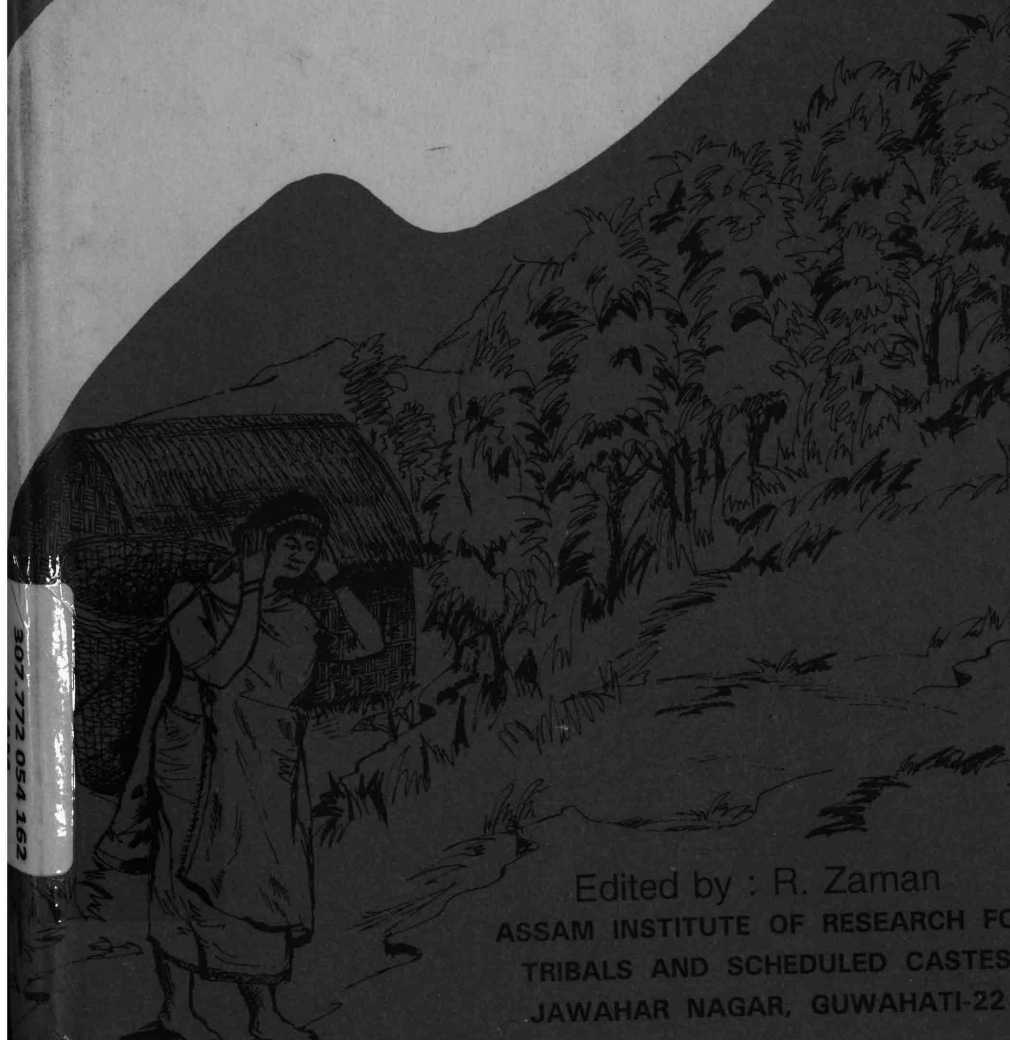


**FOREST RESOURCES-
IN HILL DISTRICTS OF
ASSAM- CONSTRAINTS
FOR DEVELOPMENT.**



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Edited by : R. Zaman
ASSAM INSTITUTE OF RESEARCH FOR
TRIBALS AND SCHEDULED CASTES
JAWAHAR NAGAR, GUWAHATI-22

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PREFACE

The Assam Institute of Research for Tribals and Scheduled Castes, Guwahati, had organised one seminar on "Forest Resources of Hill Districts of Assam- Constraints for Development" on 12th & 13th December, 1996 in the Institute campus. Altogether seven papers were presented. The first paper was presented by Shri Promod Goswami on "Forest Management in some foreign countries and learning points for India". Sri Goswami had been working Food and Agricultural Organisation for nearly 15 years. His experience was widely appreciated in the seminar. The second paper was presented by Dr. G.C. Sharma Thakur on "Forest Human Interface and understanding common property resource use". Dr. Sharma Thakur is the retired Director of this Institute. Dr. Sharma Thakur conducted many studies while he was in service. The paper was also appreciated in the seminar. The third paper on "An outline of a work plan for people oriented management of nature and natural resources in the two hill districts of Assam" was presented by Shri D.P. Neog, Retd. Principal Conservator of Forests who has wide experience in the Forest Department. His paper was welcomed by the participants. The next paper was presented by R. Zaman on "Gender Issues in Forestry". The topic is highly interesting and since it was gender related, it evoked lot of interest in the seminar. The last three papers were presented by research scientists from ICAR, Shillong. Shri S.N. Goswami from ICAR presented the paper on "Levels of Income under shifting Cultivation and its effect on natural resources". Shri K.A. Singh, R.N. Prasad and U. Sharma jointly presented a paper on "Watershed Based Farming Systems for North Eastern Hills Region". The last paper was presented by Shri S.K. Dhyani on "Work plan for Organising Forest Resources in Hill Districts of Assam- an out-

line". These technical papers were very nicely presented by the research scientists of ICAR.

The seminar was attended by many people including Professors from Gauhati University. In order to finalise the recommendations of the seminar, a Committee was constituted under the Chairmanship of P. C. Goswami. The other members were :

1. Prof. B.M. Das, Retd. Professor, Gauhati University,
2. Mr. K.A. Singh, Sr. Scientist, ICAR,
3. Mr. D.P. Neog, Retd. Principal Chief Conservator of Forests

The recommendations have been finalised and the same has been incorporated in the book now printed out for wide circulation.

I hope this book will be received by the readers with great pleasure. We are looking forward for comments and suggestions in this regard.

I am thankful to the faculty members and staff of the Institute and also to the participants in the seminar. Special thanks are also offered to the scholars who presented papers in the seminar. I also thank M/S. Bohniman Printers, Guwahati for their help and co-operation in bringing out the book.

Dated : 2-1-98

R. Zaman

Director

Assam Institute of Research for
Tribals & Scheduled Castes,
Guwahati-22

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FOREST MANAGEMENT IN SOME FOREIGN COUNTRIES AND LEARNING POINTS FOR INDIA

Pramod Goswami

INTRODUCTION :

Towards the end of the second world war, the then government of India launched a scheme for restoring the ravages caused to the country's forestry due to overexploitation for meeting the needs of the war. In fact, the government undertook the task of all-round accelerated development of the country-industrialisation, higher technical education, public health, scientific research etc. under this scheme, known as the post-war Reconstruction Scheme, highly qualified young men were sent to the United Kingdom and the United States for higher education or specialised training. I was selected under this scheme to study Advanced Forestry in the Edinburgh University which gave the highest forestry degree in U.K. on completion of a 3 years course. For practical training the Final Year students were taken to France and Belgium-visits to Germany being still restricted-as the forests of these countries were under scientific management for about 150 years by then. After obtaining my degree from the Edinburgh University I secured a Fellowship from the United State Government, for specializing in Soil Conservation and Watershed Management under its In-service Training Scheme for Foreign students. This specialization period of about four and half years in U.K. and U.S.A., gave me opportunity to acquaint myself intimately with forest management practices in highly developed countries of the west.

My experience in forestry in the developing countries, besides several states of India, was gathered during the years of my service with the B.A.O. of the United Nations for about 11 years in Indonesia, Bangladesh (Asia) Nigeria, Sierra Lonr, Ghana (West Africa), Jamaica, Trinidad and Tobago and Grenada (West Indies). The people of these countries were different and so also the forestry and land-use issues. Some major learning points for

India from these countries both Developed and Developing are mentioned here.

Points from Developed Countries.

Percentage of Forest Areas. The total forest areas in terms of the total land area of some selected industrialised countries are as below terms of Percentage of the total land area of some selected industrialised countries are as follows.

United Kingdom	6.1
France	19.9
Germany	26.8
Netherlands	7.7
Finland	70.9
Canada	37.8
USA (excluding Alaska)	32.8

All these countries are highly industrialised and their economics are the most advanced giving the population in the highest living standard in today's world. None of these countries have any set goal as to how much of land area what percentage of the total land area of the countries should remain under forests. The percentage of land under forests in these countries is the result of total population level of industrialization on suitability of land for profitable agriculture on sustained basis and many other interacting and complex factors. While the quantum of the need of the population for forest produce is of importance, it is not a criterion or determinant of the area under forest cover. These countries fulfil their needs for timber and other forest produce by import and manufactured substitutes. The policy in these countries is to preserve and maintain whatever forest land exists in scientific manner for their economic benefits and impact on environment. The Indian Forest policy on the otherhand lays down that also the total land area of the country should be under forest cover. There is no scientific or economic basis for this target. Revegetation of this target year after year ignoring the fact that it is well high impossible to attain it -an increase of nearly 10%-merely less the urgency of the important need of maintaining the existing forest areas without causing degradation and over-exploitation. Individuals priority and policy emphasis should be not to allow further diversion of forest land to other purpose and manage the existing forests on scientific principles keeping the need of the vicinity population

in view.

II. Functional classifications of forests and management authority.

The Forest policy of India classifies the forests of country according to their primary functions etc. (a) Catchment Forests for maintainence of watersheds for prevailing soil erosion and maintaining stream flow, (b) Production forests for meeting needs of timbers and other forest produce for the population of the nation and industries, defence, communications etc. (c) Village forests for meeting the requirements of the village communities in the vicinities of forests. Although forestry is a concurrent subject, all forests are under the control and management of state Governments. Private ownerships of forests have been abolished in India after independence. In the developed countries of the west there are large areas of forests under private ownerships these are excellently managed on scientific lines taking advice from Govt. agencies. In the U.S.A. ownership and management authority of all state forests lie with both the Federal Government and the state Governments the forests of national importance both for maintainence of ecology and meeting needs of forest produce for the nation being maintained by the Federal Govt. and the rest by the state Governments. The private ownerships are confined to industrial forests such as paper and pulp making companies and forest estates of private citizens.

Forestry in India is a concurrent subject under the Constitution control and management of forests lie with the Central Govt. and the State Govt. jointly. However, Central Govt. does not do anything in the matter either in financial terms or in management spheres. Forests will be better preserved and the functions of the various types of forests will be better fulfilled if the following types of control and management are evolved and adopted.

1. Catchment forests to be controlled and managed directly by the Central Govt. No commercial exploitation of such forests are to be undertaken, nor clear felling ever to be permitted; only natural regeneration is to be undertaken.
- (ii) Commercial forests to be managed by the State Government following management plans jointly prepared by the Central and the State Government.
- (iii) Village forests and unclassified state forests to be managed

by Panchayats and District Councils taking technical assistance from the State Government.

Permission from the Ministry of Forests and Environment of the Government of India is required if more than ten hectares of Reserved Forests are to be diverted for other purpose such as construction of roads, railways hydro-electric projects, industrial enterprises etc. It is because of this very desirable regulatory measures that want on diversion of forest lands for other purpose has been discouraged even though sometimes inordinate delay in development project implementations does take place.

In this context the transfer of the Reserved Forests to the District Councils for management and exploitation is a retrograde step in the national interest. From the time of creation of the Reserved Forests the local people, tribal or non-tribal have not been bestowed with any rights in these forests; if earlier any community or individual had any right, those were abolished after giving due compensation either in cash or allowing such rights to be exercised on adjoining lands.

A year and half ago, when at the Arunachal Assam border forest check-gate, a gang of poachers were detected carrying a large number of musk-deer pods, some 20 in numbers brought from Arunachal forests killing this almost extinct species of deer found only in very high altitude in Arunachal Pradesh, Sikkim and Kashmir in India and in Nepal in small numbers. It comes down to lower altitudes to graze during winter. It is a fully protected species under the Indian Wildlife Protection Act. A group of tribal leaders represented to the Union Minister for forests and environment who was then in Itanagar Representing against this seizure of the musk pods stating that tribals always enjoyed unrestricted hunting in the forests. It is correct that the tribals had un-restricted rights of hunting in the forests but not with modern weapons, but only with bow and arrows which posed no danger of extinction of any species. It also needs to be unstilled in every citizen of the country that some traditional rights have to be regulated or surrendered for the good of the Nation. No citizen is allowed in any country to do whatever he likes, some individual or community rights have to be regulated for the sake of the country and society as a whole.

(iii) Industrial Forests :

Ambitious plans have been prepared since last one decade or so for afforestation of the waste lands, the degraded marginal lands and barren areas within demarcated forests under which several million hectares were to be planted with trees. This has not materialised. Funds spent on afforestation of large hectare also have been wasted as the works were carried out per functionally with an eye for fulfilling targets and often without following attending operations.

The country is facing shortage of industrial woods for pulp, plywood, and timbers for cabinet works. If industrial houses, paper mills etc. are encouraged to improve degraded forests or afforestation waste-lands with suitable soils the country can kill two birds with one stone-meet the requirement of industrial/wood and restore ecological balance. At the time of leasing the land for afforestation, the most important conditions to be imposed is non-alienation of the land for any other purpose and to any other person or bodies. Financial Institutions should be partners in this endeavour by providing easy loans. In the Northern States of U.S.A., where along with the Western States, most of the forests are, about 50% of the forests are owned privately-mostly by large companies, though the role of small owners including professionally trained foresters is also significant. These forests are so well managed that forestry employment has doubled in only two decades and forestry officers of these companies now are invariably taken in Boards of the Companies so that they can guide the companies in managing the forests on sustained yield basis. One third of the all sawn timber of the United States come from the two States Washington and Oregon where however nearly 40% of the forest ownership is in private hands. These company forests are exceedingly well managed employing professional foresters-their industrial enterprises make more profits.

LESSONS FOR INDIA FROM DEVELOPING COUNTRIES

The people, their culture, the land-use patterns literacy and public health levels and in many other respects the developing countries differ vastly from one another or one regional group of countries from another such group elsewhere. In agriculture, forestry, watershed management, soil conservation, agro-forestry and other allied discipline, India is considered as the leading Nation amongst the Third World countries. The Food and Agriculture

Organisation of the United Nations employs a considerable number of experts from India to run development projects and transfer technology all over the developing world while this is so, it is also true that we generally find some approaches to forestry, agriculture, land-use, extension activities etc. which have relevance to India and offer learning points for U.S.

Indonesia is very fantastic country-geographically, culturally, religiously and in many other respects. It consists of 3000 islands and many more which are uninhabited and too small to include in standard maps. The country extends from latitude 95 East just below to our Nicobar Island to Australia and New Guinea in the east at longitude 132 East. Obviously its population and climatic diversity is very great. It is the second largest Muslim country but it is not an Islamic country, as we were told by officials assisting US in our project activities. Government offices do not close on Fridays but do so on Sundays. Hinduism was the religion on the country in ancient times. The important island of Bali is still largely Hinduism. All ancient monuments depicting Hindu deities are carefully maintained and proudly exhibited. The famous dance dramas of Bali portrays the Ramayana secularism in Indonesia is not an ideal but a living reality. This is certainly important learning point for India.

There are many active volcanoes in Indonesia soils in many islands are derived from recent lava and new alluvium and hence very fertile. Major crops are rice, on terraces on slopes-maize, black-pepper, coffee, oil palm, tobacco tea rubber and sugar cane. Since we are training to introduce terrace cultivation and plantations on crops in our hill districts, we have many things to learn from the Indonesian farmers and the plantative states who are industrious and unlike here, not dependent on government subsidy so heavily.

The hardworking nature of the Bangladeshi cultivators is well known in Assam. But what appeared amazing even to an Assamese Expert when working in Bangladesh in an Asian Development Bank team, is the fact that large tracts of paddy field where paddy ready for harvesting stood, were in mere three days time replanted most systematically making field bonds and excess water-out lets etc. with latest IRI varieties of high yielding short duration rice. The Bangladeshi cultivators do not keena square meter of land follow even for a day. Bangladesh have freed itself from colonial and

later Pakistani domination through rebellion, have readily discarded the colonial rules and producers framing new ones in conformity with the objective of achieving rapid development of the country. Status and Salary of all the civil services of the country are now at par; when any delegation goes abroad, the senior most officer, whether he is a doctor, a forester, an agriculturist, an engineer or an administrative officer, becomes the leader of the delegation of the team. In India it is always a generalist who is the boss of the Department. Thus views of technical personnel are often stifled, resulting in mis-conception and mismanagement of many development projects in our country.

The Caribbean countries, the island nations of Central America, though tiny in size each have different problems because of their colonial history under the British or the French or the Spanish. Jamaica is the largest of English speaking islands and closest to the U.S. It grows the world best coffee, the Blue Mountain Coffee in large estates and small family gardens. But as the Jamaicans can and do easily migrate to Canada or USA to work in factories and in household jobs, the plantation are neglected for want of labour. The Jamaicans of course do return to their country when old, because of sentiments to die in their motherland. A package of agro-forestry practices were successfully tried by the UNDP project in the 80's to keep the population in the country by providing year round and remunerative employment based on agro-forestry principles. This was found to halt the migration of the youth to America in search of livelihood. The coffee grow in N.C. Hills, Mahur in particular, have been certified by the India Coffee Board to be of very high quantity. Caution is necessary in expanding a monocultural activity to avoid only part time employment. The agro-forestry approach, which created what is known as food forestry in the West Indies, has not yet been tried extensively in our remote hilly regions like N.C. Hills of Mizoram.

Grenada is a small island of volcanic origin. Its soil is very suitable for cultivation of nutmeg and clove it is known as the spice-island of the world. These two crops are able to offer handsome income as co-operatives deliver inputs fertilisers, pesticides, small implements at the farm gate in time and purchases the produce all round the year without creating hussels. This enables

even small farmers having only a few nutmeg trees in the compound, to earn handsome income to supplement earnings from other activities.

Trinidad and Tobago, the twin-island country is now a very prosperous nation offer the discovery of oil in the sixties. The population is roughly 45% of Indian origin 45% of African origin and rest of mixed French and Spanish origin. Earlier its economy dependent on coffee and cocoa estates where the African-origin people were employed and sugarcane plantations where people of Indian origin, the descendents of Indian indentured labour, earned their living. Alteration to agriculture and plantation crops have again been revived because of very low oil price. Now the Indian origin people have taken to vegetable, fruits and sugarcane cultivation whereas the Negroes working plantations owned by the wealthy planters. Because of great care and attention to given to all aspects of operations, both the plantation crops and the fruits and vegetable crops have again become lucrative. Fertilizers, and pesticides, used are un-adulterated, imported from Europe and USA, inputs are timely available. Agricultural implements both small and large are of superior quality imported mostly from U.K.- thus requiring less time and energy than what is used in India. Transport facilities both for inputs and marketing are excellent, produce are usually taken from farm-gate. Because of high income from the petroleum industry, prices of farm produce are high and attractive.

In our country, specially in the North-East, it has become difficult to obtain un-adulterated pesticides or fertilisers. Spread of malaria once again is believed mainly due to adulterated insecticide rather than emergence of insecticide resistant mosquitoes. In 1995, farmers all over the country were unable to get any Urea, because as it has now been revealed, the entire 330 crore rupees paid in advance by the then Govt. to some dubious foreign company without getting a grain of urea, was allegedly mis-appropriated by the family of the then P.M. of India. The new Prime Minister has been lecturing to the country that poverty alleviation and improving the lot of these below the poverty are priorities of his Govt. With such rampant corruption in India today, neither adoption of improved technologies from abroad or sathering of "Learning Points", will alleviate poverty or improve the lot of farmers; such as utterances and assertions will remain mere talking points only.