



Sociological problems and Asian forestry

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A seminar on social relations in the forestry sector for participants from Asian countries, sponsored by the Swedish International Development Authority, FAO and the Government of Cyprus was arranged in September-October 1969. A preparatory, fact-finding mission to selected countries in the region was undertaken early in 1969.

FORESTRY DEVELOPMENT PROBLEMS in Asia may be considered for the purpose of the present study as a matrix of three concentric circles: the technical problems inherent in the management of a multi-species forest resource; the complex economic problems of forest industries and trade; and the institutional problems of maximizing the contribution of forestry and forest products to the overall effort for economic growth and social advancement.

The last, outer circle is that most relevant to the present study. Most of the social problems of forestry development are embedded in it. And it is in this area that organized public relations activities are likely to assist the foresters of the region in their efforts to strike an harmonious balance between resource supply and human demands for forest products and needs for indirect social benefits. This report is therefore restricted primarily to an analysis and discussion of the social aspects of forestry development.

It must be made clear from the start, however, that no effort is, or could be, made to suggest solutions to these problems, which are as vast and complex as the Asian region itself. Furthermore, the vast panorama of the Asian landscape on which the human drama is evolving was seen at far too great a speed to permit anything more but a mere identification of those areas in which organized public relations in forestry could perhaps assist in finding long-term solutions.

The following are some of the major areas where intensified action in public relations is warranted.

Human/forest relationship

The task of every forester is to serve not the needs of trees but of man. The forest is a living community of plants, a biological complex which, through the scientific and rational intervention of the forester, can be made to yield goods and services to the community. The task of the forester is to try to ensure a harmonious balance between the increasing and changing demands of man from the forest and to improve the capacity of this resource through rational management.

The human/forest relationship is never static. It changes with the evolution of human society. Early man, for example, considered the forest his habitat, in which he could find protection from the weather and where he could secure his food from its fruits or its fauna. As man developed the art and skill of producing his food through agriculture and the shepherding of tame animals, the forest assumed a new role in his life; it became the natural range for grazing his flocks and the fertile ground on which he could grow his crops. When man found that caves could not meet his need for shelter and warmth, he discovered that trees could provide an excellent raw material for huts and sheds or, when combined with other building materials such as mud or stone, it could be used to erect more elaborate dwellings. Furthermore, wood had excellent qualities as a fuel for cooking and for smelting ores for the production of the arms and implements so essential to man's survival.

To modern man the forest constitutes a valuable natural resource supplying the raw material base for important industrial products such as paper, pulp, wood-based panel products and lumber. Furthermore, as a result of the concentration of human populations through urbanization, forests are becoming increasingly important for sport and recreation apart from acting as a natural soil cover and regulator of water supplies for human consumption, and for industrial and agricultural needs.

This, briefly, was the historic evolution of the human/ forest relationship in most industrialized countries of western Europe and North America. To a large extent it was in harmony with population growth and with economic and social advancement. In other words, the liquidation of forest resources to meet human needs was not only gradual but the products of such liquidation were more efficiently utilized to feed the process of economic growth.

Looking at the situation in Asia today, one meets all stages in this evolution of human/forest relationship existing side by side in every country. To the aborigines of China (Taiwan), the Kiaingineros of Philippines, the hill tribes of Thailand, the peasants of India and the nomads of Iran, forests are a free gift from God to each and all, to fell, clear, cultivate, graze or hunt its fauna for subsistence. The need for food and the survival of the individual has precedence over all other considerations and leaves no room for concepts of the community benefits of forestry.

Where primitive economies and social structures have moved beyond the traditional stage, the people are not content to remain in poverty and are demanding more goods and better opportunities for advancement. These demands, coupled with the upsurge of population, create enormous pressure on all available natural resources. In this respect the forest resource is, unlike minerals or water, in a much more vulnerable position since it can be readily liquidated by burning or felling to provide the additional land for crops or the extra cash for other needs. Shifting cultivation or the thieving of merchantable timbers are as natural to many tribes in Asia as in drinking water from a stream.

Efforts to increase food production and thus relieve the pressure on forest land are made difficult by lack of capital and the existence of an enormous surplus labour force engaged in subsistence farming, which is continually searching for a better living and often migrates to the cities. While there are few opportunities for newcomers to cities, the sad fact is that there are still fewer on the farms. The overcrowded and makeshift accommodation to be seen around Bangkok, the shacks at Manila and the mud huts encircling Indian cities demonstrate the desire of rural people to share in the benefits of progress. These displaced persons represent one of the greatest problems facing the governments of many Asian countries. Hordes of city squatters create needs for low-cost housing which the forest resources could help provide, but the capital resources and the infrastructure needed are seldom available.

At the same time, the concentration of income in relatively few hands leads to superfluous and excessive consumption to the detriment of investment in productive ventures. Thus essentially

different economies and social structures are evolving and existing side by side, which in turn multiplies and complicates the human/ forest relationship within each country. There is the urban economy with a degree of specialization in the division of labour and a fully operating monetary system. There is the primitive rural society with its economy based on subsistence agriculture in which money and exchange play very little part.

To the urban society the forest is a source of raw material for industrial development and trade expansion. To most forest entrepreneurs increased profits matter most. What is of importance to them is how and to what extent profits can be increased through forest exploitation now. National economies, values added, - labour employment opportunities, balance of payments, rational utilization of resources or replacement of natural forests are of little concern to many of the timber industrialists and forest products traders of these countries. If big profits can be made now with the least amount of investment, why should they concern themselves about the 1980s or the year 2000?

To a rural society on which lies the burden of producing more food, the restrictive :Laws and measures prohibiting the clearing of " jungle," which does not produce food. but only harbours wild beasts, is incomprehensible. For what is so wrong about clearing virgin land for food production when the fertility of the old plot has been exhausted? Or the burning of a few hectares of jungle to let stock feed on fresh grass when last year's burn either eroded or is covered by useless elephant grass ? Or cutting a few teak or mahogany logs to buy that transistor set or ornament ? Or to shoot a deer or rhinoceros to get some venison or valuable horn? Or to fell a few trees to collect the branchwood and cook the evening meal until the newly prepared dung dries up?

These are some of the social problems of forestry for which solutions must be found. And in attempting to produce the answers, a forester in Asia finds himself entangled in the task of changing the whole social and economic pattern of human life.

Forestry and public administration

The fact that in most Asian countries forest resources are generally publicly owned gives the forest sector special significance in the administrative framework of these countries. Where the resources constitute frozen capital it makes it easier for government authorities to liquidate them to feed their overall development programmes. This, however, creates certain obligations, in that long-term public benefit must be placed before short-term interest or party politics.

In the majority of countries visited, the importance of the forestry sector as a potential source of capital to feed the development process is recognized but, unfortunately, there is lack of appreciation of the fact that the forest is a renewable resource and that adequate funds must be ploughed back into the forestry sector to keep alive the "hen that lays the golden egg."

In all countries visited, the funds in the government annual budgets earmarked for forest development are inadequate for the replacement of the forest, capital, which is being liquidated at an ever-increasing rate. There would be nothing wrong in this if the revenues from the liquidation of the forest resource were invested in other productive sectors of the economy for the generation of income.

The foresters of the region have a major task, to make their own masters aware of the dangers and adverse repercussions of allowing the depletion of the forest resources to continue at the present rate. The strengthening and up-grading of the status of forest administrations and the delegation to them of more power to enforce legislation and promote sound policies command a priority for forestry public relations programmes.

Similar action is also needed to promote an understanding of forestry among other government departments and services. There is need for closer cooperation between forestry officials and those responsible for agricultural development and for irrigation. The problem is not only one of coordination, but very often one of communication.

Within the forestry departments themselves there is much room for improved communication of policy so as to achieve uniformity of action between those at policy level and those operating in the field. And, as charity begins at home, there is every reason to concentrate on improving communications and good public relations within the agencies themselves before directing efforts at educating the man in the street. Forestry faculties and schools could do a great deal toward enlightening their students on modern techniques of policy communication and personnel relations. In this respect, the series of lectures on public administration, initiated by the College of Forestry at Dehra Dun, India, is a step in the right direction.

Forestry and agriculture

Perhaps no other two sectors of the national economy of a developing country are so closely interrelated and interdependent as forestry and agriculture. Both sectors are based on the land resource which is the backbone of the national economies of most developing countries and, in addition, the majority of the population in developing countries is engaged on the land.

When cooperation exists between the two sectors, forestry and agriculture, a fuller contribution is made to the common effort for economic growth and social advancement. Where antagonism marks the relationship between the two major land-use sectors, progress is not only inhibited but often nullified. Most of the social problems of forestry development in Asia arise from a lack of understanding and cooperation between forestry and agriculture.

As Sir Henry Beresford-Peirce (FAO, 1968)¹ puts it: " The issue is not, or should not be, one of rivalry between agriculture and forestry for the use of the natural resources on which both depend-land-but of ways in which this use may best be determined in order to achieve the joint objectives of raising nutrition and living standards."

(¹ FAO 1968. Forests, food and people, by Sir Henry Beresford-Peirce. FFHC Basic Study No. 20. Rome. 72 p.)

The most substantial contribution of forestry to food production does not lie so much in the liquidation of forest cover to release more soil for cultivation but in the protection it affords to agricultural land; in the prevention of wind and water soil erosion; in the control of floods and regulation of stream flow; in providing the wood fuel requirements of the rural communities and thus releasing dung for fertilizing crops; in providing the raw material for the development of industries that either earn or save foreign exchange.

Some of the major problems of forestry development resulting from rivalry between forestry and agriculture and for the solution of which the concerted efforts of both foresters and agriculturists are essential are as follows.

SHIFTING CULTIVATION

" In essence this is a rotation of farming and forest and works somewhat as follows. The members of a peasant family move into a forest area, often illicitly, cut the trees and build huts. They sell timber or firewood if they can, and burn the brushwood, roughly cultivate among the stumps and grow a variety of crops, mostly for home consumption but sometimes for sale. With remarkable speed the bared and burnt-over soil loses its fertility and sometimes in as short a time as two or three years the peasants find they can no longer grow their crops because of poor fertility or heavy weed growth or both. And so the family moves on, repeating

the process over again in another two or three years." (FAO, 1968.)

Shifting cultivation extensively practiced by the hill tribes in the northern provinces of Thailand, and the illegal clearing of the forest for cash crops by local villagers, constitute one of the major problems of the forestry sector in that country. A special committee was set up by the Government in 1963 to investigate and research into the ethnology, sociology, customs and culture of the hill tribes in order to understand their mode of living and determine the most suitable means by which they can make their livelihood. A research centre dedicated to this study has been established in which scientists, agronomists, sociologists and others are working closely together. Yet the problem is becoming more acute and is now involving political issues.

The following extracts from a recorded interview with Donald F. Gienty² on Thailand's forest development and its effects on rural people are relevant.

(² Donald Gienty is the author of Thailand's development report and its effects on rural people.)

" The most serious trouble is still the illegal clearing of the forest for more or less permanent agriculture on the remaining now very limited area of reasonably good topography and soil inside legally constituted forest reserve boundaries. Attempts by the Forest Service to check this have been rendered quite ineffective by the fact that the Forest Department was not supported by other government agencies.

" The protection and management of forests everywhere involves the restriction of current and future activities of the local population in directions in which there has previously been little or no interference, so that they have come to be viewed as rights-including extension of cultivation into the forested land, removal of timber for building and of all forms of minor produce. This attitude may even extend to the removal of material beyond their own requirements for local use, to material for sale outside the area. This being the Forest Department is inevitably unpopular with the local population if it attempts to carry out its primary duties of protecting the forests and managing them as productive units or for protection of water catchments.

" The only solution is to get; the legal position absolutely clear and known to all concerned, and then to insist on its observance by effective policing in which the Forest Department must be fully supported by the administration and the magistracy. The only way of changing the antagonistic outlook of the local people is a continuous publicity campaign which is most effective (or only effective) if carried out by picked men of the trained subordinate staff Who can fully understand the villagers' needs and outlook, and be understood and more or less trusted by them. This is a very slow job requiring decades, but a beginning has to be made. It must be an intelligent combination of education and persuasion with firmness."

In the Philippines shifting cultivation and illegal squatting also rank among the most serious problems of forest development. In spite of the fact that recent amendments in the law provide for heavier penalties to illegal squatters people still continue to clear forest land. This is due to the clamour of the poor landless people for more land to cultivate in spite of the release of large areas of forest land for agricultural purposes.

In an address to the Philippine Lumber Producers' Association and the Manila Hoo-Hoo Club, Tom Gill ³ referred to the land grab in the Philippines: " The result is that here in the Philippines we are witnessing a land grab that could go down as one of the most notorious in history-a nation being robbed of the very thing that makes existence possible-the soil and the productivity of the soil. Land for the landless which was a great humane principle can become Land for the lawless."

(³ Tom Gill is president of the International Society of Tropical Foresters)

In emphasizing the need for a campaign of public education that would carry the lesson of the value of forests to economic and human welfare, and the need for new attitudes on the part of government to save the nation's burned and abandoned hectares, Tom Gill stated: " For in a very literal sense the Philippines are engaged in a race between education and disaster. And, however difficult the task, there must be created a national will; and you cannot create that until the people realize the importance and the extent of the problem and can relate it to their own way of life."

In China (Taiwan) the problem of shifting cultivation exists, but is less serious than in other countries of the region. The Government has managed to localize the problem and plans to release 68 000 hectares from the national forests for the rational resettlement of landless farmers and retired servicemen.

In India the problem of shifting cultivation is acute in many states, especially in the hilly areas of Assam, Manipur, Tripura, North Eastern Frontier Agency, Nagaland and Orissa. It is reported that about 207 000 hectares in Assam, 47 000 hectares in Tripura and 22 000 hectares in Manipur are under shifting cultivation. In Orissa the area under shifting cultivation is estimated to be 3.3 million hectares.

Weaning tribal people from their age-old practice of shifting cultivation requires careful demonstration of the efficacy of improved methods of agriculture. Subject to the availability of funds, steps are taken to carry out such demonstrations, to resettle the tribal people in suitable areas and to introduce the taungya system. There is reason to believe that persuasive measures taken with a human approach are gradually having the desired effect.

"This system of shifting, cultivation is generally condemned by foresters and agriculturists: by foresters because the system results in waste of wood and a steady deterioration of the forest; by agriculturists because the outturn of food is poor in relation to the area and effort involved. Yet... care must be taken to make sure that any new system introduced is in the event more effective than the old. For shifting cultivation is more than a primitive form of farming; it is a way of life of woodland people reaching far back into history." (FAO, 1968.)

Whatever the new system may be it will take persistent, imaginative, well-prepared and long-term educational campaigns to alter the way of life of the shifting cultivators.

FOREST GRAZING

The other form of agricultural practice which has adverse repercussions on forestry development in particular, and on soil resource conservation in general, is nomadic or free range grazing. Grazing rates as the most serious forestry problem in the Near East and southwestern Asia as well as in most parts of south Asia, but is not so acute in the Far East.

As with shifting cultivation, nomadic grazing is a way of life practiced from the time primitive man evolved into a pastoralist. The practice is connected not only with economic necessity-a way of utilizing degraded lands - but also with custom and religion which restrict the evolution of other more productive forms of sedentary animal husbandry using other species of animals. Not only would livestock practices have to be altered by means of economic incentives but also feeding habits and traditional diets. This adds considerably to the difficulties and complexities of the problem.

Illicit felling

The illicit felling of forest trees is another major issue facing many forest departments in the

region. The timber is generally used to build houses or to make bullock carts and other agricultural implements, for fuel or for selling to sawmills.

Forest services enforce the law in such cases and offenders caught are generally fined. This, however, creates animosities among the rural population toward forestry personnel which may often result in more serious crimes, the killing of forest guards not excluded.

In Thailand many villagers complain that the procedures to secure a tree cutting permit are so cumbersome and expensive that it pays them to steal timber and face the consequences afterwards. In the Philippines, stealing also constitutes a serious problem which necessitates the engagement of 761 regular and 500 emergency forest guards. In Iran, a special forest police force of 3 500 is engaged in forest protection.

Forestry and sources of energy

Future development of Asian economy will depend to a large extent on the availability of suitable sources of energy.

Lack of mineral fuels (or electric energy) in rural societies initiates a chain reaction which not only has adverse repercussions on the forestry sector but on the whole economy. Demands for firewood are in excess of supply and animal dung is extensively used to supplement fuelwood. This deprives agriculture of valuable organic fertilizer, hence crop yields are low and low crop returns per unit of land cannot feed a rapidly growing population. From this stems the problem of land hunger; more land is brought under the plough to produce more food, leaving no room for fuelwood plantations. But the chain reaction does not end here: valuable cellulose resources which could provide the raw material for industry-pulp, paper, rayon-are wasted as fuel. The sugar-cane producing area north of New Delhi, for example, is estimated to produce enough bagasse to maintain a pulp factory with a capacity of 500 tons per day. Yet all the sugar-cane chuff is burned in the sugar extraction process. Where even animal dung is not available in adequate quantities, commercial forest plantations are used for fuelwood. This in its turn ruins whole watersheds, resulting in floods and the siltation of hydroelectric dams established with a view to providing electric energy. The whole process is more than a chain reaction; it is a vicious circle.

In those areas of Asia and the Near East which are endowed with rich oil deposits, lack of transport and adequate infrastructure again forces the rural people to depend on animal dung and firewood for fuel.

Forestry and industry

Perhaps in no other economic sector is so close an integration of the various phases (raw material production, transport, processing and marketing) so essential as in the case of forestry. Yet in most countries of Asia the relationship between those responsible for the various phases from the production stage to delivery of processed products to the consumer is not always harmonious. This is due not from a clash of interests but because of lack of adequate channels of communication.

The policy objectives of forest administrations, in particular as regards the provision of social benefits apart from raw material for industry and trade, are not clearly explained to the public. As a result, many entrepreneurs look upon foresters as small bureaucrats and obstructionists who prevent the go-ahead private sector from exploiting natural resources and thus adding to economic growth.

Much of the present misunderstanding between foresters and forest industrialists over concessions, stumpage fees, taxation, export controls, etc., could have been resolved to the

benefit of all by discussion or public relations information. Industry and trade are powerful elements in the social structure and their support could be of great advantage to the forestry sector.

Forests and recreation

Demands for recreation create additional pressures on forest land and interference with timber production. Adequate areas stocked with wildlife or of special scenic beauty must be set aside to meet human needs for sport and relaxation. National parks, recreation grounds, forest camps, resthouses and picnic places are among the best publicity media for winning public support of forestry.

Yet the concentration of people in places of special interest brings with it certain problems, for too many careless visitors can destroy the very things they go to enjoy. The scope of public relations work for the forester as regards national parks and recreation grounds, and their proper use and enjoyment, is almost unlimited.

Forests and fire

No other problem is as common to forest services the world over as that of forest fires. Because of their chemical composition, trees will burn wherever they may be found. The forest fire danger exists everywhere, the risk being only a matter of degree controlled by climatic factors.

In the majority of cases forest fires are caused by human carelessness. In some countries of Asia forest firing is intentional. In the Philippines, fires are started to clear land for cultivation. In Iran, the shepherds start fires to produce fresh grass for their livestock. In China (Taiwan), fire is employed for land clearing or for hunting game.

Prevent forest fires campaigns are conducted in Asia as in all other regions of the world. What is perhaps required in the case of forest fires is not so much an intensification of publicity but an assessment of the impact that the preventive measures already employed have had on the general public and on the fire incidence in each country.

