

Better Irrigation and Onions Boost Poor Farm Families



The Odisha Community Tank Management Project (OCTMP) has made strategic interventions to repair and rehabilitate 324 minor irrigation schemes and restore 60,000 ha across twelve poor districts in the state of Odisha. The project is funded by the World Bank and implemented jointly by the government of Odisha and the government of India in a participatory mode with Pani Panchayat (PP) or Water Users Association (WUA) members. The project's aim is to enable water users in the selected schemes to improve their agricultural production and productivity and to enhance their livelihood. The project will increase the capacity of WUA members to manage their irrigation effectively and ensure sustainability of the restored systems through community participation and institutional strengthening of the PPs. To enhance farm productivity and expedite commercial farming, the project has made an experimental approach to promote adoption of improved onion cultivation by the PP farmers. OCTMP has led Odisha's first large-scale intervention of onion cultivation with a coverage of around 1200 acres (485 ha) involving 3500 farmers in 21 PPs in Boudh district and 11 PPs in Angul district.

Objectives

The main objectives were the following:

- Creation of rural infrastructure for handling and grading of 4,000 MT of onion.
- Promoting 2,000 small and marginal farmers as a promising start of diversification into commercial crops.
- Promoting social infrastructure for wealth creation (producers' company).
- Creation of least-cost marketing channels (producer → retailer → consumer) for highest marketing efficiency.

Challenge

The promotion of onion cultivation as a commercial venture by PP farmers began with the realization that tribal farmers growing onion as a Rabi crop were getting very limited yields of about 2 to 2.2 MT per acre (0.8 to 0.9 MT per ha). The proceeds from onion sales in the local market were miserable, with a sale price as low as Rs. 6 to 7 per kg. These farmers had been pursuing paddy cultivation as the mainstay of their livelihood and household food security. However, due to irregular weather and inadequate rain it was not always possible for them to cultivate paddy, and at such times they used to cultivate crops like onion and other vegetables. But the onion taken up by the farmers used to be of a clustered variety with low yields and little commercial value. The farmers were generally unaware of the existence of high-yielding varieties of onion and best practices of cultivation. In addition, their lands were mainly rainfed and devoid of adequate irrigation. Due to the absence of collective action among the farmers to manage the irrigation tank system, which was in a state of disrepair, their lands were deprived of a huge irrigation potential. With proper maintenance and management of the irrigation system and the introduction of high-yielding onion varieties, there was significant scope for taking up onion cultivation on a much larger scale.

The project has taken the following initiatives to promote the onion value chain among the PP farmers:

- One Professor from the Odisha University of Agriculture and Technology (OUAT) and one Junior Scientist from Krishi Vigyan Kendra (KVK), Boudh



were engaged to train and provide hand-holding support on the technical aspects of onion cultivation in different stages of the crop.

- Simplified, illustrated leaflets in vernacular on the technical aspects of onion cultivation were distributed among all farmers.
- Minor irrigation schemes have been repaired and improved so that a more reliable irrigation water supply is available.
- To provide a more reliable and equitable irrigation service, the PPs have been given capacity to manage, operate and maintain the tanks.

Results

The intervention of diversifying into improved onion cultivation has resulted in outstanding success in terms of both productivity and profitability. Moreover, the project has contributed towards poverty eradication and the goal of connecting poor farmers to mainstream markets as 95% of the 3,500 small and marginal farmers



selected under the pilot scheme belong to Scheduled Castes/Scheduled Tribes communities. With assistance of OCTMP in terms of various inputs like improved seed varieties, manure, pesticides and hand-holding support through on-farm training and capacity building by agricultural experts and field functionaries, the farmers have increasingly taken up onion cultivation. The yields in the OCTMP-operated areas are recorded as 5.6 MT per acre (14 MT per ha) in Boudh district and 8 MT per acre (almost 20 MT per ha) in Angul district.

Encouraged by the profits from sales of onion, some farmers of Baragochha minor irrigation scheme in Boudh district have decided to dedicate a larger proportion of their land to onion cultivation. Also, more rural women farmers have started taking to onion cultivation as it is less labour and time intensive and more profitable in comparison with other options available to them.



Success story 1:

Farmers of 61 hamlets in Nuapalli village under Khetraraj PP of Boudh district used to get very low yields and little profits from the cultivation of cluster onion. Motivated by the Agri-Marketing Coordinator of DPU-Boudh and with assistance from OCTMP, they tried cultivating the Agri Found Light Red (AFLR) variety of onion in eleven acres of their land and have harvested 400 to 500 quintals of onion. Out of this they have sold 240 quintals at Rs. 20 to Rs. 22 per kg to Udyan Fresh (online grocery and vegetable market). Also, selling at the weekly local haat (market) of nearby Kantamal at the rate of Rs. 22 to Rs. 25 per kg has fetched them sizable profits. According to PP members Prahlad Nayak and Jugal Nayak, more farmers will be interested in onion farming provided better irrigation systems and onion storage facilities are made available to them.



Success story 2:

Sanjay Sahu of Nuasahi Matelia PP in Angul district has reaped 10 quintals of onion from a 0.25 acre piece of land. With coordination by the Social, Land & Tribal Development Coordinator of DPU-Angul, Sanjay received the necessary training and inputs for cultivating AFLR onions. He has stored the stock of onions in the roof space of his house, aiming to sell when the market price reaches Rs. 30/kg. He hopes to earn good profits.