Chapter V

Conclusions
From the results derived by us the data relating to output, employment and marketed surplus in shifting and settled cultivation the following major inferences emerge:

1) Jhum is more labour intensive than the settled cultivation both in relative, absolute and average terms.

2) Disguised unemployment affects the settled cultivation much more than the jhum cultivation.

If the jhumias are to be persuaded to take up the settled cultivation, then alternative employment opportunities will have to be provided to those who will be released from their jobs as a consequence of the conversion of jhum into settled cultivation which needs less labour than jhum. The additional job opportunities may be provided in agriculture itself as only a fraction of the holdings owned under jhum are cultivated each year, whereas the settled cultivation may facilitate the continuous cultivation of each plot of land, which implies more intensive use of land. But this will need substantial investment. The employment may even have to be supplemented by additional opportunities in the non-agricultural sectors of the economy. This, in any case, seems to offer a better solution as both the jhum and settled cultivation are characterised by the existence of disguised unemployment.
3) The income per acre derived from the jhum is less than the overall average as well as the corresponding average income from the settled cultivation. Besides, the average income from settled cultivation is higher than the overall average as well. In fact, the income per acre from the settled cultivation is 57 per cent more than the per acre income from the jhum, and the average income from the settled cultivation exceeds the average income level of the total agriculture by 35.4%. The average income from jhum falls short of the overall average by as much as 15.97%. So, the jhum cultivation emerges as the less productive of the two systems. Thus, land under jhum is less productive than the land under settled cultivation.

4) Since jhum absorbs more labour and produces less output than the settled cultivation, the productivity of labour in jhum is lower than that of settled farmers.

5) Settled cultivators generate more marketable surplus than the jhumias. So the settled cultivator represents a higher stage of development and a greater degree of commercialisation than jhum.

6) Jhumias may not take to the settled cultivation unless the persons rendered surplus by the conversion of the jhum into the settled holdings are provided alternative employment which will generate at least as much income as they get from the jhum. Besides, the jhumias will have no incentive
to convert the jhum lands into the settled fields unless the income that is likely to accrue to them from the settled cultivation is raised to a level sufficiently higher than that from the jhum which will be adequate to at least cover the investment required for the conversion per acre.

Our results show that the income differentials are sufficiently high to warrant the undertaking of such investment.

Jhum cultivation cannot always be blamed for soil erosion. Verrier Elwin, for example, said that if the climatic conditions and soil favour the quick regrowth of vegetation, then there cannot be soil erosion due to jhumming because the jhum lands are immediately covered by fresh outgrowths. But this view is not supported by the empirical evidence that is available so far. According to M.S. Sivaraman, Adviser, Programme Administration of the Planning Commission, said: "It is a mistake to assume that the shifting cultivation in itself is an unscientific land-use. Actually it is a practical approach to some inherent difficulties in preparing proper seed beds in steep slopes where any disturbance of the surface by hoeing and ploughing will result in washing away the fertile top soil. The tribal people, therefore, take care not to plough or disturb the soil before sowing. The destruction of weeds and the improvement of tilth necessary for a proper seed bed are achieved with the help of fire. In most
of the hill areas the communication is not developed and sufficient land suitable for terracing is not available. The jhumming alone can be done for the present, and as such, every effort should be made to improve the fertility of the jhum land.

Professor Shri Prakash has raised an interesting point that nobody has asked or studied the opportunity cost of leaving the land fallow. Everybody says that reduction in the jhum-cycle has caused a calamity. But no one has studied what is the economic cost or the opportunity cost of leaving the land fallow for 20 or 15 years.

P.C. Goswami says that it is not possible to abolish or stop jhumming in the near future and provide employment to all the people engaged in jhum cultivation in other occupations. At least for the next 50 to 100 years jhumming will be there. Hence efforts should be made to improve jhumming.

Jhumias should be helped and encouraged to take up horticulture and livestock farming.

Jhumias now grow cash crops like ginger and cotton. They earn a lot of money, upto about Rs.50,000/- which they use to buy valley lands. They have taken up horticulture and pineapple is grown in plenty. There are cases of Meghalayans exporting truck-loads of pineapples to Delhi and
in the pineapple competition there, one such jhumias' pineapple stood first in size.