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**FORESTS AS THE MATERIAL AND THE LOGIC OF WORKING PLANS
IN BRITISH INDIA : THE CASE
OF TRAVANCORE AND COCHIN**

Dr. Lekha Pillai*
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ABSTRACT

Working Plans are considered as the major tool of scientific forestry for working of the forests. Scientific forestry stood for checking the ruthless felling of the forests. It along with working plans helps in the systematic management of timber which was contended to provide timber in perpetuity. But Coming to practice it was clear that the demand from market, working plans were totally neglected and working of timber becomes in tune with the demands. Working plans in that sense were used for the consolidation and expansion of the British empire in Travancore and Cochin.

Keywords: Scientific Forestry, Working Plan, Sylviculture, Timber, sustainable forestry

Introduction

Forests and forests resources are always a concern for the state that look at the material as well as ecological benefits they provide. In British India, definitive steps were taken for the conservation and commercialization of forests in the last phase of the Company regime. It was an imperative agenda of the colonial state with the annexation of India and her vast vegetative spatial resources. Apart from gaining rights over the forests, the colonial government carefully surveyed the forests, scientifically calculated profitable gains in the form of quality timber, monopolized its trade and used certain apparatuses of management. Forest working plans were one such strategy, seemingly conservative in nature but extractive in application. Working plans for the effective management of the forest resources were extended into the political territories of the native states whose forest wealth was documented by the reform/disciplining regime introduced in such regions through the Resident rule. In this article we attempt a critical study of the forest working plans focusing on its application in the native regions in the fabric of scientific forestry of the Raj.

Scientific forestry

The expansion of commercial agriculture under the East Indian Company and later the construction of the railways seriously depleted timber resources on the Indian sub-continent. This led to the introduction of sustainable and scientific forestry. Sustainable forestry is defined as management of forested areas in order to provide wood products in perpetuity. (Morgenstern, 2007, Vol 83, No. 4.) In response the colonial authorities in India created the Indian Forestry Service and introduced modern scientific forestry from continental Europe in order to prevent further destruction of the forest resources. (Oosthoek, 2007, p.1) Scientific forestry was imported from France and Germany, where it had developed since the late 18th century. (Oosthoek, 2007, p.1) Practical scientific forestry in India was first introduced by Dietrich Brandis, the first Inspector-General of British Indian forest who was a Botanist by practice. He carried out systematic surveys and drew up management plans based on growth statistics.

History of scientific forestry can be divided into three stages in south India: in the first stage focus was devoted to plantations of valuable timber trees from

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1800-1870; in the second stage, scientific forestry mostly focused on natural conservation of fuel wood plantations for the requirements of the railways from 1870-1890 and in the final stage the attention of scientific forestry was devoted to conservation of grazing grounds during 1890-1920. (Ravi Kumar, 2012, p.242). During the period of 1800-1870, scientific forestry focused on three simultaneous processes: evolving institutional establishment for governance of forests; exploration of teak and other valuable timber trees and application of scientific methods in silviculture plantation to ensure the timber supplies to infrastructural requirements of colonial state. (Ravi Kumar, 2012, p.244). Colonial rule in India mainly focused on sustainable flow of resources for maintaining the economic power of the Empire.

During the early colonial rule excessive felling of trees led to deforestations. Now the government felt that once an agreement was signed with a contractor on the size and description of trees to be cut and the terms and conditions for the cutting and removing of timber, he could do what he wished to do with the forest. (Ravi Rajan, 2006, p.7) The outcome of this process was the introduction of scientific forestry in the form of silviculture plantations in different parts of south India. (Ravi Kumar, 2012, p.246) The confidence of colonial state in manipulating nature could be seen in this measure. These plantations include teak, sandal wood, red sanders and Australian trees. It was these plantations that have witnessed the experimental based scientific forestry in India. (Ravi Kumar, 2012, p.246) Having acquired control over forests, several logistical process were initiated.

Scientific forestry can be described as the systematic planning and execution of forestry activities with the aim of sustained yield. A sustained yield is a perpetual periodic outturn of timber, fuel, bamboos etc., resulting from a systematic treatment of the forest crop. (W. E.D'Arcy, 1910, p.16) For getting a sustained yield and checking wide scale destruction of forest it was necessary to forge legal mechanisms. (Gadgil and Guha, 1992, p.122) It was for this purpose institutionalization of forest was introduced. Thus the Forest department which was the most powerful power site during the colonial

period took control of the entire management of forest and forest related activities.

The Forest department was set up in India in 1866 and Dr. Dietrich Brandis was appointed as the first Inspector General of Forests in India. (Stebbing, 1982, p.593) The appointment of Brandis, a botanist basically and University lecturer, from Germany, is considered as the dawn of scientific forestry in India (Ribben Troup, 1900, p.72). In the preliminary stage when the forestry administration was set up defense, railway, and conservation interests were paramount, but later forestry was organised on commercial lines with sustained yield as an important principle of management.

According to Gadgil and Guha, it was necessary to implement laws and legislations for the effective functioning of the forest department. (Gadgil and Guha, 1992, p.122) As a result the Forest Act in India was introduced in 1865 which empowered the government to have appropriate control over the Forests. Once it gained control of the entire forest of the country the department began careful planning for the systematic working of the forests so as to ensure the supply of timber in perpetuity. This was the beginning of the preparation of working plans for careful working of the forest resources which could be termed as one of the most powerful agency of scientific forestry. Thus scientific forestry through working plans, vigorously worked for the better management and conservation of forest, but in a later stage it turned as a better tool for commercial forestry.

Working Plans

Working plan can be considered as an essential part of scientific forestry. It is defined essentially as a plan detailing the existing forest wealth (land, flora, fauna & water resources) describing the climatic and biotic factors and prescribing management practices to conserve, preserve and efficiently utilize the forest resource.

It includes the surveying, mapping and documenting the forest and forest resources in a larger scale. The itinerant, botanical and mathematical science of the Europeans seems culminated in the silviculture practices.

Evolution of the Evolution of working Plans

The first Working Plan in India was introduced in 1860 by Lt. V. Munro, the Superintendent of Travancore. It was Dietrich Brandis, German forester who supervised the preparation of a preliminary Working Plan. He introduced linear Survey. (Stebbing, 1982, p.593) According to Linear Survey the trees along certain lines, such as roads, bridges, or streams were counted and classified according to their girth and ticked off on small pieces of paper, split into 10 pieces which would be turned over one by one. Different pieces were carved for different classes of trees. (Manoj Kumar, 2019, Volume 1, Issue 1.) His method was extensively applauded as the "Indian Method" and was esteemed throughout the world. The forest working plan during his period witnessed substantial scientific progress. Dr. Brandis prepared the first forest working plan for Pegu Yoma region of Myanmar in 1860.

A major setback to the evolution of the working plan was faced in 1882 when the forest department was decentralized. This caused the deviation in the prescriptions of the working plans under the influence of local government. However, again in 1884, Sir Wilhelm Sittich, the then Inspector General of Forests, brought back the control of the preparation of the working plan and the management of forests under the prescriptions of these working plans under the centralized control of his office for the whole India. He created a separate working plan branch and the powers of the office of Inspector General of Forests were strengthened for effective management of forests through working plans. (Manoj Kumar, 2019, Volume 1, Issue 1.)

Later W.E. D'arcy came out with the treatise "Preparation of Forests Working Plans in India" in 1891. It provided guidelines for systematic preparation of working plans. The work of checking working plans was brought under Central control and this job was entrusted to Forest Research Institute Dehradun. D'Arcy in his treatise on Forest Working Plans in 1891 which gave a standardized format to the working plans defines that "A working plan set forth the purpose with which a forest should be managed so as to best meet the interests or wishes of the owner and indicates the means by which

this purpose may be accomplished. (W. E. D'Arcy, 1892, p.2) In other words, it is a forest regulation prescribing the application of certain cultural rules and the execution of certain works in order to produce a given desired result." (W. E. D'Arcy, 1892, p.2) In the preliminary years of forestry in India the foresters considered the provisions of the Working Plans as inviolable. In the early stages deviations from the existing working plans were not allowed and if so happens the Inspector General of Forests Brought it to the notice of the respective conservators, explanations were called for. (Ribben Troup, 1900, p.139) But as the number of working plans increased, the burden of the inspector general also increased. As a result the supervision of the working plans was decided to decentralize. Later the possibility of the deviation from the approved working plans, not amounting to a revision of the general scheme of management was permitted and ample powers were given to the respective conservators in each locality to meet the situations. (Ribbentrop, 1900, p.139)

But often we can see violations in the prescribed working plan during heavy demands of timber. In many instances it was found that deviations from the sanctioned working plan got large deviations during the two world wars though certain cases were reported earlier. This was the period of which most of the forests of India got denuded to meet the global timber demands of the British Empire. Here comes the shift in the perception of scientific forestry management and working plans gave way to working schemes to meet the ready requirement of market demands. Mammen Chudamanni had recorded an interesting example of the situation that can be seen from the remarks of the Governor General on forest working in Punjab: "It is regretted that the number of trees fixed to be felled by the conservator for the Chenab river was exceeded by the officer in charge. I am directed to repeat the injunction conveyed in the review of the report for 1865-66 that after the annual yield of a forest district has been determined it must not be exceeded without special sanction". (Mammen Chudamanni, 1993, p.22)

By the Second World War the preparations of working plan itself got adjourned and extraction of timber

was made according to the whims and fancies of the contractors. Ruthless exploitation of forest resources for all purposes happened. Working plan staff was cut down. The demands made by the Second World War were of a greater magnitude than that during World War I. The impact was felt in almost all forest Divisions in the provinces and in the private forests. Extensive over felling and advance working were frequent. (Mammen Chudamannil, 1993,p.22)

Working Plans in Travancore and Cochin

The forest administration based on scrupulous Working Plans and severe execution of its provisions which was a German practice did not infiltrate to Travancore and Cochin. In Cochin the earliest working plan was prepared in 1907 by Govinda Menon but according to C K Karunakaran this is perhaps a very rough Plan, who contended that no Working Plan was prepared in Cochin up to 1950. (Mammen Chudamannil, 1993,p.24)The first working plan for Malabar was prepared in 1894. (forest.kerala.gov.in) It was prepared by P.M. Lashington in Nilambur Forest Division (1896-1905). The earliest working plan in India was prepared by Mr. Munro who was the then conservator of Forests in Travancore. Working Plan on a regular systematic basis was introduced for the first time in Travancore by Bourdillon. In the initial phase he prepared Working Schemes for thirteen reserves in Travancore, which only served the localized felling in a compact area. The felling cycle fixed was for six years. They did not visualize a regulated system or take into account the demands of scientific silviculture. The first regular working plan on a regular basis in Travancore was drawn up in the year 1908 for the forest of the Shendurney Valley.(Velupillai, 1940, p.260). From there onwards series of working plans were prepared in Travancore for teak plantations, sandalwood plantations etc which by the end of 1918 brought an area of 337 sq miles and 210 acres of forest in Travancore under sanctioned working plan.

But a policy shift occurred in the management of Forest administration in India, which was the after effect of the Forest Conference in 1918. It was decided in the conference that there was no need for a detailed working plan as the data available was incomplete and unreliable

and suggested the preparation of working schemes (Velupillai,1940, p.261) From then onwards there was a drastic shift from the preparation of working plan to working scheme. But it is evident that this policy shift emerged soon after the end of First World War. During the I W W Britain felt the need of an uninterrupted supply of timber for war purposes and for expansion of the Railways. They realized that it was very difficult to work the forest with working plans in the wake of excessive demand for timber and so recommended to stick on to working schemes thereafter.

In Travancore for each Forest Division a separate working plan was prepared. It was outlined for a fixed number of years. According to the working plan, a Reserved Forest was divided into a certain number of Working Circles, i.e., felling series with an accurate data of its extent. Out of the total area of 2,360 sq. miles and 412 acres, at the beginning of 1116 ME (1946 - 1947), working plans or schemes were sanctioned for a total area of 1035 sq. miles and 261 acres. (Lekha Pillai,pp.124,125)SubramanyaAiyer, the Conservator of Forest of Travancore considered the working plan as unnecessary and had sought to replace them with simple working schemes and this was approved by the government. From the records, it is evident that the conservator was a controversial personality whose work had been criticized and condemned on several grounds both in the press and on various platforms in and outside the country. (Lekha Pillai,p.126)

Conclusion

Working plans for the forests were blue prints for the working of a particular forest for a period of ten years in extracting timber resources and at the same time allowing conservation of timber species in attaining full growth. It helps the forest department to know at first instance the area of a particular forest its growing stock, the area to be worked in each year etc. It helps the government to get an uninterrupted supply of timber. In many instances the forest department in the states was found overruling the working plans conceding to the demands of timber contractors who wanted to have a speedier extraction of good quality timber from the forests of their choice. Why the states was entertaining

processes from these merchants when the declared policy of the state was scientific forest management, is a social question that becomes an answer in itself, leading to the commercialization of forest resources and impact on the forestry practices under the pretext of conservation. Deviations were made in the working plans according to the need of the hour. So it was explicit that it was the market demand that determines the quantity of the forests. The Forest Working Plans, the survey and settlement operations in the forest regions were all aimed at limiting the rights of the people and transferring ownership of forest to the state. (Saxena, Introductory Chapter, p.xii) Thus scientific forestry with the help of working plans helped the British to gain control of the entire forest resources especially timber to cater the needs of their global timber markets which resulted in the extension of capitalism and

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