

Case Study

6

**PRIVATIZATION OF COMMON POOL RESOURCES OF LAND
A CASE STUDY IN WEST BENGAL**

**Katar Singh
Saumindra Bhattacharjee**



Institute of Rural Management Anand 388 001 India

February 1991

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ABBREVIATIONS

Addl. CCF	:	Additional Chief Conservator of Forests
ADFO	:	Additional District Forest Officer
BDO	:	Block Development Officer
BLLRO	:	Block Land and Land Reforms Officer
CCF	:	Chief Conservator of Forests
CFP	:	Community Forestry Project
DFO	:	Divisional Forest Officer
FD	:	Forest Department
GFF	:	Group Farm Forestry
GOWB	:	Government of West Bengal
Ha	:	Hectare (1 hectare = 2.47 acres)
Qt.	:	Quintal (100 kg)
Rs.	:	Rupees
RFO	:	Range Forest Officer
SC	:	Scheduled Castes
ST	:	Scheduled Tribes
VP	:	Village Panchayat

GLOSSARY

Akashmoni	: Acacia auriculiformis
Bamboo	: Bamboosa spp
Babui or Sabaigrass	: Ischaemum augustifolium
Commons	: A resource which is collectively owned/held and used.
Crore	: Ten million
Debdaru	: Polyenthia longifolia
Eucalyptus	: Eucalyptus hybrid
Gamar	: Gmelina arborea
Jam	: Eugenia spp
Jarul	: Lagerstroemia flosreginae
Lakh	: Hundred thousand
Mole/Mahua	: Madhuka spp
Pakur	: Ficus spp
Panchayat Samiti	: An elected body next higher to Village Panchayat and responsible for development administration \at the block level.
Patta	: Lease or lease certificate
Patta-land	: Land given on lease
Piyasal/Piyal	: Buchanania latifolia
Pradhan	: President of Village Panchayat
Shal	: Shorea robusta
Sirish	: Albizzia sp
Simul	: Bombax ceiba
Sisoo	: Dalbergia sisso
Subabul	: Leucocephala spp
Tetul	: Tamarindus indica
Village Panchayat	: An elected body or committee responsible for village administration. This is the lowest unit of local government in West Bengal and many other states in India.
Vested land	: Lands declared surplus under the land ceiling and the estate acquisition acts are vested in the State Government and are known as vested lands
Zilla Parishad	: An elected body responsible for development administration at the district level.

PRIVATIZATION OF COMMON POOL RESOURCES OF LAND A CASE STUDY IN WEST BENGAL

Abstract

Privatization is a quiet revolution that is sweeping the world. It now embraces governments of all ideologies and nations at all stages of development. This study presents an overview of privatization of common pool resources (CPRs) of land in West Bengal and an in-depth case study of the process and consequences of privatization in Nepura village of the Midnapur district in the State. It is shown in the paper that the State Government did a good job of initiating and facilitating the process of privatization by enacting a series of land reforms acts and by launching a number of programmes. Although, as compared to other States of the Indian Union, West Bengal did a reasonably good job of acquiring and leasing out the lands declared surplus under the land ceiling and the estate acquisition acts (vested lands), due to a variety of design and operational problems, the progress of privatization in the State was not upto the desirable extent. The paper highlights the need for expediting the process of privatization in the State.

The privatization afforded the poor allottees of the CPRs of vested lands an opportunity to improve their level of living by making productive use of the wasted lands allotted to them and enjoying the resultant increased incomes. The allottees were, by and large, satisfied by the manner in which the vested lands were allotted. Most of the privatized lands were used for growing eucalyptus which was the most profitable use of those lands. The Forest Department helped the allottees with technical information, saplings, and other inputs. The allotment of land in contiguous blocks helped the allottees in raising trees as a group venture and to that extent inculcated among them a spirit of co-operation and collective action. Most of the cash income from sale of eucalyptus trees was used for acquiring additional land and farm implements.

The study highlighted the need for government intervention in the local market for trees in the area to assure fair and remunerative price to the tree growers. The mode of intervention suggested in the paper is organisation of co-operatives of tree growers for marketing of trees and their products. Finally, it is concluded that privatization of CPRs of land backed up by necessary support to the land allottees could be an important instrument of achieving the goals of efficiency, equity, and sustainability in CPR management and averting the 'tragedy of the commons'.

1.0 INTRODUCTION

India has a land mass of nearly 813 million acres of which about 353 million acres (43.50%) was under cultivation in 1988-89 and the remaining 459 million acres was uncultivated (CMIE, 1989: Table 12.1). Most of the uncultivated land is owned either by government or village panchayats and is therefore a common pool resource (CPR), i.e., it is accessible to all people in the village where the land is located, is jointly used by all the village people, and there are externalities in its use. The CPRs of land in India include most of the 198 million acres of land classified as cultivable waste, permanent pastures and other grazing lands, land under miscellaneous tree crops and groves, fallow lands, barren and uncultivable lands; vested lands, i.e., the lands acquired by the government under the land ceilings and the estate acquisition acts; and the lands donated to the government under the Bhoodan movement. No reliable estimates of the extent of CPRs of land are available but their magnitude is large enough to warrant serious attention of policy makers, planners, resource economists, ecologists and others interested in the development and management of India's natural resources.

CPRs of land are in a very bad shape. They are badly degraded and denuded of any vegetative cover, and their productivity is almost negligible or far below the potential. They suffer from what Hardin (1968) calls "The Tragedy of the Commons". Since, de jure, they belong to everybody, de facto, they belong to nobody. Everybody can have a claim to whatever benefits are generated from these lands but nobody contributes anything to improve and maintain them in good condition.

Privatization is a quiet revolution that is sweeping the world. It now embraces governments of all ideologies and nations at all stages of development. It is an idea whose time has come (Fitzgerald, 1990:16). Privatization, i.e., creation and enforcement of private property rights has been suggested by many scholars as an instrument of averting the 'tragedy of the commons' and improving the productivity of CPRs of land. There is a large number of property rights scholars and policy analysts who are of the opinion that CPR problems can be resolved only by creating and enforcing private property rights (Demsetz, 1967; Hardin, 1978; Smith, 1981; Welch, 1983). Demsetz (1967: 353) asserts that "property rights arise when it becomes economic for

those affected by externalities to internalise benefits and costs". A decade after his classic article, "The Tragedy of the Commons", Hardin (1978: 314) argued that the only alternatives to the commons dilemma or CPR problems are "a private enterprise system," on one hand, or "socialism" on the other and that the change (in the existing situation) must be enforced with "whatever force may be required to make the change stick."

Privatization can be accomplished in many different ways. Privatization in practice implies vesting the ownership and control of a CPR in one authority which could be an individual, a private firm, a co-operative, a voluntary agency, or even a unit of government. As economic development proceeds and CPRs and their products become more valuable and scarce, pressure for their privatization develops endogenously and privatization takes place whenever and wherever the benefits from doing so exceed the costs. In India, as also in other countries of the world, the process of privatization of CPRs started long back and is still underway. Whereas in the earlier days, privatization of CPRs took place merely by enclosing a CPR and thereby excluding others from its use, much of privatization these days is done under some legislative act(s). In India, privatization of CPRs of lands is done under various land reforms acts as well as by administrative decrees or orders issued by the government. Giving away of CPRs of land to the landless rural poor has, of late, become one of the most commonly used social welfare measures in India.

In this paper, we present an overview of privatization of CPRs of land in West Bengal and an in-depth case study of the process and consequences of privatization in Nepura village in Midnapur district of the State.

The case study method of research was used to achieve the objectives of the study. The selection of the state, the district, and the villages was done purposively on the basis of their best performance in the acquisition and distribution of vested lands. The primary data were collected from a sample of 68 patta-holders in the Nepura village. The selection of the sample was done randomly. The sample consisted of ten landless households and 58 marginal farmers (households having upto 2.50 acres of land). The data were collected by the personal interview method using a pre-structured questionnaire. The interviews were conducted in the months of September-October 1989. The secondary data were collected/compiled from various offices of the Government of West Bengal.

2.0 THE SETTING

2.1 West Bengal State

Table 1 presents some basic statistics about West Bengal. The State with its total human population of over 54 million (m) in 1987 and total reporting area of 219 lakh acres had a high population density of 610/sq.km, which was higher than that of the country as a whole. Over 60% of the total reporting area was under cultivation. With the average land holding size already being very small at 2.27 acres, on one hand, and the increasing pressure of population on land, on the other, 'land-

Table 1

Some Basic Statistics About West Bengal

No.	Item	Unit	Extent
1.	Total population, 1987	Million	54.58
2.	Total reporting area	Thousand acre	21,860
3.	Net area sown, 1985-86	"	13,224
4.	Net area irrigated, 1985-86	"	4,720
5.	Average size of land holding, 1985-86	Acre	2.27
6.	Net area sown per capita, 1987	"	0.25
7.	Wasteland (Non-forest), 1984	Thousand acre	5,385
8.	Land affected by erosion and otherwise degraded, 1984-85	"	10,621
9.	Forest area, 1985-86	"	2,687
10.	Area afforested, 1987-88	"	17,488
11.	Land declared surplus under the Land Ceilings Act (vested agricultural land) till March 1989	"	1,255
12.	Vested agricultural land distributed till March 1989	"	835
13.	No. of beneficiaries to whom the vested lands were distributed	Thousand	1,726
14.	Per capita net domestic product at the 1970-71 prices, 1986-87	"	855

Source: Basic statistics relating to the Indian Economy; vol.2: States, Centre for Monitoring Indian Economy, Bombay, September, 1989.

hunger has assumed very serious proportions in West Bengal. Increasing illegal encroachments of the CPRs of land, reduced availability of agricultural land, and declining trend of forest area clearly indicate, quite alarmingly, the existence of 'land-hunger'. West Bengal is prone to both floods and droughts; during the period, 1952-53 to 1974-75, the harvest was either affected by droughts or by floods in 14 of the 23 years.

The State is divided into 17 districts and has a three-tiered Panchayati Raj system comprising 3,305 Gram Panchayats at the village level, 339 Panchayat Samitis at the Community Development Block (intermediate) level, and 15 Zilla (district) Parishads at the apex (State) level. The State has a unicameral legislature having only Legislative Assembly and has been ruled by the Left Front Government (LFG) over the last two decades or so. The State is known for its progressive land reforms. Limitation of space prevents a detailed analysis of the land reforms implemented in the State. However, a brief recapitulation has been attempted here. Almost whole of the present West Bengal was under the Permanent Settlement during the British rule. Under the Permanent Settlement, the amount of land revenue that the zamindars had to pay to the British Administration was settled permanently, once and for all, and the bulk of the farm land was cultivated by tenants or sharecroppers whose rights were neither defined nor secure. The Zamindari system was highly exploitative of the tenants by the zamindars. Before Independence, exploitation and repression of the tenants by the zamindars, and highly skewed land distribution had been the major constraints on agricultural development. However, during the post-Independence period, the LFG enacted a series of land reforms laws in order to modify and improve the land tenure system. These acts sought to abolish the Zamindari system, regulate terms and conditions of tenancy, impose ceilings on land holdings, acquire and distribute the land declared surplus under the land ceilings act (vested land) to the landless and marginal farm families. But contrary to the general expectation, even those reforms had hardly brought about any better changes as compared to those implemented in some other States of India. (Bandyopadhyay, et. al., 1989). The LFG launched in 1979 a special programme called "Operation Barga" in West Bengal for ensuring the legal rights of the Bargardars or share-croppers by recording their names and ~~thereby~~ preventing the possibility of their eviction. In "Operation Barga", the main emphasis was on developing group action among potential beneficiaries, and on direct interaction between the organised groups of beneficiaries and the government

officials responsible for implementation of the programme. The programme created a new awareness among the sharecroppers which facilitated the growth of rural workers' organisations and smooth implementation of the programme (UN-ESCAP, 1985: 101). The work of 'Operation Barga' is still in progress in the State along with normal settlement work. By the end of March 1989, 12.55 lakh acres of agricultural land had been declared surplus under the land ceilings act of which 8.35 lakh acres had been distributed to some 17.26 million beneficiaries at the average rate of 0.49 acre per beneficiary. The extent of wastelands (non-forest area) in the State in 1984 was 53.85 lakh acres, which accounted for 2.3% of the country's total wasteland. Only 5.6% of these degraded and eroded lands had been treated till 1984-85. However, privatization of these lands under "Operation Barga" has proved to be an effective measure to restore the productivity of these degraded wastelands. Illegal privatization has been observed to have been resorted to either by the extremely poor lower class landless people or the affluent landlords belonging to the highest strata of the society. Illegal privatization by the middle class is almost absent.

An important programme that helped the allottees of vested lands to make productive use of those lands was the Social Forestry Scheme launched in 1981 in the State. The scheme had four major components, namely, strip plantations, village woodlots, farm forestry, and reforestation of degraded forests.

2.2 Midnapur District

Table 2 presents some demographic statistics of Midnapur district. The district lies in the southern part of the State. In 1981, it had a total population of 67.43 million and a total geographical area of 14,081 sq. kms. Agro-climatically, it has been classified in the lateritic zone of the State. There is a wide range of variation in annual rainfall from 320 mm to 1,770 mm over various parts of the State. Also found in the state are some areas which are highly prone to floods and, quite contrastingly, there are areas too that are drought prone. The pace of industrialisation has been slow and consequently 78% of the total population of the district still depends solely or partially on agriculture for its livelihood. Urbanisation has been increasing but at a very slow pace. The percentage of urban population to the total population in 1981 was only 7.63. Social forestry is among the most promising agricultural and allied activities in the district. So far, its performance has been the best among all the districts of West Bengal. Arabari

Table 2
Some Demographic Features of Midnapur District, 1981

Sl. No.	Item	Unit	Extent
1.	Total population	Lakh	67.43
2.	Rural population	Lakh	61.70
3.	Decennial population growth rate (1971-1981)	%	22.39
4.	Sex ratio	No. of females per 1000 males	951
5.	Population density	No. of persons per sq.km.	479
6.	Literacy rate	%	42.73
7.	%age of workers to total population	%	26.70
8.	%age of cultivators to total workers	%	43.26
9.	%age of agricultural labourers to total population	%	30.97
10.	%age of the Scheduled Caste population to total population	%	14.60
11.	%age of Scheduled Tribes population to total population	%	7.99
12.	Total number of villages	No.	11,796

experiment in Midnapur district in rehabilitation of denuded forest and protection of the rejuvenated forest jointly by the Forest Department and the local people has become well known in India. The success of the experiment led to the formation of over 1200 voluntary village Forest Protection Committees in the State to look after the forests. The Government of West Bengal (GOWB) has formulated an ambitious scheme costing Rs.330 million based on the Arabari philosophy for rehabilitation of 6.18 lakh acres of degraded forests in the State (Chambers et. al., 1989: 158-159).

2.3 Nepura Village

Nepura village is situated in the eastern part of Midnapur district of West Bengal. Agro-climatically, it is a typical village representative of the lateritic tropics of Eastern

India. It is located 41 km north of Midnapur town and is situated at a distance of 11 km south west of Chandrokona town. It falls in the jurisdiction of Gorbeta block. Some of the basic statistics about the village are given in Table 3.

Table 3
A Profile of Nepura Village

1.	Total geographical area (acre)	586
2.	Land under cultivation (acre)	346
3.	Land under social forestry (acre)	106
4.	Land in village ponds & tanks (acre)	4.5
5.	Revenue land/vested land (acre) distributed under patta-scheme	75
6.	Total human population (1981)	736
7.	Literacy rate (%)	22
8.	Scheduled Castes population	221
9.	Scheduled Tribes population	74
10.	General castes population	441
11.	Total no. of households	113
12.	No. of <u>Pat</u> households	13
13.	No. of <u>Ghosh</u> households	27
14.	No. of <u>Giri</u> households	8
15.	No. of <u>Hazra</u> households	14
16.	No. of <u>Bhuiya, Bagdi, Ruidas & Hansda</u> households	32
17.	Other households	19
18.	No. of cattle & buffaloes	283
19.	No. of sheep and goats (1981)	106
20.	No. of farm households (1981)	93
21.	No. of agricultural labour households (1981)	42
22.	No. of marginal and small farmers' households (1981)	61
23.	No. of households having electricity connection (1989)	Nil
24.	No. of households having piped drinking water connections (1981)	1
25.	No. of community drinking water stand posts	6

Source: Village Panchayat records and some other documents.

The village, being located in the interior, has quite a low literacy rate of 22% as compared to the average literacy rate of 46% in the State. There is a primary school and a junior school

in the village. Most of the public facilities and amenities like electricity, post-office, telephones, and primary health centre are lacking. On the whole, it is a relatively backward village but is progressing gradually.

The normal annual rainfall in the village is about 1160 mm, with a wide year to year variation ranging from 480 mm to 1700 mm. However, total rainfall in the years 1986 and 1987 had been abnormally low. 'Doash' (clayey loam) is the principal soil type found in the village. The general cropping pattern followed is almost the same as the traditional cultivation sequence of rice-wheat/mustard/potato/sesamum practised all over the lateritic and semi-alluvial zones of West Bengal. In terms of density of natural tree cover, the village represents a well-forested area, located as it is at the periphery of the reserve forest of the Arabari forest range. Besides, there are many private eucalyptus plantations also. Nearly 18% of the total geographical area of the village is under forest and plantations. Though eucalyptus is the major tree species grown in the village, there are also other tree species like mango, mahua, sisoo, jam etc., showing high general awareness of the villagers about the economic and social benefits of trees.

The wastelands in the village, although quite small in extent as compared to other villages of the district, had been most productively used. The CPRs of land had been intensively utilised by the villagers. Privatization of CPRs too had taken place at a rapid pace. The progress of patta (lease certificate) distribution had been remarkable in the sense that all the 75 acres of CPRs of vested land available in the village had been distributed among the landless villagers. The productivity of CPRs of lands which were highly degraded had been restored, if not improved. Cases of encroachments by the landless poor for building huts and houses were very few. Illegal encroachment and forcible occupation of the CPRs of land by influential and affluent villagers with political backing had been reported mostly before the 1980s. Privatization of CPRs of land had promoted productive use of the degraded vested lands in the village. The villagers had mostly raised plantations on the lands distributed to them under the land patta-scheme of the GOWB. The land distribution among various size classes in the village was skewed. The tenancy practices, as reported by the BDO, were not in conformity with the existing legislation. The land holdings in the village were highly fragmented and subdivided. Sub-letting was quite frequent, and litigations about ownership and cultivation rights were very common.

3.0 PRIVATIZATION OF THE CPRs OF LAND IN WEST BENGAL: AN OVERVIEW

3.1 General

In West Bengal, privatization of CPRs of land started in the late sixties under the Congress regime. Later on, with the LFG coming into power in the State, more emphasis was laid on granting usufructuary and secured rights in degraded wastelands to the landless poor to serve the dual purpose of granting a means for their sustenance and ensuring the best possible use of these lands. Privatization has been observed to take two distinct forms in West Bengal, namely, (i) legal privatization; and (ii) illegal privatization. Under legal privatization, wastelands have been distributed to numerous landless poor households and marginal farmers by the Land Settlement Department. At the district level, the allotment of vested land is done by the Collector on the recommendation of the Block Land and Land Reforms Officer (BLLRO). A four-member committee at the block level consisting of the BLLRO, the BDO, the President, Panchayat Samiti, and the Officer-in-Charge, Police station, executes the allotment order. To achieve a high degree of success, privatization projects should, in the words of Harari and Garcia Bouza (1982), be "neither exclusively top-down nor exclusively bottom-up"; they must be based on the active participation of the underprivileged sections of the community supported by the State and many other groups including political leaders. From this perspective, the organisation structure evolved in the State for distribution of vested lands seems to be appropriate.

Illegal privatization refers to encroachments and forcible occupation of vacant vested lands. In West Bengal, both the rural poor and the rural elite classes have acquired a privileged status and the average middle class people have been deprived of their legitimate access to the CPRs of land. The poor have benefited from both legal and illegal privatization of CPRs of land whereas the elite have encroached the CPRs of land.

3.2 The Patta-Land Scheme in West Bengal

The implementation of the Patta-Land Scheme in West Bengal has been a major landmark in the history of privatization of CPRs of land in India. The Prime Minister of India, Shri Rajiv Gandhi, in his broadcast to the Nation on January 5, 1985, drew attention to the continuing problem of deforestation that threatened to engulf the country in a major ecological and socio-economic

crisis. He emphasised the need for undertaking massive programmes for greening India. Following this call, a two-day conference of Revenue Secretaries and Revenue Ministers was held in New Delhi in May, 1985. There was a consensus in the Conference in favour of making legislative provisions for grant of land pattas for conferring upon the rural poor usufructuary rights to the CPRs of land allotted to them. In India, many state governments now have recognised the utility of this approach and as of 1986 ten States had already introduced the tree patta or land leasing schemes. This scheme was implemented in phases in different parts of the country. In West Bengal, the patta-Tand scheme, as a major instrument of privatization of CPRs of land, was launched in 1977 by the LFG under its land reforms programme. It was a package of several components aimed at supplementing other governmental efforts for total rural development with the help of the Panchayats and the people's representatives. The basic objective was not only to provide the landless and destitutes with cultivable land and a homestead for their sustenance and habitation but also to reach them other basic necessities such as fuelwood, fodder, timber, other minor produce from trees, agricultural crops etc. so that they could stand on their own feet without depending on the traditional money lenders and the landed gentry in rural West Bengal. As Shah and Weir (1987) have also observed, the traditional systems in the State for ensuring that the poor have access to productive CPRs including wastelands are breaking down and the economically powerful are gaining control of them. Keeping this in mind, the land allocation criteria were so formulated as to include only landless poor and marginal farmers in the target group of the scheme. The only eligibility criterion for allotment of patta-lands was that the applicant must not have a total possession of more than one acre of land. The patta was for a period of 99 years.

Patta distribution in West Bengal was most effectively carried out in the year 1981 when a target was fixed to bring under the cover of institutional finance 2.5 lakh share-croppers and assignees of vested/patta-lands. As against that target, 1,30,655 (52.28%) beneficiaries could actually be brought under the scheme. No hard and fast rules were prescribed by the Land Revenue Department, 60WB, for regulating the use of the patta-lands. Thus, the patta-holders were free to determine as to how to use the leased lands. In contrast, in some other States of the country, patta-holders (lessee) were permitted to plant only fuelwood, fodder and fruit trees in the leased land and they could use all the produce of the trees but shall not own the

land itself. The progress of distribution of the patta-lands in West Bengal can be seen from Table 4.

Table 4
Surplus Land Vested, Distribution of Surplus Land and
Number of Families Benefited as on December 31st, 1988

Sl. No. District	Vested land available ('000 acre)			Vested land distributed ('000 acre)	Number of beneficiaries				
	Agricultural land	Non-agric. land and others	Total		SC ('000)	ST ('000)	Others ('000)	Societies & institutions	Total ('000)
1 24 Parganas	141	104	245	72	63.7	21.5	84.2	59	169.4
2 Howrah	7	6	13	3	-	0.1	12.6	19	16.2
3 Nadia	26	24	50	15	3.5	4.1	34.8	-	57.0
4 Murshidabad	47	45	92	34	18.1	5.9	78.7	11	104.9
5 Burdwan	80	96	176	51	20.3	28.1	49.6	18	142.6
6 Birbhum	47	47	94	31	64.9	13.4	30.7	-	82.8
7 Bankura	61	364	425	49	38.7	18.1	23.7	-	94.6
8 Midnapur	302	501	803	197	52.8	112.2	244.8	20	496.2
9 Hooghly	19	8	27	11	139.2	8.5	18.2	11	47.4
10 Purulia	91	196	287	59	20.7	25.8	25.8	4	74.1
11-MaWa	90	31	121	63	22.5	22.4	62.8	2	117.2
12 W.Dinajpur	146	46	192	103	32.0	49.2	70.6	-	187.5
13 Cooch Behar	59	20	79	50	67.7	2.3	24.6	-	89.2
14 Jalpaiguri	118	101	219	99	62.3	21.0	22.4	12	87.7
15 Darjeeling	22	21	43	25	12.3	9.8	12.3	-	34.4
Total	1256	1611	2867	862	663.0	342.4	795.8	156	1801.3

Source: Compiled from the data collected from Board of Revenue, Writers Buildings, GOMB, Calcutta.

Out of the total of 2866.53 thousand acres of vested land in the State, 1256 thousand acres (43.82%) was agricultural land and 1610.53 thousand acres (56.18%) was non-agricultural land. The agricultural land was mostly acquired under the Estate Acquisition Act (E.A. Act) and the Land Ceilings Act. As of December 1988, of the total vested land available in the State, 861.63 thousand acres (30%) had been distributed (Table 4). This means that about 70% of the total vested lands amounting to over 20 lakh acres including 4.20 lakh acres of agricultural land had

been lying undistributed and unused. This is a colossal waste of such a valuable and scarce resource in a land poor State. Midnapur had the highest acreage of both agricultural and non-agricultural vested lands. The total vested land in Midnapur was 802.8 thousand acres, i.e., 28.01% of the total of the State. On the contrary, the districts having closer proximity to Calcutta - metro, and registering comparatively faster pace of industrialisation and urbanisation, namely Howrah, and Hooghly, had insignificant acreage of vested lands.

In Midnapur district, a total of 196.8 thousand acres of vested land (24.5% of the total available) had been distributed by December, 1988 which accounts for 22.84% of the total vested land distributed in West Bengal. The extent of vested land distributed varied widely from district to district in the State; it ranged from three thousand acres in Howrah to 196.8 thousand acres in Midnapur. In Midnapur district, the number of beneficiaries of the patta-land scheme was also the highest in the State. The composition of the beneficiaries in the State shows that 36.81% of them were Scheduled Castes (SC) and 19.01% were Scheduled Tribes (ST) which compares well with their proportion in the total population which were 21.99% and 5.63% respectively. In Midnapur district, the SC beneficiaries constituted 28.05% (their proportion in the total population of the district being 14.6) and ST beneficiaries 22.61% of the total number of beneficiaries in the district. The vested lands were also distributed to various institutions and societies, e.g., co-operatives, schools etc., and in all 156 institutions were benefited.

As shown in Table 5, out of the total of 1137.1 thousand acres of land taken into possession by December, 1988, 179.73 thousand acres (15.81% of total) of land was under injunctions. The highest extent of land hit by injunctions was in Hooghly district accounting for 22.5% of the total land under injunctions in the State. Also, it can be seen from the table that the land acquired under the E.A. Act was hit by injunctions more than that acquired under the L.R. Act. But this was because the land acquired under the E.A. Act constituted about 87% of the total vested land taken into possession. The table also shows that of the total land hit by injunctions, 62% was hit after possession and the remaining 38% before possession. This shows that the implementing authority had not examined the judicial and legal implications of distribution of patta-lands before launching the scheme and had not cared to ensure that the land allotted was in fact available for transfer to the allottees. Also, the Board of

Table 5
Area of Land Taken into Possession and Area of Land Hit by Injunctions in Different Districts of West Bengal upto December 31st, 1988

Sl. No.	District	Area of land taken into possession ('000 acres)			Area of land hit by injunctions ('000 acres)						Total area hit by injunctions
		E.A. Act	L.R. Act	Total Act	Before possession			After possession			
					E.A. Act	L.R. Act	Total	E.A. Act	L.R. Act	Total	
1	24 Parganas(S)	71.1	10.1	81.2	12.0	1.1	13.1	11.3	1.5	12.8	25.9
2	24 Parganas(N)	20.9	2.3	23.2	6.0	1.2	7.2	4.6	1.1	5.7	12.9
3	Howrah	4.4	0.6	5.0	1.0	0.1	1.1	0.7	0.2	0.9	10.0
4	Nadia	14.9	3.0	17.9	0.8	0.1	0.9	3.4	1.4	4.8	5.7
5	Murshidabad	39.0	6.7	45.7	2.0	0.3	2.3	5.3	1.9	7.2	9.5
6	Birbhum	31.3	11.4	42.7	6.0	2.3	8.3	8.1	5.4	13.5	21.8
7	Bankura	44.0	12.0	56.0	2.0	1.0	3.0	3.3	2.7	6.0	9.0
8	Midnapur	246.5	40.4	286.9	2.2	0.1	4.0	3.2	2.2	5.4	8.0
9	Hooghly	11.1	4.1	15.2	11.0	2.1	13.1	13.9	13.4	27.3	40.4
10	Purulia	97.8	5.2	103.0	1.3	0.5	1.8	1.1	2.0	3.1	4.9
11	Malda	75.1	9.1	84.2	3.8	0.1	3.9	6.4	0.4	6.8	10.6
12	W. Dinajpur	101.8	13.5	115.3	2.5	0.2	2.7	3.1	0.9	4.0	6.7
13	Cooch Behar	47.9	5.4	53.3	4.8	0.8	5.6	6.0	2.0	8.0	13.6
14	Jalpaiguri	99.0	8.1	107.1	0.5	0.1	0.6	1.1	0.1	1.2	1.8
15	Darjeeling	30.9	2.4	33.3	1.6	0.2	1.8	2.3	0.5	2.8	4.6
16	Burdwan	48.9	18.2	67.1	0.1	-	0.1	2.0	0.0	2.0	2.1
Total		984.6	152.5	1137.1	57.6	10.6	68.2	75.9	35.7	111.6	179.7

Source: Compiled from the data obtained from Board of Revenue, QOWB, Calcutta.
E.A. Act:- Estate Acquisition Act L.R. Act:- Land Reforms Act

Revenue, GOWB, had estimated that, on the basis of vested land available for further distribution as of December, 1980 (1128.85 thousand acres), a total of 3801.5 thousand additional households could be covered. But as shown in Table 4, the actual amount of land that could be distributed upto December 31, 1988 was only 861.63 thousand acres (76% of the target) and the total number of beneficiaries covered was 1801.4 thousand (47% of the target). Injunctions were one of the major causes of this low performance.

The distribution of the patta-lands had gained the highest impetus and momentum in the third phase of the scheme which was started in 1984. This was due mainly to the fact that the GOWB had integrated the Social Forestry Scheme with the patta-land scheme realising that the implementation of the former on the patta-lands would not only result in the best use of the CPRs of land but would also lead to an all-round rural development by reaching the benefits to the grass-roots level.

Due to the integration of the two schemes, the actual achievement of the scheme shot up to 135% of the target (GOWB, 1987). However, the performance appears to be somewhat territorially skewed in as much as 70% of the coverage was in the three districts of Midnapur, Bankura and Purulia. This was mainly due to the fact that these good performing districts of the lateritic zone of West Bengal had considerably higher proportion of wastelands and vested lands than the other districts of the State. The success of farm forestry could be explained largely by the State's impressive record in the distribution of vested land (Shah, 1987:3). Under the scheme, groups of farmers having 50 acres or more of the vested lands allotted to them and/or their own lands in a contiguous block were motivated to plant trees. The Forest Department provided free saplings and minikits of fertilisers and pesticides. In the initial years, the Department also offered incentives to the farmers at the rate of 10 paise and 14 paise per surviving plant at the end of the first year and the second year respectively (Shah, 1987:5).

In the Shalboni block of Arabari region, till July 31, 1989, the total land distributed (as reported by the B.D.O) was about 19,731 acres and the total number of landless villagers benefited was 23,995. Moreover, as on July 31st 1989, there was about 1,568 acres of more land available for further distribution, which could benefit another 2,060 poor villagers. Since no accurate figures of the total number of the landless people forming the target group were available, it was not possible for us to determine the proportion of the target group that could benefit from the distribution of patta-lands.

No precise assessment of the impact of privatization of CPRs of lands in West Bengal has been done so far. However, our interviews with various officials of GOWB and a sample of beneficiaries revealed the following major limitations of this scheme in the State: inadequate follow-up actions, improper selection of beneficiaries, improper execution of the specified

distribution procedures and bottlenecks in distribution such as political interference, social clashes, etc. In addition, large areas of patta-lands allotted were hit by injunctions and other judicial objections resulting in prolonged deadlocks which were often aggravated by the apathy and negligence of the government officials at various levels.

4.0 USE AND PRODUCTIVITY OF PATTALANDS

4.1 Use and Productivity of Patta-lands in West Bengal and Midnapur District

It has been found that productivity of the patta-lands is generally very low. In most of the cases, these lands are not suitable for cultivation of agricultural crops. However, due to their pressing needs of making a living, some of the allottees/leasees did cultivate these lands, but got very low yields. No possible alternate productive use was available to the allottees until the launching of the farm forestry project in the State in 1980-81 and hence most of these lands lying barren and unused till then. When the farm forestry project was launched, some progressive farmers started raising plantations on these lands. Initially, the progress of tree plantation in the Arabari range was very slow. But soon, it caught on as the farmers realised that growing trees was better than leaving the lands fallow. This was due partly to the education and extension efforts made under the farm forestry scheme and partly to the demonstration effect of adoption of tree plantation by a few progressive farmers in the area. Though this activity was initially taken up with a half-hearted commitment, even the lowest returns obtained were sufficient to compensate the tree growers for their effort and costs and to provide an incentive also.

Table 6 presents data on the extent of patta-lands by type utilised for tree planting under the Community Forestry Project in West Bengal and Table 7 on the progress of social forestry in the Arabari range in Midnapur district. From Table 6, it is evident that most of the patta-lands (54%) in the lateritic zone on which trees were planted were fallow lands but in the alluvial zone, 65% of such lands were homestead lands and 26% were fallow lands. Table 7 shows that the achievement of the social forestry project in the Arabari range was highest in the year of its inception (494 acres in 1981-82). Thereafter, the performance declined gradually over time.

Table 6
Extent of Patta-Lands by Type Utilised for Tree Planting
under the Community Forestry Project in West Bengal

District	Home- stead land	Fallow land	Tank fore- shore	Field boun- dary	Marginal agricul- tural land	Total
Lateritic zone						
Birbhum	29	51	10	-	10	100
Burdwan	34	49	17	-	-	100
Bankura	9	73	5	-	-	100
Midnapur	31	50	19	-	-	100
Purulia	33	33	20	14	-	< 100
Average of lateritic zone						
	28	54	14	2	2	100
Alluvial zone						
Darjeeling	87	13	-	-	-	100
Midnapur	75	-	25	-	-	100
W.Dinajpur	20	80	-	-	-	100
Jalpaiguri	55	30	10	-	5	100
Birbhum	10	30	50	-	10	100
Nadia	-	100	-	-	-	100
Murshidabad	81	6	13	-	-	100
Malda	42	56	2	-	-	100
Cooch Behar	50	50	-	-	-	100
Hooghly	-	-	-	-	-	-
Howrah	-	-	-	-	-	-
Burdwan	-	50	-	50	-	100
Average of alluvial zone						
	65	26	7	1	1	100

Source: Monitoring and Evaluation cell, Calcutta, West Bengal
Social Forestry Wing.

4.2 Use and Productivity of Patta-lands in Nepura Village

A comparative study of economics of cultivation of crops and tree plantations on the patta-lands and on traditionally cultivated agricultural lands was done. Out of the 68 sample households surveyed, 42 were found to have cultivated agricultural crops in both their owned lands as well as the patta-lands. We observed

Table 7
Physical Progress of Social Forestry in the
Arabari Range in Midnapur District

Year	Area covered (acre)	Number of saplings planted ('000)	Cumulative progress	
			Area covered (acre)	Number of saplings planted ('000)
1981-82	494	300	494	300
1982-83	173	112	667	412
1983-84	108	68	775	480
1984-85	173	109	948	589
1985-86	128	80	1076	669
1986-87	67	43	1143	712
1987-88	-	-	1143	712
1988-89	168	98	1311	810
Total	1,311	810	-	-

Source: Forest Range Office, Arabari (Midnapur), West Bengal

that the sample farmers strictly followed a conventional system of land classification. According to this system of classification, based upon its fertility, productivity status, and the overall quality, land is divided into three broad categories, namely: (1) Chaharam, i.e., extremely unproductive degraded wastelands; (2) Dhanisyam - land of medium grade; and (3) Dhani Doyam - the best quality land, where double-cropping (two crops in a single agricultural year) is possible. However, it is very difficult to distinguish among categories of land, as the entire mode of classification is based upon mere eye inspection rather than any scientific method. According to this classification, it can be inferred that the patta-lands put into agricultural practices were mostly the chaharams and rarely the Dhanisyams. Table 8 presents the average per acre yields of crops grown on both the patta-lands as well as owned cultivated lands by the sample households over the period of five years from 1984-85 through 1988-89.

Table 8

Average Per Acre Crop Yields of Patta Lands and Adjacent Owned-Cultivated Lands in Nepura Village

(Unit: Qt./acre)

CROP	Patta lands					Owned lands				
	1984-85	1985-86	1986-87	1987-88	1988-89	1984-85	1985-86	1986-87	1987-88	1988-89
Rice	7.0 (3D*)	7.5 (35)	9.2 (34)	8.5 (33)	8.7 (38)	21.5 (42)	19.0 (42)	22.5 (42)	21.3 (42)	21.9 (42)
Potato	32.0 (7)	35.0 (35)	44.6 (6)	- (3)	N.A.	87.3 (38)	93.2 (40)	102.3 (39)	98.6 (42)	N.A.
Til	2.5 (18)	2.2 (5)	2.7 (16)	2.2 (19)	"	5.1 (5)	3.1 (7)	4.6 (7)	4.8 (4)	"
Mustard	2.0 (7)	1.8 (9)	2.4 (7)	2.0 (13)	"	7.0 (12)	3.0 (10)	5.8 (4)	5.0 (5)	"
Wheat	-	-	-	-	-	-	-	7.5 (11)	7.2 (6)	-
Brinjal	-	-	-	-	-	-	69.5 (4)	-	-	-
Cauliflower	-	-	-	-	-	-	-	92.5 (4)	87.0 (7)	-

Source: Own sample survey data.

NA = Not available at the time of the sample survey.

*Figures in parentheses are total no. of sample households who cultivated the crop.

From the table it can be seen that the average productivity of patta-lands were very low compared to that of cultivated owned lands in all the five years. For example, the average yield of rice on the patta-lands was 32.5%, 39%, 40.9%, 39% and 39% (an average of 38.8% over these five years) of that on the owned lands in 1984-85, '85-86, '86-87, '87-88 and '88-89 respectively. Similarly, for other crops, the average yields on the patta-lands ranged from 39.3% to 56.1% of the corresponding average yields on the owned lands. The low productivity of the patta-lands was due mainly to the fact that the degraded patta-lands now put under cultivation had been subjected to soil erosion, depletion of nutrients, removal of top soil etc., as they had been simply lying barren for ages. Hence, their fertility status had become

very low. However, it is generally believed by villagers that if the same piece of land is cultivated for a considerable period of time, its soil fertility and structure could be improved gradually. But, the yield data in the table show no such improvement over time; the productivity has been fluctuating over time due to erratic rainfall and droughts. This is because the same piece of land had not been cultivated in every consecutive year. However, even if the same piece of land had been cultivated throughout, the time period of the study was not long enough to reflect improvements in productivity. Lack of assured irrigation has also further lowered the yields of the rabi crops on the patta-lands. It can be inferred from Table 8 that the poor patta-holders can get more profits by concentrating on the cultivation of rice than any other crops. This is because whereas wheat requires irrigations at specific stages of growth, and potato needs loose friable better-conditioned soil tilth, rice has comparatively less exacting requirements. Since cultivation of mustard and sesamum is largely dependent upon conservation of soil moisture, they cannot be grown on these degraded and eroded lands. On similar grounds, cultivation of vegetable crops is also not economically viable on these lands. Hence, rice is the only crop that can be profitably grown on the degraded patta-lands.

In Arabari range, it was found that although cultivation of agricultural crops was practised on the patta-lands, its significance in terms of extent was very low. All of the 68 households interviewed by us had raised eucalyptus plantations in their patta-lands. Since the patta-lands were distributed mostly by sub-dividing the vast stretches of barren wastelands, they were concentrated in contiguous blocks of land. Hence the lessees raised their plantations following the concept of Group Farm Forestry, i.e., they performed many operations, but mainly protection, on a group basis.

We also compared per acre yields of agricultural crops and eucalyptus plantations on the patta-lands. Table 9 shows the average per acre yields of agricultural crops and eucalyptus grown exclusively on the patta-lands in Nepura village over a period of five years, 1984-85 through 1988-89. We found that none of the 68 farmers interviewed had cultivated wheat, brinjal, cauliflower or other vegetables, in the patta-lands. This was simply due to the fact that the low quality patta-lands did not meet the specific requirements of these crops. Comparison of the data presented in Tables 8 and 9 substantiates the low productivity of the patta-lands for agricultural production, on one hand, and high suitability for eucalyptus plantations, on the

other. Hence, on the grounds of economic considerations, patta-lands are best suited for raising tree plantations.

Table 9
Average Per Acre Yields of Agricultural Crops and Eucalyptus on the Patta-lands in Nepura Village

Crop	(Unit: Qt./acre)				
	1984-85	1985-86	1986-87	1987-88	1988-89
Rice	7 (31)*	7.5 (35)	9.2 (34)	8.5 (33)	8.7 (38)
Potato	32 (7)	35 (6)	44.6 (3)	N.A.	N.A.
Til	2.5 (18)	2.2 (5)	2.7 (16)	2.2 (19)	N.A.
Mustard	2 (7)	1.8 (.9)	2.4 (7)	2 (19)	N.A.
Eucalyptus					
- No.of poles per/acre	1,110 (4)	1,178 (9)	985 (13)	972 (16)	1,024 (26)
- No.of pieces of firewood per acre	555	550	801	840	850

Source: Sample survey data.

* Figures in parentheses are total number of sample households who cultivated the crop or planted eucalyptus.

A comparative study of the per acre gross returns obtained from cultivation of agricultural crops on the owned lands and on the patta-lands and the returns obtained from raising of eucalyptus trees on the patta-lands was also done. Table 10 presents data on the gross returns obtained per acre of owned land put under traditional crop cultivation and per acre gross returns from traditional agricultural crops and eucalyptus grown on the patta-lands over a period of five years, 1984-85 through 1988-89. The table shows that the gross returns from eucalyptus were 45.9% and 468.5% higher than those obtained from crop cultivation on the owned lands and on the patta-lands respectively. However, the returns obtained from crop cultivation on the patta-lands were only about 30.0 % of those from the agricultural crops grown on the owned lands. But, whereas the returns from the cultivation of agricultural crops are obtained three to four months after

Table 10
Gross Returns Obtained from Cultivation of Agricultural Crops on Owned Lands and on Patta-Lands and from Eucalyptus Plantations on Patta-Lands over a Period of Five Years in Nepura Village

	(Rs/acre/annum)		
	Average returns obtained from cultivating different agricultural crops on owned lands	Average returns obtained from cultivating different agricultural crops on the <u>patta-</u> lands	Average returns obtained from eucalyptus plantations on the <u>patta-</u> lands (@)
1984-85	20,755 (191)*	5,537 (63)	7,471 (4)
1985-86	21,081 (196)	6,589 (55)	8,162 (9)
1986-87	27,478 (193)	7,947 (60)	7,908 (13)
1987-88	28,297 (179)	3,976 (65)	6,250 (16)
1988-89	3,743 (68)	1,956 (38)	5,744 (26)
Total	20,270	6,005	7,107

Source: Own sample survey data.

* Figures in the parentheses represent the total number of observations on the basis of which the average return was calculated. It should be noted here that the total number of individuals was 68 (N=68); but most of them had cultivated more than one crop.

(a The figures in this column are uniform annuity values computed at the 15% rate of discount and assuming an average gestation period of seven years.

sowing, there is a long gestation period in the case of returns obtained from the sale of eucalyptus poles and firewood. On the average, the tree growers of Arabari region had sold their produce 5-6 years after planting.

On the whole, it can be concluded that tree plantation was the most profitable use of the patta-lands. Not only were the total returns obtained from the patta-lands per acre more for the eucalyptus plantation, but the cost of establishment, maintenance etc., was also far less than that of the agricultural crops. Table 10 also shows the variations in the total returns obtained from crops and eucalyptus over a period of five years, 1984-85 through 1988-89. As shown in the table, the fluctuations in returns from eucalyptus are less pronounced than from crops.

We made an attempt to identify the reasons behind these fluctuations. We found that the fluctuations of returns from agricultural crops were largely due to erratic monsoon rains whereas returns from eucalyptus fluctuated more due to fluctuations in the market price of poles. Whereas the former is a natural factor beyond the control of man, the latter being a totally man-made factor could be and should be regulated so as to stabilise returns from eucalyptus plantations. The fluctuating and declining price of eucalyptus has demoralised the poor tree growers who feel let down by the apathy of the Government officials to intervene in the market for eucalyptus and assure remunerative price to them.

That the patta-lands had been used for cultivation by 56 (82.35%) of the 68 tree growers and that the patta-lands planted with trees accounted for 88.2% of the total land put under trees in Nepura shows that tree growing has been the most significant use of the patta-lands in the village. It is always better to give patta-lands for long periods of 30 or 99 years than short periods of 7 or 10 years (Gill Sheperd:1987). The positive effects of long-term leases such as the 99-year lease in West Bengal are more numerous than those of short-term leases found in other States, e.g., 20-year lease in the case of tree patta scheme in Andhra Pradesh and 7-10 years of pattas in some North Indian States. In fact, the 99-year land patta has helped to instil in the patta-holders of the Arabari range, a sense of confidence and a feeling of secured ownership that has encouraged them to invest their money and effort in improving the productivity of their land.

5.0 ECONOMICS OF TREE PLANTATIONS ON THE PRIVATIZED LANDS

Estimation of benefits and cost of tree plantation involves identification and quantification of both direct and indirect benefits and costs. The direct benefits accrue to the patta-holders/tree growers in the form of sale proceeds from the produce and imputed value of fuelwood, small wood, timber, fodder, dry leaves, barks, etc., consumed or used in the household and/or the farm. The saleable produce consists mostly of poles, and partly of fuelwood. The direct costs include financial outlays for digging and filling of pits, planting of saplings, application of manures and pesticides, protection, and harvesting. Due to complexities in their quantification and valuation, intangible benefits and costs of eucalyptus plantations were not considered by us in this study.

We found that most of the 68 households interviewed had sold the entire plantation on a contract basis. However, there were some growers who sold their produce item by item or on a piece basis. In general, the poles, on an average accounted, for two-thirds, and the firewood for the remaining one-third of the total quantity of timber produced.

It was observed that the tree growers got, on an average, 1000 trees per acre, from 1100-1150 saplings planted initially. Though the general official recommendation for planting was 600 saplings per acre, the farmers had planted as many as 1100-1200 saplings per acre, with much closer spacing, with a view to get more produce. However, the results obtained were diametrically opposite. This was due to the fact that due to higher tree population per acre as a result of closer spacing, the average girth and quality of timber obtained were below normal and hence fetched proportionately lower price. Out of the average produce of 1000 trees per acre, roughly 600 made good ball is (poles) and 400 were good for use as fuelwood. The poles were sold on prices totally depended upon the size of their girth and other general characteristics. The average price obtained for the fuelwood in the Chandrokona market belt was Rs.40/quintal. A one-acre plantation yielded, on the average, 8-10 cart-loads of leaves and 4-5 cart-loads of bark (chhals) which were sold at the rates of Rs.40-50/cart-load and Rs.90-100/cart-load respectively.

The average costs and benefits of eucalyptus plantations raised by the sample households are presented in Table 11. For a comparative study, estimates of the costs and returns of the eucalyptus plantations established by the Forest Department in the Arabari Range are given in Table 12. Given the same length of the rotations (six years) followed by the sample households and Forest Department and for the sake of simplicity, we have ignored the time factor in computing costs and benefits. But for comparison purposes, in this context, these estimates of costs and returns are acceptable. The correct method for computing costs and returns for activities having longer-than-one-year gestation is to compute present values of costs and returns using appropriate rate of discount. This is done in Tables 17 and 18 in which we compare the profitability of eucalyptus and babui, both having different gestation periods.

Table 11
Average Costs and Benefits of Eucalyptus Plantations Raised by Patta-Holders in Nepura Village

S1. No.	Item	Rupees per acre
1.0	<u>Costs:</u> *	
1.1	Cost of establishing the plantations incurred by the tree growers	2,389
1.2	Cost of final harvesting incurred by the tree growers	3,231
1.3	Total costs incurred by the tree growers	5,620
2.0	<u>Benefits:</u> *	
2.1	Benefits to the tree-grower before the final harvest	6,608
2.2	Gross sale proceeds from the final harvest realised by the tree growers	31,080
2.3	Net sale proceeds from the final harvest to the tree-growers	25,460
2.4	Gross revenue to the tree-growers	32,068
2.5	Net revenue to the tree grower at the end of six years	26,448
2.6	Average net revenue to the tree growers per year	4,408

Source: Own survey data

* The normal length of rotation of eucalyptus is seven to eight years. But in actual practice, almost all tree growers in the area harvested their plantations after six years. The benefit and cost figures presented in this table relate to an average period of six years.

From their own plantations, the tree growers obtained some products before the final harvest. They were classified as intermediate benefits. They included mainly fuelwood, fallen twigs and branches and dried leaves for fuel. However, estimation of actual value of these intermediate benefits was difficult as none of the households interviewed could furnish any accurate figures of the quantities collected and consumed by them. On the basis of our interviews with the sample respondents, we estimated that 53 out of the total sample of 68 families were able to fully meet, from their own plantations, their daily fuelwood requirements. It is interesting to note here that the tribals and the women and children of the lower castes did not

Table 12
Average Costs and Benefits of Eucalyptus Plantations of the Forest Department

S1. No.	Operational heads	Rupees per acre
1.0	<u>Costs:</u>	
1.1	Cost of establishment	2,606
1.2	Cost of final harvesting	3,348
1.3	Total costs incurred by FD	5,954
2.0	<u>Benefits:</u>	
2.1	Intermediate benefits	Nil
2.2	Gross sale proceeds from final harvest realised by FD in 1986-87	17,036
3.0	Net Revenue to the FD	11,082
4.0	Net revenue to the FD per year	1,847

Source: Records of the Forest Department, Arabari Range.

collect these products regularly from their own plantations but they would go every day to the protected forests of the Arabari Forest Range for collection of the same. Shri Parimal Pal, Beat Officer, Arabari Range Office, estimated the value of the leaves, twigs and branches collected from one hectare of plantation throughout the entire period of 4-5 years to be Rs. 16,520.

The intermediate benefits obtained during the first two years of plantations were quite insignificant compared to those obtained during the later years. Two teachers of Nepura Primary School, namely Shri Subhas Maji and Shri Gopal Marik added that out of some 1000 families living in the area, 200 earned their livelihood by collecting leaves from the Government forests. The average price received by them was Rs.6-7/bundle of 20-25 kg leaves.

A comparative study of the net revenue obtained by the FD with that obtained by the individual patta-holders raising the eucalyptus plantations on the patta-lands can be done using the data presented in Tables 11 and 12. The average costs of plantations in the two cases are not significantly different but the figures of benefits in the case of FD plantations are

significantly lower. Due to lack of relevant information, it was not possible for us to find out why the receipts per acre were lower than those obtained by individual patta-holders.

We made an attempt to estimate the benefits that could have accrued to the poor marginal farmers if the additional vested lands available for distribution had been allotted to them. For this purpose, we used the estimated average benefit from the plantations raised on the previously distributed patta-lands (Table 11). Though, 19,756 acres of wasteland had been distributed till 31st July 1989, 1,568 acres of vested land was available as on 31st July 1989 for distribution to the landless labourers and marginal farmers of the Arabari Region. On the basis of the net benefit of Rs.4,408 per acre per year, the estimated potential benefits from 1,568 acres amount to Rs.69.12 lakh per annum. Thus, there is tremendous potential to increase incomes of the rural poor in the area by allotting them the vested lands that are lying unused.

Though raising of plantations on the patta-lands has proved to be the most profitable use of these degraded lands, a general tendency on the part of the allottees to grow agricultural crops in relatively better patta-lands still persists. This seems to be because they do not have the precise knowledge of relative profitability of tree crops vis-a-vis agricultural crops. Weirsum (1989) points out that because the public have always participated in agriculture and because agricultural scientists have helped them in their endeavours, there is no call for 'social agriculturalists'. But now it is time when an active involvement of the professionals like the foresters is urgently needed to educate the people and bring about the needed change. Immediate need of food for household consumption and long gestation of tree crops both favour cultivation of food crops in preference to tree crops by most people, particularly the poor. Also the dispersed location of the patta-lands in between the vast stretches of agricultural fields makes it difficult for the farmers to raise trees in these lands. Opposition from the owners of the adjacent crop lands also prevents the allottees to go for tree plantation. Availability of large contiguous areas reduce the problems of supervision and management and thereby promote group farm forestry which is practised in many areas in the Arabari Range (Shah, 1987).

The cost of tree plantation has markedly increased in the recent years, whereas the market price of eucalyptus has gone down. Tables 13 and 14 present data on the cost of plantation for the

years, 1980-81 and 1988-89 and the market prices of eucalyptus in the years, from 1985 to 1989 respectively.

Table 13
Cost of Eucalyptus Plantation Raised as
Recommended by the FD, 1980-81 and 1988-89

Operations	1980-81	1988-89
1. Costs for preparing and digging pits	25 paise/pit	55 paise/pit
2. Closing of pits	10 paise/pit	20 paise/pit
3. Planting	5 paise/sapling	12 paise/sapling
Total	40 paise/plant	87 paise/plant

Source: Own survey data and Arabari FD records.

Table 14
Market Prices of Eucalyptus Poles of Different
Diameters and Girth Sizes, 1985-1989

Diameter of tree (inch) (16ft.long)	Girth of pole (inch) (16ft.long)	Market price (Rs per pole of 16 ft. length)				
		1985	1986	1987	1988	1989
9	3	15	15	14	12	12
12	4	28	28	25	24	22
15	5	58	58	52	50	48
18	6	100	105	96	90	82
21	7	125	125	110	105	100
24	8	160	160	116	115	115

Source: Own survey data.

It is now advisable for the poor farmers to shift over to plantations of diversified species which can fetch them higher market price. Table 15 presents data on market prices of some common tree species grown in the Arabari region in the year 1988-89.

Table 15
Market Price of Some Common Tree Species
of Arabari Region, 1988-89

Name of tree species	Market Price (Rs/cu.ft)
Tetul/Tamarind	60
Simul	60
Eucalyptus	60
Mango	84
Mole/Mahua	90
Siris	100
Akashmoni	140
Sisoo	170
Jam	170
Shal	250

Source: Own sample survey

The table shows that certain species like Akashmoni, having the same gestation period as eucalyptus, can fetch higher market prices to the Arabari farmers. This further strengthens the trend toward diversification. Initially, the farmers showed strong inclination for eucalyptus plantation mainly because of its easy management, not so long a gestation period, relatively higher return yielding capacity and wide adaptability. It is clear from Table 16, that upto 1985-86, almost all plantations comprised only eucalyptus species. But slowly, its popularity declined and in 1988-89, eucalyptus constituted only 79.6% of the total number of trees planted in the region. Since Table 16 does not include number of saplings raised and sold by farmers, the conclusions regarding popularity of eucalyptus is only tentative.

Our discussion with a few sample tree growers revealed the possibilities of introducing babui (sabai grass) as a new alternative to eucalyptus plantation. The babui cultivation on the CPRs of land has been an age-old practice of the tribals in this area. The tribals depend to a large extent for their livelihood on babui cultivation. If grown more scientifically with adoption of recommended package of technological practices, babui could prove to be another profitable use of the privatized vested lands. We made an attempt to study the feasibility of introducing babui as an alternative to eucalyptus. Tables 17 and 18 present necessary data for a comparative analysis. It is

quite clear from the two tables that the relative profitability of eucalyptus vis-a-vis sabai grass has gone down over the years.

Table 16
Saplings of Different Tree Species Taken by
the Farmers from the Arabari FD

Name of the tree species	Number of saplings taken			
	1985-86	1986-87	1987-88	1988-89
Eucalyptus	3,21,783 (99.36)*	2,47,305 (99.2)	2,84,103 (96.9)	2,01,652 (79.56)
Akashmoni	680	952	4,247	46,980
Piyasal	38	85	-	392
Arjun	32	95	416	662
Gamar	46	-	405	506
Bamboo	152	214	670	846
Sisoo	324	304	678	804
Neem	85	192	662	-
Mahua	80	148	586	-
Jarul	132	-	480	665
Fruit tree species**	460	-	828	956
Total	3,23,832	2,49,295	2,93,075	2,53,463

Source: Arabari FD records.

* Figures in parentheses represent the percentage of the total.

** Fruit tree species include mango, papaya and guava.

As shown in the tables, the average annual net benefits from eucalyptus plantations and babui were Rs.4,926 and 5,661 per acre respectively. Hence, it can be inferred that babui cultivation is more profitable than the eucalyptus plantation.

To make the streams of costs and benefits in the two cases comparable in terms of length of time, we computed the present value of net benefits and the annuity value for both eucalyptus and babui. In terms of these measures also, babui was more profitable than eucalyptus with its annuity being Rs.5,370 as compared to Rs.3,020 from eucalyptus. In addition, returns from babui plantation are distributed over a longer period of time and more uniformly as compared to those from eucalyptus. Moreover, cost of production of babui is lower and no cash inputs are required, as most of the operations are performed by the farmers

themselves. On all these counts, babui is a superior alternative to eucalyptus, particularly for the poor who need cash at shorter intervals and who do not have capital to invest in establishing eucalyptus plantations.

Table 17
Yearwise Costs and Benefits of a Typical
Eucalyptus Plantation in Nepura Village

(Rs./acre)				
Year	Total cost	Total benefits	Net benefits	Present value of net benefits *
1981-82	2,416 **	-	-2,416	-2,102
1982-83	251	-	-251	-190
1983-84	-	261	262	172
1984-85	-	1,521	1,521	870
1985-86	-	2,865	2,865	1,424
1986-87	-	2,997	2,997	1,295
1987-88	4,525	34,030	29,505	11,094
All	7,192	41,675	34,483	12,563 @

Source: Own sample survey.

* Computed at the 15% discount rate.

** This includes pre-planting and planting expenditure.

@ The annuity value of this sum at the 15% discount rate and over a period of seven years is Rs.3020.

The market price of babui fluctuates very widely due to the monopsonistic structure of the market. Though 'babui' has got multiple uses in paper industry, and rope making etc., the poor producers can hardly have access to those sources and thus they fall victim to the middleman's exploitation. An idea of the extent of fluctuations in market price of babui can be had by considering the fact that whereas the price obtained in 1988-89 was Rs.200-225/qt., it was only Rs.80-85/qt. in 1986-87. There is, therefore, an urgent need for stabilising the price of babui by appropriate market interventions. If the remunerative price of babui is assured, extensive cultivation of babui on the degraded wastelands could be enormously remunerative. Also, there are no problems in management, supervision, protection and other operational activities. It is not affected by the uncertainty and vagaries of monsoon. Thus, considering all these factors, it can be firmly concluded that babui cultivation, if carried out on

scientific lines, can prove to be another important use of the degraded wastelands in the area.

Table 18
Yearwise Costs and Benefits of Sabai Grass
(Babui) Plantation in Arabari Range

(Rs/acre)				
Year	Total costs	Total benefits	Net benefits	Present value of net benefits*
1	1,391 **	-	-1,391	-1,210
2	42	3,225	3,183	2,406
3	374	6,780	6,406	4,215
4	86	8,670	8,584	4,910
5	267	8,975	8,708	4,328
6	98	8,530	8,432	3,643
7	298	8,315	8,017	3,014
8	252	8,320	8,568	2,802
9	110	8,965	8,855	2,515
10	245	8,842	8,597	2,123
11	109	2,975	2,866	616
12	105	1,898	2,793	522
13	74	2,898	2,824	460
14	76	2,885	2,809	396
Total	3,526	82,778	79,252	30,740 @

Source: Own sample survey data.

* Computed at the 15% discount rate.

** This includes pre-planting and planting expenditure.

@ The annuity value of this sum at the 15% discount rate and over a period of 14 years is Rs.5,370.

6.0 USE OF THE CASH INCOME FROM THE SALE OF EUCALYPTUS

All the farmers interviewed, in general, expressed their satisfaction and happiness about the cash income that they got in lump sum from their eucalyptus plantations. Though most of them were unaware of how much more they could have actually earned by selling their produce elsewhere; they were very happy and were excited because: i) previously these patta-lands yielded almost nothing; and ii) they considered the income as a

windfall gain as they had not planted the trees with any high expectations.

On the whole, the incremental income obtained by the allottees from privatization of CPRs-of lands had a significant impact on their standard of living. Table 19 presents data on the use of cash income by 68 sample households and their opinions about the effect that it had on their level of living measured on a three-point scale of 'increased', 'unchanged' and 'reduced/worsened'.

Table 19
Disposal of Cash Income Received from Tree Plantation on Patta-Lands

S1. Item of expenditure No.	Percentage of total cash income expended	Changes in living conditions (%age) *		
		Increased	Unchanged	Reduced/ worsened
1. Land, agricultural equipment and machinery	53.00	75.00	25.00	-
2. Housing	8.82	55.88	44.12	-
3. Food	5.88	63.24	36.76	-
4. Family transport modes	4.41	19.12	79.41	1.47
5. Household equipment and furniture	2.94	23.52	76.48	-
6. Household recreational items	1.47	4.42	95.58	-
7. Marriages and other social ceremonies and rituals	16.20	27.90	66.20	5.90
8. Clothes	1.47	11.76	88.24	-
9. Education	-	-	100.00	-
10. Health care of family members	2.94	8.82	91.18	-
11. Miscellaneous and contingencies	2.94	19.12	80.88	-

Source : Own sample survey data.

* % of total sample of 68 households reporting.

It is evident from the table that 53% of the cash income from the sale of trees was expended on acquiring land and farm machinery. This caused a spurt in buying of land. It was also reported that some of the farmers had to supplement receipts from the sale of trees by small amounts of their own savings from other sources to acquire assets like land, pumpsets, etc. It is noteworthy that

the spurt in land buying had been so significant that the price of paddy lands tripled over the last nine years.

The changes in living conditions over the last six years as reported here reveal certain desirable social impacts. It is interesting to note that in about 6% of the cases, the expenditure on social ceremonies had decreased.- On further interrogation, we came to know that some of the farmers preferred immediate purchase of agricultural land out of the cash income obtained and for this purpose they even delayed the marriage of their grown-up daughters or sold out their tangible possessions like ornaments, bicycles, etc. This was due to a shift in their perception of priorities; now they attached a higher priority to economic needs than social needs. This subjective difference in perception also accounted for variations in the pattern of investment and living conditions. For example, decisions to invest in buying of agricultural land resulted in higher incomes at regular intervals which in turn improved the general living conditions. On the whole, the increased cash incomes from trees had a significant positive impact on the level of living of the patta-holders.

7.0 MARKET STRUCTURE AND PRICE TREND FOR EUCALYPTUS POLES IN ARABARI RANGE

The eucalyptus revolution in the Arabari area of Midnapur district has indeed signalled the making of big business of the tree trade. The sale value of trees already harvested from 72 acres in the Arabari Range, even at the low average sale prices as obtained recently, was about Rs.4.2 lakh and there were thousands of acres of the first and second rotation crops still to be harvested in the coming few years. But it is quite pertinent to note that the prices obtained have varied considerably. For example, whereas Shri Sadhan Pan of Nepura obtained total returns of about Rs.31,110 per acre from his plantation (from nearly 3,000 trees) in 1985-86, Shri Subash Maji of Goranga fetched only Rs.18,235 per acre from his plantation (from approximately 2,880 trees) in 1987-88. This shows there has been a marked decline in the real price of eucalyptus over time. However the contrast is more sharp when we consider cases of less knowledgeable tree growers.

A total picture of the average market price and actual price realised by the tree growers of this region, over the last five years, is presented in Table 20.

Table 20

General Market Price and the Price Received by Eucalyptus Growers in the Arabari Range, 1985-89

Diameter of tree (16 ft. long) (inch)	Diameter of 'Balli' (girth of pole) (16 ft. long) (inch)	Market price (Rs./pole)					Average price realised by the Arabari farmers (Rs./pole)				
		1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
9	3	15	15	13.5	12	12	14	13	8	5.6	5
12	4	28	28	25	24	22	26.7	22.4	14.6	11.3	10.2
15	5	58	58	52	50	48	55.3	48	31.7	28.3	24.1
18	6	100	105	96	90	82	92.1	96.2	58.2	52.1	41.3
21	7	125	125	110	105	100	-	-	-	-	-
24	8	160	160	125	115	115	-	-	-	-	-

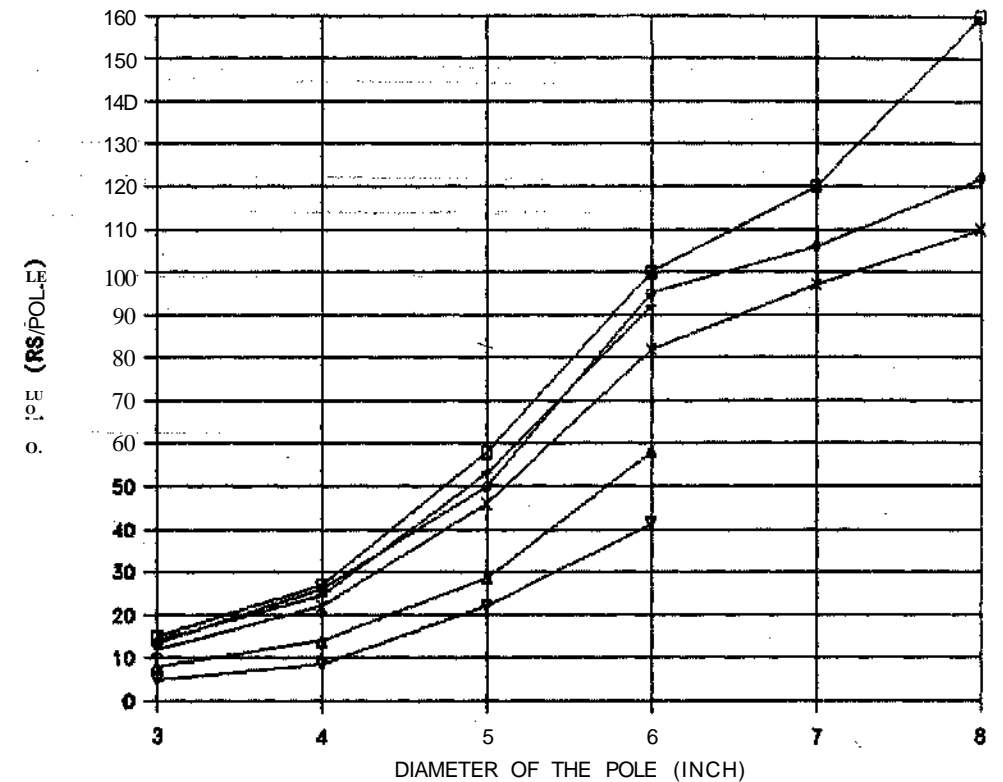
Source: Own sample survey data.

The price trends can be clearly visualised from Figure 1 which shows the market prices and the average prices realised by the tree growers in 1985, 1987, and 1989, i.e., every alternate year.

The price trends for the two most common sizes of girth of the poles presented in Figures 2 and 3 show:

- i) A marked decline in the prices obtained by the tree growers over time.
- ii) The fall in price was maximum in 1986-87 in both the situations.
- iii) There had been an increase in both the market price and price obtained by tree growers for 6-inch girth poles in 1987 as compared to that in 1985. There had been an increase in both the market price and price obtained by tree growers for 6-inch girth poles in 1989 as compared to that in 1987. Though the market price for the 3-inch girth poles was the same, in the years 1988 and 1989, there had been a significant decline in the prices obtained by the farmers. This indicates that the market for eucalyptus poles is not perfectly competitive. There are only a few big traders who buy all the produce, and often collude among themselves to force the tree growers to sell their produce at a very low price. That is, there is oligopsonistic exploitation in the eucalyptus trade.
- iv) . tree growers for 6-inch girth was the 1986 as compared to that in 1985. Though the market price for the 3-inch girth poles was the same, in the years 1988 and 1989, there had been a significant decline in the prices obtained by the farmers. This indicates that the market for eucalyptus poles is not perfectly competitive. There are only a few big traders who buy all the produce, and often collude among themselves to force the tree growers to sell their produce at a very low price. That is, there is oligopsonistic exploitation in the eucalyptus trade.

FIGURE 1: TRENDS IN THE MARKET PRICES AND THE AVERAGE PRICES ACTUALLY REALISED BY EUCALYPTUS GROWERS, IN ARABARI RANGE



Legend: 1. 0, 0 & X REPRESENT MARKET PRICES IN 1985, 1987 & 1989 RESPECTIVELY. 2. +, A & ^ REPRESENT ACTUAL PRICES REALISED IN 1985, 1987 & 1989 RESPECTIVELY.

FIGURE 2: PRICE TREND OP 3-INCH DIAMETER EUCALYPTUS POLES

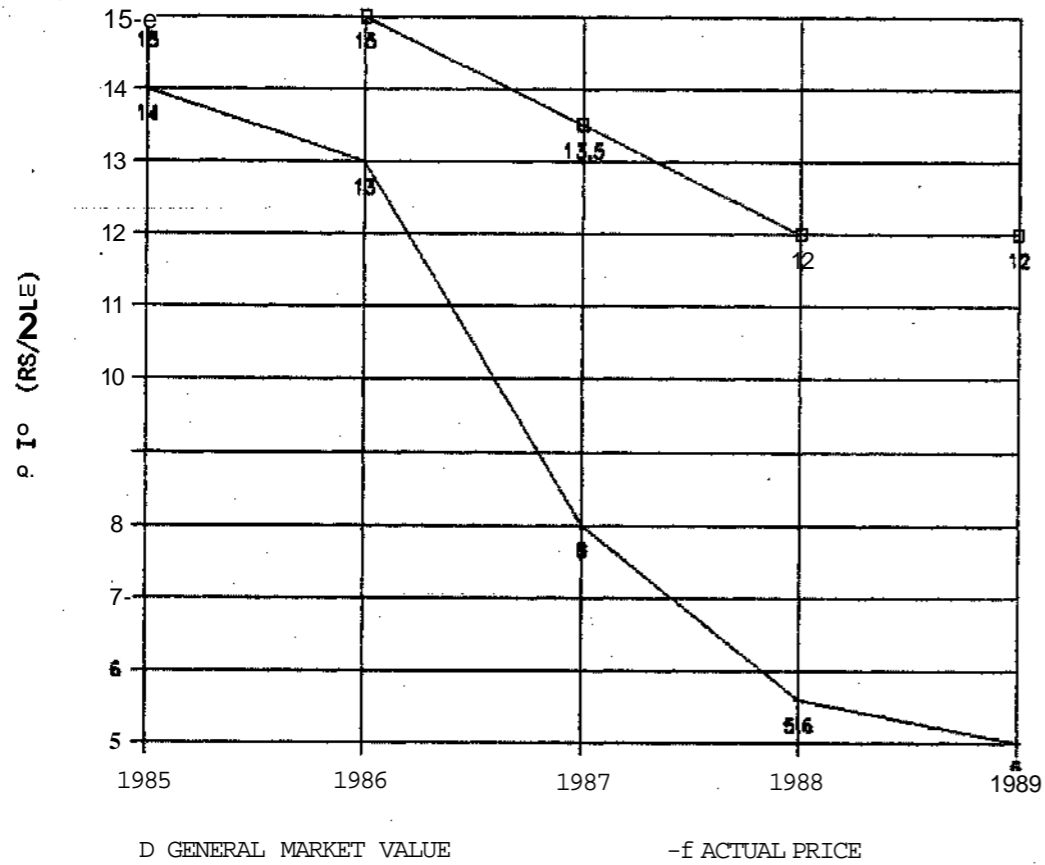
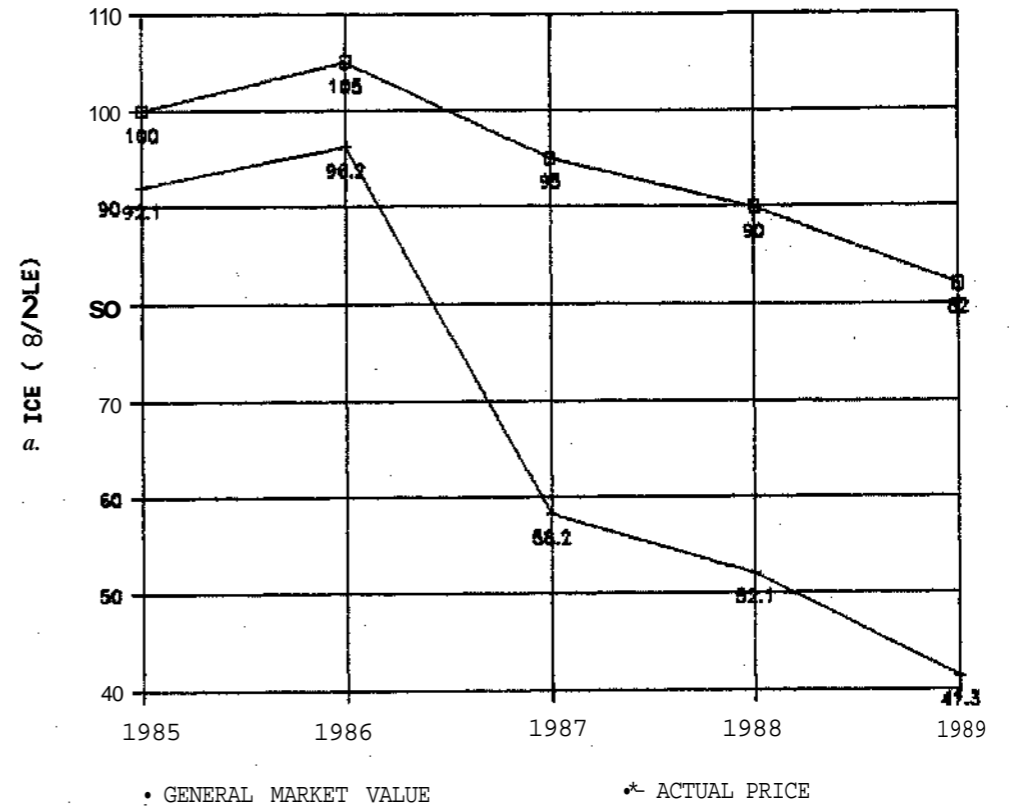


FIGURE 3: PRICE TREND OF 6-INCH DIAMETER EUCALYPTUS POLES



The average decline in the prices of 3-inch girth and 6-inch girth poles was 125% and 226.7% respectively. This reveals a sharp decline in the prices obtained by tree growers in comparison to the general market prices for the respective cases.

An effort was made to study the reasons for wide fluctuations of the market price of eucalyptus and for the low prices received by the farmers. We found that the aggregate supply of eucalyptus poles had increased over the years, thus causing a glut in the market. In addition to this, due to the lock-outs and several other reasons there was no longer any demand for poles from the Titagarh, Raniganj, Naihati, Kakinara, Jhilimili and other paper mills. The paper mills used to buy most of the produce in the initial years at fair prices which at times were as high as Rs. 200/metric tonne. Also, due to a variety of unethical practices of the middlemen and agents, the situation has deteriorated. Besides, due to a number of time consuming and cumbersome official formalities including a plethora of rules and regulations governing the issue of transit passes by the Forest Department involved in the open-sale of the trees, the poor farmers are compelled to sell their produce to local contractors on highly unfavourable terms and conditions. Farmers have no right to cut their own trees without going through the lengthy and sometimes expensive process of obtaining official cutting permits. Law of this kind, though originally intended to protect forests, can actively discourage tree growing. Though an open auction is conducted for sale of trees, it has been found that the contractors/middlemen usually collude among themselves and thereby keep the price far below the market price. This phenomenon had been noticed particularly during 1986-87, when 10 out of the 13 tree growers sold their produce to the contractors. On the other hand, the remaining three tree growers fetched higher returns by selling their produce directly in the Chandrakona market. Out of the 16 tree-growers, who had sold their produce in 1987-88, 7 were Scheduled Tribes. We found that the exploitation of the farmers (in the sense of denying them a fair share of the consumer's price) had been highest in that year. This was due to the fact that all of them had sold their produce to Shri Ashok Hazra and Shri Sadhan Pan, the two most influential and resourceful tree growers-cum-contractors from the same village. Shri Hazra and Shri Pan had jointly entered the tree-trade and cheated the tree growers and offered them very low prices. Whereas the average market price of 4-inch poles was Rs.24, these farmers received an average of Rs.11.30/ pole. It is interesting to note that the supply of farm inputs, irrigation

water, crop loan, and other services by the Gram Panchayat was limited to those who would sell their trees to Shri Hazra and Shri Pan. However, when Shri Pan was personally asked about the reasons for decline in the prices, he mentioned that it was due mainly to the increased supply accompanied by a drastic fall in the demand and partly to the production of low quality poles and timber as a result of lack of adequate supervision and maintenance of the plantations. Furthermore, he asserted that as he was the leading innovator in eucalyptus growing and was one of the few farmers whose trees were ready for sale in 1984-85, he obtained higher prices. But subsequently, under his personal supervision alone, some 16 lakh saplings had been raised in the entire region, which, when harvested, resulted in higher supply that in turn forced the market prices down. Besides this, the distress sales had always been there.

It is a fact that low quality timber has been the result of negligence in supervision; some of the tree growers hardly visit their plantations after establishment. To get a high population of trees, the farmers had planted the saplings at a closer than recommended spacing. This too resulted in the poor quality (as reported by the R.F.O) and therefore low prices. However, the most serious constraint in marketing of eucalyptus at remunerative prices has been the oligopsonistic structure of the tree market in the region. This needs immediate attention and an appropriate solution not only for socio-economic stability, but also for stabilising and increasing the income from the CPRs of land.

It is now perfectly clear that people want marketable tree crops in preference to trees for meeting their subsistence needs. As Gill Sheperd (1987) has suggested, the question of markets and marketing problems needs to be addressed immediately. Ameliorative measures are needed to be taken immediately to disseminate complete and correct market information to the grass-roots level. Moreover, planners must pay immediate attention to such burning questions as: which species have the best marketing potential?; what are the most profitable uses for the trees grown?; what markets are available to farmers and how can sales of produce be effected?; what local, state-level and national linkages have a bearing on the marketability of tree crops in particular situations?; and many such others.

8.0 ATTITUDES AND OPINIONS OF PATTI-HOLDERS
AND OFFICIALS AND NON-OFFICIALS

People's Participation and Opinions

The success of any rural development programme largely depends upon the participation and involvement of the target group right from the designing stage through implementation, monitoring and control of the programme in question. While studying the process and the final outcome of privatization of CPRs of land, we found that the administrative units like the village panchayats, the Land Revenue Department, and the Forest Department had only played a catalytic role in motivating the village community and that the patta-holders were mainly responsible for development and utilisation of the patta-lands.

To determine the extent and nature of villagers' involvement, we interviewed sample of 68 patta-holders. In terms of their caste composition, 39 households (57%) belonged to the upper castes (referred to as General castes), 18 households (26.5%) to the Scheduled Castes, and the remaining 11 households (16.2%) to the Scheduled Tribes. Table 21 presents data on participation of people, by caste, in creation and maintenance of eucalyptus plantation in the Arabari Range during the period 1980-89. It is evident from the table that, on the whole, the participation of the various caste groups was uneven but in proportion to the relative strength of each caste group in the area.

We asked the sample respondents about their opinions about various aspects of the patta-scheme and its impact. The responses obtained from them are summarised in Table 22.

All of the sample beneficiaries reported that they had benefited from the scheme. Most of them (62%) thought that the distribution of patta-lands was fair. However, it should be noted here that, though the official norm was to allocate one acre of patta-land per beneficiary, the land actually allotted had varied from 0.90 acre to 1.10 acres. Some of the allottees alleged that even after the distribution was over, they could not acquire actual possession of the land. This indicates the negligence of the administrative authorities to take necessary follow-up actions after the allocation had been done and especially in those cases in which land was withheld due to injunctions and other judicial complexities.

Table 21
People's Involvement and Participation in Tree Growing on
Patta-Lands in Andarnayan Beat of Arabari Range, 1980-89

Village	Percentage of total number of participants		
	General Caste	Scheduled Caste	Scheduled Tribe
1. Sonarbar	-	20.4	79.6
2. Goliulganj	37.7	15.9	46.4
3. Manikbandh	100.0	-	-
4. Tilokganj	35.7	64.3	-
5. Kandari	14.3	85.7	-
6. Dokhinsole	68.8	8.3	22.9
7. Andharnayan	83.3	16.7	-
8. Somormara	7.9	-	92.1
9. Amonpur	90.0	10.0	-
10. Mohabonkati	64.0	36.0	-
11. Golok dariama	57.1	4.8	38.1
12. Gurahara	70.6	-	29.4
13. Fateganj bonkati	84.8	-	15.2
14. Pataisole	96.4	-	3.6

Source: Arabari Forest Range Office.

Furthermore, many of the allottees complained that short-listing of allottees and allotment of land were both highly prejudiced and unfair. Shri Manish Sasmal, one of the teachers of the Nepura Primary school, elaborated this in these words: "Suppose 100 landless labourers had been selected to form the target group but the land available was sufficient for only 60-70 of them. Then, in most of the cases, the distribution was in favour of those who had served one or the other Panchayat member or the President, whereas those having no social or political influence or recognition had been simply left out."

Preferential treatments in the allotment of Kisan nurseries had been widely reported by the respondents. For example, it was reported that only those who were very close to the influential Panchayat members were given the opportunity and benefits of raising the Kisan nurseries. As per the scheme, such nurseries could be raised by any interested farmer having a total possession of not more than one acre of land. Almost the entire cost of raising saplings in the Kisan nurseries is borne by the

Table 22

Responses of the Sample Households to Questions about the Patta-Scheme

Sl. Question No.	Percentage of sample respondents answering		
	Yes	Can't say/ No comments	No
1. Do you believe that awarding of government land on <u>patta</u> has benefited you?	100.0	0	0
2. Do you think the distribution of <u>patta</u> -lands was fair and unbiased?	62.0	32.2	5.8
3. Do you think that this step has increased the interest of the beneficiaries in farm forestry?	72.0	25.0	3.0
4. Has the contiguity of <u>patta</u> -lands boosted the morale of the farmers for raising plantations as a group venture?	64.7	20.5	14.8
5. Do you feel that the <u>patta</u>-lands are unfit for profitable agricultural production?	55.9	10.3	33.8
6. Do you believe that tree cultivation is the only productive use of the lands?	56.0	13.2	30.8
7. Do you think that duration of <u>patta</u> is adequate to take up an activity like tree planting?	69.0	31.0	0
8. Is it true that the farmers would come forward to plant tree species having long gestation only when they have ownership right over the land for a reasonably long period of time?	78.0	16.2	5.8
9. Do you think that by raising commercial species like eucalyptus, the <u>patta</u> -holders have taken a right decision in utilising the marginal lands?	58.8	23.2	18.0
10. Do you feel that the help extended by officials of different government departments including the Forest Department was adequate?	69.1	0	30.9
11. Do you believe that this scheme launched by the present government has created any positive impact upon you and others?	64.7	27.9	7.4
12. Have you thought of or can you suggest any modifications and further improvements of this scheme?	32.4	-	67.6

Source: Own sample survey data.

Panchayat and the benefits from the sale of the saplings go to the farmers owning the nursery. Under this scheme, the farmer is charged for saplings @ 2 paise/sapling but he sells them @ 52 paise/sapling.

Such preferential treatments in allocating the Kisan nurseries may lead to social tensions and imbalances in the entire community. Moreover, they also adversely affect the co-operation and the general participation of the rural poor in rural development programmes. However, it should be noted that such socio-political inequalities have been reported to exist since long irrespective of the political party in power in the State.

Opinions of Officials and Non-officials

Our discussions with a few selected State Government functionaries, namely, the BDO, RFO, ADFO, DFO and BLLRO indicated the lack of dedication and needed efforts on their parts for securing the maximum possible efficiency, and effectivity of the patta-scheme. None of them seemed to have had taken any serious interest, over and above their perfunctory official duties and responsibilities, to see that the maximum possible benefits accrue to the allottees, Lack of necessary follow-up actions; judicial injunctions and consequent withholding of allotment of lands; numerous discrepancies in the allotment rules, political interferences etc., were the major weaknesses of the scheme mentioned by the GOWB officials interviewed. Besides, we also noted that no precise responsibility for follow-up actions had been assigned to the authorities concerned with the patta-scheme. For example, the BLLRO commented that he had no control over the process of acquisition and allotment of patta-lands and hence he could never plan his activities systematically. Whatever size of land was declared to have been acquired under the category of vested land by the Land Settlement Office was being distributed by him at random. He reported to have faced the following two problems most frequently:

- i) Sudden release of small-sized land patches from time to time for allotment;
- ii) The size of land handed over to him for distribution was far less than the requirement of the eligible allottees. This led to partiality, corruption, unfair and illegal practices, unwanted interferences, clashes etc., in the process of allotment.

The BDO, too, pointed out that there was a lot of political interference by the Communist Party cadres in all stages of the scheme and that jeopardised the effective implementation of the scheme. He alleged that the higher officials, including the District Magistrate, too, worked in total conformity with the wishes of the higher level political authorities, namely, the Chairman of the Zilla Parishad and local MLAs.

On the other hand, the FD officials, namely, the DFO, ADFO, and the RFO, claimed that their catalytic role in raising plantations on the patta-lands had been quite successful and significant. However, they too had not been assigned any specific responsibility for the plantations on the patta-lands other than the general role of mobilising and activating the farmers for adopting the scheme.

Some of the suggestions given by the BLLRO, during our interview with him, for modification of the implementation of the patta-scheme are as follows:

- i) Specific responsibilities should be assigned to individual government functionaries for effective implementation and supervision of the patta-scheme right from the very stage of demarcation of vested lands through putting them to right use by the individual allottees having legitimate ownership rights;
- ii) Immediate follow-up actions in all important aspects/areas of the scheme;
- iii) Immediate stopping of political interference allowing the Government units to work according to the specified principles and norms of the scheme;
- iv) Assurance of personal security and protection of the Government officials by strengthening the local law and order machinery and making it more effective;
- v) Allotment of large-sized land patches once every year or in big lots to cover maximum possible number of beneficiaries;
- vi) Expeditious disposal of injunctions and other cases hindering the success of the scheme;
- vii) Better co-ordination of the activities of all the Government departments involved in agricultural and rural development.

Opinions of the Local Political Leaders

In the course of our interviews with them, the Village Panchayat President and the Members claimed that their achievements had

been remarkably high and noteworthy. The Pradhan mentioned that the disputes of all sorts relating to the scheme had been settled quite amicably by the Panchayat's intervention and efforts and that nothing better had been done in the past.

Since the existing market structure for eucalyptus poles is oligopsonistic and hence exploitative of the tree growers, we believe that the creation of an alternative structure is absolutely necessary so that the tree growers are not deprived of their legitimate share of the consumers' price. We made an attempt to explore the feasibility of organising a tree growers' co-operative in the village. When we discussed the idea with a few local leaders and tree growers, they expressed their keen interest in co-operativisation. However, a few of them were a bit skeptical about the proposal fearing that they might lose their freedom and right to sell their produce according to their wish. In general, the respondents seemed to be lethargic and lacking initiative and ability for group action. They were rather reluctant to go in for any change in their existing conditions as, in their opinion, that would mean inviting unnecessary trouble and hassles.

9.0 CONCLUSIONS AND THEIR IMPLICATIONS

Based on the overview of privatization of CPRs of land in the State of West Bengal presented in this paper, we conclude that the State Government did a reasonably good job of providing the necessary legal legitimacy to privatization by enacting a series of enabling land reforms acts, facilitating and expediting effective implementation of the acts by launching two special programmes, namely, Operation Barga, and patta-land scheme, and assisting the allottees of land with technical advice and inputs in raising trees under its Social Forestry Scheme. Due to many design and operational problems such as lack of assignment to various government officials involved specific responsibilities and delegation of necessary power and authority to discharge them, lack of initiative and attitude of indifference on the part of the government functionaries at the lower level Jack of necessary follow-up, inordinate delays due to injunctions and other administrative hassles in transferring the possession of allotted lands to the allottees, interference by local politicians etc., privatization progressed at a rather slow pace. By December, 1988, only about 30% of the total vested land available in the State had been distributed to over 18 lakh poor families in the State of whom about 56% were SC and ST families.

This means that about 70% of the vested lands amounting to over 20 lakh acres had been lying undistributed and unused in the State. This is a colossal waste of such a valuable and scarce resource in a land-poor State. Some 20 lakh poor families could have easily benefited if each one of them had been allotted one acre of the undistributed land. There is, therefore, a need for the State Government to look into the matter and expedite the distribution of the remaining land to the State's poor people.

The privatization afforded a unique opportunity to the allottees of the vested lands to improve their livelihoods by making productive use of the wastelands. The patta-lands were all highly degraded and had very low productivity vis-a-vis the private cultivated lands in their neighbourhood. Most of the patta-lands had been used for growing trees, mainly eucalyptus which was found to be the most profitable use of those lands. Tree-growing on the patta-lands by groups of the patta-holders was promoted under the Social Forestry Scheme. This model of plantation of trees on the degraded CPRs of land is worth emulating in other areas of the country where social forestry projects are underway and where lots of vested lands are lying undistributed. Besides yielding direct benefits to the patta-holders, tree plantations would also help restore the degraded CPRs of land and improve the quality of physical environment in the area.

Our in-depth study and analysis of the process and consequences of privatization in Nepura village revealed that all the vested lands available in the village had been allotted to the poor villagers who had either no land or had less than one acre of land. About 62% of the sample beneficiaries opined that the distribution of the patta-lands in the village was, by and large, fair. About 69% of them thought that the duration of the lease was adequate for growing long-gestation crops like trees. The eucalyptus plantations on the patta-lands yielded the highest net returns of Rs.4,400 per acre per year to the growers. Among the agricultural crops grown in the patta-lands, paddy was the most profitable crop. The average yields of both eucalyptus and paddy grown in the patta-lands were lower than the corresponding yields in the neighbouring private fields. Over the last five years, the average yields of both eucalyptus and paddy in the patta-lands had registered marginal increase and, in the opinion of the sample farmers, the yields were likely to increase as time passes by. This means that the degraded CPRs of land could be made more productive through privatization and that their productivity could be sustained.

The privatization contributed to both reduction in poverty and improvement in the distribution of income. All of the sample beneficiaries reported improvement in their level of living as a result of increased income from the patta-lands. About 53% of the cash income from the sale of eucalyptus was expended on acquiring land and farm implements, about 16% on social ceremonies, and about six per cent on food. Some 65% of them opined that allotment of patta-lands in compact and contiguous blocks promoted plantation of trees as a group venture and thereby inculcated among them a spirit of co-operation and collective action. This seems to us to be an important side effect or an intangible social benefit of the privatization. The distribution of the vested lands exclusively to the poor helped improve their social and economic status and thus contributed to the objective of equity.

There is a need for government intervention in the local market for trees to assure fair and remunerative price to the tree growers. Due to declining output prices and increasing input costs, relative profitability of eucalyptus had been going down for the last few years and the patta-holders had been shifting their lands away from eucalyptus to other more profitable tree species. Many of the sample beneficiaries complained that, in the absence of any other alternatives, they had been forced to sell their produce to the contractors who, being few in number, often colluded among themselves and exploited the tree growers. They pleaded for government intervention, by establishing co-operatives, to improve the existing marketing system and to assure them fair and remunerative price for their produce.

All in all, it is concluded that privatization of degraded and unproductive CPRs of land by allotting them on a long-term lease to rural poor people and helping the allottees with needed production inputs, services, and institutional credit could be an important policy instrument of CPR development and management. If used judiciously, this instrument could help alleviate the problem of rural poverty, achieve the goals equity and sustainability in CPR management, and avert the 'tragedy of the commons'.

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