

## **Strategies for improvement in Jhum Cultivation**

Shifting cultivation is the oldest system of cultivation of crops and the first step in transition from food gatherer to food producer. In India the total area under jhum cultivation is 0.94 m ha whereas North East India itself accounts for 80% of the jhum area (0.76 m ha). It affects the forest cover adversely by clearing of the hill slope through slash and burning of vegetation. In the north eastern region the Jhum cycle is reduced to 2-5 years from 20-30 years, a jhum cycle of 15-20 years is sustainable.

To overcome some of the major shortfalls associated with shifting cultivation (Jhuming), ICAR (RC) for NEH and other agencies have developed several models for rehabilitation of degraded jhum areas for livelihood security to the Jhumia's and sustainability. These are like Intensive Watershed Based approach, ICAR-3 tier system; SALT models (Sloping Agril. Land Technology) contour Hedgerow farming system technology, Contour bunding trenching; Topo-sequencing HYVs with Package of practices; Better fallow management- cover crops (velvet bean); In-situ Compositing; Crop rotation and introduction of non-traditional crops; High value, low volume crops; Value addition; Retaining valuable and immature trees pruning; Afforestation reforestation; Micro-enterprises (Mushroom, bee keeping, poultry, aquaculture, duckery, piggery, poultry, goat, cattle etc.

Jhum cultivation is a complex issue; it is not possible to replace jhum by settled or permanent agriculture. In this area, jhum cultivation plays a pivotal role. For jhum improvement in a holistic manner, alternative technologies need to be explored considering conservation of biodiversity, and other important issues. Involve stake holders; particularly jhumias in deciding the feasible technologies to be transferred in the jhum land. This can be done in a participatory mode with active participation and feed back of Jhumia's about their choices regarding the adoption of technology.

New Land policy approach (NLUP) was introduced in Mizoram from 1985 to wean away the shifting cultivation in a phased manner and to maintain rain forest minimum 60 % in the state. The programme includes implementing suitable soil and water conservation measures and providing the non-farm activities to the Jhumia's. This kind of NLUP may be implemented in rest of the NE states to conserve the valuable natural resources and livelihood security to the hill dwellers of NE.

Sonidan a village 80 km away from Shillong has benefitted from the new improved practices in Jhum cultivation. Speaking to farmers in the village they said that they have benefitted immensely from the new practices introduced to them by the institute. Their income level has improved drastically. The work is still going on to improvise the jhum practices in the village.

To achieve long term Jhum Improvement and subsequent rehabilitation of jhumia's, ICAR has emphasized to take initiatives on participatory and convergence approach, location specific and farmers' centric approach, New land use policy for all NE states, Incentives and financial support from Government of India, special subsidy to jhumia's of NE Region of India.



A farmer in Sonidan Village implementing new improved Jhum practices



Implementing improvised Jhum practices





A farmer from Sonidan adopting new technology



A farmer working in the field