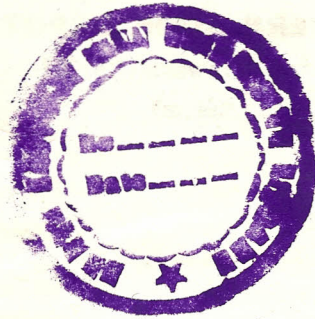


Forestry Development in North-East India



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Foreword

Until recently the tendency among economists was to look at the issue of environment in a narrow, short-term and localised perspective. It was based on the 'smoke-chimney model' of Pigou, that environmental issues arise where the private costs diverge from social costs, and the solution lies in making the offending firm pay for the damage inflicted on the society by way of smoke. This, it was thought, would internalise the social cost, and make the private industrialists responsible. Another approach was based on the 'revealed preference' of the consumers; if some people are seeking a better environment, they should be prepared to pay for it. The benefits derived from a green patch, a clean sea beach or a hill resort should be paid for by those benefitting. Both of these approaches assumed the corrective changes necessary to be marginal, and expected the market mechanism to work for the greatest good of the greatest numbers.

One of the merits of the recent debate on environment has been to discard this narrow marginalist framework, and to look at the problems in a broader perspective in terms of both time and space. It is now recognised that degradation of environment takes place over a very long period. While the amount of carbon dioxide accumulating in the atmosphere at a particular point of time is negligible, over a period of a few hundred years it might have a catastrophic effect on the earth and its living beings by inducing drastic changes in the climate. Similarly, such degradation is not confined in space—

the rapid industrialisation in Britain produces acid rain in Scandinavia, while DDT is carried by rivers to distant places where it affects not only the insects, but birds and fishes as also the milk in mothers' breasts. Environmental effects are not bound by space or time, nor can the offending firms be accurately pinpointed, and a narrow project-based analysis calculating present values of future incomes would fail to bring within its compass the overall long term consequences of such changes. In short, the simplistic, micro conceptual frame of neo-classical analysis would not do when one is considering environmental issues. One of the greatest achievements of this debate has been to shift the analysis from short term to long term, from private to public, and from local to global issues. From the Club of Rome to the New International Economic Order, through structuralist analysis and the Founnex report, this has been the major theme, irrespective of the differences in details and policy prescriptions.

Coming to forests, this is in a sense a renewable resource, if properly husbanded; but it becomes a depleting non-renewable resource once the process of deforestation brings the stock and its variety below a threshold. Deforestation does not take long, while a forest takes a very long time to develop, often hundreds of years, through a series of successive species, before it becomes a self-contained, viable eco-system. The strength of a forest system lies in its variety, and the interdependence of its various elements. This explains the apparent paradox of a lush green dense forest based on not too fertile soil. A forest maintains the humidity of the soil, its dry leaves, birds droppings, and the remains of the living organisms add to its fertility, and various species support one another. The animals and insects living in the forest maintain a food-chain, and a balance in the proportion of the various species. Once the forest is destroyed, with it is destroyed the unique balance which maintains it and the productivity of the soil; the cultivation of field crops further depletes its fertility, and after cultivation is abandoned, in the absence of vegetative cover nothing remains on the ground to withstand the full impact of water runoff and of the gust of wind. Deforestation

leading to soil erosion, is a familiar pattern seen all over the world.

Today there is greater awareness of the problems of forests. Only a few decades ago, any one advocating the cause of forest-preservation ran the risk of being ridiculed for being more concerned with the fate of tigers than of his fellow *Homo sapiens*. Today, it is recognised that the issue is not between tiger and man, but between the short term and the long term interests of man himself. Without forests agriculture would die. Forests acts as a pumping station and reservoir, hoard an enormous amount of water in the leaves, stems, and roots of trees during the rainy season, and release it slowly over the year. Without forests the agriculturist would be without water for most of the year, and there would be nothing to resist soil erosion during the months of heavy rains. Forests are necessary for maintaining the balance in the agricultural system.

Preserving forests is by no means an easy task. The interests of those for whom the forest products are the main means of livelihood would have to be protected by way of employment and alternative earning opportunities. Otherwise, these very poor people living on the margin of the society on a starvation diet would perish, or, what is more likely, corruption would be rampant and the policy of protecting the forests would be defeated by way of illegal felling of trees. Similarly, the interests of those relying on forest products as fuel would have to be taken care of by supplying them with alternative reasonably priced fuels; otherwise, the pressure of demand for fuel would make the regulations ineffective. It is equally imperative to have a tight and honest forest administration which is free from corruption and is prepared to stand up to the crime syndicates operating in the forests. No less important is the need for a sound statistical base on forests, so that the policy makers are aware of what is going on, and are able to implement a system of forest management which augments the total 'stock' of forests, while at the same time producing enough of the annual 'flow' to take care of the

needs of the country's economy for forest products. Selection of trees is an equally important matter, and in this again, their impact on other species, animal husbandry, and agriculture would have to be examined, in addition to the revenue-generating capacity of those trees. While a commercial approach cannot be avoided, this alone should not be the criterion, regardless of its impact on both the physical and the social environment.

The seminar on planning for forestry development held in Agartala under the auspices of the Calcutta University Post Graduate Centre brought together the officials working in the forest department and the academics specialising in this subject. The dialogue between these two groups generated enough of heat and light to make the conference a success.

This volume makes an important contribution to the literature on forests in particular, and also on environment and the North-Eastern region of India in general. This should prove useful to the scholars, officials and policy makers working on any one of these three fields.

Biplab Dasgupta

Introduction

The Seminar on Planning for Forestry Development in the North-Eastern Region, organized by the Department of Analytical and Applied Economics of the Calcutta University Post-Graduate Centre with funding from the North-Eastern Regional Centre of the ICSSR, was attended by scholars, Forest Department officials and activists from Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Tripura, Uttar Pradesh and West Bengal.

The seminar was inaugurated on 27.2.84 by the Hon'ble Chief Minister of Tripura, Shri Nripen Chakraborti, Dr. B.D. Sharma, Vice-Chancellor, North-Eastern Hill University, presided over the session. Professor J.B. Ganguly, Director, Calcutta University Post-Graduate Centre, delivered the welcome address and the Hon'ble Minister of Forests, Government of Tripura, who was the Guest of Honour, addressed the participants and guests. This was followed by the Presidential Address by Dr. B.D. Sharma and a Vote of thanks by Dr. M. Das Gupta, Reader and In-charge, Department of Analytical and Applied Economics, C.U.P.G. Centre, and Director of the Seminar.

Business Session—I held on the same day, was devoted to an inventory of forestry resources in the North-Eastern region in the past and present. The session was chaired by Dr. P.S. Ramakrishnan, Professor of Botany, School of Life Sciences, North-Eastern Hill University, Shillong, who delivered the

keynote address for the session. The following delegates presented their papers :

1. Dr. N.K. Chakraborti,
 2. Dr. T. Bhattacharya and Shri D. Chakraborti,
 3. Shri H.C. Changkakati,
- and a discussion followed.

Business Session—II held on 28.2.84 was devoted to the importance of forests in North-East India. Dr. Manas Das Gupta, Professor of Economics, North Bengal University was the Chairman of the session.

The papers by the following contributors were presented :

1. Dr. A. Banerjee, Dr. M. Das Gupta, and Shri O.P. Roy,
 2. Shri S. Roy, Dr. B. Sircar and Dr. N.K. Chakraborti,
 3. Dr. M. Chakravarti,
 4. Shri V.K. Chithrangadan,
- and a discussion ensued.

Business Session—III dealt with the assessment of forestry planning in the North-Eastern region. Shri H.C. Changkakati, Conservator of Forests, Forest Planning Division, Assam, chaired the session and the papers by the following contributors were presented :

- i) Dr. Manas Das Gupta,
- ii) Dr. P.D. Saika and Shri N.R. Goswami,
- iii) Dr. S. Choudhury,
- iv) Dr. N.R. Datta,
- v) Shri Amitava Mitra,
- vi) Shri D. Nag,
- vii) Dr. S.N. Guha Thakurta,
- viii) Dr. A.K. Agarwal.

The papers by Shri M. Sarkar, Shri C. Lalthanzama and Dr. B.K. Roy Barman were taken as read as these participants were not able to attend the session. This was followed by a discussion.

Session—IV, devoted to the formulation of guidelines for forestry planning in the future in the region, was chaired by Shri S.L. Bahuguna who delivered the Chairman's address. This was followed by a presentation of their papers by :—

1. Dr. J.B. Ganguly,
2. Dr. L. Janmejoy Singh,
3. Dr. B.B. Datta.

The Seminar ended with a speech on behalf of the participants by Shri S.L. Bahuguna and a vote of thanks by Dr. M. Dasgupta.

M. Das Gupta
A.K. Gangopadhyay
Tanmay Bhattacharya
Mahadeb Chakravarti

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