UNIT 30 FOREST ECONOMIES IN COLONIAL INDIA

Structure

30.1 INRODUCTION

The writings of the 1970s and early 1980s on rural economies in India largely concentrated on systems of permanent cultivation. But from the mid 1980s onwards this trend began to change and was signified by the publication of Ramachandra Guha's *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalayas*. Guha showed that the relationship between forests and the state changed when the British began looking for sources of timber to build the railways. Guha and the other scholars writing on the forests in the 1980s and early 1990s made three main propositions. First, scientific forestry offered a universal framework of conservation geared to modern capitalism and imposed on local tribal societies. Thus it responded more to global demands rather than local demands. Second monocultures and conversion of natural forests into timber plantations was the cornerstone of scientific forestry and adversely affected biodiversity in forests.Third: state monopoly over forests and the growth of scientific forestry led to displacement of local people from forest lands and the alienation of their forest rights. So, argued Guha, the introduction of scientific forestry was a "colonial watershed" that resulted in the commercialization of forest use and brought about unprecedented destruction in forested areas.

The idea that colonial control over forests was initially prompted more by commercial rather than conservation needs was discussed by many scholars following Guha. However this argument was also strongly contested. Richard Grove argued in his book *Green Imperialism,* that British Imperialism in Africa and Asia was in fact conscious of the need for conservation, and it was driven by a desire to look for pristine environments in the third world. Other historians acknowledged that Grove had dug up valuable material on the subject, but suggested that his understanding of the nature of British Imperialism was inadequate and flawed. For example Ravi Rajan stated that Imperialism was conservation conscious because conservation

was necessary for capitalism: it helped mobilize revenue and natural resources. However, we must remember that the use of conservation to maximize revenue for industrial capitalism was not merely confined to colonial countries but was in fact even prevalent in the European countries where internal colonization by state forestry was a common practice. It can not be therefore considered a "colonial watershed". Within this debate about colonial forestry as a "watershed" some historians have also attempted to explore the more complex relationships between local forest economies and scientific forestry. (Sivaramakrishnan, Delhi, 1999)

Since the early histories of forests focused primarily on the systems of state forestry and their impact, they often did not analyze how forest economies worked. This meant that in most cases, forests were not seen as integral parts of the larger local and regional economy. The relationship between colonialism and forestry was also seen in a rather narrow way: there was no attempt to look at the way it was determined by the larger agrarian policies of the colonial government. This Unit explores the working of the forest economies and their relationship with the wider political economy. It also discusses the transformation and development of the forest economy, the various faces of colonial forest management, and, the complex relationship between local resource use patterns and scientific forestry.

30.2 FORESTS AND LIVELIHOODS

Most literature on forestry tells us that the forests of India were an abode of the tribal people who were primarily dependent on forests for their subsistence. This was true to a certain extent. But, forests provided crucial inputs not only for the survival of tribal groups, but also of peasants, craftsmen and pastoral communities. In this sense forests provided a space for the play of competing interests. This Section will look at the interface between forests and different forms of resource use, different patterns of livelihood. We will not focus on tribals since Unit 32 deals with tribal economies.

30.2.1 Forests and Agriculture

The relationship between forests and agricultural societies was often an antagonistic one. An expansion of cultivation often meant deforestation. But peasant settlers also depended on the forests for some of their daily needs like firewood and fodder. The complex and contradictory relationship between forests and agriculture was mediated by a string of relationships of exchange and production. In the case of the UP Hills Dangwal has shown how common lands and forests provided tuber, fuel, vegetable, water, slate and silt. These products augmented the resources of the peasants, and many of them were crucial for maintaining the ecological balance and soil fertility of the agrarian economy. (Dangwal, 1998, 349-72) Similarly in the Central Indian plains the forests formed an important part of the common resources of the village. Village settlements and the *Wajib-ul arz* (a village level revenue document) defined peasant rights on forests and commons. It was here that peasants came into contact with the tribal communities and often also employed them to graze cattle and collect firewood from the forests. In Central India, as in the UP Hills, expansion of cultivation led to deforestation, and this at times affected climatic changes and aggravated the impact of drought, thus forcing the poorer cultivators to depend on gathering forest fruits for consumption. In the case of cropping patterns it is evident that some of the practices of shifting agriculture were adopted in peasant cultivation. The Gond cultivator's cycle was modified to exclude the practices of burning and cutting trees.

Yet the fallows remained almost the same affecting productivity levels. (Prasad, Delhi, 1998) This was not only evident in the Central Provinces but also the UP Hills where peasants combined cultivation on higher altitude dry tracts with that on fertile lands in the valley. (Dangwal, pp.358-60) Thus the expansion of cultivation into forestlands led to the transformation of the livelihood of peasants, tribals and all associated in the larger agricultural system.

30.2.2 Forests as Pasture Lands

The interface between forests, agricultural economies and other common lands was also reflected in the seasonal use of forests and common lands for grazing. For example in Himachal Pradesh herders had access to forest lands for seasonal grazing, but these grazing rights were leased out to them by local villagers. (Saberwal, Delhi, 1998, p.34) Before the colonial period the contribution of forests to the local economy was considered important in the grant of land rights by the rulers of Chamba. (Singh, Delhi, 1995, p.38) Similarly Alpine grazing in Central Punjab was regulated by collective rights of herders in commons and forest lands, and thus grazing in the forests formed an important part of the annual pastoral cycle. (Bhattacharya, Delhi, 1995)

In the Central Provinces peasants, forest dwellers shared forestlands on the fringes of *ryotwari* (revenue settlement made by the British with individual peasants; it recognized individual rights of the peasants on land) villages, and specialist herdsmen like the Ahirs, Gowaries and the Banjaras. The Ahirs took the cattle for grazing into the forests and got wages from individual peasant households for doing the task. Their intimate relationships with the Gonds and others living in the forest were a result of these daily excursions. Russell notes that in Chanda, the Ahirs had developed intimate links with the Gonds. They not only employed Gonds to graze cattle but also admitted them within the Ahir caste. In fact, the origins of the Gowarie community of Chanda were traced to inter-marriage between Gonds Ahirs. In Mandla (Vidarbha region), villagers thought that Ahirs were not part of the Hindu community as they lived with the Gonds. (Prasad, 1994, Chapter-5)

The relationships of the Banjaras with the peasant and forest communities followed a different pattern. Edward Balfour, writing in the 1840s, described the Banjaras of Central India as grain merchants who carried their wares on pack oxen. They moved over long distances, traversing difficult terrain to get supplies that they took into districts where scarcity prevailed. Later, they also began supplying grain to the army camps acquired an important status in the political economy of the Central Provinces. (Balfour, Calcutta: 1844, p.2-3) The Banjaras made their living from the sale of salt and oil to forest dwellers and by transporting goods. Ethnographers have given instances of the Charans (bards) and the Banjaras carrying loads for the Rajput and the Maratha armies. (Cumberledge 1882; Col. Mackenzie, 1881; Russell and Hiralal, Vol. 2, pp.163-192). Their ability to negotiate thick forests and 'rugged' terrain made them indispensable to the rulers who relied on them to carry messages and arms. The British therefore often condemned them as robbers and bandits. They also regularly grazed in the forests and their nomadic tract spanned from Mirzapur in East Uttar Pradesh to Andhra Pradesh, with Central Provinces falling in between. Their utility to the peasant economy was minimal. Though they sold a few milk products to the peasants, they never grazed peasant cattle. This was done by the more "trusted" graziers and residents of the village, like the Ahirs and Gowaries, who were seen as members of low castes, but included in the system of exchanges within the village community.

30.2.3 Forests and Household Industry

While the movements of the pastoralists mediated the relationship between different local economies, the links between forests and urban centers were maintained by the mobility of the artisans. They ensured the development of wider linkages of forests with other economies. Let us consider those who made lac jewellery and toys. The craftsmen who worked with lac did not necessarily live inside the forest because upper caste peasants and craftsmen regarded lac propagation with superstitious repugnance. Therefore these craftsmen bought lac sticks from the Gonds, Korkus and Baigas. (Russell and Hiralal, Vol.3, p.122) The lac seed swarmed twice a year, in December and June. Labour for its collection was necessary in June-July for the *baisakh* crop and in October-November for the *kartik* crop. Thereafter lac was taken to the markets where the forest dwellers sold it to the craftsmen. The main lac market near Mandla was in Seoni where lac was in great demand. (Lac 1875, pp.85-86; Lac 1919, p.3.) After collection, stick lac was picked off the wood, and then the encrusted twigs and barks were placed in long cotton bags. These bags were heated and the lacquer gum squeezed from the sticks and mixed with clay and other materials to make toys and bangles. Since the best business for the Lakheras (artisans who made lac toys and jewellery) was during times of festival, so their income was seasonal. While their main markets were in small towns like Mandla and Seoni in Madhya Pradesh, they also sold bangles in the villages. The presence of lac artisans in the suburbs of towns and the mobility of the Korkus, Gonds and the Baigas to sell the lac, established complex linkages between the urban, agricultural and forest societies. The tribes found themselves at the lower end of these networks. They had to walk long distances to get to the markets and had to sell their lac at prices that the artisans were willing to pay. Within the social hierarchy the Lakheras – the artisans who moulded lac – were superior to the tribal Baigas. (Russell and Hiralal,Vol.3: 106)

Similar linkages between urban centres and forests were evident in the case of the dyers. The main dyers of the province were the Koshtis, Chippas, Nillars, Rangaris and Rangrez. They dyed threads and cloths in traditional colours, mainly reds and yellow got from the roots of trees like *al*, *kusum* and *rohun*. Resin was extracted by tree tapping, and in some cases, by pounding roots. James Forsyth (*The Highlands of Central India*, London, 1871) does not record whether resin or gum was extracted by the dyer or bought from the forest dweller. Rangrez and Rangaris wove silk-bordered cloths and dyed their own thread with lac or *palas* flowers. Since they abhorred manual labour, it is likely that they bought stick lac, and *palas* flowers from forest people. Apart from this, the *tussar* silk industry and the silk weavers were dependent on the collection of silk cocoons by Gonds. Silk weavers, like Koshtis bought cocoons from the forest communities and boiled them, and wound the tread on reels. Dyers used myrabolans flowers to produce blue or black colours, while red dye was extracted from lac. Other cotton weavers like Chippas, Nillars and the Rangrez also bought flowers of a similar kind to make dyes for cloths. These dyers did not necessarily develop close social relations with the forest communities. Those like the Koshtis lived in towns, enjoyed a good income, and exercised power in their relations with forest communities. But the reluctance of these artisans to go into the forest to collect their own resins also made them dependent on mobile forest dwellers. (Russell and Hiralal, Vols. 2&3) A similar inter-linkage between household industry and peasant economies could be seen in the area of iron smithy and rural engineering. Local iron ore smelters and craftsmen, especially the Agarias, mined iron ore (Central Provinces) in the forested areas, and

repaired the implements of both the tribal people and the peasants. They were also grain traders who supplied grains to tribal people in times of stress. (Elwin, 1944)

Thus we see that the forest economy was not a closed economy, nor was it an economy that revolved only around trees. Rather forests were part of a larger agrarian system that provided support services to peasants, pastoralists and artisans. Therefore changes in forest management had implications for all such groups in different localities and regions. Colonial interventions in forest and agrarian societies ought to be seen in this context.

30.3 FORESTRY AND THE COLONIALISM

From the middle of nineteenth century 'scientific forestry' was introduced in most parts of the country. One of the main aims of scientific forestry was to exert control over forests and ensure that forests were used for larger imperial interests. An expansion of railways meant a demand for timber for sleepers; and the forests had to feed this demand. The impact of this was particularly felt in the North Western Provinces, the Garhwal region with *deodar* and *chir* trees and Central Provinces with *sal* trees. The forested areas in Central Provinces were contracted out for felling of *sal* even before the formation of the forest department in 1864. During this period the colonial government successfully negotiated the lease of *deodar* and *chir* forests of the Tehri Garhwal kingdom and the annual profit from these forests increased over the years, and was about Rs. 1.6 lakh between 1910-1925. Similar deals were made with the rulers of Himachal Pradesh, Sikkim and the Central Indian states. The strategic value of India's forests was enhanced in the inter-war period with 228,076 tonnes of timber being supplied to the specially created 'timber branch' of the munitions board, and 50,000 tonnes of fodder were supplied for military operations in Egypt and Iraq. Between 1914 and 1919 about 1.7 million cubic meters of timber was exported annually for military operations. Along with this the resin industry in Central India was a boon to the gun powder factories of France and America. (Guha and Gadgil, 1992, p.138) This vast scale of operations was not possible without the setting up of an extensive system of control and systematic exploitation of forest resources. In this Section we consider some of the principles of scientific forestry and the mechanisms by which they were implemented.

30.3.1 State Monopoly Versus Community Control

After the establishment of state monopoly over the forest areas under the Indian Forest Act 1865, the colonial state was in search of a more stringent piece of legislation to regulate the local use of forested areas. This need was fulfilled by the Indian Forest Act 1878, but there was a serious debate over the kind of control that should be exercised over the forests. Officials like B.H. Baden Powell argued that the state had an irrevocable authority on forest resources and any right granted to the people would only be a 'privilege' received at the 'pleasure of the state'. This position refused to recognize the fact that the forest dwellers, pastoralists and agricultural communities enjoyed some customary rights in the forests and were therefore entitled to use these resources. This position, termed as the 'annexationist' position (Guha, *IESHR*, 27, 1, 1990) was based on the theory that all land which was not under cultivation belonged to the state and that all customary use was exercised at the mercy of the monarch. However this position was contested by the Madras government. The Commissioner of Madras argued that village woodlands were not village 'privilege' but village property, thereby inadvertently admitting that

the state had no absolute control over forests. The first Inspector General of Forests, Dietrich Brandis, tried to mediate between these two ends of the spectrum. While Brandis himself believed in the critical role of the 'village forests', and agreed with the Madras government that local people in India should have rights similar to the rights of a user in Europe. But he proposed an in-between position to reconcile the opposed arguments, suggesting that the rights in village forests should be exercised under the overall control of the state. So he advocated a restricted take over of forests by the State. (For greater details of the debate see Guha, *IESHR*, 27, 1, 1990, pp.65-84) However this position gave way to a centralized 1878 Forest Act.

30.3.2 Global Industrial Capitalism and Forest Diversity

It is true that the framework of forestry described above recognised timber and mono-cultures as one of the crucial elements of early-nineteenth century scientific forestry. (Rangarajan, Delhi, 1998; and Guha, Delhi, 1989) However by the late 1880s changing priorities of imperial forestry showed that this was no longer true. The importance of different types of forest produce in different periods reflects the nature of the changing forest management practices and their relationship with local people. In the mid-nineteenth century, especially after the formation of the forest department in 1865, forest produce was classified into major and minor forest produce. At that time the criteria of classification were based on the method of extraction of the product and its commercial value. Its commercial value was in turn established through demand in the world market. This was also reflected in the scientific interest of the foresters themselves in some of the medicinal plants, herbs and economically important products like *katha* and bamboo. This point was especially noted by Richard Tucker in the case of the Western Himalayas, where he showed that though the foresters of the region, had an intellectual curiosity for documenting non-timber forest produce, but had left its management to the market through the system of imposition of a low license fee for *katha* collection by the contractors, who in turn made big profits. However this whole system remained on the periphery of forest management till at least the 1920s. (Tucker, p. 478)

In contrast a much more proactive role of industrial capitalism and the market was seen in the forests of the Central Provinces. The first evidence of rising international demand for minor forest produce was seen in the rising prices of lac that had many industrial uses in America, England and Germany and the exported lac was often converted into shellac in these countries in the nineteenth century. (Prasad, 2003b) The initial attempts to modify the ways in which lac was propagated and new varieties of lac introduced, failed in the Central Provinces. The government noted that since the province was not capable of yielding lac of real value it was not worthwhile for the government to take up lac cultivation on its own. Therefore it was considered better if private agencies and contractors were given the right to propagate lac. (Prasad, 2003b) Thus the European managing agencies like Messrs. Jardine and Skinner were given the first contracts for forests of Sambalpur (presently in Orissa). The District Commissioner of Sambalpur, Bowie reasoned that, the "propagation of lac is only carried on by Gonds, Binjiwars and other jungle tribes who are poor and always require advances to survive. While they propagate lac the government can only give advances if it has the lease of the jungle. By taking a royalty, the interests of the government and the firm will be kept identical". (Prasad, 2003b) This official assertion of the compatibility of the Gond, official and industrial interests was one of the first steps towards the inclusion of Binjiwars into the world market. The royalty and advance were indicative of the presence of the European agencies in the forest

economy. The managing agency used their knowledge and technique to propogate lac and reap huge profits.

By 1919 the colonial government claimed that the methods used by the forest communities were inefficient for mass propagation. R.S. Troup contended that the methods of local lac propagation were inadequate in at least two ways: the expenses involved in searching for the lac bearing shoots and large quantities of lac are wasted due to the time taken to collect lac. (Troup, 1919, 225) The Forest Research Institute, where Troup worked, carried out lac experiments to see the extent to which these disadvantages could be minimised. But as Troup pointed out the experiments led to no conclusive results in the techniques for propagating lac. The ambivalent results, Troup felt, were a result of the fact that the experiments were carried out in the lower Shivaliks, a region distinctly unsuitable for lac cultivation. However he suggested some conditions under which lac cultivation could be carried out more effectively. The annual pollarding of lac trees, the growth of trees in an open position, and the need for thinning trees more regularly, were identified as some of the desirable steps to be undertaken. Troup and his team carried out experiments over ten years. They divided the forested tracts with trees of different girth and ages into strips and applied the lac worm at different times. At each time they recorded the amount of lac that they got from the tree. In this way they determined the ideal conditions for the harvest of lac. While these experiments were being carried out the Chief Commissioner of the Central Provinces proposed the introduction of machinery in lac cultivation. He felt that by introducing technological innovations in forests the production of lac could increase and the production process become more efficient. This would save the effort of watching the lac throughout the season, and confine the use of labour to the collecting process. He refuted the proposition that the employment opportunities of the Binjiwars and Gonds would be affected if this happened and instead stated that the measure would help tribal lac collectors to strike a better bargain with the representatives of managing agencies. In order to maximise production and assess the value of lac, several government sponsored experiments were carried out in the early 20th century. A number of techniques were tried to improve the quality of the seeds, minimize labour required and reduce the injury to trees. But the reported failure of all efforts, (according to the special lac officer), proved that the methods used by forest dwellers and the peasants were more effective especially in terms of their cost efficiency. (Madhya Pradesh Secretariat Records Bhopal (Hereafter MPSR), file No: 114, September 1920) Thus the European managers continued to incorporate local techniques for lac propagation within its system of collection and production.

One of the main reasons for this was the need for the continuous and rapid supply of lac and shellac to the European industry in the inter-war period. This period also saw a significant change in the nature of trade. While in the nineteenth century significant amounts of shellac was being produced outside the country, in the pre and inter war period some shellac producing units came up in urban areas on the hinterland. For example the Divisional Forest Officer of Bilaspur Division noted that a button and shellac company had been established in Champa by a European firm to reduce the charges of the middleman and save on freight carriage to Europe. (Best, *Indian Forester* 1912, 514) By the 1940s there were 35 shellac factories in Chhattisgarh that produced 16 per cent of the lac in the entire country. (*Provincial Industries Committee Report*, 1946, Nagpur, 1947, 67)

The influx of European capital in lac provided the forest communities with seasonal employment in the forest areas. The expansion of lac production created labour opportunities for the Bhumias and Gonds who started working for managing agencies like Jardine and Skinner. These opportunities were important for their survival in the wake of restrictions over forest use especially after the reservation of forests in 1878. The first adverse impact of this was seen on the inter-linkages between the artisan and the forest dwellers. The forest dweller started supplying lac to the agents of the European firm instead of the artisan. The leasing system created monopolies of managing firms over forests and labour, pushing out smaller lac artisans from the market. It also put tribal lac collectors at the mercy of European capitalist firms whose main interest lay in using cheap labour to propagate and export lac.

From the discussion above it is clear that non-timber forest produce was used as an entry point for initiating a process of selective integration of local society into the global capitalist system guided by imperial imperatives. And it was the same constraints that also unleashed two other trends in the Central Provinces. The first was the one where substitution of forest produce took place in industrial processes. The most prominent example of this was the dyeing industry of the Province where many natural dyeing methods were replaced by chemical dyes for foreign cotton and synthetic cloths. This led to a certain amount of 'deindustrialisation' within the local economy as pointed out by Tirthankar Roy. Another trend was the incorporation of local artisans into the Imperial system of taxation and production as seen in the case of the Agarias of the Central Provinces. These variegated trends however underlined one common tendency, i.e., the manipulation of local conditions to meet the needs of the world capitalist system through the colonial machinery. And it was this objective that ensured that not only timber trees but also the trees important for some of the so called 'minor forest produce' were preserved by the state conservation system.

30.3.3 Reordering Customary Rights in Forests and the Commons

Despite the valiant effort of the people like Brandis at the decentralization of forest management, it is possible to argue that such arguments for local institutional control over forests did not tamper with the basic structure of British Imperial forestry. In fact they created the basis for the restructuring of the local economy of forest use and its integration into the larger colonial economy. The case of the unique *nistar* or customary use rights in the Central Provinces proves the point adequately. The system of commutation used here made the state an active participant in the management of forest use. Under this system the unit of assessment would be the household. Each household was to make a small annual contribution to the government and in return earned the right to pick firewood and grass, but purely for household needs. Of course, the officials termed even this as a privilege, thus denying the household all its customary rights. (Prasad, 2003a) In this sense the provincial forest policy followed Baden-Powell's conventional position that recognised custom as a privilege and not a right that the local people could demand. At the same time Brandis' recognising that local demands were crucial to the survival of colonial control over forested areas was also acknowledged under the commutation system. Historians like Guha have often argued that Brandis was the father of current day participatory forestry that has characterised Joint Forest Management. (Guha, 1996) But the issues raised by the commutation system related to the definition of 'household needs'. In Chanda the district administration held that every village would be assessed at two *annas*

per household. This fixed rate would apply to the extraction of firewood and charcoal. In other words the people were allowed to take firewood, fuel and charcoal worth two *annas*. Other produce like *mahua*, lac and *harra* were fixed at a rate of three *annas* and an equivalent amount of this produce could be collected by households who chose to pay this sum. (Prasad, 2003a) Only firewood and fuel were considered essential for household needs and therefore the charges on them were ~~a~~ fixed at a lower rate than other minor forest produce. This meant that a range of other produce for instance, ritual food such as liquor, *harra* and *mahua* - was considered a luxury. Within this limited view, the officials assumed that the needs of every household were similar and that the consumption followed a uniform pattern – both in terms of quantity and the kind of produce consumed. Whether the household contained 4 or 8 people, they were only entitled to 2 *annas* worth of fuel and firewood. By defining needs in this manner the state sought to regulate local practice by using the considerations of demand and supply and balancing them against the working and regeneration of forest produce so that long-term advantages could be drawn out of it.

Similar redefinition was done for the rights of the pastoralists whose movements were also controlled. The animals were to be divided into two classes: cattle belonging to agriculturists and grazing for agricultural purposes; and cattle belonging to professional graziers and traders. The first category was further divided into local privileged graziers and cattle coming from other localities. The cattle of professional graziers were classified as follows: agricultural cattle of peasants including milk cows for private use; milk cattle used for profits and other cattle used for profits by pastoral people. (Prasad, 2003a) A sharp separation was drawn between commercial and subsistence forms. However in actuality the creation of the grazing commons show that the nature of the grazing and milking activities was such that it was difficult to distinguish between commercial and subsistence needs. Such a divorce between the pastoralists and the agrarian society was also seen in the case of Punjab where officials clearly stated that cattle could only be grazed for domestic and agricultural purposes. (Bhattacharya, 1995) This type of restructuring was done to maximise revenue and suit the long-term colonial ends of controlling the entire agrarian economy and the forest laws were a crucial part of this game plan.

30.4 SUMMARY

This Unit has shown that the forests formed an integral part of the entire agrarian economy in nineteenth century India. They supported a large number of occupations to different degrees and the parameters of local forest economies overlapped with larger pastoral, artisanal and agricultural economies. We have seen that while the forests may have been the primary livelihood base of the tribal people, they provided important inputs to tanners, dyers, lac processors and even cattle breeders and pastoralists. In the process the forest dwellers came in contact with the fringe communities and developed relationships of co-operation and conflict with them. Thus the Binjiwars and Gonds sold silk and lac cocoons to the artisans and the Gonds were often hired by the Ahirs to graze some of their cattle. Similarly there was an exchange relationship between the Agarias and Baiga, the former receiving grains in return for the repair of Baiga sickles and axes. These types of relationships in fact signified a system that was inter- connected and open-ended in its nature. And it was the very mobility between different ecosystems and forms of resource use that allowed the survival of multiple forms of subsistence.

Scientific forestry as a "colonial watershed" has to be seen in the context of this open-ended and multi-occupational structure. It created a monopoly right of the state over forest land and resources, displaced the rights of the local people; and, restructured the local economy. The main aim of this restructuring was to alter the relationship between the local forest economy and global industrial capitalism in a way that yielded long term advantage to the colonial power. This aim was achieved by using at least three distinctive mechanisms that have been described in this chapter. The first was the institutionalisation of state ownership over forests despite some strong resistance from within the colonial regime. In fact, in practice, the plank of resistance offered by people like Brandis soon facilitated the incorporation of local skill, knowledge, and households into the project of global capitalism. The second was the modification of customary use practices according to colonial needs. This had a particularly adverse impact on the life of the pastoralists. And finally this Unit has shown that the selective integration of the local forest economy along with the skills and local knowledge base of the forest produce collectors into global industrial capitalist system led to an adverse impact on the local artisanal economies from the late nineteenth century onwards. The introduction of these three factors, however, also meant that the application of scientific forestry was conditioned not only by Imperial imperatives, but also by local and regional factors, the interplay of which determined the variegated nature and impact of colonial interventions in India.

30.5 EXERCISES

1) 'Early colonial policy was governed by commercial rather than conservation needs.' Comment.

2) In what sense were the forests critical for the survival of peasants and artisans?

3) What is 'scientific forestry'? Examine the impact of scientific forestry during the colonial period.

4) Discuss the customary rights of forest dwellers. In what ways were these modified as a result of colonial intervention?

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