Chapter - III

FOREST POLICY: THE IMPERIAL DILEMMA

Before the British came to India and established their administrative set-up, the rural communities enjoyed unrestricted use of forest and wasteland in their vicinity. Although the native kings, at time, subjected the inhabitants to minor cesses for specific articles (like certain medicinal plants when they were exported out), the products of the forests consumed by the inhabitants were not taken into account. The inhabitants depended on forest flora and fauna in a variety of ways. In fact, their social and economic life depended on forest. Their dependence was institutionalized through a variety of cultural and religious mechanisms, which enabled the forest dwellers to reproduce their
existence.  

Areas cultivated by different families under *Jhum* (shifting cultivation) were respected by each other, which had been traditionally established. Even D. Brandis, the first Inspector General of forest found that sacred grooves, the traditional form of sacred presentation were very numerous and that they existed in nearly all provinces of British India. 

The early days of British rule was characterized by a total indifference to the needs of forest conservancy. Indeed, up to the mid-nineteenth century, the *Raj* saw a 'fierce onslaught on India's forests'. Prior to 1858, the forests of India were virtually left in the hands of private men and timber merchants. Timber


was in great demand for use in Public Works Department. But in the absence of any efficient means for conservancy and scientific management of the forests, the supply of timber and other forest products was threatened by the continued unrestricted or imperfectly supervised operations of the forest contractors. At the same time coming of the railway network marked the crucial watershed in the history of Indian forestry. Large-scale expansion of railways was felt necessary especially after the Mutiny as also for enabling the characteristic pattern of colonial trade, i.e., export of commodities from the colonies and import of finished goods into the colony from the metropolis. The early years of railway expansion saw an unprecedented assault on the more accessible forests to meet the demand for railway sleepers, and no supervision, whatsoever, was exercised over the felling operations and a large number of trees were felled whose logs

Could trees were felled whose logs could not be utilized. ⁵

Gradually the forests began to be used commercially for larger economy and this brought in the realization among the colonial authorities that India’s forests were not inexhaustible. The feeling of scarcity led to outside control over forests and imposed restrictions on the local use. This was preceded by political subjugation of regions to the larger economy. As railway expansion continued unabated and methods by which private enterprises were working the forests, forced the state to safeguard “their long-term imperial interests”. ⁶

British Forest Policy

The idea of a proper management of the Indian forests, thus, led to the formation of the Imperial Forest Department in 1864 with German assistance. Next came the Government Forest Act, 1865 by which the government was arming itself with necessary legislative powers. The Act empowered the government to declare any forest as government property. Though there was a tradition of state ownership of forests, the act formalized this fact. But, the right of the government was subject to the condition that it did not affect the existing rights and privileges enjoyed by the local community and the neighbouring areas. Although the process of reserving certain trees for the exclusive

use of the government had started earlier, the concept, was extended to classify forests as ‘reserved’ and ‘protected’ and surveys and forest settlements were initiated in this direction after 1865.

This led to the repeal of the earlier Act and formulation of the Indian Forest Act of 1878, which formalized this distinction and also formally recognized ‘village forest’. The new act was more comprehensive and stringent and further cut into the local use of forest than ever before. The Government held absolute rights of ownership in ‘reserved’ forest ‘and their product were not to be used by the local inhabitants unless specifically permitted by way of grant of privileges and not as a matter of right. Access to these forests was restricted, except as thoroughfare in permitted routes. The ostensible motive underlying the reservation of forests was to protect them against uncontrolled grazing and cultivation, and permit only a sustainable use of forests, though it did not preclude commercial use of timber in terms of scientific working plans. ‘Protected forests’ were those, which were not
yet to be surveyed and settled, but the local inhabitant’s access and privileges were permitted for the time being except in those cases where they were specifically prohibited.

In the case of ‘village forests’ the rights of inhabitants were conceded in respect of grazing, fuel needs, requirement of small woods for implements and own house construction, but not for sale or barter. The extension of cultivation was possible only when permitted and such permission was available only in areas where the exercise of local privileges was allowed, but not in the ‘reserved’ forests. Because of commercial value of timber, forests rich in these were invariably ‘reserved’ leaving relatively less productive areas for the exercise of local use. 8

Subsequent years were marked by a significant expansion of area under the ‘reserved’ category. Working plans were also

8. Ibid., p. 89.
drawn up to manage the forests in a scientific way. This resulted in a significant expansion and reorganization of the Forest Department. Forest Department was also feeling the pressure from the Government to raise more and more revenue and use its revenue to meet all its needs. At the same time, there was the growing fear that the Forest Department would be induced to include more and more forests under the 'reserved' category, and exploit them mainly to raise revenues. From the statistics quoted by Stebbing, it is seen that as a result of the forest settlement works between 1870-1900, out of 117,648 square miles of forests in India (including Burma) 81,124 square miles were under the 'reserved' category (69%). It was as high as 89 percent for Bombay Presidency. Voelcker therefore tried to put things in a wider perspective in his report on agriculture in 1891 where he emphasized the role of agriculture and the need to

make the forests meet the requirements of agriculture on priority basis.  

The Forest Policy Statement of 1894 thus showed awareness to the need, both to meet agricultural requirements and environmental conservation. The policy statement classified the forests into the following categories:

1. Forests, the preservation of which is essential on climatic or physical grounds
2. Forests, which afford a supply of valuable timber for commercial purposes
3. Minor forests and
4. Pasture lands.

The earlier classification of 'reserved' and 'protected' forests was not dispensed with, but could be applied to these categories. The question of restricting local inhabitants from using any of the above mentioned categories was to be decided on the basis of whether the 'public benefit' from such restrictions would more than outweigh the local interests. The ultimate control of all classes of land vested with the government. A lenient attitude was expressed towards the end of the policy statement, which indicated a preference for a more generous application of the forest laws so that the needs of agriculture and the local people were respected. 11

The Forest Policy Statement of 1894, which guided the government for a long time made it clear that the overriding consideration would be 'public interest' which could well be

interpreted as the 'interest of the larger economy' where it came into conflict with local interests, the latter had to be subordinated. The policy, however, did not spell out the organizational reforms needed to safeguard local interests at least where they did conflict with public interests, and to protect the environment, conserve valuable species and ensure their regeneration. This policy statement continued to guide future policies with little modification and even the Forest Policy Statement of 1952 made no basic departure from it.

The progressive diminution of rights and consequent loss of control over their natural resources, therefore, evoked a sharp reaction from the forest communities. From early days of

12. Ibid., p. 140.

forest administration, there were many revolts in tribal areas that centred around the question of forest rights. As the forests began to be used commercially by the larger economy, political subjugation of the various forest areas also started which facilitated their exploitation. This adversely affected the role of local communities in managing local resources particularly forest resources to the extent that they did play such a role. The history of commercialization of forests is, thus, also a history of conflicts between local and outside interests and the alienation of the local inhabitants from management of local resources.\footnote{Nadkarni, M.V.: Op. cit., p. 132.}
THE FIRST WORLD WAR

During the World Wars, Indian forests were ruthlessly exploited on a large scale. In fact, it was only during the 'Great Wars' that the enormous potential of the forests was realized. Every possible use was made to substitute indigenous timber for imported ones during the First World War. Timber and bamboo were supplied for the construction of bridges, piers, whares, buildings, huts and lines and ships. Thus, the forests received much more publicity and attention since the commencement of the First World War than ever before. This was done by way of publication of several books and pamphlets, commencement of public lectures with lanternslides on forest subject etc. These fostered a growing awareness about the importance of forests and their scientific utilization.


In order to procure timber easily and secure its regular supply so that war demands could be met, a special 'Timber Branch of the Munitions Board' was created during the First World War. Between 1914-18 approximately 1.7 million cubic feet of timber (mostly teak) were exported annually. The First World War gave a boost to the Indian resin industry at a time when American and French supplies were unavailable. 17

During the war, many young officers of the Forest Department were called in to serve in the army and this threw additional work on the officers left in the Department because they had to deal with the enormous demands for timber and other forest produce from the military authorities. 18 Silvicultural work had


perforce to be held in abeyance in some of the forest areas, which had to concentrate on other aspects. Timber from India’s forests was utilized in various eastern fields of the war. The Forest Research Institute, Dehradoon also carried out important investigations on the possibilities of utilizing jungle woods many of which were recognized later as good substitutes for important materials.

After the war, wide-ranging studies and regeneration works were undertaken so that the damages done during the war could be replenished. A study of the statistical accounts show that the regular high forests areas with scientific management increased from under one percent in 1919 to thirteen percent in 1924 for Bihar and Orissa. Silviculturists were appointed in Bengal,

19. Annual Return of Statistics Relating to Forest Administration in British India for the Year 1923-24, Govt. of India, Calcutta, 1926.
United Provinces, Burma, Bihar and Orissa, Central Province and Madras so that scientific regeneration of the various species of trees could be made possible. Researchers for natural regeneration of sal tree, which was an important hardwood, used not only for railway sleepers, but also for bridge construction and other war uses, from seed was done because artificial regeneration was, by and large, a labour problem. Enquiries were also conducted regarding damage of sal trees and its detailed study conducted in the 1920s. Thus, the period immediately following the First World War was one of optimism for the Forest Department, which planned big schemes and working plans for the forest areas directly under the Forest Department.  

20. Ibid.  

21. India’s Forests and the War, Govt. of India, Ministry of Agriculture, Directorate of Economics and Statistics, Official, Delhi, 1948, p. 11.
THE SECOND WORLD WAR

Before the Second World War, the forest policy in India was not progressive mainly due to two reasons – stagnation of industrial development and tight financial policies. The old policy put forward in the Government Resolution of 1894 was honoured in spirit but its application was still limited to those tracts of government forests, which had been long since 'reserved'. In these forests, however, the policy was strictly enforced. In the last few years before the Second World War, however, the authorities began to take note of the warnings of the Forest Department that forest resources other than those under government control, were being squandered and that the menace of erosion was on the increase. But, with the solitary exception

22. Ibid. p. 12.
of Punjab, there was no important reaction to this. In the field of utilization, there was insufficient contact between forestry and industry; the government was content to sell its trees for the best price it could obtain leaving the rest to the trade. Significant progress was, however, made in silvicultural research, which was undertaken after the end of the First World War. The accumulated experience of silvicultural research and practice had produced a high degree of efficiency in forest management. System of successive generation of felling had been modified to suit local conditions of topography and climate and to avoid undue sacrifice in the conversion of uneven aged woods. In forests managed under the 'selection system', yields were closely co-related with the degree of normality of the growing stock and working plans were careful to prescribe whatever necessary, measures to build up the normal growing stock. Yield tables were prepared for all-important species. The technique of plantation had received much attention and its application to teak, in particular, had given very satisfactory results.
During the Second World War, which was of much greater magnitude than the First World War as far as demands were concerned, and which came physically much nearer to India, enormous quantities of timber were extracted (from almost every wood species), causing excessive felling and advance working in almost all divisions of provinces. The impact of the Second World War was, therefore, felt more severely on the Indian forests. The war put a heavy strain on the forest resources of the country and, generally speaking, the normal activities of the Department had to be expanded to meet the unprecedented demands of the Defence Department for timber.

The bulk of India’s production of timber in normal times was utilized for railway sleepers, carriages and wagon building,


house building, agricultural implements and furniture. The Indian Railways was one of the biggest consumers of timber especially in the form of track sleepers. India, in pre-Second World War days, had to import considerable quantities of teak and other hardwood from Burma and a certain quantity of soft wood timber from Europe, USA and Canada. The first effect of the war in the West was a cessation of imports of timber into India from Europe, USA and Canada, due to shipping difficulties, and the earmarking of timber resources of these countries for war theatres in the West. By the beginning of 1941, India was called upon to meet the entire timber requirements of the Middle East forces and later on of the Allied Forces in Iraq and Persian Gulf. 25 By 1941-42, the demand for Indian timber went on mounting in volume. The loss of Burma and the Andamans in early 1942 increased this demand still further. From 1942 onwards, military demands for timber in the Indian

theatre of Ordinance Services and Arsenals for lorry bodies, for other vehicles, for the manufacture of ammunition boxes, shooks and packing cases, began to increase rapidly owing to the needs of the war against Japan. To meet the essential requirements of Indian Railways, key industries and other public utility services, in addition to the above war needs, the maximum production of suitable timber from the available forest resources of the provinces was necessary.26

The demand for Indian timber had increased so fast that it was difficult for the forests to meet these. This can be analyzed from the following table: 27

**MOVEMENT OF WAR DEMAND AND SUPPLY**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>DEMAND (in Tonnes)</th>
<th>SUPPLY (in Tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1941</td>
<td>670,000</td>
<td>Not known</td>
</tr>
<tr>
<td>1942</td>
<td>1,233,000</td>
<td>Not known</td>
</tr>
<tr>
<td>1943</td>
<td>1,937,000</td>
<td>1,409,200</td>
</tr>
<tr>
<td>1944</td>
<td>1,806,000</td>
<td>937,700</td>
</tr>
<tr>
<td>1945</td>
<td>2,170,000</td>
<td>1,038,200</td>
</tr>
</tbody>
</table>

27. Ibid., p. 23.
From the end of 1943, shipment of timber for the Middle East and Iraq campaigns practically ceased, but the timber and wood ware demands in India, which had by then become operational base, had increased considerably. The demands on the Department of Supply for direct and indirect war demands exceeded one and a half million tonnes annually, but in effect, the supply was limited to about one million tonnes annually mainly on account of road and transport difficulties.

In order to meet the enormous war demands of timber, and to regulate its supply, Timber Transport Advisory committees were formed in various provinces and states for allocating to different users the transport (i.e. wagons) sanctioned by the regional controllers of railway priorities periodically. (A system of permits was also introduced in most of the provinces to check the movement of timber on private account. Early in 1940, a timber directorate was set-up in the Department of Supply in Delhi to channel the supplies of forest produce from the provinces. All timber purchased from 1940 onwards were made by the Central
Government through the agency of provincial and state forest departments. By the middle of 1941, it was decided by the Supply Department, in consultation with the various provincial governments that the provincial forest departments in all their auction sales should insert a 'pre-emption clause'. The effect of this 'pre-emptive' clause was that the Forest Department had the right to secure from the purchasers of coupes, all timber produced by them and conforming to specifications laid down by the Supply Department at prices, which were fixed from time to time in consultation with provincial governments. It was mostly by these means that timber for defence services and all essential civil purposes e.g. railways, post and telegraph, public works, port trusts and industries etc. was obtained at reasonable prices by the Department of Supply. 28 By 1944, the demand for timber from the defence services increased to such an extent that the necessity of introducing control over distribution was felt. In

October 1944, a Timber Allocation Committee was, therefore, formed to allocate quotas of timber on a priority basis to the defence services and civil users within the quantities available for distribution. The production of timber was also stepped up, as is evident from the following table in order to meet defence exigencies.\(^29\) It was stepped up by 32 percent during the war years, and a maximum was reached in 1945-46 when an increase of about 62 percent was registered.

### OUT-TURN OF TIMBER AND FUEL WOOD

<table>
<thead>
<tr>
<th>Period</th>
<th>Out-turn (Thousand Tonnes per Annum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-War Years</td>
<td>4379</td>
</tr>
<tr>
<td>(1936-37 to 1938-39)</td>
<td></td>
</tr>
<tr>
<td>War Years</td>
<td>5764</td>
</tr>
<tr>
<td>(1939-40 to 1945-46)</td>
<td></td>
</tr>
<tr>
<td>Post-War Years</td>
<td>6130</td>
</tr>
<tr>
<td>(1946-47 to 1948-49)</td>
<td></td>
</tr>
</tbody>
</table>

Forest products were in such great demand during the War that all possible resources had to be mobilized like technical developments, communication network etc. to procure these. Before the War, there were only a few saw mills used in the forests and it was largely due to its development that war demands could be effectively met. Although great difficulty was experienced initially, in obtaining up-to-date machinery and equipment, an indigenously developed ‘One-Man Punjab Band Saw (2 ½”) proved invaluable for converting scantling and small logs. Saw mills for example, were set up in the Saranda forest of Singhbhum in Chotanagpur in the 1930 so that its valuable sal, bijasal and teakwood could be used for railway sleepers as well as War demands. Later on, communication networks were extended and improved and mechanical transport (trucks), scarcely known in the forests before the War, was extensively employed wherever conditions rendered their use of tractors and skidders for logging couldn’t be made possible, and wider use of gravity ropeways was prevented by difficulty in obtaining steel- rope. Charcoal burning was also stepped up in almost all
provinces for the generation of 'producer gas', which was to replace petrol. Overall, great contribution towards the development of resources was made by the Utilization Branch of the Forest Research Institute, Dehradoon.

During the War, timber and plywood in particular were used on a large scale to replace steel and various other metals all of which were in very short supply in India and the Middle East. However, other forest products such as bamboo, grass and fiberboards also replaced timber and plywood when they too became insufficient to meet demands e.g.,

(1) Timber replaced steel for roof trusses of buildings and huts and also for bridges;

(2) Timber piles replaced steel ones for piers and jetties;

(3) Wooden and plywood containers replaced numerous types of metal containers and boxes and towards the end of the War. Wood and plywood had to be supplemented by fiberboard and jute–lac containers.
An important discovery during the war was *accacia sundra*, which turned out to be a very good substitute for lingam *vitae* as dye in calico printing and as tanning agent for leather. Valuable substitutes for rifle butts were found in maple (*acer caesium*) and bird-cherry (*prunus padus*); bijasal (*petrocarpus marsupium*) and *sissoo* (*dalbergia sissoo*) were used to replace teak (*tectona grandis*) in the gun carriage factory, Jubbulpore.30

Before the Second World War, it had been a practice in the provinces and Indian states not to resort to departmental exploitation of timber. As a result, there was a shortage of officers in all ranks experienced in timberwork. However, during the war, forest personnel were extensively used in connection with the supply of timber. They mainly worked for procurement, passing, distribution including rail and road

transportation, checking and accounting for timber etc. Forest Department personnel were also employed both on the management of departmental saw mills and on the supervision of saw mills run under contract, which frequently included the fabrication of shooks for packing cases. As far as labour supply was concerned, early in the war it was adequate. Gradually as the demand increased, it proved to be a serious bottleneck in several parts of the country. This was particularly the case where hand sawing in the forest was the main method of conversion e.g., the Himalayan coniferous forests and the sal forests of Bihar, Orissa and other eastern states. This shortage of labour was partly due to a particularly long period prior to the war when demands for timber in the country were small, resulting in the adoption of other means of livelihood by erstwhile sawyers. The shortage of labour, particularly sawyers, resulted in cutthroat competition among the contractors who gave excessive advance to attract labour. The dearth of skilled fellers and sawyers resulted in excessive felling, and damage and wastage of the sawn material.
The impact of the Second World War was more severe and widespread than the preceding one. It severely affected workings in forests, because building and other civil works were curtailed in order to give priority to the supply of timber. Although there was progressive increase in revenue and expenditure during the War, the rate of increase of revenue was more rapid, since the expenditure was largely concentrated on production. Military demands for hardwoods in particular teak, sal and sissoo resulted in serious over felling of these species in north Indian forest. Also military requirements for firewood were heavy and government, private and Indian states forests were drained to supply the demand. Probably more serious in effect on increment, but certainly more difficult to assess was the effect of felling, often unsilvicultural, made to supply special sizes and classes of timber; this was especially the case in the sal forest of U. P., Central Province, Bihar and Orissa.

31. Ibid., p. 56.
After the Second World War came to an end, large-scale industrial, agricultural and social schemes including elaborate schemes of railway expansion were taken up. These had been neglected during the War years due to shift in priorities. This led to large-scale use of timber to meet these demands. Because of the growing importance of forests, and the invaluable help it had rendered during the war, areas under ‘reserved’ category were increased particularly in Assam, Bihar, Bengal, Orissa, U. P., Madras, Central Provinces, Sind, Bombay etc. Revised working plans were drawn up for various forest regions so that they could be managed in a more scientific way and utilized to give maximum benefit. Regeneration works were taken up to make up for the damages done due to war exigencies. This is evident from the following table. 32

<table>
<thead>
<tr>
<th>Period</th>
<th>Area in Square Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-war years</td>
<td>798</td>
</tr>
<tr>
<td>(1936-37 to 1938-39)</td>
<td></td>
</tr>
<tr>
<td>War years</td>
<td>814</td>
</tr>
<tr>
<td>(1939-40 to 1945-46)</td>
<td></td>
</tr>
<tr>
<td>Post-war years</td>
<td>1221</td>
</tr>
<tr>
<td>(1946-47 to 1948-49)</td>
<td></td>
</tr>
</tbody>
</table>

Herbert Howard, who was the then inspector general of forests, drew up a post-war forest policy.\textsuperscript{33} This was mainly to rehabilitate the overworked forests and improve future forest working. As a result, a number of developmental schemes were initiated involving large-scale plantation activity, expansion and improvement of the means of communication and construction of staff quarters etc. At the same time, a number of new forests division were created in Bihar, Bengal, central provinces and Berar, Madras, Orissa and Uttar Pradesh. These facilitated better management of forests according to revised working plans. Due attention was given to the regeneration of those trees that had worked as good substitutes of steel as well as imported timber. In this regard, the various researches that were undertaken since the First World War by the forest research institute, Dehra Doon, were made great use of. Silviculture of trees like \textit{semul} (Bombax malbaricum), \textit{sal} (Shorea robusta),

\textsuperscript{33} Howard, Herbert: \textit{Post-War Forest Policy for India}, Delhi, Official, 1944, p. 6.
salai (Bossawelia Serrata), fir (Abies pindrow), spruce (picea morinda) etc., that had been studied in detail during War years, were to prove valuable in post war reconstruction programmes.

British forest policy, thus, passed through distinct phases. With the importance of forests felt throughout their rule in India, the British gradually strengthened their control over the forests hitherto used by local inhabitants and created such forest regions like 'reserved' and 'Protected' forests which not only impinged on the customary rights of the inhabitants, but gradually upset their economic and social set-up. Thus began conflicts between the tribals and the government authorities, which continued throughout the British rule.

With the growing realization that the forests of India were inexhaustible, there began a gradual management of the forests by way of forest acts so that imperial interests could be served. Forest wealth was ruthlessly exploited to meet the demands of railways, public works department and other imperial needs. The
exploitation increased greatly during the First World War and every possible means was resorted to meet war demands. The meager working plans were held in abeyance and war demands were given primacy over any developmental work. Realizing the invaluable importance of forests and the help it had rendered during the First World War, large-scale schemes and working plans were drawn up so that any such need in future could be effectively met. Researches in silviculture of various species were undertaken at the Forest Research Institute, Dehradoon. These were to be of great use during the Second World War, when war demands had increased enormously, supplies of steel and certain varieties of timber had ceased, and steel and timber substitutes were required.

The Second World War put a much heavier demand on Indian forests than preceding one. Not only was India to fulfill her own demands, she was also required to meet the war demands in the Middle East and Iraq. Thus, another spell of ruthless exploitation
of Indian forests was carried out. The hard wood in particular like sal, sissoo, bijasal, teak etc. was severely affected by these demands.

Various technological as well as silvicultural developments that had hitherto taken place, were widely utilized so as to maintain the regular supply of timber and fuel wood. Their impact was so glaring that large-scale regeneration works as well as revised working plans were taken up. These were done largely to check soil erosion, further denudation and maintain ecological balance.

Another motive attached to it was that these works were likely to regenerate the damaged species so that they could be utilized in case of any future eventuality. Large scale felling of timber during the Second World War, in particular, seriously affected the economic balance of the local inhabitants who, by and large, depended on these forests for their day to day living. At the same time, creation of more and more ‘reserved’ and ‘protected’
forests directly interfered with their customary rights, which they had been enjoying in the past. The rise and growth of the various tribal movements were in part, if not fully, influenced by the policies, which the British formulated from time to time according to imperial exigencies and executed by the forest officials.

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