

## **Rock fill dam and Irrigation channel constructed under NICRA improves the livelihood of Dhansiripar village of Dimapur in Nagaland**

Krishi Vigyan Kendra, Dimapur, ICAR Nagaland Centre identified Langlung river as the main source of irrigation for 150 hectare of paddy field covering 76 farming households in Dhansiripar village of Dimapur in Nagaland in 2011. The villagers divert the water from the river with the help of temporary rock fill dam supported by bamboo structures to one of the water harvesting ponds and then to their field by Katccha irrigation channel. However, due to strong river current, dam used to wash away almost every year and farmers were forced to spend 60-70% of their working days in repairing and renovation of the dam and irrigation channel leaving only 30-40% of their working days for cultivation practices. Due to moisture stress and lack of irrigation facilities, production and productivity of paddy was found to be low. Average yield of paddy, which is major crop of the village, varied from 1.8-2.2 ton/ha till 2011.

Considering the difficulties of the villagers, an initiative was taken to manage the natural resources for irrigation purpose under NICRA project during the year 2011-2012 and accordingly a rock fill dam using sausage wire and a concrete irrigation channel (1100 ft.) was constructed to irrigate the paddy crop. The command area under the irrigation channel is 150 hectares. During 2012-13, the average productivity of the paddy has gone up to 3.3 t/ ha. 50 hectares of paddy fallow land was also utilized to grow rape seed & mustard as second crop after paddy, which never happened prior to this initiative of ICAR Complex, Nagaland centre.





Dam constructed with Sausage wire & boulders

Concrete dam constructed

Irrigation channel of 1100 ft.



Water from the dam flowing towards the field



Moisture stress during flowering & grain filling stage during 2011



114.29 ha of land under paddy cultivation under moisture stress



125.40 ha of land brought under lowland paddy after construction of dam in 2012



A good crop of paddy in the village



Fallow land after the harvest of paddy ploughed for rabi crops



50 ha area covered under toria as second crop after harvest of paddy along the irrigation channel



Field day on Toria var. M-27



Luxuriant growth of toria in the month of January, 2013