



ICRISAT Happenings

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Pulses missing from farmers' fields and plates

Pulses are a major source of nutritional security for poor farmer-households and can also help boost income given the high market price of pulses. Paradoxically, production continues to fall short of demand – particularly in areas of eastern India with its high poverty levels and poor nutrition statistics.

Given their high protein value, pulses are viewed by nutritionists as the ‘poor person’s meat’. Yet, poor households in these regions are neither producing nor consuming pulses as part of their regular diet. These apparent contradictions are revealed in a VDSA survey across two villages each in Bolangir and Dhenkanal districts of Odisha state and the Dumka and Ranchi districts of Jharkhand state between 2010 and 2013.

Low priority to pulses

In both the states of Odisha and Jharkhand only one-third of the farmers are growing pulses. Most farmers use their own farm-saved seeds. These crops are grown mainly in the post-rainy season and are reliant on residual moisture only - with little irrigation, if any. As a result, yields are low and unstable – between 247-494 kg per ha. This discourages farmers from allocating large areas to pulse crops. Most pulse growers allocate only 0.08 to 0.2 ha of land for pulses – mainly black gram, green gram, horse gram and grass pea in Odisha and black gram, horse gram, pigeonpea and chickpea in Jharkhand.

Monthly consumption of pulses per household has declined in both the states to 2.2 kg (14.6 g per day per capita) in Jharkhand and about 4 kg (26.6 g per day per capita) in Odisha, which is significantly lower than 35 g per day per capita pulse consumption as recommended by the Indian Council of Medical Research. VDSA data also reveal that home-produced pulses constitute only 15-20% of total pulses consumed in these households with the balance being purchased from the market.

Of the households surveyed, around 75% are marginal farmers with less than 1 ha of land and minimal resources.



A farmer with his pigeonpea crop in Jharkhand.

They are largely dependent on rainfall for crop cultivation. Farmers in these areas grow mainly staple cereals such as rice and maize to meet their household needs. During the post-rainy season much of their land remains fallow.

Solutions to boost household income and nutrition

Improvement in the availability and access to diverse and nutrient-dense foods like pulses is key to ending malnutrition in poverty-stricken areas of eastern India. According to Dr Ranjit Kumar, Principal Scientist, Economics, and VDSA Eastern India Coordinator, “If they have access to improved quality seeds then this will reduce the high volatility in pulse production and may trigger an interest amongst poor smallholders for allocating more acreage to these crops.”

The other area that needs to be addressed is supplemental irrigation – efforts towards rainwater-harvesting and management would significantly improve yields thus boosting productivity and leading to improved household nutrition as well as income. ■

