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NATURE OF THE ENVIRONMENT FOR THE
FORESTRY SECTOR IN INDIA

by

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Introduction and objectives:

All economic activities are susceptible to the environment within which they are organised and managed. The businessmen often use phrases e.g. "environment is encouraging/favourable or discouraging/unfavourable" which refer to the likely overall impact of the economic, social, cultural, political, legal, administrative and technological variables on a particular enterprise or a set of enterprises. It is not necessary that all the relevant forces at any given time work to the disadvantage or advantage of an economic activity. A general statement can still be made to indicate the totality of the situation. Talking specifically of the forestry sector of the Indian economy, the overall environment does not appear to have been conducive for its growth. This is not to deny that the nation enjoys the reputation of an excellent Forest Research Institute, sound silvicultural practices and well established Indian Forest Service and State Forest Services.

The forester in India has, conventionally, been interested primarily in the maintenance of the capital stock i.e. the standing volume of timber at any given time. The total volume felled each year has been kept as close as possible to the estimated annual increment put on by the entire forest growth. This practice or philosophy is summarised as "conservation" forestry and is understandable in a historical context. There has been some thinking in the recent years that forests in India can be used as a vehicle for economic development. Researchers have emphasised the surplus labour absorption

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capacity of the sector. More importantly, following the recommendations of the National Commission on Agriculture, an understanding of the importance of a shift from "conservation" to "production" oriented forestry or from single objective to multiple objectives in forest management seems to be developing. As the first indication of a shift in the philosophy of forest management, Forest Development Corporations have been formed in 15 out of the 22 Indian States. The Indian parliament has also approved of a proposal to set up an Indian Institute of Forest Management and the Indian Institute of Management, Ahmedabad, has been entrusted with the responsibility of handling the processes of institution building.

These developments do not, however, seem to mean that the forestry sector in India has earned the desired and deserved support at the policy making levels. In spite of its professed significance for economic growth in general and rural development in particular, the environment for the growth of the sector continues to be enigmatic or, at best, indifferent. Some of this can be attributed to the very nature of forestry as a business. But, the forces external to the sector seem to be more important.

The basic objective of this paper is to analyse the nature of some of these forces. While some solutions to the problems have been suggested in the process, that is not a major objective. There is a temptation to divide these forces into groups, e.g. economic, social, political, administrative. It is well known, however, that such boundaries are rarely self contained. No division of variables into specific groups has, therefore, been attempted.

Meagre Share in the Developmental Resources:

India has nearly 75 million hectares of forest lands comprising about 22.7 percent of the total geographical area and nearly 50 percent of the cultivated area of the country. The contribution of the forestry sector to the Gross Domestic Product at current prices has varied around 1.5 percent in recent years, as compared to 46 percent of the agricultural sector.² Similarly, in the year 1971, the agriculture and ancillary sectors provided employment to over 70 percent of the rural work force while forestry and logging accounted for only 0.2 percent. In the same year the gross returns per hectare from India's "productive" forests averaged to Rs.21.50 as against Rs.565, 494 and 335 in West Germany,³ Switzerland and Austria, respectively. It may be interesting to note that, at current prices, the gross returns per hectare of land under cultivation in India for the same year worked out at Rs.1,189 and the average for the years 1969-69 to 1970-71 stood at Rs.1,113.⁴

This picture may be and has been used to argue that forestry in India is relatively unproductive and the scarce developmental resources need not be frittered on this sector. The consequences of this reasoning may be observed from Table 1.

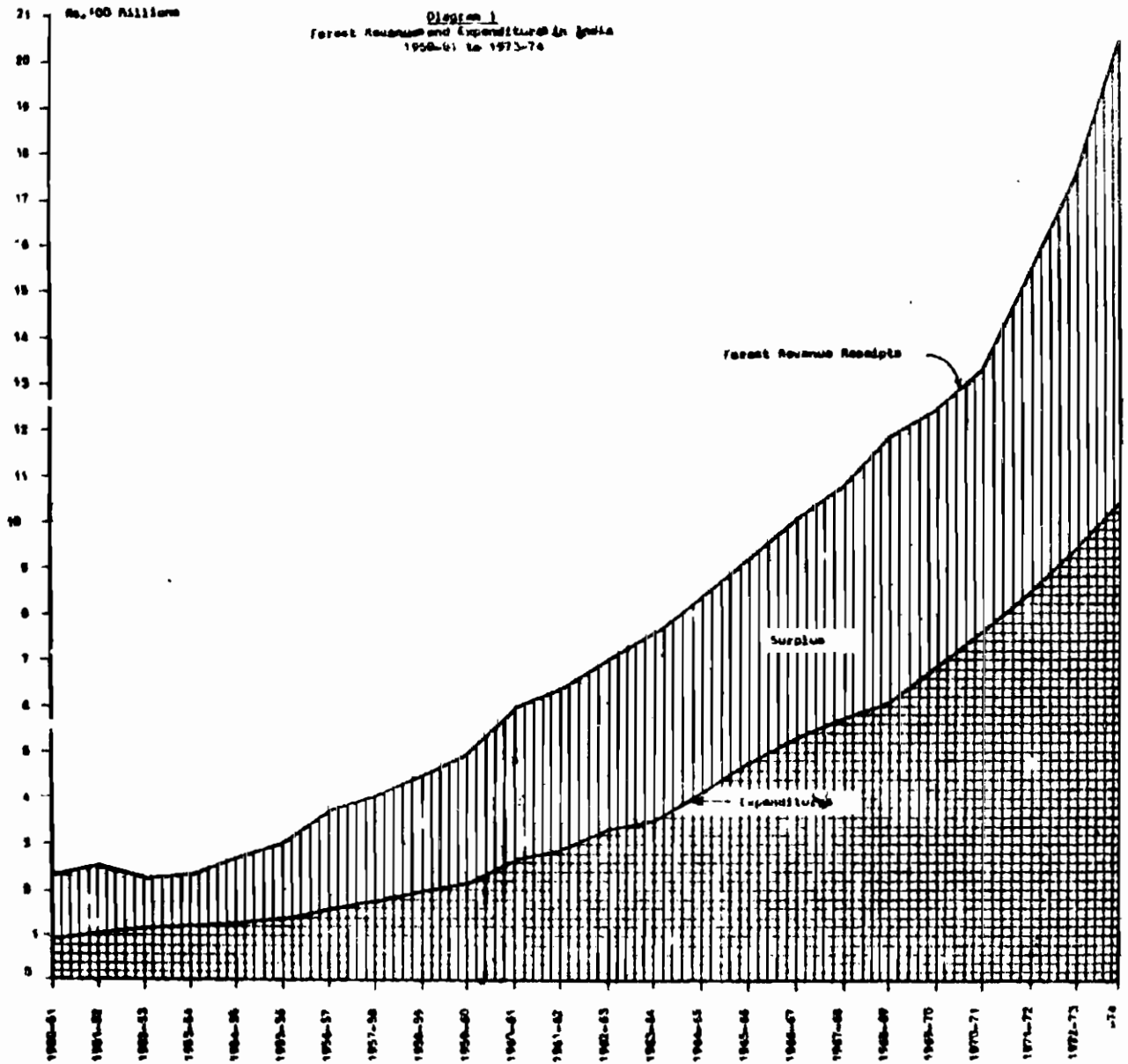
Table 1

Allocation of Planned Developmental Resources for Forestry Sector vis-a-vis the Total and Agriculture and Allied Sectors in India: 1950-51 to 1977-78.

		(Rs. Crores)						
Five Year Plans	Years	Total Expenditure	Agriculture and Allied Sectors (including Irrigation)	Forestry Sub-Sector	Agriculture and Allied as percentage of the Total Expenditure	Forestry as percent of		
						Agriculture and Allied Sectors	Total	
1	2	3	4	5	6	7	8	
First	1951-56	1,960	601	8.5	30.66	1.41	0.4	
Second	1956-61	4,600	950	21.2	20.65	2.23	0.4	
Third	1961-66	8,577	1,754	45.9	20.45	2.62	0.5	
Three Annual Plans	1966-69	6,625	1,578	42.1	23.82	2.67	0.8	
Fourth	1969-74	15,779	3,675	89.0	23.29	2.42	0.5	
5 Fifth	1974-78	30,303	8,078	206.0	20.55	2.55	0.5	
Total	1951-78	76,844	16,638	412.7	21.65	2.48	0.5	

Sources: (a) Column (3) & (4) upto 1961: Third Five Year Plan, Government of India, p. 33. Beyond 1961: Economic Survey 1977-79, Government of India, p. 78.

(b) Column 5: Report of the National Commission on Agriculture Part IX: Forestry, Government of India, pp. 42-41



Sources: 1. Forest Research Institute, Government of India, 1981, *One Hundred Years of Indian Forestry*, Vol. 1, p. 163
2. Ministry of Agriculture and Irrigation, Government of India, 1978, *Forest Statistics Bulletin* no. 12, p. 11

During the course of the five Five Year Plans and three annual plans, forestry's share has varied between 1.4 and 2.7 percent of the agriculture and allied sectors (aggregate 2.48 percent) and between 0.43 to 0.64 percent of the total developmental resources (aggregate 0.54 percent). The total planned investment in forestry during the period under review worked out to be Rs.4,127 millions or less than Rs.2 per hectare per year as against Rs.47 per hectare per year for the agricultural sector.

A pertinent issue at this stage is whether the low productivity of the Indian forests is the cause or the consequence of the low investments in the sector. The latter seems to be true. A comparatively simple proof lies in the rising gap between annual revenues from and total expenditures on forestry sector. It may be observed from histogram -1 that the gap which stood at Rs.135 million in 1951 increased to Rs.904 million in 1974. The total developmental expenditures on the forestry sector during 1951-74 worked out to be only 11 percent of its revenues. A small part of the responsibility for this dismal allocation of resources to the sector may be allocated to the "conservation" oriented practices of forestry. Because of this philosophy the professional forester may have been contented as long as the capital stock i.e. the standing volume of timber at hand did not go down. This, in turn, did not call for much investment. The main reasons for the poor share of the sector in developmental resources, however, seem to lie somewhere else and may be evident from the following discussion.

Resource Owners versus Output Users

More than 95 percent of the area under forests in the country is state owned and managed. The forester has been conventionally responsible only for raising trees. This he has tried to do in the most scientific

manner within the resources and tools at his disposal. Timber and other forest produce has been harvested and marketed by private contractors. The products which form industrial raw materials are processed by a variety of establishments mostly in the private sector. As a result of this dualism the producer has not had an opportunity to appropriately understand the wider economic significance of his operations while the user has not worried about any improvements in the art and science of raising the product. On the contrary, the processors' main concern has been to win the raw material supplies at heavily subsidised rates. They have largely succeeded in this effort in the name of serving the cause of industrial development of the country. The result has been inefficient management of a common property resource.

The fact of state ownership and management of forest lands becomes all the more relevant where (i) administratively, forestry is intimately linked with agriculture but the annual crop enterprises are managed by individual farm operators, and (ii) the wider area of complementarity between forestry and crop husbandry has not been appreciated. There are, atleast, two significant outcomes. Firstly, the individual farm operators and agricultural labourers have strong urge for owning and extending the area under cultivation. Forest lands continue to be lost in favour of crop farming even if most of these lands are not capable of supporting the families which cultivate them. Secondly, the meagre allocation of developmental resources for forestry gets clouded by the total allocation for its parent sector-agriculture.

Short-term versus Long-term Interests

It is the politician who makes the final resource allocation decisions. The conflict here is that forestry is a long term business while the politician has, of necessity, a short term view. The problem

gets further complicated when the decision making process is influenced by strong pressure groups representing specific interests. There has not been and is not likely to be a lobby for the forestry sector. This is true for a number of reasons chief among which, once again, is the state ownership and management of forest lands. Besides, the majority of the Indian people do not feel concerned with the poor quality of news print, do not consume honey, do not stand in the market for good quality furniture and do not have the capacity to own houses. They are, therefore, apparently not affected by the poor quality and rising prices of forest products. The phenomenal increases in the price of fuelwood in recent years is a matter of concern but the issue is diluted by the continued misuse of dung and a lot of subsidised or free of cost supplies to the rural populations. The issue is, thus, relevant only to the urban poor. Here again the expenditures on fuel form a very small part of the total consumption expenses. The consumers' propensity to attract the attention of the politician on this subject is obviously negligible. It is also important to realise at this stage that forests have been pushed away from human dwellings. As a result, most people do not see what happens to the forests or do not have opportunities to develop an association with this resource. This clearly implies that the status of forestry in a country is directly linked with the extent of its industrial development and the standards of living. In this sense, the social or policy climate in India is not conducive for the growth of this sector.

Not only the majority of the people do not have an association with the forests but also the short term interests of the local populations seem to be adversely affected if the forest laws are astutely implemented.

Young trees, for instance, can hardly coexist with the millions of cattle, goats and sheep left for open grazing in the forests. Nothing seems to have been thought of to crush the age old dogma whereby a cultivator's economic status is known by the number of cattle owned irrespective of their quality or productivity. Similarly, no steps are in sight to encourage the habit of stall feeding the cattle. It may be important to note that the severity of this problem was pointed out by the Royal Commission on Agriculture as early as 1928.¹⁰ The Forest Policy Resolution of 1952 further recommended the institution of a "reasonable" fee for the privilege of grazing cattle in the forests. No action on these lines has, however, been taken or is in site. Given this attitude at the policy making levels, it is somewhat natural for the unproductive cattle owners to view the forester with some hostility when a newly planted area is closed for grazing for the first few years. Moreover, as already mentioned, the hunger for land for cultivation continues to haunt the rural people. In the State of Madhya Pradesh alone, an estimated 3.3 million hectares of forest land was lost between the years 1951-72.¹¹ This worked out to be 4.4 and 20 percent of the currently reported areas under forests for the country and the State, respectively. Since the forest administrators have to work within the given social and political climate, they are generally "soft". Once again, the degree of appreciation of the role of forestry in the national economy appears to be directly related to the general standard of living.

Some people or groups may like to argue that the rising pressures of population and food shortages are primarily responsible for the neglect of the forestry sector in India. It is accepted that in a situation of

subject poverty, the quantity of food weighs relatively more than the quality of life. At the same time, it is important to understand that the annual crop enterprises and forestry are competitive only in certain respects (e.g. claim for land) and only upto a certain point. In reality, the area of complementarity between the two sets is wide enough. For instance, forests are known to have beneficial effects in terms of soil and moisture conservation, water recharges, etc. The problem is that this complementarity has not been appreciated. This is explained by a number of reasons.

Firstly, there is a strong constituency arguing for more and more concessions to the farm operators and allocation of more research funds for crops such as wheat, rice, sugarcane, cotton. This has resulted in according extra importance to crop production. This may be observed from the fact that the efforts at reclaiming alkaline and saline soils pay little attention towards putting the same under trees even if crop culture on these lands is impossible without considerable investments in infrastructure facilities some of which can be provided only at prohibitive costs. No benefit cost analyses of bringing such lands under annual crops versus tree crops have been attempted to ensure the most economical and socially desirable use of the resource.

Secondly, there has been a somewhat lopsided division of certain technical responsibilities between professional groups. For instance, the soil conservation works have been mainly the responsibility of the agricultural scientists while flood control measures have been the prerogative of the engineers. Though the activities pertaining to soil conservation complement the flood control measures to a great extent, this

simple fact has yet to be appropriately appreciated.

Thirdly, the professional forester has been more of an administrator than a technician. The foresters in India belong mainly to the biological stream and the significance of wider, economic, ecological and other societal aspects of their activity has never been appropriately emphasised in their training programmes.

Suggestions and Conclusion:

It is true that the man's ascent in the scale of civilization from the hunting phase to the permanent agriculture and urban industrial phases has been achieved by clearing the forests and pushing them back to the hills. This, however, cannot mean that every act of clearing the forests is a step forward towards better civilization. It is also not proper to look at forests simply as a collection of trees and a source of timber and fuelwood. Fortunately, a realisation is beginning to appear that "forestry is not just about trees but about land, trees, crops and people". To exploit and Institutionalise this realisation, comprehensive national benefit cost studies of the existing and future forestry resources are needed. For instance, it is known that forests have beneficial effects in terms of soil and water conservation, temperature control and moisture preservation, air purification, outdoor recreation, wildlife enhancement, etc. But the magnitudes of these benefits are conspicuous by their absence. These quantities are, however, essential to elicit the policy maker's appreciation and support for the sector. This implies that the forester will have to accept the challenge as well as the opportunity for inter-disciplinary work.

Another way to approach the issue is to show through field

studies that forestry can become an important vehicle for accelerating the rate of economic growth along with improved social justice - something that we have not been able to achieve through the past efforts at improved crop husbandry. Forestry, for instance, is particularly labour intensive. The Labour components per unit of output (at producer's prices) are estimated to be as high as 66.12 percent for the wood products, 60.21 percent for timber and 59.34 percent for other forest products. ¹² More importantly, the forest wages are likely to go to the lowest 40 percent of income earners. Forestry is also believed to have forward linkages of a very high order. Attempts to measure these linkages will go a long way towards improving the environment for the sector.

There are certain unpleasant signs on the horizon e.g. shortages of news print and paper inspite of a rising import bill; rising costs of fuel and industrial wood; an impending fear of fuelwood famine; increasing losses of human life, property and soil fertility due to floods. These may soon lead to a situation where social and economic values of forests can be better appreciated. It is important to build up willingness and the technical competence necessary to operate under and to make use of the changing situation. The professional forester has to share the heaviest part of the responsibility,

Notes

1. The estimates of additional labour employment potential in the forestry and allied occupations by the year 2000 A D vary from 5 to 20 million man years. For details see:
 - a) Government of India, Ministry of Agriculture and Irrigation. 1976. Report of the National Commission on Agriculture Part IX: Forestry, Controller of Publications, Delhi.
 - b) Sharma, L.C. 1977. "Forests: Potential for more jobs", Commerce, 135 (3467) : 892-896.
 - c) Thapar, S.D. 1975. India in 2001: Second India and Forestry, Association of Voluntary Agencies for Rural Development, New Delhi.
2. This contribution of the forestry sector takes no account of the indirect and intangible benefits. Though the same is true of the other sectors, yet such benefits of forestry appear to be relatively more valuable than those of the other primary activities.
3. Government of India, Ministry of Agriculture. 1972. Interim Report of the National Commission on Agriculture on Production Forestry: Man-Made Forests, Manager, Government of India Press, New Delhi. p.12
4. The average gross returns per hectare of land under cultivation were obtained through deviding the aggregate contribution of agriculture to national income by the net area sown for the relevant years.
5. The data refer to original provisions. The Fifth Five Year Plan has been terminated a year ahead of the schedule. The actual expenditures for the period 1974-75 to 1977-78 or the allocations for the Sixth Five Year Plan are not yet available. No major shift in resource allocations in favour of the forestry sector is stipulated.
6. The revenue includes royalty fees received by the State Forest Departments and Union Territories. The figures, however, do not include the value of substantial quantities of industrial and fuelwood and host of minor forest produce removed free by the right holders. The total expenditures include "normal" or administrative and developmental expenses.
7. In the recent years the harvesting operations in some of the States have been undertaken by Forest Departments or Forest Development Corporations but the area thus covered is a small proportion of the total. More importantly, even if these operations have increased the revenues accruing to the public bodies, no "significant" change in the basic philosophy of forest management was noticed.
8. Interim Report of the National Commission on Agriculture on Production Forestry: Man-Made Forests, p. 65.

9. Ibid
10. Report of the National Commission on Agriculture Part IX: Forestry,
p. 134.
11. Reynolds, Norman (No date) Madhya Pradesh Social Forestry, Ford
Foundation, New Delhi (Mimeo)
12. Chatterjee, N. 1977. "The Role of Forestry in the Indian Economy",
Divisional Forest Office, Darjeeling (Mimeo)