POLITICAL ECONOMY OF STATE PROPERTY AND THE COMMONS: FORESTS OF THE RAMPA COUNTRY OF SOUTH INDIA

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Studies in common property resources, are haunted by the notion of tragedy. This is largely because of the contemporary Western view that property is either private or it belongs to the state. A resource is recognised in a binary sense either as a 'private good' or 'public good' and anything that doesn't belong to either becomes a 'free good' or a resource with 'open access'. In this framework there is no space for 'common property' in the sense of 'communal ownership or property'(Berkes and Farvar 1989). For efficient resource management either it should be private property that follows the 'rational self-interested economic man' dictum or state property that regulates the resource use towards public interest.

This 'tragedy of commons' persists in the understanding of the dominant classes of the third world inspite of incisive critique of these notions and the extensive documentation of the history of informal institutional arrangements based on custom and traditions successfully serving the interests of the people and the commons (To mention only a few, Gadgil 1989a, Jodha 1986, Gadgil and Iyer 1989, Ruddle 1989, Berkes 1989, Runge 1989, Wade 1986).

The main objective of this paper is to examine the consequences of the Hardin(1968)-Olson(1971) type of State property as a form of management of commons with specific reference to the history of forest resources and forest dwellers of the Rampa country in the state of Andhra in India. The second part of the paper traces the evolution of state property

in forests since the British Intervention in India. Particular attention is paid to the developments in the Madras Presidency which forms a substantial part of the present South India. The third part analyses the changes in the Rampa country since the British intervention. The last part examines the present state of forests, the environment and the people dependent on them.

II

There is not much of written historical material on the state of forests in India before ninetienth century, partly because of the fact that there was neither a compelling crises nor anything perceived as out of the ordinary. And if the forests were impenetrable with inhabitants having their control, it was taken for granted as normal. Much of the historical accounts of forests in India begin with the consolidation of the British rule in India and that history is by all accounts a history of devastation (Cleghorn 1860, Smythies 1925, Stebbing 1922-27). The British colonial intervention is an important watershed in ecological history of India. The British interest in the Indian forest resources were dictated by their imperial needs. Until the early nineteenth century, the colonial state was indifferent to forests and looked upon them as impediments to expansion of cultivation. Forest destruction was encouraged "...as their removal added to the class of land assessed for revenue..." (Gadgil and Guha 1992, Guha and Gadgil 1989). But soon it changed when they had to look for suitable timber for shipbuilding. The early policy of reserving forests began in 1806 when teak forests of Malabar were reserved for use for shipbuilding to serve the imperial interest (Guha and Gadgil 1989).

The major change in the British policy towards forests occurred in mid-nineteenth century with the beginning of the construction of railways in India. While the vast tracts of forests from the foot-hills of the Himalayas to the hills of North Arcot was subjected to the devastation of supplying sleepers for railways, the South Indian tracts had the additional burden of supplying fuelwood as well to the running of railways. In the North, Raniguni coal fields became operative, but the transportation of the same to the South was considered expensive. Importing of coal was ruled out because it was considered vulnerable to naval blockade in case of war (Atchi Reddy 1991). There were instructions from the Secretary of State to the government of Madras to raise fuel plantations and to ensure fuel supplies to the railways. The Board of Revenue of Madras was reluctant to undertake such plantations and the result was to pressurise the government to reserve forests to get the required standard varieties of wood. The Department of Forests was established by the Madras Presidency in 1856, much before the Government of India did in 1864. The impression that the Indian forests were unproductive only to be exploited and cleared for expanding the area under cultivation yielded place to the need for seeing them as an economic source exclusive to the interest of the state.

This task of reserving forests was seen as one of asserting state monopoly control over forests to the exclusion of the villages which enjoyed right of access to the forest resources. The Indian Forest Act 1866 introduced stringent provisions to safeguard state monopoly over forests. In the name of 'scientific management', the 1866 Act was an attempt to "...obliterate centuries of customary use of the forests by rural population all over India..." (Guha and Gadgil 1989). The provisions were made much more stringent by bringing a new forest Act in 1878.

Interestingly, during 1869-1878 while all other Provinces brought legislation on the lines of the Indian Forest Act 1866, the Madras Presidency did not fall in line, mainly because of their contention that the community ownership which the provincial government had tried to respect, was sought to be undermined by the Forest Act (1878) of India. Inspite of many letters from the Government of India to prepare a draft forest bill on the lines suggested by them, the Government of Madras did not accede. The Governor (Duke of Buckingham and Chardos) and two prominent members of his Council refused to have the New Forest Act of India 1878 applied to the Madras Province (Atchi Reddy 1991). Moreover, W Robinson, one of the members in his minutes tried to prove the existence of village and community forests in the vast Presidency of Madras. The Council felt: "No legislation can be suitable to Southern India which does not *in limine* recognise the specific terms the ancient landmarks of village communal property and special interest in its administration" (Stebbing, Vol. III, 1926, quoted in Atchi Reddy 1991).

However, the Madras Presidency finally had to yield to the Imperial pressure and had to bring about the Madras Forest Act in 1882. The Act was extended in phases and the Northern Andhra districts which consisted of Agency areas were brought under the fold of the Act between 1885 and 1906. The Act was extended to the Rampa agency region in 1894.

The Government of India brought out a comprehensive Forest Policy in 1894 which clearly spells out the supremacy of the 'State' interest over the people's interest. The essence of the policy is summed up in the following passage: "The sole object with which state forests are administered is the public benefit. In some cases the public to be benefited is the whole body of tax-payers, in others, the people of the tract within which the forest is installed

; but in almost all cases the contribution and preservation of a forest involve, in greater or lesser degree, the regulation of rights and the restriction of privileges of users in the forest area which may have previously been enjoyed by the inhabitants of its immediate neighbourhood. These regulation and restrictions are justified only when the advantage to be gained by the public is great; and the cardinal principle to be observed is that rights and privileges of individuals must be limited, otherwise for their own benefit, only in such a degree as is obviously necessary to secure that advantage." (Elwin 1962, emphasis added)

'The individuals and users of the forest area' alluded to in the statement are not abstract entities. These are the indigeneous inhabitants of forests or villagers in the neighbourhood of forests, who have been enjoying certain rights and privileges over the use of forests. The regulation of rights, restriction and limitation of rights here are directly aimed at these indigeneous people and village communities. The public here is nothing but the interests of the imperial powers that be and their supporting classes of the contractors, the forest, police and revenue bureaucracy ('contractor class' here after). The state monopoly of forests as seen in the policy statement is a clear contradiction of extending privileges to the very destroyers - the contractor - foresters - police men - but denying rights and destroying the very sources of livelihood of the indigenous and village communities who were the traditional protectors of the forests and thereby the ecosystem.

This policy was extended, with renewed vigour, by the state in independent India. The forest policy of 1952 tightens the stranglehold of the state on the poor. The provisions of the policy not only denies the 'communal property' rights of the people but aids and abets the classes whose interests are inimical to the sustainable development of forests and their

environs. The Forest Policy 1952, which owes its origin to the 1894 policy, is summed up as follows:

"Village communities in the neighbourhood of a forest will naturally make greater use of its products for the satisfaction of their domestic and agricultural needs. Such use, however, should in no event be permitted at the cost of national interests. The accident of a village being situated close to a forest does not prejudice the right of the country as a whole to receive the benefits of national asset. The scientific conservation of a forest inevitably involved the regulation of rights and the restriction of the privilege of user depending upon the value and importance of the forest, however irksome such restraint may be to the neighbouring areas...while therefore, the needs of the local population must be met to a reasonable extent, national interests should not be sacrificed because they are not directly discernible, nor should the rights and interests of future generations be subordinated to the improvidence of present generations." (Elwin, 1962)

Couched in hyperbole, the policy statement though has its origin in the colonial policy, in effect proves worse. Given the fact that not more than ten percent of the forest Woodstock is used by the indigeneous people and the village communities (Gadgil,1989), in the name of 'national' interests, the state protects the interest of 'contractor class' and in the name of 'individual interests' deprives access to the sources of livelihood of the poor communities. Combined with the so called scientific management and silvicultural practices, the ushering-in monoculture make the destruction of the forests and the environs complete. The Forest Policy 1952 of free India was worse than its colonial predecessor of 1894, particularly in the total lack of concern to the indigenous people:

The cultivation of certain lands with some safeguards and meeting the needs of the villagers from the neighbouring forests was recognised under the old policy, while in the new policy emphasis was on raising of exclusive village forests for the purpose. The private forests of tribals which were not touched in the old policy get subjected to controls under the new. Free grazing was recognised under the old policy but fees was imposed in the new policy. The only concession of a sort was relating to the shifting cultivation which should be curbed not by coersion as earlier but by persuasion!

The post-independence period witnessed much more of indigeneous peoples' struggle against the state, than the colonial state. With the continued threats to the privileges of the community interests and like the Draft Forest Act 1980, on the one hand and state sponsored hopes like the National Forest Policy 1988 on the other, the peoples struggle against the state for their rights, continues and that is the only hope.

III

In the background of the evolution of the state property in forests in India, an attempt is made in this section to review the experience of such a change with specific reference to Rampa country, the forest-tribal-belt of East Godavari district in the state of Andhra Pradesh in India. The very name Rampa spells rebellion to those familiar with the history of this region. For the purpose of this section 'Rampa country' is used to cover the entire forest

region which constitutes about 30 percent (about 320 thousand hectares) of the geographical area and about 7 percent (about 251 thousand) of population. The Rampa country forms part of the Eastern Ghats of India. The general configuration is hilly with elevations ranging from 500 to 1200 metres. The normal rainfall is in the range of 1600 to 1900 mm with 85 rainy days in a year and over 80 percent of the rainfall from South-west monsoon. According to the results of the forest inventory survey (1972) on the basis of the Woodstock of the region, the forests of the region are classified into three groups viz, 52.8% high volume stature (more than 100 cu.m/ha), 24.3% medium stature (50 to 100cu.m/ha) and 22.9% low stature (less than 50 cu.m/ha).

The tribal population of the region comprises of five tribal groups:

Kondareddi (shifting cultivation), Koyadora (cultivators preferring lowland areas), Kond Kammaras (blacksmith), Konda Kapu (settled as well as shifting cultivators) and Valmiki (mostly literate, employed as village servants and also practicing petty business). Though the origins of each tribe is not a clearly known history, the general conclusion is that these are indigenous tribes with centuries of settlement and their own communal and territorial rights and privileges (Haimendroff 1945).

Not much was known of these people to the outside world until the British took over this region in 1765 and the Agency was constituted in 1794. Since then this region is known as a region of a series of rebellions or *fituries* against alien rule (Arnold 1982). Arnold suggests that these rebellions could be seen as consisting of three important phases viz., the first phase from 1836 to 1862, the second phase during 1879-1916 and the third phase spread over 1922-24. While one could read the history of these rebellions as a process of alien effort

to incorporate, transform and integrate the rich resource region of Rampa into the Empire, for the present we may see the first phase only as a rudimentary resistance to the threat of loss of authority of the traditional *Muttadars* or the likes of the village chiefs. The British reaction to these early rebellions were one of compromise, largely because they saw the entire region as unproductive and and they thought that getting involved in such regions was waste of resources. The British attitude was best revealed in the famous dictum of Thomas Munro (1823) who feared that government might at any time be "...dragged into a petty warfare among unhealthy hills where an enemy is hardly ever seen, where numbers of valuable lives are lost from the climate and where we often lose but never gain reputation..."(Arnold 1982) The Board of Revenue appears to have translated this into a philosophy of those times when it wrote in 1848 that "...the tracts such as that under consideration wild and unproductive and which form the character of the country and climate must be difficult of management by the officers of government, are always best confided to the administration of their native chiefs." (Arnold, 1982)

But by 1893, the Government of Madras eased out 27 out of 30 *muttadars* (the native chiefs) for a compensation for Rs.3630 per annuum and brought the region under the direct "management by the officers of the Government". Such a change of attitude of the British was because of the emergence of the hills and forests as a source of enormous gain and the eagerness to protect the trader, moneylender and contractor who were used as the instruments to extract the surplus. The state assumed growing authority with the spread of the formal institution of the courts, police and the expanding mobility provided by roads. All these forces together undermined the traditional economy and society. The revolts of the people of Rampa during this period were clearly against the state's encroachment over their traditional

rights, over forest resources and those who have profited by their exploitation. Restrictions on <u>podu</u> (shifting cultivation), creation of forest reserves, increased axe tax, introduction of opium into the hills for revenue as well as subjugation of the tribals, prevention of the customary right to make toddy and collection of forest produce, were the measures that drove the tribal people of Rampa to rebel repeatedly.

The third phase of the rebellions of this region (1922-24) involving the leadership of Rama Raju, though depicted by David Arnold as an "...attempt of outside idealists, opportunists and dissidents to convert the *fituri* tradition..." vainly into larger freedom struggle, the basic motivation of the tribal people in these risings have to be rooted in the assumption of monopoly state control over forest resources, by denying their legitimate communal possession. The British was forced to follow a policy of appearement towards this region to avoid continued strife and loss of revenue. The British agreed to restore the *muttadar* rights and not to allow forest officers into the region without the permission of the forest department.

The post-independence period marked a hesitant approach towards the application of the forest laws in the beginning. It was not until June 1955 that the ban on the entry of forest officers below the rank of Assistant Conservator of forests was lifted. The first Working Plan (1955-56 to 1969-70) of East Godavari was an attempt to extend the forest laws comprehensively to the Rampa country. The forest department established a saw mill in 1964 with an annual requirement of 10000 cu.m. of wood, mostly from Rampa. The forest department's Working Plan of 1970-71 to 1984-85 included an industrial management plan, under which in addition to a paper mill at Rajahmundry, a plywood factory was established

in Rampa Chodavaram.

As shown earlier, the substantial part of the British rule witnessed a series of rebellions and particularly in the latter period the resistance was against the encroachment of the state on the traditional communal rights. This made the exploitation of the forests of the region relatively more difficult even in the late nineteenth and early twentieth century, in spite of the British evoloing a comprehensive legal ammunition to exploit the forest resources. The first Working Plan period (1955-56 to 1969-70) was marked by a hesitant approach. The real tragedy of the consequences of state monopoly of control over forests and people of Rampa begins with 1970-71. In the name of scientific plantations, 5272 hectares of virgin forests were felled to raise Eucalyptus. The so called 'Selection Working Circle' unleashed a regime of extracting all mature and over mature timber trees from interior and semi-accessible areas in three of the six ranges and private contractors were allowed to work on it between 1971-72 and 1974-75. All that was left at the end was a record which says, "Selection method of working enabled the unscrupulous contractors to make their way to exploit the adjoining areas not allowed to them. This resulted in illicit fellings even in outside the alloted areas where exploitation was economical" (Working Plan,... 1991).

A circle for Coppice with Reserves was established and during 1970-71 to 1974-75 private contractors were allowed to work and the result was: "The much avowed objective of retention of reserves remained a theory and the required number of trees were not left. The contractors took advantage of irregular marking by the subordinates, as a result all useful timber growth is lost" (Working Plan, Forest Department, Kakinada Division, 1991). A Bamboo Working Circle was created over 129 thousand hectares, one part to the AP paper

mills and an other part to be exploited by contractors. "The coupes sold to private contractors during 1970-71 to 1974-75 were subjected to over exploitation and unsystematic working affected adversely the bamboo growth (Working Plan, ...1991).

Even at the cost of hurting the sensitivity of the reader, atleast one more instance of modern scientific management that was witnessed in the last quarter of a century should be mentioned. This has reference to Timber Production Working Circle with a lofty objective of preserving and developing the catchment area of Godavari on the high slopes was initiated. "...The coupes originally proposed in the management plan were not worked since they were located on slopes of above 30% and adhoc alternative areas were selected at will and some of the best forests that were earmarked as <u>Biosphere Reserves</u> were all felled in Kakuru Reserve forest. In implementing this plan which was reserve oriented, considerable damage has been caused to the Godavari catchment area" (Working Plan, ...1991).

As pointed out earlier, the process of Reservation of forests of Rampa country was a halted affair. There were serious protests in the late 19th century against the extension of the Madras Forest Act 1882. The situation grew serious enough to lead to the framing of the Rampa Country Forests and Transit Rules in 1894. The process of Reservation of these areas remained incomplete till well after independence and Rampa forests were reserved only in the year 1967. There were no legislative provisions for the protection of the rights which the tribals had enjoyed for centuries. Presently they are allowed only to gather wood for domestic use with all other rights over the forests being vested with the Forest Department.

"When the Forest Conservation Act came into force in 1980, there was indiscriminate

eviction of all people including tribals from the reserved forests. No consideration was shown to even those tribals who had been practicing *Podu* (shifting cultivation) cultivation prior to this date and there was hardly any consideration shown to the impact of such an action on tribals for whom no alternative had been provided. State authorities relented in 1987, when they realised that the tribals evicted from Reserve forests in the name of conservation were forced to seek salvation by joining Naxalite groups. The government issued instructions to officials in 1987 not to harass tribals and not to evict those practicing *Podu* since prior to 1980." (Shakti 1995)

"As the ownership of the State gets consolidated and formalised and the decision making recedes farther away from the field, the special relationship of the tribals with the forest is not appreciated. Their rights are viewed as a 'burden' on the forests, and an impediment in their scientific and economic exploitation... the *defacto* and conventional command of the tribal over resources is completely denied in this perception and he is reduced to the status of merely a casual wage-earner." (B.D. Sharma quoted in Haimendroff 1985)

IV

The brief account of the state management of the forest of Rampa country given above is proof enough as to the root cause of distressing condition of the forest resources. But it hardly reveals the impact of the growing destruction on the forest dwellers, their livelihood sources and the ecosystem. Here one should note the <u>Etatism</u>, the use of the State machinery

as an instrument in the persuit of the class interests. The State programmes of 'development', ??????? those relating foreste end up ?????? the interest of the State classes often with disastrous consequences to the 'others'. To bring these aspects to light, an attempt is made here to focus attention on the impact of just one state sponsored activity viz., the establishment of a plywood factory in the joint sector with timber supplies assured by the state.

Before proceeding with the plywood factory induced experience, it may be necessary to digress to dilate some of the primordial links between the forest and the subsistence needs of the indigenous people. Strictly confining to the important tree species in the Rampa country that form as the source of subsistence, Mango (Mangifera indica), Jackfruit (Artocarpus integrifolia) and Sago and *Jeeluga* (Caryota urens) stand out as the most important ones. Their importance in the tribal livelihood is revealed by the fact that these are never felled by the tribals even in their *Podu* (shifting cultivation) clearings. Of course the Caryota palm which stops yielding sap is cleared but not as long as it yields the sap. (Annexure I gives a brief description of these trees). For the Forest Department mango and jackfruit are the prized timber, the former more so for ply-logs and latter for interior panels. The *Caryota palm* is contemptuously cleared and burnt in the clear felling operations for promoting silvicultural practices.

Now let us return to the example of plywood factory in the Rampa country as an illustration of the impact of State monopoly in forest management. The Godavary Plywoods was mooted as a joint sector venture in Rampachodavaram in 1972. The Forest Department entered into an agreement to supply annually a quantity of 7000 cu.m of wood to the factory

for a period of twenty years. The royalty was fixed at Rs.70 per cu.m for plylogs (about 120 cms girth), Rs 35 for saw logs (75 to 120 cms girth) and Rs. 12.50 perton of fuelwood. The ???? market price of the first category was Rs 1500 per cu.m. The East Godavary Forest Working Plan (1970-71 to 1984-85) proposed the virgin forests of Rampa and Gudem Agencies for the supplies and an area of 60,780 hectares was earmarked to the factory for selection working on 20 year felling cycle. The factory started working from 1976 and worked on 9 of the 20 coupes. Table 1 gives the details of the trees felled, the quantity of timber cleared and the balance left out by the factory during the period 1976-1987.

Table 1 captures some of the microlevel details of the present state managed forests with specific reference to only one dimension of supplies to one industrial unit. The Godavari Plywoods limited, as mentioned earlier was assigned an area of 60780 hectares spread over 20 coupes. The average size of the coupe is about 3000 hectares. The factory during the period of 1976-1987, when it operated, worked only in 9 out of 20 coupes alloted and the total area covered by these 9 coupes was about 27000 hectares and the actual number of trees felled per hectare works out to be a little over one tree on an average. For one who is not familiar with the nature of the trees felled it may not appear anything alarming. First the trees to be felled for ply-logs were fixed at a minimum girth of 150 cm. The minimum girth for a mango tree to be felled was fixed at 150cm and therefore, all the mango trees felled are of ply-log variety. Mango tree is the first choice of all plywood factories in the countries. Infact most of the mango trees felled in this region were supposed to be over hundred years old with an average girth of 300cm. At that size, the canopy of each tree spreads over almost a hectare. Sine the Forest Department do not provide tree-wise statistics, Puttakota coupe is chosen for a detailed analysis and the preponderance of the mango tree in the trees felled by

the factory is quite evident. There were extensive violations of several stipulations. Futher, with a view to avoid interfering with the stream flow, no tree within a distance of 20 metres from a stream or river should be felled. But in Puttakota 119 trees felled, mostly mango trees, were within this prohibited limit.

The choice of Dummukonda coupe for specific analysis is based on the consideration that this area constitutes the highest range of the Rampa hills with a height of about 12000 meters MSL. And it is fabled to be always in the clouds, rich in moisture, dense with evergreen mango tree cover and a venerable virgin forest. Table 1 unfolds the violence with which this region os treated. The felling of 3000, almost all mango, trees in an area of as many hectares, had virtually turned denuded the centuries old dense canopy. The consequences of throwing open the crown of the region bare has been resulting in the growing annual experiences of floods in the plains and rising sand dunes in the decades old barrages and reservoirs. The untold misery on the ecosystem of the Rampa hill country with all its ramifications for the plains below still awaits documentation in detail.

With the rights and privileges lost, livelihood sources systematically destroyed, their environs robbed of the very profligance of life, with the growing dependence on their wage labour in forest coupes and road maintenance and worst of all the onslaught on their women and culture, the indigenous people of Rampa country await desperately a solution amidst the State owned and managed whatever remains as forest. In the outside world there seems to be a growing range of alternatives discussed: that the tribal should become a co-sharer in the new wealth created "in forests, an idealistic vision" (B D Sharma in Haimendrof 1985), that the 1988 Forest Policy heralds a new era in the "participatory management" of forests by the indigenous people, as the basic plank of mobilisation (ASC, 1994) and that liberation

of the people and capture of State power as the only solution to the problem. But all these contending alternatives have one point in common: that State monopoly over forests should go and the State coersion could militate against the resources as well as the people dependent on them, much to the chagrin of Celson (1971) or Hardin (1968).

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Annexure I

The importance of the mango tree in the subsistence economy of the Rampa country could be seen from the intermeshing of it in the cultural life of all the tribes. A large number of places are identified in the name of the type of mango available around. The beginning of mango consumption is marked by the celebration of a festival every year. Green mangoes are

hooked down whenever needed for curry and soup. Ripe mangoes are never hooked down but only fallen ripe mangoes are collected. For two months, May and June, ripe mangoes form a staple food of the indigenous people. Mango kernels also have food value. Every family collects two to three large bags of kernels, dries and pounds them and uses it for making gruel and roties. A rough estimate is that mango fruit provides food equal to one meal to one person every day for the entire season of two months. This is not to mention the birds, the bears, wild boar etc., which depend on the mangoes in the season and some of which also end up in turn as a rich hunting haul for the tribal people. It may be mentioned here that wild mango trees grow into a huge size with canopy covering almost a hectare and the root structure spreading thin and wide with moisture retaining capacity.

The jackfruit and its stones offer another rich source of food for over a month in June. Besides the fruit, the 'stones' also serve as a rich vegetable. The stones are dried and preserved in underground bins and used throughout the year.

In the higher elevations of the Rampa country, caryota palm offer a rich source of food for almost six months from November to April. A ripe caryota plant gives a sap twice

a day, morning and evening, to the tune of 2 gallons. The entire tribal village community, women and children included, consume the sap twice a day depending on each persons needs. Women and children in general consume less. The mixing of certain herbs makes it intoxicationg too. By the perception of an average tribal, caryota palm sap provides food value equivalent to a meal a day to every person for almost six months of the slack summer season in every year. In fact the rich food value is writ large in their full cheeks during the season. The fable of the place is that the caryota sap season is a season to loosen the loin thread.

The pith of the trunk of the caryota palm is also used as food. A caryota palm which no longer yields sap is felled. The felling is a joint effort of all the villages. They select a tree and request the owner for permission which is usually granted. The felled tree is cut into pieces and shared equally, with the owner of the tree, if the tree is on private land, getting an extra piece. The bark is removed, dried and pounded and the flower is used to prepare gruel and roti. The caryota flour from a log of about one and a half feet is sufficient for a family of five for five days.

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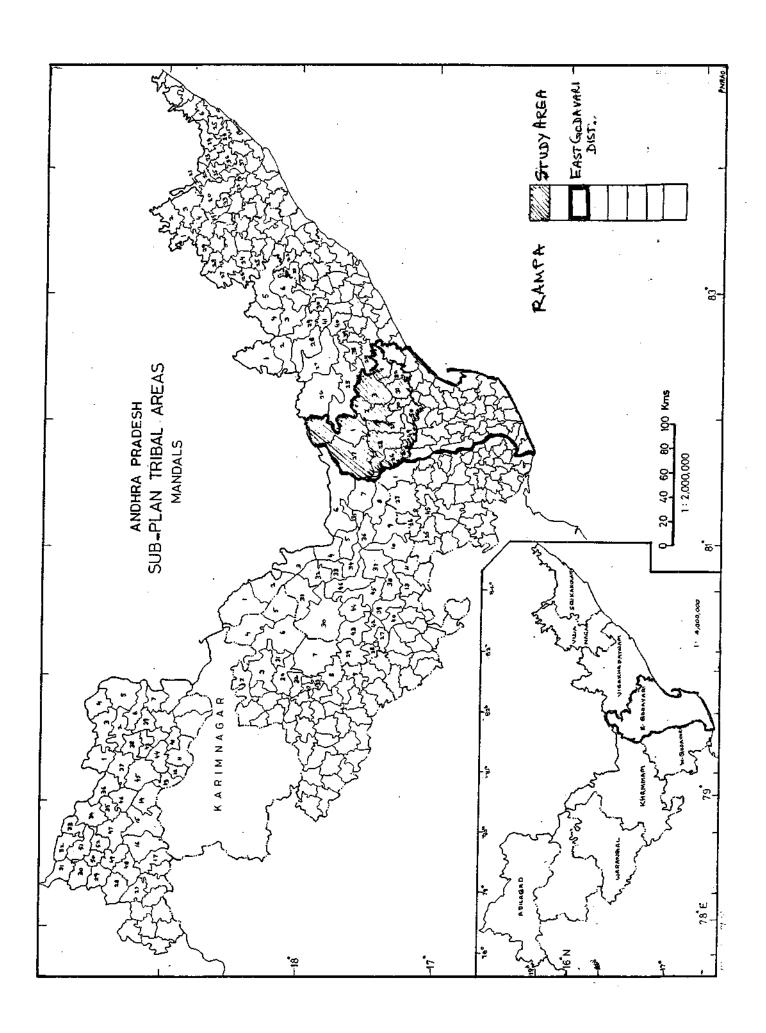


TABLE - 1 The Wood Extracted by the Godevari Plywoods Ltd. During 1976-1987

SI No.	Coupe	Number o	of Trees	Quantity Extracted CUM			quant	Quantity Transported CUM			Quantity Left out		
		Marked	Pelled	Ply Logs		Fuel Wood	Ply Logs		s Fuel wood	Ply Logs	Saw Logs	Fuel Noed	
1	2	3	4	5	6	7	8	9	10	11	12	13	
1,	All the Nine Coupes	48,454	29,215	39,600	4,661	43,154	33,958	3,148	25,171	5442	<i>i</i> 513	17,98.5	
2.	Dummukonda Coupe only	3,271	3,271	4,361	411	perl.	4,361	411	Hil	Nit	mil	ALX	
з.	Puttakota Coupe only												
	a) Mange	3,313	3,025	-	•	_	-	-	-	-	-	-	
	b) Neredu Syzium J	529	372	~	-	-		-	-	-	-	-	
	c) Other 16 Species	632	466	-	-	•	_	-	-	-	-	-	
	d) Total	3,842	3,397	-	-	_	-	-	-	_	-	-	

"Working Plan -- 1991" Shakti: Field Data. Source: 1 & 2

3.

Note: Dummukonda and Futtakota are part of the nine coupes.

- : Not Available