

## Field day on “Jhum Improvement” Organised

As a part of the Flagship programme which was implemented by Dr. S.V. Ngachan, Director of ICAR Research Complex for NEH Region, Umiam during 2012 across the NEH region; a Field Day on Jhum Improvement was organised at Sonidan, Ri-Bhoi District of Meghalaya on 30<sup>th</sup> August, 2014. Dr. U.S. Saikia, Senior Scientist (Agrl. Meteorology) welcomed the august gathering Dr. Satish Chandra, Head, Plant Health and Chief Guest of the day inaugurated the first ever Jhum facilitation centre and said “rational and optimum use of natural resources in conjunction with improved techniques for enhanced income and sustainability”. He also advised the farmers to disseminate the benefits of adopted technologies to the nearby farmers.

Dr. A.Venkatesh, Principal Scientist (Forestry) and Principal Investigator of this project presented an overview of the jhum improvement activities by ICAR in Ri-Bhoi district and told “Sonidan will act as a model village for the Jhum improvement”. Technologies like high yielding varieties (Upland paddy: Bhalum 1,2,3,4, IURON 514, RCP11-412; Groundnut: ICGS 76; Maize: DA 61 A; Ginger: Nadia; Turmeric: Megha) multipurpose tree species Kasi mandarin, Assam lemon, Peach, Banana, Pine apple, Lichi, Tita champ, Puma, Cinnamon, Alder), soil and water conservation measures (Hedge rows, Partial bench terracing, Jal khunds, sowing across the slope, line sowing, Paddy mixed with groundnut and Soya bean, Pineapple, broom and sweet potato in risers), subsidiary income activities (Deep litter system for Piggery, Vanaraja based backyard poultry, Apiary, Mushroom production) and farm implements Paddy thresher, Furrow opener, Wheel hoe, Slicer, Maize sheller) were made in the jhum field. So far approximately 51 ha were covered in seven villages with 920 no. of beneficiaries in Ri-Bhoi districts.

Shri. K.W. Khyndeit, Headman of Sonidan told “we are happy with the initiatives taken up by the ICAR and we will continue adopt the viable technologies for productivity and sustainability”.

Smt. Esterlin, a progressive farmer who converted part of her jhum field (1500 m<sup>2</sup>) in to bench terraces said “I am waiting for the final harvest of my ginger from the terraced land”.

Scientists from Crop Production, NRM, Plant production, Crop Improvement, Animal Sciences and Social Sciences interacted with the farmers on various aspects of jhum farming. Farmers raised concerns for natural resource conservation, reduction in rainfall, contingency planning, care and management issues of both plant and livestock. Farmers were provided critical inputs viz. high yielding vegetables seeds, vaccines for live stock, farm implements etc.

The farmers were exposed to learning sites wherein the interventions were made. Altogether 150 farmers and 25 Scientists / Technical experts were participated in the programme. The programme ended with a formal vote of thanks by Dr. K.P. Mohapatra Senior Scientist (Forestry).

Shifting cultivation, locally known as jhuming, is one of the main sources of livelihood of the tribal people in the hilly areas of North Eastern region. About 0.76 m ha (80% of India) area is under jhuming in this region and 5-6 lakh families depend upon it for their livelihood. Reduction in *jhum* cycle to 2-3 years has made the land vulnerable and leads

to various degradation in land which is unsustainable. Practice of *Jhuming* on steep slopes and expansion of agriculture to erosion prone land results in as high as  $76.6 \text{ t ha}^{-1} \text{ yr}^{-1}$  of soil loss. Consequently, 80% of the cultivated area is under the threat of moderate to severe erosion threatening ecological balance and food security for future generations.

ICAR Research Complex for NEH Region have been engaged in developing alternative farming systems to address the detrimental effects of *jhuming* which have the potential to achieve sustainable food production without disturbing the fragile ecosystem. Many promising varieties of rice, maize, ragi, pulses, oil seeds, guava, peach, ginger, turmeric, colocasia, sweet potato, gerbera, gladiolus, tomato, brinjal, chilli, french bean have been identified and recommended. Moreover, the institute is pioneer in development of technique for soil and water conservation, and integrated farming system in the hilly tracts particularly the NEH Region for optimum production from an unit area.



Farmers and Scientist in Sonidan village