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A model intervention towards socio-economic development in scheduled caste families of Odisha

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The article highlights the significance of model interventions towards socio-economic development in scheduled caste farming families of Odisha. The interventions were planned and executed using funds from government of India through ICAR under the flagship programme of Development Action Plan for Scheduled Castes (DAPSC). In order to have impactful interventions towards earning livelihood, the target beneficiaries were selected very judiciously keeping in mind their need, interest to work as well as willingness to learn. Interested beneficiaries from different gram panchayats were distributed with inputs with livelihood earning potential and further were examined how far they have progressed and how much they have earned. Successful people were further targeted with more such inputs, while those who lagged behind were inspired with talks by the successful beneficiaries of the same locality. In different phases, capacity building programmes were also organised.

Keywords: Community development, DAPSC, Livelihood security, Nutritional security

THE ICAR-National Institute on Foot and Mouth Disease (NIFMD) under the aegis of Indian Council of Agriculture Research (ICAR), Ministry of Agriculture and Farmers Welfare, Government of India (GoI), is located at Bhubaneswar, Odisha. Apart from the mandated research activities on development of cutting-edge diagnostics and epidemiological studies on Foot and Mouth Disease (FMD), the institute undertakes several social responsibilities under Development Action Plan for Scheduled Castes (DAPSC) and Development Action Plan for Scheduled Tribes (DAPST) to cater to the under-privileged communities.

The main aim of DAPSC is to give better dimension to family-oriented schemes of economic development of SC community below the poverty line providing missing vital inputs. It also focuses to ensure a substantial reduction in poverty and unemployment and creation of income-generating opportunities, productive assets, and human resource development by providing adequate educational and health services and provision of physical and financial security to this community. Under the flagship programme, the institute ensured targeted activities such as distribution of goat, poultry chick and layers, fruit saplings, study materials and many others in a time-bound manner every year since 2021 till date. These multifarious activities are repeatedly executed in the same villages and farming communities, gradually widening the coverage of the SC families in different villages and gram panchayats of different blocks and districts around the institute with a view to ensuring their livelihood and nutritional security. This reflects an idea of similar and repeated interventions for such communities by other organisations, so as to bring these communities at par with others so as to realise the vision of Viksit Bharat @2047.

The approach and strategy

The approach towards livelihood security was repeated capacity building and input distribution in the same families and villages for earning livelihood and nutritional security with sustained income source. The same families were approached with multiple resources in the form of goat, backyard poultry and layer rearing in cages, animal health care, saplings distribution, mushroom farming and support for animal health care, etc. Also, these interventions were restricted within the limited number of villages gradually broadening to other villages in order to demonstrate the impact. The value chain creation in the form of linking farming community with entrepreneurs and market linkage was another approach. All these interventions were limited within 20–40 km radi of the institute so that the local impact can be demonstrated. If similar efforts are ensured by all ICAR institutes and regional stations, a

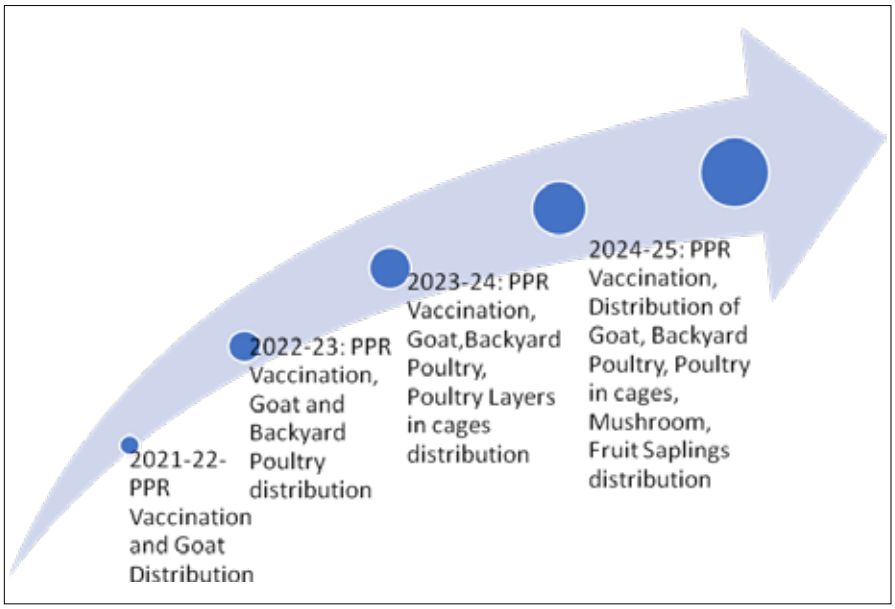
countrywide change can be realised. For the most vulnerable families of widows, divorcees, and differently abled persons, special provision of income-generating activities in the form of sewing machine and other inputs were made to help their families to earn livelihood.

Impacts with various input distributions to the SC community

Necessary inputs along with knowledge support and capacity building in local language was ensured. A detailed overview of such inputs is described below.

***Goat distribution*:** Goat distribution (healthy adult breedable female goats along with bucks) helped SC families to earn from low-cost inputs getting a desirable income for livelihood. The goats were procured from dewormed and PPR-vaccinated flocks from local farmers with appropriate protocol followed by care in the institute's animal house with access to ample grazing facilities. They were provided with mineral mixture, feed, green leaves and vitamin supplements. Thereafter, the animals were distributed amongst appropriate SC beneficiaries with necessary guidance and training on management of animals. It was ensured that the entire village where these animals are distributed are appropriately vaccinated against PPR/goat plague before distribution. A total number of 348 SC beneficiaries were covered from 22 villages under different gram panchayats and blocks around ICAR-NIFMD.

***Distribution of poultry chick, layer bird and relevant accessories*:** Poultry chick distribution programme comprised of 4 weeks old vaccinated poultry chicks, poultry mash feed packets, feeders and drinkers that acted as a strong source of motivation to enhance the income opportunity of farmers. On second stage, distribution of cage and ready-to-lay vaccinated pullet birds were implemented looking into their interest. The SC farmers were first provided with wiremesh cage followed by layer birds; feed packets several times as per the stage of growth of birds. This could take care of their nutritional security and boosting of income opportunity. Such distributions were always associated with training and capacity building programmes. During April 2021-September 2025, a total of 28,075 poultry chicks and 1,452 layer birds were distributed to 348 SC families of 36 villages in different gram panchayats.



Progressive intervention over a period of time among SC community

***Distribution of cattle feed and nutritional supplements*:** Certain SC families rearing cattle were distributed with cattle feed, mineral mixture, galactagogues for improvement of health and milk production. The farmers were also provided with stainless steel milk cans for collection and selling of milk and feeding bottles to feed the new born calves.

***Agriculture related inputs*:** Distribution of fruit saplings was done during pre-monsoon or rainy season to improve earning capability and to care for environment that helped a lot to the farmers. Ancillary gardening items like garden sword, spade with stick, pick-axe with stick, khurpi, prong-hoe, etc. were also provided to desired SC farmers. During the period from April 2021 to September 2025, a total of 2,825 saplings (mango, jackfruit, lemon, drumstick, guava, etc.) were distributed to 811 SC families.

In addition, the interested SC farmers were trained for dhingri mushroom farming in winter and paddy straw mushroom during summer and rainy season, inviting experts from state horticulture department and successful mushroom farmers, who could demonstrate the entire procedure, interacting and clarifying their doubts. They were provided with mushroom farming components such as transparent polythene sheet, green agro-shade net, plastic drum (200 L capacity), bales of straw, good quality mushroom seed bottles, cowpea flour packets, plastic sprayer, powder-free nitrile gloves, manual chaff straw cutter, etc. Thus, 60 SC families were benefitted through distribution of mushroom farming inputs, which is expanding day-by-day. Encouraging feedbacks were received from mushroom beneficiaries who were immensely happy with good volume of benefits.

***Miscellaneous inputs*:** A sewing machine distribution programme was organised at the institute for most vulnerable SC families including widows, differently abled members with locomotor disability, visually impaired individuals and girls from families who could not marry due to poor financial status. The families/individuals were selected carefully for this input distribution. The programme was conducted to address the basic needs of the vulnerable communities in lowest strata, so that an appreciable



Vaccination performed in goats



Distribution of goats to SC families

change in their income could be encouraged that further could be reflected in their standard of living.

Besides this, distribution of study kits comprising of school bag with study materials such as note book, water bottle, geometry box, word book, cello tape, book cover, fevistick, pen, pencil, eraser, sharpener, dictionary and writing pad was conducted in different schools at different localities. Besides study materials, the kit also comprised of few health care inputs like hand-wash pouch, hand-wash bottle dispenser and umbrella. We have noticed the real boosting of the zeal among the students.

Impacts of animal health and human health related interventions

Animal health camps were organised at different gram panchyats offering benefits in the form of medicines and nutraceuticals to SC beneficiaries rearing livestock.

***Animal health camp, PPR vaccination campaign and FMD awareness*:** In animal health camps, farmers were distributed with appropriate medicines and health supplements for livestock. PPR vaccination campaigns were conducted at farmers' door steps in different villages during early morning hours on yearly basis. Such vaccination camps were not restricted to SC farmers, rather to all communities in different villages in order to prevent the spread of the disease between animals of different communities, grazing in a common pasture land. This could prevent PPR and reduce mortality. A total of 773 families of 119 villages of different punchayats belonging to all communities were benefitted with vaccinations of 8,428 small ruminants (sheep and goat) against PPR.

The FMD awareness camps were organised in different villages, where the beneficiaries actively participated to understand symptoms exhibited by affected animals, how to take proper care with treatment, its prevention and control. The farmers were distributed with leaflets on FMD. As a whole, 4,265 people from 291 villages participated in such programmes.

***Swachhata and health-care initiatives with general inputs*:** *Swachhata* and health-care initiatives were also undertaken with distribution of phenyl, bleaching powder, potassium permanganate, handwash, mask, towel, detergent powder, dustbin, coir-mat, cobweb brush, coconut broom, comb, etc. Gum-boots and slippers helped the farmers work with safety in their fields. This helped to reduce the expenditure on their health care due to higher level of hygiene and cleanliness. Miscellaneous inputs for household activities including wall clock, solar lamp, casserole, tarpaulin sheet, plastic crate, jhudi, plastic bucket, mug, plastic tub, etc. were also distributed to the farmers.

Impacts of capacity building programmes and knowledge impartment with exposure visits

Comprehensive knowledge of target beneficiaries is important for success of any flagship programme. For this, several capacity building programmes were conducted inviting resource persons with expertise on goat and poultry rearing, health management, feeding and nutritional management, breeding and care of pregnant animals, preventive measures against infectious diseases; mushroom farming and other aspects that provided confidence among the farmers. During the programme, men and women farmers were allowed to interact with the experts. Ladies from Self Help Groups (SHGs) were also involved in such programmes.

The SC farmers were also invited for the exposure visits to different krushi fairs conducted by the state departments to witness and interact with the successful farmers and entrepreneurs. Krushi Odisha programme, and Matsya-Pranee Samavesh (MPSO) were some of such programmes, where they became aware of the emerging technologies in agriculture and animal husbandry. Farmers were also invited to visit exhibit stalls on the institute foundation days in different years and were appreciated



Poultry chicks rearing



Distribution of poultry chicks and related inputs



Oyster mushroom cultivation

by the dignitaries so as to motivate others.

Socio-economic impact of DAPSC activities and interventions

The activities have created a significant impact on the livelihood and economic status of SC community that could create income-generating opportunities, where the unemployed or low-income group could make themselves indulged in poultry, goat and mushroom farming and tried to improve their financial status. The capacity building programmes could improve their knowledge on animal husbandry and disease preventive measures. PPR vaccination campaigns could save the lives of goats against the dreaded disease. Animal health camps could benefit farmers by providing care to their animalsalong with distribution of appropriate medicines and supplements. The inputs could facilitate farmers in their day-to-day works related with the animal rearing and cleaning of animal sheds. The study inputs distributed to SC students helped them a lot. Fruit saplings were also distributed as a step towards better health of the environment (eco-friendly) as well as a source of earnings for the farmers. FMD awareness camps enhanced their awareness and knowledge on FMD.

Exposure visits sensitised them on emerging technologies in the field of agriculture and animal husbandry. Periodical distribution of anthelmintics, mineral mixtures and other supplements acted as health booster. Health camps addressed different health issues of the animals. However, some of the farmers were reluctant to keep goats, but with proper guidance, they were found to be very successful and are now having a good number of goats with confidence. Many farmers have earned several thousands of rupees selling the poultry birds and the money could help them during exigency situations.

Way forward and future interventions under DAPSC

Creating assets or infrastructure is essential for long-term impacts for the beneficiaries and society. In future, apiculture and pisciculture can prove to be amongst the trustworthy approaches for SC farmers. The initiatives like FPO creation, entrepreneurship development, start-up, linking beneficiaries with Government agencies like NABARD, State AH Department, State Horticulture Department, regular platforms for learning and cross-leaning (exhibitions, trainings at KVKs, visit and training at entrepreneurs' facility) could be important initiatives to sustain these developments. A righteous documentation of beneficiaries and year-wise technical report was also generated during the periods for reference. Progressive farmers from SC community were celebrated on occasion of Institute Foundation Day.

SUMMARY

The ICAR-NIFMD apart from its mandated FMD activities, undertakes social responsibilities



Distribution of sewing machines



Distribution of study material kits to students

under DAPSC to cater under-privileged SC community that have yielded positive outcomes in narrowing the socio-economic gaps between SC and rest of the population. Under this programme, the institute conducted a series of various kinds of input distribution programmes (goat, backyard poultry, poultry layers in cages, fruit saplings, study materials, mushroom farming components, capacity building and knowledge dissemination), awareness camps, animal health camps, PPR vaccination campaigns and many others for benefit of SC community. Such multifarious interventions combined with knowledge support system have strengthened the livelihood and nutritional security of the said community. The most vital change noticed is the demonstration of a clear 'before-and-after picture', capturing the essence of a profound difference from their 'as usual' prevailing mindset that has taken a drastic shift and have started believing that the government is highly concerned for their family and welfare.

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