

Vegetable cultivation for livelihood improvement of *Jhumias* in Saiha, Mizoram

Saiha is considered the most backward district of Mizoram and geographically covered by hilly terrains spreading toward neighbouring country with Myanmar on the both eastern and southern sides. The inhabitants of Saiha are predominantly poverty driven marginal *jhumias* exclusively practicing *Jhum* and homestead based farming system and act as major source of income and nutritional security for their sustainable livelihood. Traditionally, rainfed *Kharif* vegetable cultivation is practiced under traditional system without any improved technologies in sloppy land(*jhum*). *Jhumias* use their own saved vegetable seeds for season to season which resulted in low productivity and income. The unavailability of improved/hybrid seed and dearth of irrigation water during *rabi* season is the major constraint in vegetable production.

During 2008-14, ICAR Research Complex for NEH Region, Mizoram Centre has adopted a cluster villages comprising of Km Sawm and Niawhtlang-I & II to implement High Yielding Varieties vegetable crops cultivation both *Kharif* and *Rabi* seasons under NAIP. Through this programme, the centre has developed many abandon *jhum* land to terrace for cultivation of high yielding vegetables viz. French bean, tomato, brinjal, okra, cucurbits, coriander, cabbage, pea, cauliflower, knoll khol, carrot, capsicum, chilli, mustard, soybean, to raise farm income and improve the livelihood of *Jhumias* *jhum* improvement.

Healthy seedling production cum off season high value vegetable cultivation under lowcost polyhouse

Healthy seedling production and cultivation of off season vegetable has never been practiced at project sites. A group meeting was held under leadership of Village Council President (VCP) to make aware about the low cost polyhouse vegetable technology. Six progressive farmers were selected and constructed one each low cost poly house of size (15x30x7) feet. The critical input like UV stabilised LDPE sheet, shade net, HYV seeds (Tomato, Capsicum, and Cucumber etc.), construction materials (wood, bamboo) etc. were provided. Among six poly house, one poly house is used in community basis for nursery raising. Some beds of poly houses were also used for raising seasonal vegetable nursery. At vicinity of poly house one *Jalkund* and ready-made vermin bed has also constructed for proving irrigation and manures. A single farmer can earned in tune of ₹Rs 5,000.00-Rs.10,000 from 150 m² per

season, beside generate employment opportunities. Tomato-Capcicum-Cucumber is the major cropping pattern adopted.

***Rabi* season vegetable cultivation**

During *rabi* seasons, *Jhumias* hardly grown any lucrative crops/vegetable mainly due to shortage of water for irrigation and unavailability of high yielding varieties (HYV) and hybrid seeds. In these context, various water conservation structures (Check dam, roof water harvesting structures, *jalkund*, RCC tank) were constructed for irrigation and to increase cropping intensity in command area of NAIP adopted villages. Training cum input distribution on cultivation of *Kharif* and *Rabi* crops was conducted to visualize *Rabi* vegetable cultivation technology for the beneficiaries and other farmers including rural youths. Various agricultural input like high fertilizers, Bio-pesticides, pump, sprayers etc. were also distributed.

An approximate irrigated area of 12.5 ha was developed providing water storages structures and 225 nos. of *jhumias* were benefited from this technology. The *jalkund* and check dam were used for cultivation of vegetables in *Rabi* season. *Jhumias* has earned huge profit by selling winter vegetable to Saiha main market. Pi Biakzingi, Pu Jonathan, Pu Lalsiama, Pu Vanlalsiama were the successful vegetable grower of the region. As of now 461 families covering areas of 31.06 ha are involving in cultivating different vegetables round the year assisted through this programme. On an average each farmer is earning Rs. 25,000-30,000 by selling the vegetables. In present days, NAIP villages, became major suppliers of various vegetable to main town market, Saiha and Lawngtlai.



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