practices. All such burnings were to be done under supervision and preferably during the season of the winter rains, so that the chances of the fire getting out of control and entering the forest would be diminished. This practice effectively inhibited any natural tendency of the forests to extend.

Grass and herbage may be cut for fodder or to form thatching material. To protect the grass and herbage in the forests the general rule was that, when several people were together cutting herbage in the forest, they should be held collectively responsible for any damage done. Restrictions should be made for cutting in places with a moist fertile soil, which could bear the removal of the mineral constituents of the grass. The removal of high grass furnished additional security against forest fires. The flat cutting instrument called *Khurpā* was used by grass-cutters to scrape out the rhizomes of the grass, which were highly nutritious, and this practice should not be allowed in forests. Grass, which sprang up after forests had been burnt, furnished better thatching than when cut from unburned forests containing much dead and decayed grass, dead leaves, etc. Hence, in

forests under fire protection, grass could only be used with advantage from off-roads, fire traces or blanks which were cut every year.³⁰

5.2.8 Collection of Hay

The growing and making of hay was ordinarily outside the province of forestry, but in cases of famines the forest department may be called upon to take part in relief measures by supplying hay. The best hay was produced when grass was cut immediately after its flowers. If cut after fruiting, it becomes harder, more fibrous and less nourishing as much of the food material has been used up in the formation of seeds. Grass for hay should always be cut in dry weather and should be spread out at once to dry. In the evening it should be collected in heaps before the dew falls. Hay for storage should be built up in stacks. These may be either round with a conical roof or house-shaped with a pent roof and projecting eaves. The roof should be thatched if the stack was to stand for some time. The stack should be built on a well-drained site and should, if possible, rest on a good layer of cinders or stones or on a wooden platform raised off the ground and should be trenched round. To reduce its bulk for transport, hay may be pressed into bales by hand or by mechanical means.³¹

5.3 Shifting Cultivation

Shifting cultivation is a mode of agriculture in which impermanent clearings on hillslopes are cropped for a certain period and then they are left fallow. This type of tillage is also known as slash-and-burn or *swidden* cultivation. It is called *Poḍu* among the *Khond*, *Bagada* among the *Saorā*, *Kaman* or *Briṅga* among the *Juāṅgs* in Odisha. Shifting cultivation commonly known as *Poḍu* cultivation is causing incalculable damage to forest growth and soil conservation. It is not possible altogether so long as some people depend on *Poḍu* for their living. Therefore, the Government decided to regulate the *Poḍu* cultivation by setting apart certain areas on the hill slopes for cultivation and reserving the rest for afforestation.³² The land under shifting cultivation belongs to the village and almost all activities connected with shifting cultivation are performed by communal labour. Shifting cultivation begins with clearing of forest land. In most of the communities the trees are cut above the ground level, leaving the stumps of about two feet in height. The coppicing of such stumps produces green foliage which is used as food. In south Odisha the higher slopes of the hills up to the top are composed of Khondalite rock yielding a friable soil particularly susceptible to erosion, so ploughing is done parallel to the contour.³³

The following table shows the areas affected by shifting cultivation in south Odisha after about a decade of independence of the nation which is representative to the true scenario prevailing during the last phase of the Colonial Regime.

Table 5.1: Areas Under Shifting Cultivation

District and sub-division	Area affected by shifting cultivation/ sq. miles	Name of the tribe	Population
Gañjām Agency	200	<i>Khoṇds</i> and <i>Saorās</i>	2,06,800 and 95,600
Khoṇdhamāl s	4,500	<i>Jatapās</i>	600
Korāput	500	<i>Khoṇds</i>	1,76,500
Jeypore		<i>Saorās</i>	52,500
		<i>Jaṭapās</i>	15,200
		<i>Parajās</i>	1,45,700
		<i>Gadabās</i>	34,300
		<i>Koyās</i>	28,000
Others		3,000	

Source: *Report of the Forest Enquiry Committee*, Orissa, 1959, p.37.

The *Lāñjiā Saorā* of the undivided Gañjām and Korāput districts, in addition to shifting cultivation grow paddy on terrace built on hillslopes right from the foothills to the hilltop. The *Dongriā Khoṇd* inhabiting the Niyamgiri hill ranges also practised shifting cultivation.³⁴ The *Khoṇds* of Ghumsar practised the shifting cultivation known as *Kumri* and this practice seems to have continued without any restriction, even for years after the annexation, for the British feared that any such interference might result in violent protest from the part of the tribals.³⁵

State of Affairs in Jeypore Estate: During the *Zamīndāri* administration, each family of hill man was given permission to fell a reasonable extent of unreserved forest, which varied with circumstances, for shifting cultivation on payment of an assessment of an *Annā* or two per acre. But any such practice without permission was being strictly dealt with.³⁶

The Partially Excluded Areas Enquiry Committee of the Government of Orissa which visited Jeypore in 1939 recommended for intensive efforts to do away with that devastating method of cultivation completely within next ten years, though at the same time it recommended for alternative arrangements for the hill man.

In the letter of the *Dewān* of Jeypore Estate which he wrote to the Agent to the Governor of Madras in December 1893; “It has hitherto been the practice for the villagers in the Jeypore *Thānās* to enjoy or dispose of as they please the MFP which they get from the jungle without any charge by the Estate, and they also have been paying no tax to the Estate for wood, bamboos, thatching grass and fuel which they get from the jungles for their home use and for their agricultural purposes.” The *Dewān* also mentioned that the villagers of Jeypore Estate have long been enjoying these privileges.³⁷

Till February 1906, the hill people were allowed for cutting trees of three feet girth without permit or payment of royalty in the unreserved lands for making ploughs. However, this concession was restricted to two feet under the notification of the Board of Revenue (Madras) dated 8th February 1906, causing difficulties to the people as it was not possible to make ploughs from small trees of only two feet girth. The rights and concessions enjoyed in the forests as per the Jeypore Forest Rules were:

In the Reserved Lands, no license was necessary for killing of proclaimed man-eaters. Free license was given to village *Shikāris* by the *Mahārājā* to shoot tigers and panthers when they were unduly destructive to human beings or cattle in the reserves adjoining villages. Concession of free *Chaitra bentō* (annual tribal hunt) was enjoyed by hill people which resulted in considerable decrease in the number of wild animals in Jeypore forests. Free fishing in rivers and ponds adjoining their villages for the hill tribes were provided.

In the Unreserved and Protected Lands, the inhabitants could remove unreserved species without permit and payment of royalty for personal use. The privilege holders could remove free of charge the reserved species less than two feet girth for personal use without permit. Firewood, bamboos, tamarind, *śhikākāi*, honey, edible roots and fruits, thorns, leaves of trees and shrubs of unreserved species were collected freely. They were also allowed free grazing for their animals.³⁸

Cultivators belonging to tribes not notified as privilege-holders were permitted to remove wood of reserved species for their domestic requirements on payment of an annual composition fee, which was known as ‘plough tax’ or ‘*Noṅgol Pānno*’ varying from four *Annās* to one rupee per 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 were also required to pay a fee, but at a lower rate than the non-privilege holders. This composition fee was unpopular, both among privilege holders and others. But the

concessions allowed to villagers, and especially to those of the hill tribes were much more generous than in other *Zamindārīs* of Odisha.³⁹

Shifting cultivation, which was known in the district as *Poḍu* or *Dongara* cultivation had done incalculable damage to forest growth in the past and was still the most serious problem of forest administration. As early as in 1872 Mr. H. G. Turner, the then Special Assistant Agent, brought to notice the destruction that was being caused by the hill men's reckless habits. The prevention and control of *Poḍu* cultivation were for many years among the chief preoccupations of the Agency Officers. Education and continuous propaganda affected some good results, but the practice persisted as it was impossible to find any means of abolishing it without arousing the greatest discontent among the hill-tribes. The most primitive tribes were the worst addicts and those inhabited in the remotest parts of the district, control of the practice was especially difficult. The forests that suffered on the most extensive scale from shifting cultivation were probably those of the Puttasingi hills in the Gunupur Sub-division where the hill-tribe *Śavaras* lived, and those in the land of the *Boṇḍā-Parajā* in the north-eastern Mālkāngiri. The *Śavaras* on several occasions burnt down cultivated hill slopes within reserved lands in defiance of prohibition. The policy adopted by the ex-*Zamindāri* in dealing with *Poḍu* cultivation was to permit each family of hill men to fell a reasonable extent of unreserved forest, which varied with circumstances, for this purpose on payment of an *Annā* or two per acre. But all such cases of cultivation without permission were dealt with under the law by prosecution or levying a compounding fee. The system cannot be said to have worked well and it was the exception rather than the rule for a hill man to apply for permission.⁴⁰

5.4 Exploitation of Forest Produce

Forest products of different kinds were exploited by various ways.

Exploitation of Timber: There were three timber leases, out of which the most important was the one given to Messrs. H. Dear & Co., mostly to supply sleepers to the Railways. It covered *Sāl* forests in Kotpāḍ, Nawarangpur, Rāmagiri, Mālkāngiri and Umarkote ranges. The timber lease was granted at first instance for five years from 1st October 1917 for felling of trees above 6 feet in girth from the reserved and 4 ½ feet in girth from unreserved forests. This was terminated in 1922 and a fresh lease for 25 years was granted for Umarkote and Rāmagiri ranges from 1st April 1923. This was again cancelled in 1944 and a fresh lease was granted for 6 years, i.e., from 1st July 1944 to 30th June 1951. This was

renewed twice up to 28th December 1960 after which no further extension was allowed. At present leases are given to Orissa Forest Corporation only.⁴¹

Sāl trees were granted at the royalty rates to Messrs. B. T. T. Co. for supply of timbers to the Railway. This covered the forests of Bissamcuttack and Gudāri ranges. The exploitable girth was 5 ½ feet or over in reserved and protected lands and 4 ½ feet or over in unreserved lands. It was given to O.F.C in 1962-63.⁴² The lease was granted at the low rates of Re. 0-5-0 to Re. 0-6-0 per cft. for ten years from 1937 in Mālkāngiri, Motu and Rāmāgiri ranges for teak, *Bija*, *Halanda* and *Sisoo* over 4 feet in girth. This lease was cancelled, and a fresh lease granted to them for 15 years from 1st March 1944 to 28th February 1959 which was terminated in 1954.

For meeting the demand of fuel and small timber, coupes were formed at different places under rough working schemes. Coppice working circles of 60 years or 40 years rotation were terminated in the Forest ranges and the felling series were demarcated in each working circle. Bamboo was leased out annually. In Motu, Industries used to float them in rafts to Godāvāri district. In Rāyagaḍā Division, the bamboo contractor of Gudāri range floated them on the river Vamśadhārā for export. Bamboo forests were worked on a rotation of 4 years on a scheme approved by the CCF.⁴³

Exploitation of MFP: Among the important MFPs lac was worked by contract. The *royts* reared lac in the *Kusumi* trees available in Umerkote range by receiving brood lac from the forest department and giving half to the Government free of cost and the balance at the prevailing market rate. The other main items of MFP given on lease were *Bidi* leaves, ginger leaves, gallnut, *Sāl* resin and tamarind which were leased out on monopoly basis except tamarind which was on seigniorage basis.

Other minor forest produce, such as *Rellā* bark, soap nuts, honey, arrowroot, *Mahuā* flower-seed and oil, cleaning nut, wax, horns and skins of wild animals, marking nuts, wild brooms, silk cotton, limestone, etc. were being leased out annually by auction.⁴⁴

5.5 Protection of Forests from Fire

For fire protection, the forests with reference to Ghumsar were divided into three classes:

1. Rigidly protected; which included the plains *Sāl* timber blocks marked out under the old working plans of 1903-05, and the working coupes of the Plains *Sāl* Timber, Pole, Ravine and Fuel Working Circles. These areas were protected on all sides by fire lines 15 feet wide;

2. Partially protected forests; under which came the reserves whose frontier lines were only fire traced to a width of 60 feet; and
3. Unprotected forests; in which the preserves were generally protected without burnt fire lines. The *Zamindāri* and the Agency forest that adjoin Ghumsar were burnt every year and were a constant menace to the Government forests of Ghumsar.⁴⁵

Causes of fire: The plains *Sāl* forests became practically immune from forest fires whilst the hill forests got burnt in varying extent year after year. The causes of such fires as occurred at that time were:

1. Firing of the jungle for hunting purposes.
2. Firing of the jungles adjoining villages to drive away wild animals.
3. Travellers using rights of way, kindling fires for cooking or smoking and allow the fire to take care of itself.
4. Fires crossing the boundaries from the *Zamindāri* and Agency forests.
5. Firing by graziers to obtain fresh grass was not of frequent occurrence but still it was an occasional cause of fires.

The forests were liable to get burnt from the mid-February to about the mid-June, the most dangerous months were April and May and many fires broke out during this period. The following table shows the number of fires occurred during 1920 to 1929 in the Ghumsar forests and the area affected by such fires.

Table 5.2: *Fires Occurred in the Ghumsar Forests during 1920 to 1929*

Year	Number of fires	Area burnt/acres
1920	23	1,218
1921	145	112,571
1922	86	38,296
1923	48	12, 253
1924	55	17,688
1925	63	15,857
1926	7	426
1927	71	63,724
1928	43	25,746
1929	61	22,486

Source: *Revised Working Plan for Ghumsar Forests, 1930-31 to 1939-40*, p. 68.

The exceptionally severe fire season of 1921 stands in vivid contrast to that of 1926, which was a season of phenomenal success. In 1921, the precipitations in February to May were extremely low being 1.56 inches which probably accounted for the 145 fires which burnt an area of 112,571 acres. In 1926, the rainfall for the corresponding period was 13.28 inches which was very abnormal and probably largely because of this, there were only seven instances of fires which burnt a small area of 426 acres.⁴⁶

Most of the fire tracing work was carried out with the help of the *Khonds*. Their co-operation was also enlisted in the prevention and putting out of fires in return they were awarded annual concessions of ploughs, house-building materials, dead firewood, free grazing and minor forest produce.

The *Khonds* of Pondakhole range were given special rewards of the value of about Rs. 200 in the shape of rice, clothes, snuff, beads, *cheroot* and crimson *pugrees* to headman for rendering active assistance in fire-protection operations.

It was generally believed that the *Khonds* themselves especially in the remote places set fire to the forests mainly to track the game and to facilitate their moving about in the collection of minor forest produce.⁴⁷

5.6 Illicit Felling of Timber

The Britishers were forced to find timber resources from India since scarcity of timber for the construction of the fleet in England was cropped up during the latter part of the eighteenth century. The early colonial rule mainly focused on extracting teak timber to meet the demand of King's Navy in England in the early nineteenth century.

The early colonial rule extracted the forest resources mainly to meet the demand from their own country. Any attempt to protect the forest during that time was not really to conserve it but to ensure the future supply, particularly to meet the demand in England.⁴⁸

Table 5.3: Value of Timber and Wood Exports from Madras Presidency: 1855-1876.

Year	Value (in Rupees)	Year	Value (in Rupees)
1855-56	736117	1866-67	930878
1856-57	853704	1867-68	979671
1857-58	882080	1868-69	1307459
1858-59	884444	1869-70	1228689
1859-60	847820	1870-71	1013878
1860-61	931317	1871-72	1022367
1861-62	1237475	1872-73	1014176
1862-63	1144023	1873-74	1028803
1863-64	1570559	1874-75	1065906
1864-65	1606538	1875-76	1045109
1865-66	1654166		

Source: C.D. Maclean, *Manual of the Administration of the Madras Presidency*, Madras, 1855, p. 344.

Deposits of iron ore were extensively found in the Northern *Circārs* of the Madras Presidency. Until the colonial intervention, the traditional iron-making industries were supplying agricultural implements, carpenter's tools, and iron boilers for sugar making. These traditional iron-making industries were mostly dependent on the locally available charcoal mainly obtained from burning of fuelwood from their own villages.⁴⁹ After the colonial intervention, the government encouraged the British iron-making industries and gave out some exclusive privileges during the early nineteenth century. A large quantity of forest resources was extracted due to the establishment of Madras Railways in the Madras Presidency during the latter part of the nineteenth century. Due to the laying of Madras Railways, large number of valuable trees were cut down in the forest areas. In addition to the supply of berths, a large quantity of wood was purchased for the fuel by the Madras Presidency.

The following table shows the quantity of wood purchased for fuel by the Madras Railways between 1873 to 1877:

Table 5.4: *Quantity of wood purchased as fuel by Madras Railways during 1873 - 1877*

Years	Total quantity purchased (tons)	Total wood consumed for lightings (tons)
1873	44,693	52,963.00
1874	55,107	52,543.29
1875	57,466	62,174.61
1876	77,731	72,173.61
1877	119,924	117,190.15
Total	354,921	357,017.66

Source: *G.O. No. 373, PWD (Railway), 26th April 1878.*

There was abundant supply of wood in Gañjām for burning as fuel. In Biridi *Zamīndāri* all the large trees were mostly consumed in boiling salt, the usual mode of manufacture by solar evaporation not being practised there. In Ghumsar *Tāluk*, on the banks of both the rivers leading to Askā, great clearance was made, often preceding cultivation, but sometimes occasioning the destruction of fine *Sāl* timber as this district required opening up, and there was abundance of wood. All that seemed necessary was to reserve the *Sāl* and few other superior woods leaving the woods of less value for cutting of firewood. Instructions were given to the contractors accordingly, who made tenders for the supply of timber to the Askā factory.

The road from Russellkoṇḍā has been cleared up to Durgāprasād, near the foot of the Kalingā *Ghāt*. The *Khoṇds* came down once a week to the market at Belligunzā, bringing oilseed, wheat, turmeric and a little cotton. Capt. Harrington built a large rest-house for them.⁵⁰ There was a good road from Gañjām to Russellkoṇḍā via Berhampur, in which the streams were all bridged, and carts had recourse to the forest from Russellkoṇḍā and even Ichapur, a distance of 76 miles. The *Sāl* forests of Ghumsar were the most valuable tract of wood on eastern coast. The operations of the *Sāl* forests of Ghumsar would be divisible into three distinct stages:

1. Felling and transport of logs to riverbank.
2. Floating the rafts to the Gañjām depot.
3. Shipping timber to Madras.

The first operation was carried out by the natives. The second was arranged by the floaters, procurable in the towns of Russellkoṇḍā and Soradā or Gañjām. The third step was left to the coast traders. The depot should be at Gañjām, where there was a salt agent and subordinate of the D.P.W. The rafts came down early in the monsoon in July or

August, and the timber remained in store till the close of the rains till the arrival of the ships.⁵¹

Protection against irregularities in the utilisation of timber: The standing crop or soil of a forest may be endangered during felling and in the conversions and transport of timber in the following ways: – by over-felling, bad felling, careless conversion or bad staking of timber and firewood.⁵²

5.7 Protection of Forests from the Activity of Man

The damage which may be caused to forests by men had been classified as follows:

1. Injuries to forest boundaries.
2. Irregularities in utilizing forest produce.
3. Theft of forest produce and damage to forests, or forest offences.
4. Excess by holders or forest servitudes.⁵³

A clearly defined and permanent demarcation of a forest stands in the first rank of protective measures of forest property. It protects the forest against fraud and damage and affords security for all the details of forest management. The boundaries were of two principal kinds, property and administrative boundaries. Property boundaries were of separate estates or portions of the same estate subject to servitudes. Administrative boundaries mean the administrative units, such as beats, ranges, divisions, etc. Artificial boundary line consists of roads and lines of boundary marks which were demarcated by mounds of earth or stones, by wooden or iron posts, measuring pillars or cut stone blocks.

5.7.1 Over Felling

Trees to be felled should be properly marked according to the administrative rules to keep within the limits of the fixed annual yield. After the felling, the stumps of the felled trees should be examined and counted to detect possible irregularities.

5.7.2 Bad Felling

The measures for the prevention of bad felling were:

- a. Employment of competent and trustworthy woodcutters and careful supervision of their work may prevent bad felling. It was generally advisable to employ the same persons every year, to withdraw from the group all those who felled badly and to encourage the best men by instruction and higher wages.

- b. Cessing of work during unfavourable seasons or weather when the trees were in sap, except where bark was being harvested.
- c. Avoidance of damage to seed-bearing trees in regeneration felling.
- d. Throwing trees on to bare spots and not amongst young growth.
- e. Removal of branches and crowns of trees before felling to prevent the trees from crushing valuable undergrowth.
- f. Preservation of young growth during the removal of stumps and putting earth into holes that caused to prevent their being filled with water.
- g. Careful felling of coppice with sharp instruments and with a clean and sloping cut.
- h. Leaving stools on steep slopes where erosion was to be feared and on shifting sands.
- i. Avoidance of throwing felled trees on to rocks, stones or other stems; felling uphill or sideways so that there may be a minimum of breakage.
- j. Tropical woody climbers should be cut two years before a felling was to take place otherwise, they bind trees together and the fall of any tree may involve that a group of surrounding ones. The soft-wooded climbers, however, rot in about two years' time.
- k. Trees were sometimes girdled two or three years before being felled, so that the wood may dry and lose weight and become floatable. Care must be taken that this was not done to trees liable after girdling to be bored by insects.⁵⁴

5.7.3 Bad Staking of Timber and Firewood

Specially trained men were to be employed for staking of firewood, as ordinary woodcutters generally stack loosely. Staking were to be done on blanks or along the edges of felling areas, on roadsides, etc. Withes for binding up faggots were to be cut from suppressed stems or taken from cleanings or from special plantations.⁵⁵

5.7.4 Careless Transport of Timber and Firewood

The materials were to be removed from the felling area at favourable seasons when the trees were not in sap and the bark of standing trees is easily abraded by the wheels of the carts. The damaging methods such as rolling were to be avoided among the young growth. A period was to be fixed during which the material must be removed, and the ground may be cleared in time for the spring-growth of the second year. At the end of the year all the injured plants were to be cut back. Certain rules may be made for the protection of the roads and other means of transport. All transports were to be carefully supervised by the forest guards.⁵⁶

5.7.5 Irregularities in Utilizing MFP

Whenever the minor produces were less important than the principal produce of a forest, those were to be harvested in such a way as not to endanger or diminish the supply of the latter. Bark, turpentine, resin and gums, leaves, fruits of forest trees, dead branch-wood, grass and herbage, litter, stones, gravel, sand and earth, peat, forest cultivation of cereals, berries, edible fungi, fish, wild honey and wax, etc. were the chief items of MFP.⁵⁷

Bark was chiefly used for tanning and dyes. The inner bark of lime and many tropical trees was being used for rope or mat making. Turpentine, resin and gums were obtained by tapping which were to be confined to trees those were to be felled for timber within a period of ten to twenty years as when young trees were tapped, no considerable increment of growth would be expected. For the same reason the best shaped and the most promising trees should not be tapped.

In seeding-felling, a certain number of the seed bearers were to remain untapped, as tapping was prejudicial to both the quantity and quality of the seed. Rules regarding the size and number of the cuts and the depth of the cut to be made in each tree were to be strictly followed. Tapping must be intermittent, to allow recovery of the trees before a fresh tapping was caused, unless it was intended to tap the tree to death before felling it. The interval between successive tapings were of course vary with the species.⁵⁸

Leaves of forest trees were used for fodder, manure, thatching, tanning, dyes, etc. Leaf-fodder was extensively used for cattle where enough grass was not available. The important points where the use of leaf-fodder prevails were:

- a. To allow the trees to be lopped only after the principal growth of the year was over.
- b. To restrict lopping as much as possible to inferior species of little or no value as timber trees and
- c. To prevent the lopping of the trees until they have attained a certain size.

The foliage of woody climbers may be used for leaf-fodder to the actual benefit of the forests. The green branches and leaves of trees were sometimes used to manure rice-fields. Leaves of various trees were used for tanning, dyes, drugs, hat and umbrella making, plates and for feeding silkworms. Silk was a very important and valuable industry and the trees utilized were generally of much less value for timber than for their leaves. Thus, pure coppice was adopted with very short rotations. About the other demands for leaves, forest officers would do well not to be pedantic in stopping industries on the forests

which can be supplied without serious injury to the trees by the exercise of a little ingenuity and suitable control.⁵⁹

Fruits of forest trees were collected for sowing, for food of men and animals, for extracting oil, dyes, tanning etc. or those were being eaten on the ground in the forest by pannage. But where regeneration by seed was expected, fruits were not to be collected for other purposes. All injuries to the trees during the collection of the seed were to be strictly forbidden. The practice of beating trees with axes, dragging down fruit-laden branches, use of climbing irons, etc. had bad effects on the quality of the wood causing injury to the timber and degrading its quality.

Grass and herbage, dry ferns, heather, etc. would either be cut and removed from the forest and used for fodder or litter for cattle or apart from the ferns would be utilized on the spot by grazing animals.

5.8 Protection of the Forest Against Offences

The term ‘forest offence’ means an offence punishable under the Act (The Madras Forest Act, 1882) or any Rule made hereunder.⁶⁰ Those are the acts by which damage was done to the forest or the interests of its owner were threatened. Offences which effect or threaten forests or which interfere with control, are naturally sometimes of a kind which might occur in respect of any property and sometimes of a special character i.e., they only happen in forests and were not attempted elsewhere, or else were exceptionally dangerous or injurious when done in a forest. Hence in most systems of law, ‘offences’ were partly punishable under the provisions of a forest law and partly under the ordinary ‘Penal Code’ or the Statute and common law of the country.⁶¹

Forest offences may be classified as damage, misappropriation and contravention of forest police. The subjects of forest offences were sometimes the forest soil or its covering, the stock of wood or minor produce whether standing or converted, houses, roads and other works and appliances used in forest business.

5.8.1 Damages

Unintentional damage occurred in a variety of ways as damage to standing trees through clumsy felling of other trees, to young growth during felling or removal of material, cutting up valuable timber into fire-wood in ignorance of its value, cutting seedlings during grass-cutting, driving carts over boundary marks, through ditches, down embankments, etc. In many cases no legal offence was committed which was punishable criminally, but the doer of the damage was liable to make reparation.⁶² In case of wilful

damage, the motives may be wantonness, revenge, selfishness or even superstition. Damage of that kind included peeling the bark from standing trees, girdling, cutting off leading shoots, lopping branches or exposed roots, lopping branches from trees yielding mast or from cane-bearing trees to facilitate the removal of their fruit, wilful damage to boundary marks, fences, forest nurseries or other forest appurtenances.

Men cause damage to the forests by unauthorised felling and removal of produce, unauthorised grazing, by illicitly breaking up lands for cultivation and most serious of all was by setting fire to the forests either accidentally, negligently or wilfully. Theft of big timbers from the reserves was not of common occurrence but that of small poles and firewood had been of frequent occurrence in the outlying blocks surrounded by populous tracts particularly in the Mohuri hill reserves of Berhampur Range.⁶³

5.8.2 Misappropriation

Misappropriation means illegal appropriation of forest property that belonged to the forest owner. In most systems of law ‘theft’ and ‘larceny’ refers to personal or movable property such as firewood in a stack, log or beam, and it was difficult to prosecute cases of lopping or the offence of cutting a standing tree, bush or sapling, generally. Therefore, the forest law was specially provided for these cases and the activity of ‘theft’ of forest produce, cutting of timber, etc. were to be subject to the ordinary law.

Simple misappropriation unaccompanied by any result of incremental damage to the forest or impoverishment of the soil were not considered as an offence. But the valuables illegally taken away was an offence which included the illegal removal of dead standing trees, dead branches or windfalls, of fruits not required for natural reproduction, of grass from roads, of stones lying on the ground, berries, edible fungi, etc.

Misappropriation accompanied by damage was committed when the forest owner, in addition to the loss of the articles abstracted, suffered physical damage to his property, which might differ greatly in degree according to circumstances i.e. species, age of wood, system of management, density of growth, locality, etc.

Those offences also included damages to the principal produces through cutting and removal of standing timber, parts of standing trees, involving loss of increment and irregularities of management or introducing decay into the wood, removal of mother trees in regeneration-felling or of standards in stored coppice resulting in delay in the reproduction of the wood, deprivation of shelter against atmospheric influences for the young growth, exposure of the soil, etc.

Some of the most harmful of these offences were digging up green stools from coppice and removal of young plants from plantations, as thus the care taken to restock a wood was frustrated.⁶⁴

As regards minor produce, peeling bark, tapping for turpentine or gum, lopping branches for fodder, grazing, ranking-up litter cutting sods and appropriation of the resulting produce were common offences. In many of these cases, in the removal of litter, the damage done to the forest far exceeded the value of the material abstracted.

5.8.3 Contravention of Forest Police Regulations

Those offences were infractions of police regulations made for the public welfare or in the interest of forest conservancy. No damage need result from such offences, as for instance from kindling a fire in a forest which may be extinguished without causing a forest fire, although there was an imminent probability that such a calamity would happen and thus necessitated the stringent prohibition of such acts. Offences of this nature would be placed in the following groups:

1. Offences against forest control - removal of wood without permission at a forbidden time or through a closed road, collection of dead fallen wood without permit on forbidden days or with prohibited tools, etc.
2. Offences endangering the forest - lighting a fire, leaving a fire lighted with permission of the forest manager un-extinguished, carelessness in burning charcoal or lime, smoking pipes without covers, going into a forest with torches, etc.
3. Acts preparatory to the forest offences which were consequently prohibited; trespass by climbing over forests, carrying axes or saws in a forest without permission, injury to growing tree by transport on a prohibited road without permission, kindling a fire in a forest with misappropriated wood, etc. Such complications involved several heads of charge in the prosecution case or call for severe punishment than offences of a simpler nature.⁶⁵

5.9 Natural Phenomenon Causing Damage to Forest

Some of the natural phenomenon those were responsible for causing damages to the forest in an extensive pace were also required same level of attention for its protection. Such types of forces have been enumerated as under:

5.9.1 Forest Fire

In the Chatrapur Division the forests were very susceptible to outbreaks of forest fire, which lasts from the middle of February to the middle of June. If an outbreak occurs, it usually kills off all the previous rains' recruits as also the shoots of most of the young regeneration. Bigger poles sometimes suffer damage but are rarely killed outright.⁶⁶

Comprehensive fire protection has been attempted in the division for many years. Young crops naturally received the maximum attention, but extensive measures at considerable cost were also taken to rigidly fire-protect all other *Sāl* areas in the Ghumsar part of the division. Expenditure incurred on these latter measures was high, the results obtained were but a partial success and not commensurate with the cost involved. Deliberate and controlled burning of the forests early in the season with a view to minimise damage by accidental late fires was one of the cheapest forms of fire protection measure, provided that climatic and other conditions prevailing in the locality make such early burning operations a practicable proposition. Weather conditions in Chatrapur were suitable for the purpose and early burning operations were given a trial in the spring of 1938 but unfortunately unfavourable weather conditions prevented the operation being carried out at the proper time, and when they did start, the forests were too dry and consequently, the fire was much more severe than was intended. In the meantime, it was decided not to prescribe early burning operations as a regular measure in Chatrapur division particularly as the *Sāl* forests contain therein were not of the damp type and were not therefore likely to derive any silvicultural benefit from such operations. At the same time, it was suggested that the DFO should carry out early burning as an experimental measure in selected areas. When the results of these experiments were assessed and were found that early burning was going to be a beneficial measure, it can then be prescribed as a regular measure.⁶⁷

Forest fires cause immense damage annually and account for the paucity of regeneration in many of the hill slopes. The following table shows the incidence of forest offences during the period 1936 to 1939:

Table 5.5: Incidence of Forest Offences During the Period 1936 to 1939

Year	Forest fires	Unauthorized felling	Unauthorized grazing	Others	Total	Compounding fees collected (Rs.)
1	2	3	4	5	6	7
1936-37	27	370	10	13	420	1,146
1937-38	11	406	13	5	435	2,121
1938-39	-	599	10	30	639	1,920
Average	13	458	11	16	498	1,832

Source: D.H. Khan, *Revised working Plan for the Reserved Forests of Chatrapur Division, 1940-41 to 1959-60*, p. 33.

Forest fires were dangerous to young regeneration of all kinds. Grass and inflammable materials were not abundant in the forests. But the effect upon the undergrowth of an accidental fire in an area that has been protected for several years was immense. The forests in the plains were comparatively immune from fire while the hills got constantly burnt in the hottest months of April and May. Fires were believed to be partly responsible for the paucity of *Sāl* regeneration in the ravine forests. On the hill slopes, regeneration of other valuable species like *Dalbergia latifolia*, *Petrocarpus marsupium* and *Chloroxylon swietenia* was burnt back frequently and those that survive were prevented from growing into the sapling and pole stage.⁶⁸

5.9.2 Drought

Damage to forest by drought was not of common occurrence. However, it causes considerable damage occasionally as in 1918, a large number of *Sāl* trees were killed in the northern part of Chatrapur division, following a failure of monsoon. From the eastern side of Kaliāmba and Tiliki reserves, 3,015 dead trees of all sizes from 9” to 3”-4” in girth were extracted. It appears that two-thirds of the total number of trees removed from the locality belonged to 12” to 20” in girth.⁶⁹

5.9.3 Cyclone

Cyclones cause serious damage to forest particularly when they were accompanied or just preceded by heavy showers of rain. A very severe cyclone accompanied by heavy showers occurred in October 1938 and caused severe damage to a

large number of trees. The main form of damage was the uprooting of the trees; rain loosened the soil and the force of the wind then blew the trees down.

5.9.4 Climbers

Climbers were the greatest menace next to fire. The commonest climbers were *Bauhinia vahlii* (Siāli), *Millettia auriculata* (Maradā), *Smilax zeylanica* (Mutri) and *Dioscorea anguina* (Bana Alu). The last two were common in young *Sāl* crops. A noxious climber *Mucuna pruriens* (Bāidanka) also makes its appearance in plain *Sāl* coupes during the first year of the life but experiments carried out in Russellkoṇḍā division tend to show that they do not cause any lasting damage and disappear once the trees attain a height of about ten inches. Systematic climber cutting operations were carried out in plain *Sāl* coupes since 1900 with most satisfactory results.

5.9.5 Fungi

The species of fungi commonly found in the Chatrapur division were *Polyporus shorea* which occurs a few inches above the ground level on the exposed roots. It was a dark brown 'bracket' as big as a hat. The root of the bole in an affected tree had a partridge-speckled appearance and the trees die off. The *Sāl* thicket fungus was noticed in Gañjām by Mr. Latham in 1917. The fungus was found on young overcrowded *Sāl* saplings either in the regenerated coupes or in the natural forest preferably in moist localities. Poles were free from infection. The mycelium takes the form of milky-white strands which ramify closely and extend from the infected point in all directions. From the stem, the mycelium spreads to the branches and leaves which were killed outright.

The infection may also commence from the leaf, in which case the thread-like strands branch extensively on the under-surface of the leaf which was gradually killed towards its base. Then the infection was continued on to the branch and from the branch to the stem. Various other undergrowth species like *Ixora parviflora*, *Desmodium* and *Millettia auriculata* were also attacked. It thrives equally well on dead grass and decaying leaf litter on the ground. The commonest ways in which it spreads from *Sāl* to *Sāl* were through contact of infected leaves and twigs, through wind-blown leaves and through climbers as well as shrubs. In the forests the trees that were opened out to light and air in cleanings or thinning the fungus did make it very evident. The fungus does not cause any widespread damage in any part of the Ghumsar Division.⁷⁰

Most of the unsoundness in *Sāl* timber was caused by heartwood rot that destroys the wood tissues and renders them whitish, soft and powdery. The disease was locally

known as 'Kothuā'. Its widespread prevalence among the Ghumsar *Sāl* became evident when the Russellkondā Sawmill undertook to cut the logs on an extensive scale. It was possible to eliminate those adverse factors by correct tending of the newly established crops.

5.9.6 Insects

The insect pests of *Sāl* may be classified under borers, defoliators and termites. The most prominent borer was *Hoplocerambyx spinicornis* commonly called the *Sāl* heartwood borer. It was a Cerambycid beetle. It passes through an annual life cycle and the beetle emerges in the early part of monsoon. The larva bores under bark and then entering the heartwood constructs a deeply seated pupa chamber in which it spends the cold weather and the first six months of the following year. The larva may grow to a length of about three inches boring tunnels of a diameter of one inch. The wood was completely riddled and rendered as useless timber. The damage was locally known as 'sambar ākhi'. In Ghumsar the pest had not assumed an epidemic form. Of the other borers a shot-hole borer occasionally pierces young *Sāl* saplings all over and kills them outright. The larva and adult of a cockchafer were fond of destroying germinating *Sāl* seeds by living upon the developing cotyledons. They were mostly found in the dump *Sāl* seeds. One of the defoliators *Ingura subapicalis*, a caterpillar, appears occasionally in the hot weather and strips trees of their new flush of leaves almost entirely overstretches of forest. Nothing special can be done to combat the defoliator attacks.

The Ghumsar termite had been identified by a specialist in Italy to be *Odontotermes obesus* which was one of the commonest mound building termites in India. In 1922 when an experimental thinning was made in Surādevi forest, a number of standing *Sāl* stems about five years old appeared to have been girdled by white ants. Subsequently in 1924, Dr. C.F.C. Beeson of the Dehra Dun Forest Research Institute visited Gañjām and made brief observations to check the spreading of white ants. It was also observed that most of the damage had risen through wounds that were caused to the healthy stems by various agencies, natural or otherwise. Wherever the tissues rot, the ants do not spare them. Fungus to a certain extent helps and encourages white ant attack by killing first the living tissue and then leaving it for the termite to complete the work.⁷¹

5.9.7 Bending of Poles

It is a form of damage often of a serious nature and was peculiar to the Gañjām forests was that caused by bending of *Sāl* poles when they were suddenly isolated. It was

observed that the bending occurs during the monsoon and usually effects poles up to six inches in diameter. If a pole had not bent over too far it may recover during the following cold weather but if the bending had caused the bark to crack the pole will never recover and the only remedy then, was to cut it back.⁷²

5.10 Protection against Danger from Forest Rights

Forest rights were divided into three parts i.e., wood rights, rights to minor produce and sundry rights.

5.10.1 Wood Rights

Wood rights mean either a right to claim from a forest a fixed quantity of wood or as much as may be necessary for certain purposes. It was generally stated what kind of wood was the subject of the right, such as: building-timber, timber for implements or firewood. The forest manager had the right of delivering the wood and certain days may be fixed for its removal. The right holder may not sell his wood but must use it for the specified purpose for which it had been granted to him as follows:

1. **Building Timber:** The supply of building timber to right holders should be proportional to the number and size of the buildings which existed at the time of acquisition of the right.⁷³
2. **Wood for agricultural implements:** It comprises timber required for ordinary agricultural and domestic objects like wood for carts, ploughs, hop-poles, etc.
3. **Firewood:** Rights to firewood means what was required by the right holder including ordinary household requirements as heating, cooking, washing, baking, drying fruit, etc. requirements for industrial purposes such as distilling was not included. As a rule, the wood was prepared by order of the owner of the forest and must be taken from all classes of firewood in due proportion, split and round wood, dead wood, stump wood and faggots. Occasionally the right-holder was permitted to cut and remove the wood, especially where it was brush-wood or small coppice stuff.⁷⁴
4. **Soft wood:** It included the inferior soft-wooded species which were not the object of the management of the forest. The trees which spring up amongst young growth were generally cut out in the cleanings.
5. **Dead or fallen wood:** All dead branches and twigs laying on the ground and refuse from felling which the owner does not require were generally included in this category.

The sale of such wood was not usually permissible as the servitude was for household requirements. The wind-fallen trees of Chatrapur Division were sold out to a timber Contractor namely Sri Haribandhu Khadanga of Sadāsivapur *Sāsan* who later became a freedom fighter. He purchased 545 wind fallen trees for Rs.1635/-. He did not pay the purchase price in instalments which was set forth in an agreement. The trees were resold and fetched only Rs. 817-8-0. The Forest Department had to incur a loss amounting to Rs. 729-13-1. The Revenue Divisional Officer, Ghumsar was requested to realise the amount as arrear revenue. And it was reported that it was not possible to recover anything from the contractor because the authorities could not able to locate any property in his name.⁷⁵ (**Appendix- IX & X**)

6. **LoP and top:** The right was generally to the crown of a felled tree from the place where the stem was cut-off by the woodman, at a certain fixed girth and the lower branches lopped off the stem. The right holder cannot take possession of the wood until the stem has been severed from the crown.
7. **Stumps and roots:** The right was only admissible in high forest. Unless it is distinctly laid down, the owner can fell his tree as low as he likes. The right must be suspended whenever its exercise would damage the forest. Sometimes the right holder was under the obligation to fill-up the holes made in extracting the stumps and to sow or plant-up the ground. The right may also be limited to certain months, days or hours.⁷⁶
8. **Windfalls and broken trees:** The right may be to certain categories of this material i.e. wood broken by wind. Trees which were bent down, but may recover themselves, were not included nor were portions of trees still rooted in the ground. The right can only extend to single trees broken here and there, not to whole woods broken down and uprooted, as occasionally happens by an exceptional storm or calamity. The right holders may use implements to convert the timber.
9. **Dead standing trees:** Poles and trees which have died naturally were included in this category. When a large extent of wood was killed by injuries from storms, the produce was not the property of the right-holder.

5.10.2 Rights to Minor Produce

1. **Bark:** The bark can be claimed by the right-holder only from felled trees in regular felling. The right may be either by quantity or by number of trees or commensurate

with the requirements of the right-holder. Lime bark for cordage and matting was sometimes the subject of a right.

2. **Turpentine and tar:** Right to tap the trees for turpentine frequently existed. The number and the size of the trees to be tapped, as well as the cuts to be made in each tree may be defined. This was a most hurtful servitude, as tapping for turpentine results in a loss of increment and lessens the quality of timber in the base of the tree and introduces spores of fungi and insects into the wood causing diseases.
3. **Leaf fodder:** This was the right to pluck leaves from trees, especially for feeding cattle in stored and simple coppice. Implements may not be used nor can twigs be broken-off. If the demand for leaves cannot be supplied from the regular felling, then certain compartments may be opened for plucking leaves as far from the ground as the hands can reach. The leaves were used for cattle-fodder, for thatching, for wrapping up goods at market, as plates, for making umbrellas, cigarettes, etc. where foliage and branches were lopped for fodder owing to the absence of fodder crops or natural herbage, a prescriptive right has been acquired and it is by custom limited to certain species and certain protective measures can be adopted.⁷⁷
4. **Grass (cutting and gathering):** Rights of cutting grass were also of very common occurrence under the coppice system and they should be limited according to locality and time. The limitations were varying according to local law or custom. If properly regulated and supervised, this usage does no harm on moist fertile soil and even assist in fire conservancy by removing a great source of danger.
5. **Pasture:** This right allows the holder to graze his own cattle in a forest belonging to some other person, on the grasses and other herbage spring up in it. The species and the number of grazing animals were being defined. The right to cut grass was not included with this right and animals such as the goat and sheep, which were highly detrimental to forest growth, were excluded.
6. **Collection seeds:** The fruits can be picked up only in compartments opened to the right, and on fixed days; the right- holder was held responsible for all damage done to the standing-crops. Compartments, the fruit of which was required for natural regeneration, can be closed against this right.
7. **Pannage:** This was the right to drive pigs into the forest to feed off the seeds lying on the ground.

8. **Litter:** Litter to which right-holders were entitled may be defined or indefinite in amount and may also be of special kinds like dead leaves, moss, weeds, etc. In short, the right to strip the surface of its covering down to the soil may be implied.
9. **Quarrying or digging pit for sand, gravel, turf, etc.:** Rights to stones, gravel, sand, turf, etc. in another's forest can only extend to places where the standing-crop and roads were in no danger from the right.
10. **Gathering berries, wild fruit, edible fungi, etc.:** This right was always unlimited in amount as the produce was generally collected for sale.
11. **Shooting and fishing:** There was no prescriptive to hunt in the state forests. People have always killed game in the forests. Fishing rights in forest streams was being granted to protect immature fish by fixing a minimum sized mesh and prohibiting the poisoning of streams for catching fish.

5.10.3 Sundry Rights

1. **Rights of way:** Right of way means to close all the roads or paths which may have gone out of use to prevent any damage to forest growth.
2. **Rights to water, water-channels, use of springs and wells, to water cattle at streams, etc.:** Rights to use water-channels, springs or wells or to water cattle at them, all of which involved rights-of-way through the forest to the source of the water.
3. **Rights to float timber:** The kinds of timber to be floated should be specified and the owner of the stream had the same rights as the right-holders.
4. **Rights to burn charcoal, to stake wood, etc.:** The sites where the charcoal was to be burned or the wood stacked, must be pointed out to the right-holder, and also the roads to be used for transport was defined.⁷⁸

5.10.4 Poaching and Hunting Rights of Wild Animals

In exercise of powers conferred by section 26(f) of the MFA V of 1882, the Governor-in-Council made the following rules for the regulation of hunting and shooting and setting the traps or snares within the limits of all reserved lands in Jeypore Estate.⁷⁹

- i. Any person who may desire to hunt and shoot within the reserved land was bound to take out a licence from the *Mahārājā*. Hunting and shooting without such a licence were prohibited. Some persons like the *Mahārājā* of Jeypore, the Agent to the Governor, the *Dewān* of Jeypore Estate, the Agency Divisional Officers,

Agency Additional District and Sessions Judge, Agency Superintendents of Police and Assistant and Deputy Superintendents of Police of the Agency Division, all officers of Jeypore Forest Department above the grade of Forester were exempted from being required to take out a licence. The hill tribes were allowed for hunting in the customary beats in reserved lands adjoining their villages during the *Chaitra* festival.

- ii. In the adjoining villages of the reserves, free licence was being given by the *Mahārājā* to shoot tigers and panthers when they were unduly destructive to human beings or cattle. No licence was necessary for shooting proclaimed man-eaters in the reserved forests.
- iii. Licences were not transferable and were valid only to the end of the *Fasli* year.
- iv. The *Mahārājā* would refuse to grant a licence to any applicant if he was convicted of an offence under the rules relating to hunting and shooting.
- v. Except the *Chaitra* festival, beating and setting of traps or snares was forbidden.
- vi. The fee for a shooting licence was Rs.2/- for hill tribes, Rs.5/- for other permanent residents in the *Samasthānam*, Rs.10/- for touring officials and Rs.50/- for visitors.
- vii. No one shall shoot elephant, *nilgāi*, female or immature bison, *sambar*, spotted deer, antelopes and immature males of wild buffaloes.⁸⁰

The Government had fixed the payment of rewards for the destruction of wild animals especially for the declared man-eaters. According to the Madras Boards Standing Order 196 in respect of the districts of Gañjām and Korāput, Collectors and Sub-divisional Officers within their own jurisdiction were authorised to grant rewards for the destruction of harmful wild animals. The following table shows the amount of rewards for the destruction of wild animals.

Table 5.6: Amount of Rewards for the Destruction of Wild Animals

Name of the Animal	Amount of Rewards (in Rs.)
Tiger	20/-
Leopard, Panther and Cheetah	10/-
Wild Dog	10/-
Wolf	03/-
Hyena	02/-
Bear	02/-

Source: Government of Orissa, Home Department, Letter No. 980 dated the 19th October 1938 (OSA, Acc. No. 7702), p. 2.

For the cubs and pups the rates were half of those fixed for full grown animals. The rewards were paid by the District and the Sub-Divisional Magistrates out of the provincial revenues except in case of noxious animals for the destruction of which the reward was offered by the municipality or the District Board.

The reward was also granted for animals captured alive and made over to them for transmission to the Zoological Gardens in Calcutta. At the foot of the hill where rewards were drawn, a certificate was issued by the disbursing officer that the heads and skulls of the animals were produced before him so that they cannot be produced again for fresh rewards.

The District Magistrate may sanction rewards for declared man-eating tigers up to Rs. 500/- and for man-eating leopard and crocodiles at Rs. 50/-. At the same time the Revenue Commissioner may sanction rewards for man-eating tigers at Rs.500/-, man-eating leopard at Rs.100/- and man-eating wolf at Rs. 10/-.⁸¹ In 1940 Mr. J. W. Nicholson, the Conservator of Forests in his Letter No. 4763 dated the 14th August 1940 wrote to the Secretary to the Government of Odisha for delegation of Powers to Forest Rangers to compound forest offence cases in south Odisha under section 55 of the MFA and to accept compensation as following:

Table 5.7: *Compounding Fees for Forest Offences*

Sl. No	Name	Payment
1	Sri Golak Bihāri Patnaik	Rs. 150/-
2	Sri Damodar Das	Rs. 125/-
3	Maulavi Muhammad Abdus Sattar	Rs. 100/-
4	Maulavi Shaikh Abdullah	Rs. 100/-

Source: Government of Orissa, Education Department, Forest Branch, File No. F-93 of 1941 (OSA, Acc. No. 9679 OR DOC), pp. 5-6.

Forest offences were regularly occurred. The figures for the years 1942 to 1945 were as follows:

Table 5.8: Number of Forest Offences and Rewards Paid

Sl. No.	Year	No. of Cases Compounded or prosecuted	Compensation realised rewards paid	Rewards paid
1	1942-43	603	Rs. 1,666/-	Rs.247/-
2	1943-44	480	Rs. 3,049/-	Rs. 252/-
3	1944-45	458	Rs. 2,717/-	Rs.461/-
4	Average	514	Rs.2,477/-	Rs. 320/-

Source: J. W. Nicholson, *Inspection note on Ghumsar North Division, January-February 1946*, (OSA, Acc. No. 6723 OR DOC), p. 12.

The corresponding average figures for the previous triennium were Rs. 499/-, Rs. 1,456/- and Rs. 231/- respectively. Although the average number of offences had slightly risen the falling tendency was not a satisfactory feature, especially as the rewards had risen. The CF also wrote that the neighbourhood of Russellkoṇḍā was the worst for offences and the influential people were responsible for large incidents of thefts of timber. One may definitely feel some sympathy for the poor villagers who commit petty forest offences, but not for well-to-do people. Influential offenders made it worthwhile for the lower subordinate staff not to report offences. He made some suggestions that the greatest vigilance would be exercised by Range Officers and the DFO should make full use of his power to issue search warrants.⁸²

Most of the villages in the Madras Presidency living in and around the forest tracts used those forests for various purposes. The Forest Act of 1865 empowered the state to declare any land covered with trees or brush-wood as state forest and to make rules regarding the management of the same by notification, provided that the notification should not abridge or affect any existing rights of individuals or communities (sec-2). For the first time, an attempt was made to regulate the collection of forest produce by the forest dwellers. Thus, by this Act, the socially regulated practices of the forest people were somehow restrained and regulated by law.⁸³

Forest resources in the hill tracts were never exploited for commercial purposes by the tribal people and the others made judicious use of them for their requirements, ensuring their sustainability until the colonial intervention which witnessed the destruction and denudation of forests and plunder of timber and other forest resources for the industries and railways.⁸⁴

5.11 Protective Measures Against Forest Offences

Protective measures against forest offences were either direct or indirect. The latter chiefly involved removal of the cause of offences and the former were directed against the offence itself. Forest offences, unfortunately, were always considered less culpable than those under the Penal Code.

The following were the protective measures against forest offences:

5.11.1 Removal of Causes of Offence

Poverty was an important factor in the increase of forest offences. As population increased without more opportunities for employment and as the clearance of communal and private forests caused a rise in the price of forest produce, the temptation to commit offences was also increased. Insufficient education, careless watching over a forest, bad forest legislation and a feeble execution of justice from the part of the magistrates, all jointly contributed to increase forest offences.

Forests protective measures with objective statement were as follows:

1. Careful utilization of forest produce so that all local wants may as far as possible be fulfilled.
2. Frequent sales of produce and in small lots, which were useful measures for rationalisation of supply.
3. Provisions for sale of principal forest produce which frequently form the object of misappropriation, such as hop-poles, props for fruit trees, cart-axels, wood for ploughs, thorny bushes or stakes for fences, bark for ropemaking, faggots, etc.
4. Permits were also to be obtainable throughout the year, if necessary, some activity without payment was allowed to remove certain minor forest produce as far as it was not hazardous for the forest. Cutting of grass, collection of dead or fallen fuel, berries, edible fungi, to utilize some kinds of litter the removal of which was not harmful and in certain cases felt useful for the temporary cultivation of crops. Similarly, tall grasses were to be frequently removed to the advantage of a forest

reducing scope for spread of fire and cause loosening of the surface to some extent, all of which were important for plantation were also tolerable.

5. By supplying labour in the forest in bad times for construction of roads, drainage, ditching and removal of stumps, in addition to the ordinary felling and planting work in a forest.

Ignorant peasantry always disliked forest conservancy, but they never felt it a grievance. There was an irritating kind of exactness which tends to provoke a spirit of malice and a desire to injure the forest, whereas a judicious management and dissemination of ideas was yielding benefits.⁸⁵

5.11.2 Direct Dealing with Forest Offences

The forest areas were subdivided into beats of suitable size and shape for patrolling and keeping watch against trespassers or against the causes of origin of fire. Trustworthy forest guards were emphasised to be appointed, with enough pay and houses well situated near their beat, also with allotments for pasture. Proper control of the guards, promotion and reward of good men were also realised to be inducted in the policy. Woodcutters and contractors employed on work generally were used to be induced to participate in the protection of the forest. The forest was being constantly inspected, and all workmen employed in it were being supervised regularly. Proper rules regarding forest fire were being strictly enforced.

All forest offences were required to be promptly reported, and the offenders prosecuted in timely manner. There were some offences against which special remedies were being adopted. Where tapping for turpentine have been illegally affected, they were to be smeared with limewater, to stop the flow of turpentine. Where removal of litter was feared, stumps were being left somewhat high at the thinning, or stakes driven into the ground to impede its progress. All stumps of stolen trees were, on discovery, marked with a special hammer to facilitate control.⁸⁶

Either omission or commission of the prescribed parameters was what it considered as offences. Many of the objectives were articulated in a way to serve the interest of the British Crown but definitely there were elements of higher objectives which could be realised from the promulgation or propagation of the statutory provisions that reflected the standardised way of dealing with such a subject of administration by a European race holding better knowledge and empirical approaches in comparison to their counterparts in the Indian context. The same set of laws with the definitions of use and misuse continues by outliving the British *Raj* and still dominates the legal environment of

the subcontinent in the same form and characteristics even though a few have been mutated for namesake.

References

1. S. S. Negi, *Indian Forestry Through Ages*, New Delhi, 1994, p. 115.
2. K. G. Karmakar, *The Silenced Drums: A Review of Tribal Economic Development*, New Delhi, 2002, p. 107.
3. *Ibid.*
4. M. K. Nayar, *Revised Working Plan for Ghumsar Forests, Gañjām District, 1930-31 to 1939-40*, dated 08.07.1932, p. 46.
5. *Ibid.*, pp. 46-47.
6. *Ibid.*, p. 47.
7. M. V. Lovirie, *Revised Working Plan for the Mount Stuart Forests, South Nilambur Division, Madras, 1919*, p. 34.
8. A. Faujdār, *Management Working Plan for the Forests of Kurnool, Nandyal and Atmotur Forest Division, 1991-2005*, 1993, p. 186.
9. V. S. Krishnamurtyswami, *Working Plan for the North Cuddapa Forest Division 1936-46*, Madras, 1937, p. 21.
10. N. Pattnaik, *Essential Forest Produce in Orissa*, New Delhi, 2003, p. 15.
11. B. M. Belcher, "Forest Product Markets, Forests and Poverty Reduction," in: *International Forestry Review*, Vol. 7(2), 2005, p. 84.
12. K. G. Karmakar, *op cit.*, p. 108.
13. R. C. S. Bell, *Orissa District Gazetteers, Korāput*, Cuttack, 1945, p.101.
14. T. Datt, *Odisha District Gazetteers, Korāput*, Bhubaneswar, 2016, pp. 154 - 155.
15. *Report of the Forest Enquiry Committee, Orissa, 1959*, p. 24.
16. N. Rout, "Tribal Land conflicts and State Forestry in Odisha: A Historical Study," in: *International Journal of Social Sciences and Management*, Vol. 2, Issue 2, 2015, p. 143.
17. V. R. Reddy, M. G. Reddy and others, *PFM in Andhra Pradesh: A Review of Policy and Implementation*, Hyderabad, 2004, p. 3.
18. H. Trotter, *Manual of Indian Forest Utilization*, Calcutta, 1940, p. 352.
19. Government of Orissa, Education Department, Forest Branch, File No. F-283 of 1939, *Disforestation of an Area of 17 acres from Dhimirijoli Reserved Forest Block in Russelikonḍā Division* (OSA, Acc. No. 9621 OR DOC), pp. 1-2.
20. *Report of the Forest Enquiry Committee, Orissa, 1959*, p. 40.
21. H. Trotter, *op cit.*, p. 353.
22. B. R. Beotra, *Indian Forest Act, 1927*, Allahabad, pp. 8-9.
23. *Ibid.*
24. *Ibid.*
25. D. H. Khan, *Revised Working Plan for the Reserved Forests of Chatrapur Division, 1940-41 to 1959-60*, Cuttack, 1943, p. 34.
26. H. Trotter, *op cit.*, p. 353.
27. D. H. Khan, *op. cit.*, p. 90.
28. *Orissa Forest Manual*, Cuttack, 1957, pp. 133-135.
29. *Ibid.*
30. W. R. Fisher, *Manual of Forestry, Forest Protection*, Vol. IV, London, 1895, p. 29.
31. H. Trotter, *op cit.*, p. 355.
32. N. C. Behuria, *Final Report on the Major Settlement Operations in Korāput District, 1938-64*, Cuttack, 1965, pp. 195-196.
33. N. Pattnaik, "Eco- Diversity and Indigenous Knowledge of Forests" in: *Man in the Forest*, Vol. I, Delhi, 2000, p. 95.
34. *Ibid.*, p. 97.

35. B. Rath, *Aspects of Garjat Forestry*, Bhubaneswar, 2005, p. 88.
36. *Ibid.*, p. 93.
37. *Ibid.*, p. 144.
38. *Ibid.*, p. 145.
39. R. C. S. Bell, *op. cit.*, p. 102.
40. N. Senapati and N. K. Sahu, *Orissa District Gazetteers, Korāput*, Cuttack, 1966, p. 26.
41. *Ibid.*, p. 178.
42. *Ibid.*
43. *Ibid.*, pp. 178-179.
44. *Ibid.*
45. M. K. Nayar, *op. cit.*, p. 68.
46. *Ibid.*, p. 69.
47. *Ibid.*
48. V. Saravanan, *Economic Exploitation of Forest Resources in South India During the Early 19th Century*, CESS, Hyderabad, p. 6.
49. *Ibid.*, p. 12.
50. H. Cleghorn, *Forests and Gardens of South India*, London, 1861, p. 121.
51. *Ibid.*, p. 123.
52. W. R. Fisher, *op. cit.*, p. 19.
53. *Ibid.*, p. 6.
54. *Ibid.*, p. 20.
55. *Ibid.*, p. 21.
56. *Ibid.*, p. 22.
57. *Ibid.*, p. 23.
58. *Ibid.*
59. *Ibid.*, p. 26.
60. D. Brandis, *Suggestions Regarding Forest Administration in Madras Presidency*, Madras, 1883, p. 311.
61. W. R. Fisher, *op. cit.*, p. 48.
62. *Ibid.*, p. 49.
63. D. H. Khan, *op. cit.*, p. 32.
64. W. R. Fisher, *op. cit.*, p. 50.
65. *Ibid.*, p. 51.
66. D. H. Khan, *op. cit.*, p. 30.
67. *Ibid.*, p. 31.
68. M.K. Nayar, *op. cit.*, p. 26.
69. *Ibid.*
70. *Ibid.*, p. 27.
71. *Ibid.*, p. 29.
72. D. H. Khan, *op. cit.*, p. 32.
73. *Ibid.*, p. 70.
74. *Ibid.*, p. 71.
75. Government of Orissa, Education Department, Forest Branch, File No. 43 of 1941, *Sale of Coupes of 1938-39 of Chatrapur Division- writing off irrecoverable revenue* (OSA, Acc. No. 9683 OR DOC), pp. 8-9.
76. *Ibid.*, p. 73.
77. *Ibid.*, p. 76.
78. *Ibid.*, p. 81.
79. *The Madras Forest Manual, Jeypore Estate Forest Rules*, Madras, 1931, p. 351.

^{80.} *Ibid.*

^{81.} Government of Orissa, Home Department, Forest Branch, Letter No. 9808-Poll, dated the 19th October 1938 (OSA, Acc. No. 7702, OR DOC), pp. 2-3.

^{82.} J. W. Nicholson, *Inspection Note on Ghumsar North Division, January-February 1946* (OSA, Acc. No. 6723 OR DOC), p. 12.

^{83.} N. Pattnaik, *op. cit.*, p. 15.

^{84.} V. Saravanan, *op. cit.*, p. 17.

^{85.} D. H. Khan, *op. cit.*, p. 54.

^{86.} *Ibid.*, p. 55.