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WW II and Woods of United Province: An Eco- Historical Appraisal

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***Abstract*—In the early years of their rule, the British made large indents on the timber wealth of India. Though even before the War India's forest resources were threatened by industrial development to meet the needs of colonial economy. The significance of India's forests was more specifically shown to the world during the two World Wars, Timbers from India's forests were utilized in various mid-eastern fields of World War I. During the Second World War, which came physically much nearer to India, the demands made on India's forests were twenty five percent more than the demands during World War I. The paper deals at length the enormous supplies of United Province Forest Department to the Defence Department for various war purposes. From the beginning of the War upto 30 September 1945, the United Provinces Forest Department supplied over a million ton of timber mostly Sal and Chir to the army and to the Indian Railway, exclusive of large supplies of timber to private firms engaged in war work. Extraction of timber from almost all the wood species led to excessive fellings and advance working in almost all forest division in the United Provinces. As Demand for teak timber grew more than ever before in the post World War period, Government decided to keep a strict control over the export of such supplies. As the War felling seriously upset the prescriptions of all working plans, United Provinces undertook reconstruction programme to rehabilitate the wood lands and groves which had suffered from over-exploitation during the War. The shortage of steam coal since 1942-43, subsequently produced a firewood famine. The paper seeks to analyze how Exigencies of War led to the measures which often ignored the basic principles of conservation and sustained yield. The war produced severe pressures on India's productivity and weakened the basis of forest based industries. The peasantry was deprived of wood for fuel and for building cottage, and agriculture was exposed to greater risks of draught and flood. Ecologically, deforestation resulted in soil erosion, loss of biodiversity, and problems of salination etc.**

Keywords- Second World War, United Province, forest resources, colonial exploitation, ecology

I. INTRODUCTION

The First World War affected England seriously in terms of natural resources. It led her to exploit excessively the forest and mineral resources of its colonies causing massive destruction to their ecology. The significance of India's forests was shown to the world during the two World Wars though even before the Wars there was heavy felling to meet the demand for railway sleepers. Forest resources were threatened by industrial development and infrastructure needs building to meet the needs of colonial economy. In the early years of their rule, the British Raj made such large indents on the timber wealth of India that Smythies termed it as 'fierce onslaught' on the subcontinent's forests. [1] World Wars intensified the process further. In World War I Indian timber, bamboos, fodder grass were used for different war purposes in India and abroad.. The indigenous resin industry was very helpful due to the non availability of French and American supplies. [2]

United Provinces, which corresponds approximately to the modern-day Indian states of Uttar Pradesh and Uttarakhand, is endowed with rich ecological resources. The Eastern and Western Circles include the great Sal belt that runs from one end of the province to the other. [3] In the Chir pine forests of the Himalayas and in the Sal forests of the plains it had a valuable reserve of 'good softwood and a most useful heavy constructional hardwood' [4] both of which were in great demand by the Defence Department. In 1916-17, in Kumaon division the classification of 566 sq miles was altered from the protected forest to reserved forest. [5] The policy of the Raj towards conservation of forest resources of Oudh had changed considerably in the post World War 1 period. The government now looked at the forests of United Provinces as sources of revenue to reshape its falling economy. In United Provinces the A "Utilization Circle, was established in 1918 at Maheshpur Utaria near Bareilly by Chief Conservator, Sir Peter Clutterbuck. It was later renamed Clutterbuckgunj. The modern history of exploitation in this province is partly linked to this new Circle. [6]

During World War I, the progress of the working plans was adversely affected and it received further set back by the Second World War. The working plans which expired could not be revised while in a number of valuable forests fellings were carried out in total disregard of the working plan prescriptions. [7] The German Submarine campaign caused shortage of imported materials and in order to develop indigenous materials, the forest Research Institute conducted various tests to know the suitability of local materials. [8] Faced with the commercial problem, the government tried to find industrial uses for India's forest wealth and new varieties of tree species began to be logged in post World War period. [9] In the united province, improvement of communications was one of the main planks of forest exploitation for which large funds were devoted.[10] As

communications were considered the veins and arteries along which forest revenue flowed, and therefore the forest department had been actively involved in "opening up the jungles" with a proper system of cart roads and paths. [11]

In the Second World War, the industrial, military and financial support of India played a crucial role in British campaign against the Axis powers. The intense struggle drew forth in its final stages all the available human and material resources of the nation. Therefore, a section of the Indian people argued that it was not the Axis powers but the British Raj which posed a greater threat to India since it was overexploiting Indian resources in the name of war.

II. Discussion

The Second World War physically came much nearer to India put much higher pressure on India's forests than World War I. An immediate demand arose for suitable Indian woods for such articles as shuttles and bobbins for textile mills, packing cases, plywood, etc. A Utilization Branch soon got engaged in evolving substitutes for materials of which there was a war-time shortage. Woods were tried out for ammunition boxes, rifle parts, and aircraft by the Timber Testing Section. A search was conducted to find out the localities in which spruce and silver fir suitable for aircraft work were to be found. [12] In view of the growing demand for teak, the Government decided to keep a strict control over the export of such supplies in order to keep them from reaching into hostile countries.[13] Moreover, imports of structural steel was almost completely stopped and this created urgent demands for timber as a substitute material.

During the Second World War the value of India as a Timber supply centre was greatly increased because on this occasion, the United Provinces Forest Department supplied twenty-five times more timber to the Defence Department alone than during World War I. [14] United Provinces also had to supply very large quantities of fuel to the troops stationed not only in the United Provinces but also in the Punjab. The sal, sisso, and chir pine forest of United Provinces were excessively used. The instructions of the supply department to this Province were that they would purchase the entire outturn without limit. [15]

In 1939, 8 million cubic feet of timber, 11 million cubic feet of fuel, 14 million bamboos and about 1 lakh maunds of resin were sold and 1 ¼ lakhs of sal ballis were supplied to the defence department. In the Haldwani Division, "the extraction of a large quantity of timber from a difficult forest up the Sarda gorge formed a unique performance in the annals of forest exploitation." This work continued unabated for nearly six months. [16] The order for semal and other soft timber was doubled in the western India Match Company at Clutterbuckganj, Bareilly. Ulla grass and chir pine billets which were treated as waste products until then were found suitable for the manufacture of packing and cheap wrapping paper by the Forest Research Institute, Dehradun. [17]

During 1940-41, the United Provinces provided 52775 tons of ballis (poles) valued at Rs. 16 lakhs mainly from the sal forests of the eastern circle and Dehra Dun besides 28 lakhs of cu. Ft. of sawn timber valued at Rs. 47 lakh and 1800 tons of logs valued at Rs. 1 ¼ lakhs. Out of the total sawn timber, 20 lakhs of cu.ft. were chir and other conifers.[18] Besides, it also supplied 130000 broad gauge sleepers and 310000 meter gauge sleepers, mostly of chir pine.[19]. Exigencies of War even led to an extension of felling into previously inaccessible tracts. For example, the exploitation of the spruce and fir forest of Chakrata Division in Kumaon first became evident during the Second World War and the first working scheme for these forests in Chakrata was prepared for the period from 1941 to1955.[20] To cope with the increased work, a utilization circle was created with a conservator in charge. Besides, 13 other gazette officers were also engaged solely in this work.[21]

The entry of Italy into the War in 1940 brought an immediate threat to Egypt and the Middle East communications. As India was the main source of troops and supplies to the Middle East theatre of War, 'millions of tons of timber crops were selected, felled, and converted into a great variety of munitions during war years'.[22] No surprise supplies of timber rose to 240,000 tons in 1942 worth Rs.. 179 lakhs which was more than double of the total supplies from the outbreak of the war until November 1941 which stood at, 118,000 tons of timber valued at about Rs. 68 lakhs.[23]. The quantity and value of the timber supplied by the United Provinces to the defence department in 1942 are shown in Table No.1

TABLE NO. 1

Description of Timber	Quantity in Cubic ft.	Quantity in tones	Value Rs.
Ballies (1853000)	2522000	50440	1595000
Logs	150000	3000	216000
Telegraph Poles (6600)	43000	860	130000
Sawn Timber	9316000	186300	15913000
Total	12030000	240600	17854000

The above figures do not include the normal supplies of sal sleepers to the tarai group and chir sleepers to the northern group of railways, and supplies of semal etc. Nor do they include the large to wood industries producing tool handles, camp and barrack furniture and packing cases, charpoys etc. In view of the great increase in production, the Utlization Circle was reorganized and number of gazette officers was increased to 30. [24]

With the invasion of neighbouring Burma by Japan in April 1942, the Second World War was brought at India's doors. Japan looked to invade India as it was a major possession of the United Kingdom and provided natural resources. Moreover, India could possibly be used as a staging point for an advance into the Middle East and the British oilfields in Persia and Iraq. A large numbers of American and British troops had also arrived to meet the Japanese threat. Due to war pressure, felling and sawing were pushed into the remotest forests of the Himalayas and into the densest jungles of the Western Ghats. Here, 'every

piece of timber, B.G. sleeper and balli had to be carried on Human backs and shoulders down steep slopes over haul of two to three miles to depots.'[25] In 1943 production registered a marked increase and reached 415,000 tons valued at Rs. 311 lakhs. About 125,000 bags of producer gas charcoal were also supplied as against 450000 bags in 1942. The quantity and value of timber produced for direct supplies to the defence department during the year ending November 1943 are shown in Table no. 2 [26]

TABLE NO. 2 ALL FIGURES ARE IN THOUSANDS.

Description of timber	Quantity in cub.ft.	Quantity in tons	Value Rs.
Sawn timber	14600	202	25400
Ballis (43 ½ lakhs)	5700	114	4900
Logs	400	8	600
Telegraph poles	57	1	159
total	20757	415	310,59,

It is significant to note here that this supply work has brought about a fundamental change in the working of the Department. In peace time it was concerned chiefly with the problems of scientific forest management and protection. Timber was sold standing to contractors and reached consumers through ordinary trade channels. The department now passes it according to specification and even arranges for its dispatch to thousands of consignees on behalf of the defence department.

In 1943, As usual about one lakh maunds of resin was supplied to the Indian Turpentine and Rosin Company. Over 2000 maunds of chir tar was produced; on re-distillation it gives a heavy tar of the Stockholm type and lighter oils which provide certain medical derivatives in urgent demand by the Army medical authorities.

The enormous increase in outturn is reflected in the revenue, expenditure and surplus of the department, shown in the Table.No. 3. [27]

TABLE NO. 3

Year	Revenue	Expenditure	Surplus
	Rs.	Rs.	Rs.
1942-43	12144516	4901461	7243055
1934-35 to 1938-39-average	4850000	2800000	2050000

The profit earned by the department during 1943-44 was RS. 52 lakhs which was six times greater than the pre-war average. [28] According to Forest administration Report, 1944, "two and a quarter million sleepers containing 4600000 cubic feet of saw timber, and 1500000 ballis, 23380 telegraph and transmission poles and 100000 cubic feet of sal logs were produced hutting timber, lany-body sets, and timber for R.A.P. towers and for packing cases." [28] In addition, department supplied semal, mango, and tun for making a number of items like parachute containers, packing cases, tool handles, hospital beds, furniture, etc. in large quantities. [29] The Forest Department continued to supply Timber to the Government of India and during the year ending in June 1945 supplied 1,83,000 tons. Overall from the beginning of the War up to 30 September 1945, the United Provinces Forest Department supplied over a million tons of timber valued at approximately eight crores of rupees. [30]. Table No.4 shows the average annual outturn of major and minor produce during the war years. [31]

TABLE NO.4 OUTTURN OF FOREST PRODUCTS

Period	Timber thousands cu.ft.	Fuel thousands cu.ft.	Bamboos thousands Rs.	Grazing and fodder thousands Rs.	Other minor produce thousands Rs.
1934/35to 1938/39	9762	31136	199	670	872
1939/40	13958	48563	75	857	1016
1940/41	14707	50554	154	878	1229
1941/42	15391	50410	210	946	1432
1942/43	22673	51066	229	956	1603
1943/44	18120	57449	414	978	2268
1944/45	15456	68459	737	989	1750
1945/46	12865	82950	511	1000	1823
1946/47	10810	56817	546	1006	5178

Out of the total timber outturn, about 75 per cent were hardwoods, mostly Sal. Sal occupied such an important position that its demand did not decline even though the Timber market was adversely affected for some time during the economic slump of 1930's. While the outturn of other species like semal rose sharply from 1937 because of the demands of match factory. The figures relate only to recorded fellings. For the government forests these excess fellings were estimated to be on average as much as six annual yields.

The large increase in annual revenue during 1940-47 indicates the all-out efforts of the forest department to meet the almost unlimited demands of the Defence Department. It was also in part due to increase in prices for all the forest produce. It is significant to note that in 1946-47 the surplus of Rs. 13054000 (£ 1 million sterling) was the highest so far recorded in the history of the United Provinces Forest Department. [32]

III. CONCLUSION

British colonialism exploited India's forest wealth for Britain's commercial and military needs. Timber was used for shipbuilding, to fuel steam engines in industry and transportation, and to make railroad sleepers for India's growing colonial rail network. Cleared areas were converted to agricultural land for revenue. Extraction of timber from almost all the wood species led to excessive fellings and advance working in almost all forest division in the United Provinces. Demand for teak timber grew more than even before in the post World War period, therefore, Government decided to keep a strict control over its export.

The shortage of steam coal since 1942-43 caused deterioration in the railway transport position and also drying up of private sources of supply to a certain extent. The result was a firewood famine. The rising price of metal, as a consequence of the war, also had an important bearing on timber market conditions.. In order to effectively control the price and distribution of timber, the provincial

government decided to take over the surplus stock of 1 crore from the central government at cost price at the end of the War. As the 'War felling seriously upset the prescriptions of all working plans which governed the technical management of the forests, immediate steps were taken for the rehabilitation of wood lands and groves, which had suffered from over-exploitation during the War and to improve future forest working. A potential factor in the post war reconstruction programme was the creation of Land Management Circle in 1945. It envisaged the economic utilization of all State lands including those under the administration of the railways, roads, and canals, as well as the waste-land under the control of district magistrates. On the basis of a note prepared by as Inspector General of forests Howard a number of post-war development schemes were initiated which included large scale plantation activity, expansion and improvement of means of communication etc. New forest industries began to come into existence in different parts of the country. The crushing demands of war often led to measures which worked against the basic principles of conservation and sustained yield. The war produced severe pressures on India's productivity and weakened the basis of forest based industries. It reduced the potentialities of production of timbers for various national requirements.

Ecologically, deforestation resulted in soil erosion, loss of biodiversity, and problems of salination etc. The aims of colonial forestry being essentially commercial, the Colonial foresters promoted those wood species which were of very little use to rural population in place those intensively used by them. Thus peasantry was deprived of wood for fuel and for building cottage, and agriculture was exposed to greater risks of draught, flood and soil erosion.

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