

REPORT ON THE INTERNATIONAL SYMPOSIUM ON
FOREST INFLUENCES AND WATERSHED MANAGEMENT:

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From last issue.

7. FOREST INFLUENCE AND WATERSHED MANAGEMENT IN EAST PAKISTAN :

Background informations :

(a) East Pakistan is a land of rivers . The importance of rivers in the socio-economic life of East Pakistan is phenomenol . But unfortunately the watersheds of the most of rivers in East Pakistan are outside the political boundaries . Almost all the watersheds of the rivers coming from Chittagong Hill Tracts and parts of watersheds of the rivers flowing from southern hills of Sylhet district are, however, in East Pakistan .

(b) Floods in rainy season play great havoc almost every year causing great suffering and loss of life and property . The most of the areas are flooded by over-flowing of rivers coming beyond the boundary of the region . Cyclone, norwester and tornado cause great damage to the life and property of the region, particularly in coastal districts .

(c) There are three main blocks of forests in East Pakistan namely, (i) Hill Forests of Chittagong, Chittagong Hill Tracts and Sylhet, (ii) Mangrove Forests of Sundarbans, and (iii) Sal Forests of Dacca Mymensingh.

(d) Out of about 5093 square miles of the Chittagong Hill Tracts 1241 sq. miles are reserve forests and 54.2 square miles are protected forests and rest are called unclassed state forests where 'jhuming' or shifting cultivation is in practice . The topography of the land is very rough with tangled mass of hills and narrow valleys .

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The soil is extremely friable in nature and there is considerable sheet and gully erosion with onset of monsoon from the jhoom and burn over area; thereby causing siltation of rivers and Kaptai Hydrel lake .

(e) Hill Forests are yielding the most of the timbers for constructional and industrial use. Hill Forests are clear cut and reforested with more valuable species. Mangrove Forest is exploited maximum under selection system and is regenerating naturally. Sal Forest is mostly managed under coppice system .

(f) Soil and land use survey of the unclassed state forests of Chittagong Hill Tracts have been done by the Forestry and Engineering International Ltd., and they have categorised the land suitable for different purposes. They have put 72.9% of the total area of Unclassed State Forest as 'D' class . They have recommended extreme soil conservation measures to be adopted for such land and suggested afforestation and proper watershed management for bulk of such 'D' class land .

(g) Flood control measures within East Pakistan will involve construction of high river banks . More than four hundred miles of the coastal belt are to be protected by embankments against tidal bore .

(h) Agricultural Development Corporation has taken up a project area for growing agricultural crop and other field crop in the hilly regions of Chittagong Hill Tracts .

(i) Hydrological data concerning the province are maintained by Water and Power Development Authorities . It is also their responsibility to construct and maintain embankments and take up other flood control measures.

(j) 'Soil Conservation Project' at Ramgarh under Agriculture Department has been engaged in finding suitable method of growing agricultural crop and other field crops in the hilly regions .

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(k) East Pakistan is one of the thickly populated region of the world . Forest areas are situated on the borders . It is almost impossible to get land in the interior for growing forests for recreation, or aesthetic purpose . But growing trees in homestead land, waste land, road side land , and embankments is easy .

(l) Although forests of East Pakistan is mostly being managed for materialistic use, since last decade management of forest area for game sanctuary and national parks is getting attention of the authority .

(m) People in general and even the educated people are not acquainted with non-materislistic value of the forests and forests management .

(n) Forest Research Institute at Chittagong has planned for Watershed Management Research in the Chittagong Hill Tracts area . Byron B. Beattie, Watershed Consultant, has already given his recommendations regarding the immediate and urgent need of an operational type of research programme that will produce measurable trends in gross hydrological behaviour under various pattern of land use in the shortest time .

(o) Forest Research Institute at Chittagong is now developing the research facilities in different discipline like Silviculture, Genetics, Soil Sciences, Forest Economics, Forest Protection etc. It has several research stations at different parts of the province which will be used as field laboratory for research purpose .

(p) Forest Nurseries of Extension Service also exist in different districts which can be usefully utilised for improvement of tree population to the best advantage of the people .

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(q) Per capita consumption of timber and other forest produce in Pakistan is one of the lowest in the world . Further mineral resources like coal, iron are scarce . With industrial and economic development per capita consumption of forest produce shall improve, and will have to be met by multiple land use and maximum production from the limited areas .

With the above background informations, following recommendations are made for development of forests and plant population in East Pakistan for effective 'Forest influence and Watershed Management' for the benefit of people .

RECOMMENDATIONS:

- (i) Operational Forest Research Programme on Watershed Management for the purpose to guide decisions on allocation of land to various purposes in Chittagong Hill Tracts as suggested by Watershed Consultant should be taken up immediately by the Forest Research Institute, Chittagong .
- (ii) On humanitarian ground joint project by the countries concerned with the help of the International Body like FAO be taken up for scientific management of the watersheds of the rivers that are flowing to East Pakistan . That is the most effective measure for flood control and thereby reduction of sufferings of the people .
- (iii) Forestry Branch of the Forest Research Institute will take up the research to find out suitable trees, herbicines plants, and grasses of economic importance that can be grown for protection of flood control embankments, coastal embankments and ever homestead lands in low lying 'hazir' area .

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- (iv) Research will have to be taken up to raise multi-storied artificial forests of economic importance in Chittagong Hill Tracts that will protect the watersheds from erosion. Future plantation programme for both afforestation and reforestation should be guided by the research results .
- (v) For effective soil conservation measures, all 'D' class land as recommended by Soil and Land Use Survey Report should be declared Reserve Forests forthwith. Large scale afforestation programme should be taken in the area preferably as a project under United Nations Development Programme .
- (vi) No research has ever been made anywhere in the world for amelioration of mangrove forests . A research project with United Nations development aid is worth trying to improve the quality of mangrove forests of Sundarbans by drainage and regulation of supply of fresh water, saline water etc. Result of such research in respect of water-logged swamp is not only helping improve the quality of the forests but reclamations of such land for agricultural purpose in the U.S.S.R.
- (vii) Importance of forest influence and watershed management is still unknown to the people in general, and even with persons concerned with Land Use Management . The idea of multiple use management of forests and watershed is also new in this part of the world . Further watershed management concerns foresters, agriculturists, hydrologists and engineers. So it is essential that all forestry training Institutions, Engineering Colleges and University, Agricultural Colleges and University should include in the syllabus courses of study on 'Forest Influence and Watershed Management' including 'Multiple Use Management' of Forests and Watershed .

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(viii) Forestry activities will have to be more labour intensive in this part of the world . But for proper implementation of large scale afforestation work by trained labour force, limited use of modern machines and equipment , will be necessary . It is therefore recommended that labour training programme with use of such essential equipments be organised under United Nations Development Programme .

(ix) Forest Research Stations and Forest Nurseries with the help of expert advice of the Forest Research Institute should not only raise themselves but educate people of the respective region to raise such plants in private lands that will economically help them and also give protection of homestead and farm land against flood, eyclone and high winds etc.

(x) With industrialisation the atmosphere of the growing cities is likely to be polluted. With increase of population, cities also should have recreation facilities and aesthetic views to maintain proper environment . The city and town development should therefore make provision for suitable parks, forest blocks, and avenue plantations .

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