

FORESTRY — CONFLICTING PERSPECTIVES AS SEEN BY INDIVIDUALS, VILLAGES, COMPANIES, SOCIETY

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The forest cover in many neighbouring countries is dwindling rapidly just as in Sri Lanka. Here Salleh Mohd. Nor Director and Francis S.P. Ng. Assistant Director of Malaysia's Forest Research Institute in Kepong describe the conflicting interests in this battleground and maintain that only indigenous parallel growth in agriculture, forestry, industry, and science would make good ecological, economic and political sense.

Tropical forests are rich store houses of the world's biological resources, at least in terms of species, if not of biomass. The colonial governments which ruled the tropics, made it their priority to demarcate and reserve forested lands, to license the collection and sale of forest produce, and to document the myriad resources that the forests contained. The encyclopaedic compilations of the colonial era included Sir George Watt's (1885—1896) over 5000—page Dictionary of the Economic Products of India; I.H. Burkill's (1935) 2402—page Dictionary of the Economic Products of the Malay Peninsula; and K. Heyne's *De Nuttige Planten van Nederlandsch Indie* which in its 1950 edition occupied 1901 pages. From such documents it appears that nearly every plant has some known usage for food, construction, fibre, cordage, resin, dye, fuel, medicine, drug, poison or magic.

Nevertheless, for the individuals and villages of the forested interior, the fabled wealth of tropical forests has been metaphorical rather than literal, subsistence rather than luxury, or even comfort. Timber resources cannot be exploited without expensive machinery while non-timber products such as rattans and resins are so dispersed that what can be collected and taken out in a day barely compensates for the day's work.

Non-timber products of the forest only generate wealth in places where the individual outputs of many collectors can be concentrated, mainly in the small towns that service the interior. Between the forest collector and the ultimate processor there is usually a middleman who keeps in touch with as many collectors as he can personally get to know.

The middleman grades and purchases the materials brought in, and provides money, goods or credit. The relationship between forest collector and middleman often lies in the grey zone between symbiosis and exploitation.

The timber companies operate in an almost totally different world of circumstances. Most are capitalised and managed from urban centres, and their concessions are granted by order of Government. Using heavy machinery, they consume forests by the hectare and move on rapidly from one area to another, leaving behind a much poorer physical, biological and economic environment for those people who live in or close to forests. Urban and downstream areas may also suffer from disruption or degradation of water supplies, and damage to riverine systems. Such negative effects can be minimised or remedied, but often the timber companies are not even responsible for reforestation. Even if they are, the know-how for tropical reforestation is so generally lacking that most attempts are cosmetic and lacking in conviction. The relationship between timber business and officialdom often lies in the grey area between power, wealth and corruption. No one can deny that the natural wealth of a tropical forest can end up in the pockets of a few, leaving the rest of the population worse off than before, and future generations with little to fall back upon. The emergence of a wealthy oligarchy in the midst of desperate social conditions is a sure sign that natural resources are being plundered. Conversely, the emergence of a predominantly middle class society seems a hopeful indicator

that wealth from the liquidation of natural resources is being re-invested within the country, and equitably distributed.

Where exploitative forestry on a mechanized scale is pursued to its limit the forests not only get exhausted of timber, but also suffer drastic decline in its carrying capacity for non-timber products. If population pressures and need are low, the forests may still recover in 50 or 100 years, but if population pressures are high, the forests are likely to be cut over and over again. In the final stages, they are reduced to scrubby sources of firewood for an increasingly demoralised peasantry.

Forests are also land banks. Shifting cultivators borrow their plots from the forest for two or three years at a time. Permanent cultivators occupy their plots for good. Governments may parcel out forest land to plantation companies in order to promote the cultivation of export crops. Governments may also cause forests to be cleared, in conjunction with land-distribution, social-restructuring or transmigration schemes.

The perception of forests as land banks is strongest in countries with a policy of encouraging people to settle in the interior and to state out individual properties. It is also strong wherever Government lacks the authority to enforce land laws. But even where Government authority is respected, the distribution of land is politically popular, hence most Governments are reluctant to bind themselves to the long-term or permanent conservation of forests.

Foresters would like to view forests as tree banks, to be managed in perpetuity on a system of organised withdrawals, and deposits, i.e. felling and regrowing of timber. But on the whole, the forestry profession in the tropics has been timid and unimaginative in its attempts to sell this perspective to the public. Perhaps it is because most foresters in the tropics are too much a part of Government bureaucracy while the rest are likely to be in the employ of timber companies where the primary concern is commercial and short-term.

The conservation lobby, weak in numbers, but strong in conviction, does a much better job of mobilizing public opinion and influencing Government, but only in those countries where freedom of expression is tolerated. The conservationists are mostly concerned with forests as species banks, in which the survival of all species is the main issue. This can conflict with the management of forests for timber production.

Many temperate foresters think that timber production and species conservation can be managed together. Such a view is increasingly being challenged within the temperate countries themselves, while in the tropics there is not a shred of evidence to show that species conservation and timber production can co-exist on the same area of forest. In the final analysis, forests are all three things, land banks, tree banks and species banks and it is necessary for each country to partition its forests between the three requirements.

In the most optimistic scenario, a stable balance is achieved whereby part of the original forest is gradually brought under efficient, increasingly productive agriculture, part of it is kept under equally efficient sustained-yield forestry, and part of it is converted as inviolate national parks. In this scenario, growth of the industrial manufacturing sector plays a vital role by taking people off the land and reducing the need to export raw natural resources for imported manufactured goods. Research and development are also vital; how else is agriculture, forestry and industry to achieve annual gains to offset population increases and fixed land resources? Hence, indigenous parallel growth in agriculture, forestry, industry and science makes good ecological, economic and political sense.

Countries that have not yet gone too far in the liquidation of its forests and other natural resources, still have a chance to achieve a sound balance. The tragedy is that many tropical countries may have already gone too far in liquidating their natural resources without reinvesting in reforestation, agriculture, industry and science.

