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RAINFOREST AND RURAL ECONOMY IN SARAWAK

P.P.M. Burgers

INTRODUCTION

For a long time rural development in less-developed countries was conceived as a stimulus for food production and agricultural commercialization to lessen poverty in large segments of the population. However, from the late seventies more emphasis was put on the integration of agriculture with other economic sectors. This new emphasis grew from the gradual realization that the growth in agricultural production did not automatically bring about a more equal distribution of income. Furthermore sole emphasis on agriculture often resulted in an environmental degradation. To counter the growing inequality as well as the resultant environmental degradation, more attention was paid to alternative strategies aimed at a more even distribution of basic needs and the alleviation of poverty, while at the same time environmental degradation could be countered. The change in development thinking greatly influenced the conception of the role of forests and forestry in agricultural development. It was recognised that forestry could play a substantial role in the provision of basic needs to rural communities and in the maintenance of soil fertility. The importance attached to forests and forestry for the development of rural economies and for agricultural development in particular was defined as follows:

Maintaining ecological balance,
Increasing the supply of products for local consumption,
And improving the benefits from industrial use of timber (F.A.O. 1981).

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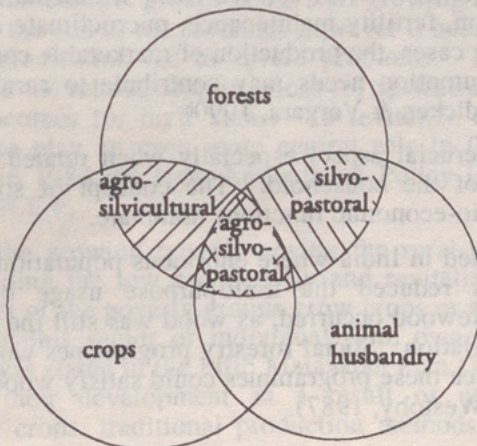
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Figure 1: The interdependence between different forms of land use



Source: Combé, 1982.

Trees play an important role in sustaining the agricultural system, especially for the less fertile soils in the humid tropics.

Permanent use of these soils for agricultural purposes constitutes a problem, therefore shifting cultivation is often practised. Figure 1 shows the interdependence between the different forms of land use.

Low profit margins of soils in areas of shifting cultivation offer few opportunities to finance technological innovations. The incorporation of trees in these agro-silvicultural systems could improve the profitability of the system, because they add organic matter, nutrients and growth-promoting substances to the soil. Trees help reduce soil loss from erosion, and they improve the physical and chemical properties of soils. The forest provides basic needs like food products, firewood and construction materials; as such the forestry sector can no longer be regarded as an isolated sector and geared towards industrial production of forests/trees.

Therefore new strategies were developed to enable local communities to benefit directly from forests. Appropriate, socially acceptable landuse systems were developed, which could ensure sustainability of the production base, and meet the need for production of multiple outputs (Nair, 1990). These efforts paved the way for new concepts such as agroforestry and social forestry.

Agroforestry is a landuse system that has been practised for thousands of years by farmers around the world. It consists of a system in which perennials are grown at the same time or in sequence with agricultural crops. Shifting cultivation is one of the several systems practised in the tropics which is based on this principle. The idea of integrating annual crops with perennials to increase the profitability of systems on marginal lands or degraded systems has been of importance in the development of the scientific concept of agroforestry.

In this way a more diversified and especially sustainable production of agricultural crops is developed in such a way that the food production can be maintained or even improved. The range of potential productivity improvements achievable through agroforestry is exceptionally broad. Well-designed agroforestry systems can contribute to the improvement in rural welfare through a variety of direct production roles (food, fodder, fuel, fibre, industrial products) as well as indirect service roles within landuse systems (soil and water conservation, fertility maintenance, microclimate amelioration, "living fences"). In some cases, the production of marketable commodities in excess of household consumption needs may contribute to rural welfare by raising cash incomes (Macdicken & Vergara, 1990).

The management is a crucial aspect especially when related to functions trees fulfil in the needs of the household. The concept of social forestry developed, where such socio-economic functions dominate.

Social forestry originated in India where enormous population pressure on existing forest areas has reduced the multipurpose usage of the trees. Shortages especially for firewood occurred, as wood was still the predominant source of fuel for the population. Social forestry programmes would diminish the pressure on forests, since these programmes could satisfy woodsupplies for inhabitants of rural areas (Westoby, 1987).