

Report on Shifting cultivation

Shifting cultivation is a pernicious activity. It results in soil erosion and degradation of forests. It is a common land use in many states and particularly so in the North-Eastern region of the country. There are varying estimates of areas affected by shifting cultivation by different agencies. The area affected by shifting cultivation in the region was reported to be 3.81 million ha by a Task Force on shifting cultivation (1983). Other such estimates are 2.80 million ha by North-Eastern Council (1975) and 7.40 million ha by FAO (1975).

To generate reliable information, FSI undertook a study to assess the extent of actual area under shifting cultivation in the North Eastern region. It consists of the seven states viz. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura. The assessment relates to the period between 1987 and 1997. It has been done on 1:250,000 scale. The region is covered by a total of 33 SOI toposheets on this scale. In this study, the satellite data on 2 years interval corresponding to the periods 1987-89, 1989-91, 1991-93, 1993-95 and 1995-97 has been used. The sensors were Landsat-TM and IRS-IB, LISS II. Visual method of interpretation was followed. The interpreted details were transferred on the base maps prepared using SOI toposheets. Thus forest cover maps were prepared separately for the five data periods indicated earlier. In addition to forest cover, these maps also show permanent and transient non-forest areas at a given point in time. The permanent non-forest areas include cultivation, habitation, roads etc. The transient non-forest areas are the areas of shifting cultivation. By superimposing the cover maps of five different time frames, the area under shifting cultivation has been assessed by subtracting the permanent non-forest area from the total non-forest area. Cumulative area affected by shifting cultivation during 10 years was found to be 1.73 m ha. State-wise details are given in Table 9.

Table 9: Area affected by the shifting cultivation (Area in 'm ha')

States	Cumulative area of Shifting Cultivation (1987-89 to 1995-97)
Arunachal Pradesh	0.23
Assam	0.13
Manipur	0.36
Meghalaya	0.18
Mizoram	0.38
Nagaland	0.39
Tripura	0.06
Total	1.73

The extent of area under shifting cultivation is maximum (0.39 m ha) in Nagaland followed by Mizoram (0.38 m ha) and Manipur (0.36 m ha). These states together account for about 65% of the total area under shifting cultivation in the N-E.