

ODISHA'S APCS

Planting Seeds for a Brighter Tomorrow

Aligning itself with the vision of doubling farmers' income, Odisha is taking proactive steps to ensure that small and marginal women farmers move from mono-cropping to embracing horticulture and livestock rearing, leading to economic stability and self-sufficiency.



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According to a survey conducted by the National Sample Survey Office (NSSO) in 2003, 40 per cent of the farmers in India are reluctant to opt farm-based livelihood activities because of the high risks involved and the poor profits earned through the occupation. In addition, the difference in farming and non-farming income is steadily increasing.

For a long time, India's agricultural sector has been in distress. Although today agriculture is no longer the largest contributor to India's GDP, it still employs the bulk of the country's workforce. The important role the country's agricultural sector plays, therefore, in reducing poverty and increasing development cannot be ignored. States in the centre and east of India house a huge population of people who practise farming. Most of these farmers are smallholders or sharecroppers. Of them, 23–45 per cent fall below the poverty line. This is much above the national average of 22.5 per cent.

In Order to double the farmers' income, the State of Odisha has attempted many initiatives and the promotion of Agriculture Production Clusters (APCs) in tribal regions is one such initiative.

The APC project was started in 2018 and with the intention of helping make advancements in horticulture by empowering smallholder women farmers in 40 tribal blocks. This programme had been planned to span four years, with strong guidance and support from different Government departments. Earlier, farmers in this region practised single-crop farming. This not only reduced their earning potential but also increased risks. In the first year, the project reached out to 26,000 women farmers, who predominantly cultivated paddy. Today, it has more than one lakh women farmers, who have adopted synchronised farming of horticulture crops, fruit tree plantation and livestock rearing.

The project is a combined effort of the Department of Agriculture and Farmers' Empowerment, Department of Panchayati Raj & Drinking Water, Bharat Rural Livelihoods

Foundation (BRLF), Professional Assistance for Development Action (PRADAN) and 17 partner NGOs. Each of these NGO partners was assigned 3,000 households per block. Women Producer Groups (PGs) were formed in these blocks. A PG comprised a group of SHG women farmers from a particular village. Each block had roughly 20–25 PGs. A PG chose two to three crops by conducting thorough analysis of market demand, small-holder viability and agro-ecological compatibility. These selected crops are known as 'winner crops.' In 40% of the total crop area, non-pesticide management (NPM) methods were implemented.

The multi-stakeholder project is a unique initiative for dovetailing programmes and schemes of Government to maximising the impact at the household level.

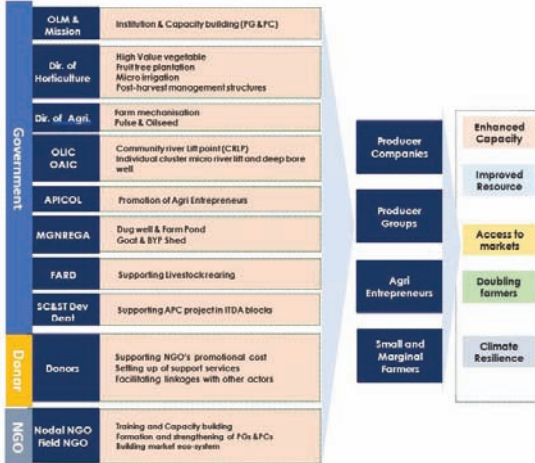
Figure 1: APC – Programme Architecture

The women farmers got trained and started production of climate resilient crops, or winner crops by adopting synchronised production to produce marketable surplus. The project also aimed at promoting livestock rearing such as goat and backyard poultry rearing, in order to alleviate the difficulties that marginalized households face. Support is extended by the construction of livelihood support infrastructure such as irrigation, plantation and storage structures, and poultry sheds from the existing schemes of different departments.

The initiative also seeks to decrease youth migration by engaging them as agriculture entrepreneurs, who provide door-to-door services, which include providing inputs (such as fertilizers and seeds), picking up produce, technology support and value chain enablers (such as supplying vaccine and managing storehouses).

So far, the project has formed 932 PGs, totalling 1,01,575 women farmers from 2,187 villages across 393 gram panchayats of 40 blocks. Most of these women farmers are engaged in cultivating horticulture crops, covering an area of 26,697.4 ha. Some of the

Agriculture



main crops are tomato, brinjal, chilly, ginger, cauliflower, beans, cowpea, bitter gourd, green gram, onion, pigeon pea and oilseed. There is significant increase in cropping area of all the winner crops due to the APC project. In addition, the difference in farming and non-farming income is steadily increasing.

Figure 2: Crop Coverage in APC Project

To promote crop production without the use of pesticides, multilayer farming models were introduced that follows the NPM method entirely. In this method, green leafy vegetables, ginger, cow-pea, ivy gourd/bitter gourd and papaya are cultivated in different layers. Along with this NPM concoctions are prepared at applied to reduce dependence on chemical pesticides.

The project supported in creation of various irrigation infrastructures and till March 2021,



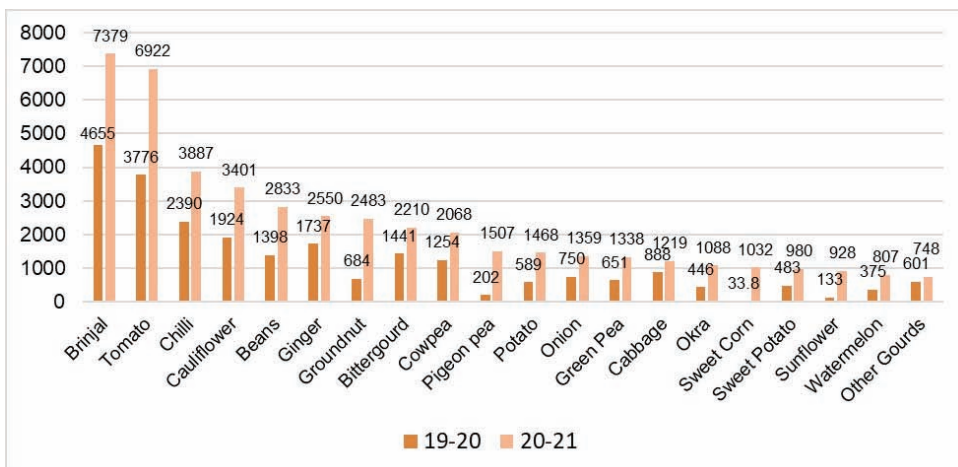
The OAIC District Manager's site visit

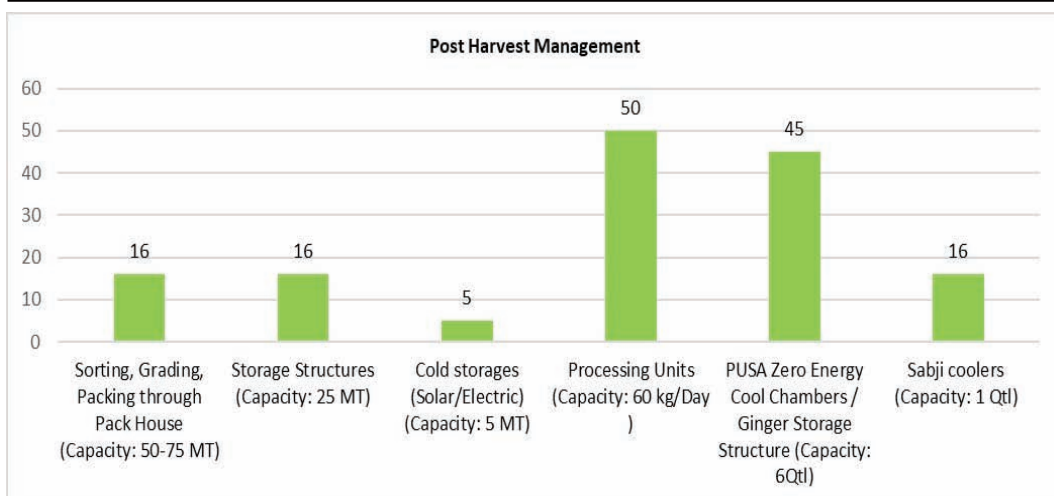


Happiness on the face of farmers after MRLI set up

with additional irrigation coverage of 4870 ha., 11905 PG women farmers are benefitted. For increasing income of the families 3101 ha. of fruit tree plantation with support from departments and schemes like Horticulture department, ITDA and MGNREGS is promoted under APC project.

Along with Horticulture promotion, a total of 23,262 farmers of 294 PGs are intensively adopting livestock rearing activity. The project has achieved a total number of 2727 BYP and 2037 Goat sheds till March 2021. The project has helped in establishment of vaccine supply





system in 40 blocks and 625 Prani Mitras have undergone various capacity building training. They ensure regular immunization of the stock effectively.

The project that started in 2018 made excellent progress until 2020 when it faced its first major road block due to COVID-19 lockdown. For almost a month, farmers struggled to sell their produce. With the help of the Horticulture Department, Odisha Livelihoods Mission (OLM), Odisha Rural Development and Marketing Society (ORMAS) and the district administration, the crisis was addressed by employing various marketing strategies such as promoting 'Vegetables on Wheels', selling directly to ORMAS and local traders, and

facilitating local haats. Farmers were able to sell their produce without much difficulty thereafter. By March 2021, farmers collectively earned Rs 1,070 lakhs. To prevent any wastage, the project constructed 82 cold storage structures (both solar and electric) and 16 pack houses across the project villages.

Figure 3: Post Harvest Management in the APC Project

In 2019, recognition came when the project bagged the SKOCH Governance Award. The award recognizes people, projects and institutions that go the extra mile to make India a better nation. The project is also among the top 14 contenders for the People's Choice Award of AVPN Constellation Awards 2021.



Looking at the benefits of the project along with increasing the current project duration to 5 years, it was decided to expand this project to other highland blocks of the state. APC project is now initiated in additional 22 blocks.

APC project in the tribal regions of Odisha aims to double the income of women farmers by ensuring end to end support in crop production; from input procurement, production enhancement to value addition and marketing of the produce.

This project as an effective method, focuses on collaboration of public sector, civil society organizations, community institutions and Private sector by integrating implementation of schemes of multiple departments, orchestrating the change processes, strengthening community institutions and linking with effective market channels. Along with ushering in substantial increase in income levels through comprehensive livelihoods approach, APC project plays a pivotal role in ensuring agriculture as an environmentally sustainable livelihood option by adopting non-pesticide management techniques and large-scale fruit tree plantation.

The project both in its process of implementation and output nurtures relationships among multiple stakeholders to generate a sustainable impact in alignment with SDG goals.



Watermelons being loaded for sale on to a truck after the plentiful harvest

The Plentiful Watermelons of Belpada – A Success Story

In Belpada block, Balangir district of Odisha, adjacent to River Lanth, there are four villages— Dhumabhata, Raikhal, Khalkhali and Kalchikachar. Farmers from these villages grow vegetables and watermelons in their field. However, the low availability of water and the lack of knowledge on sustainable farming made farming difficult. This resulted in a meagre income that made life difficult. Through the APC, the block was connected to Adhikar—an NGO that works for the empowerment of communities in rural Odisha.

In each of these four villages, a PG was formed. Regular meetings and training programmes were organized to educate the farmers and build their capacity for effective and sustainable farming. Forty-three of the farmers in these PGs faced several issues due to lack of water supply, especially in summer. Adhikar helped the farmers apply for a scheme called Jananidhi-2 under Odisha Agro Industries Corporation (OAIC). This scheme helps farmers irrigate their land using the Micro River Lift Irrigation (MRLI) technique. In January 2020, these farmers' documents were collected and an online application was sent. Each farmer contributed a sum of Rs 9,000 for the project. Their applications were accepted and the installation process started. By November 2020, the village witnessed 215 acres of land being irrigated (as compared to the 90 acres that was irrigated before the project).

After the construction was complete, the farmers bought high quality 'Augusta' watermelon seeds, which cost around 18,000/kg and cultivated them in 214 acres of land. All the farmers cultivated these top-quality watermelons. With sufficient water supply, they harvested 1,720 tonnes of watermelon. This was a huge jump, compared to the 720 tons of watermelons harvested the previous year. Some of these farmers such as Sangeeta Patnaik and Amravati Deo earned INR 1,20,000 and INR 1,95,000, respectively, in contrast to INR 72,000 and INR 1,15,000 they