

- Some test plot owners have started more intensive fallow management systems, by which NEPED and the Research Centre in Yisemyong are identifying various crops for fallow management.
- When ready to harvest, 10-15 years after planting, trees will provide an increased cash flow and benefit the farmers.
- Tree plantation also provides indirect benefits viz a viz improvement of climate, soil and moisture regime.

**In order to meet the daily needs of the rising population, land resources are wisely managed so as to yield the maximum productivity per unit area of land. This can be achieved by tree plantation in Jhum fields i.e. integrating forestry with agriculture crops.**

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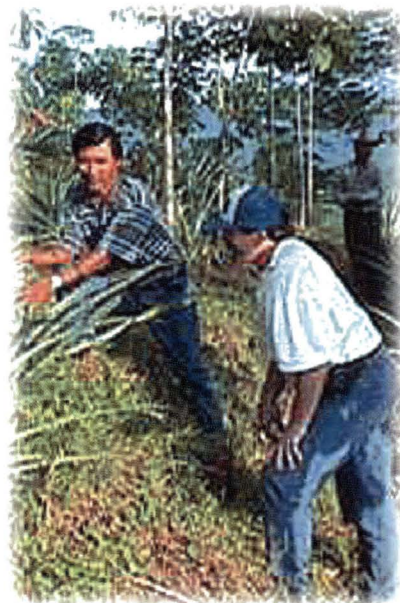
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# **JHUM CULTIVATION AND NEPED**



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## JHUM CULTIVATION

Nagaland has a geographical area of 16,579 sq. km. Nearly 42 percent of the area is available for cultivation. The State is divided into three distinct regions: High hill area, Low hill ranges and Foothills. Agriculture is the main occupation of 80 % of the people of Nagaland. The most prevalent practice of agriculture is “**Jhum Cultivation**” better known as slash and burn. Without sufficient fallow time, traditional *Jhum* Cultivation results in soil erosion, reduction in fertility and environmental imbalance because of the topography of the State. The patterns of agricultural activity and land use in Nagaland vary due to the rotational nature of *Jhum* Cultivation.

According to 1991 Census Operation, population is increasing at high rates. In past years, the *Jhum* cycle was as long as 15 to 20 years, but it has reduced to 7-10 years due to the rapid population growth. So it is necessary to develop alternative land use systems in Nagaland.

Traditional shifting cultivation method need not be eliminated, but modified by enriched fallow which combined with certain soil erosion control measures, could improve the land use system.

To uplift the economic condition of the farmers, village community participation is encouraged in the adoption of multiple land uses for *Jhum* Cultivation.



## NEPED CONCEPT (Search and Find)

With a view to help farmers and to improve the land use system, the Nagaland Environment Protection and Economic Development (NEPED) Project was established to encourage tree planting in *Jhum* fields in villages across Nagaland. During

1995 to 1998, NEPED established over 1750 test plots in 850 villages covering a total area of 5160 hectares.

The indulging principle of NEPED was “peoples action”. Instead of mandating one technology, farmers themselves selected and tested different technologies they thought best suited to their own conditions, but based on identifying indigenous fast growing trees with economic value and medicinal trees for planting in *Jhum* fields.

Training in tree management, provision of high quality seedlings and financial cost sharing are the main activities of NEPED.

Trees are planted along with the other crops after making contour bunding to prevent soil erosion. The concept was taken off with mass replication of tree plantation observed across Nagaland.

## INPUT ACTIVITIES

- In Nagaland, enriched fallow is a form of agro-forestry, which affords *Jhum* Cultivators a way to increase their income, and makes their land management systems more sustainable.
- Instead of allowing natural succession from crop to forest, farmers can plant selected trees and crops simultaneously or sequentially on the same unit of land. Food demand from plantations and the need for sustainable land utilization in various topographical situations, requires attention to agricultural crop cultivation.
- Tree plantation in *Jhum* fields, combined with erosion control, offers the best method to maximize long run income on *Jhum* land. Land shaping is one form of erosion control that traps fertile top soil on which farmers can grow different crops in fallow period. This can earn additional income.
- When land shaping is done and farmers come back after next *Jhum* cycle with erosion control, the soil has stored its fertility to yield more from the same plot of land.