

### Farmer FIRST Programme (2017-18)

This one of the most prestigious programmes of Agricultural Extension Division, ICAR, New Delhi where farmers have centric role for research problem identification, prioritization, conduct of experiments and its management in their field conditions. The Farmer FIRST programme started during third quarter of the year 2016-17. The projects were approved for two years i.e. up-to 2017-2018. During the year 2017-18, under this Zone, 4 projects (3 from ICAR Institutes and one from SAU) were in operation. The details of the projects are given below.

#### Details of Farmer FIRST Programme under ICAR-ATARI Kolkata during 2017-18

<i>Sl. No.</i>	<i>Name of Project (Institute/ University)</i>	<i>Name of PI of the project</i>	<i>Fund allotted during 2017-18 (Rs. in lakh)</i>	<i>Fund utilized during 2017-18 (Rs. in lakh)</i>
1.	Increasing Productivity and Sustaining the Rice-based Production System through Farmer FIRST approach ( <i>ICAR-NRRI, Cuttack</i> )	Dr. (Mrs.) Lipi Das, Pr. Scientist	38.45	28.60
2.	Enhancing water and livelihoods security and improving water productivity in tribal dominated paddy fallow rainfed agro eco system of Odisha ( <i>ICAR-IIWM, Bhubaneswar</i> )	Dr. P. Nanda, Pr. Scientist	30.00	11.53
3.	Promoting Improved Agriculture & Allied Sector Technologies in Khordha district ( <i>ICAR-CIFA, Bhubaneswar</i> )	Dr. H. K. De, Pr. Scientist	20.22	18.29
4.	Enhancing Farm Productivity & Profitability with 'Farmer-First' focus in Khordha district of Odisha ( <i>OUAT, Bhubaneswar</i> )	Dr. B. Behera, Professor	43.41	24.90
<b>Total</b>			<b>132.08</b>	<b>83.32</b>

## Salient achievements of the projects

### ICAR-CIFA, Bhubaneswar:

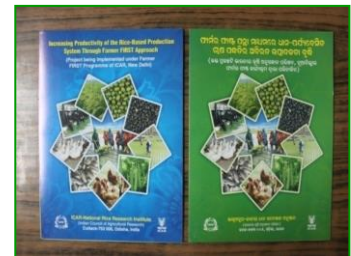
During Kharif 2017-18, integrated nutrient management (INM) in paddy was demonstrated in 90.8 ha involving 227 beneficiaries. Average yield recorded in demonstration plot was 3.6 t/ ha against yield in farmer practice (4.0 t/ ha). This marginal reduction in yield in demonstration plot was due to untimely rain at flowering and grain formation stage and widespread infestation of false smut disease at maturity stage. Scientific carp culture was demonstrated in 5.33 ha of water body. The practices include stocking of Indian major carp seeds (40-50 mm) in the ratio 1:2:1 (Catla: Rohu: Mrigal) at a density of 10,000 per ha, de-weeding of pond, fertilizer application, feeding etc. Supplementary feeding using floating feed (26% Protein) @ 2% of biomass was recommended. Periodic sampling using cast net was done to check the health status of the fish. Periodic measurement of water pH and other hydro-biological parameters were carried out and appropriate corrective measures recommended. Fish yield in demonstration pond was 3 t/ ha/ yr against yield in farmer practice of 1.6 t/ ha/ yr. During Rabi 2017-18, late variety of cauliflower (var. Fujiyama), green gram in rice fallow and backyard poultry were introduced in the adopted villages. Cauliflower fetched a better market price for farmers due to availability in the off-season and recorded yield of 20 t/ ha. Regular scientist-farmer interactions were conducted in the demonstration sites. Institute Advisory Committee meeting was conducted on 28<sup>th</sup> October, 2017. Dr. V. P. Chahal, ADG, ICAR, New Delhi visited the project villages adopted by ICAR-CIFA on 14<sup>th</sup> December, 2017. Landless farmers and women were provided with dual purpose breed of poultry bird (Vanaraja and Kaveri) to enhance their household income. A website ([www.farmerfirstcifa.in](http://www.farmerfirstcifa.in)) was developed for showcasing farmer friendly information and services.



### ICAR-NRRI, Cuttack:

Around 20 newly released NRRI high yielding rice varieties with complete package of practices were demonstrated to the farmers during the period. Use of Leaf Colour Chart was popularized, and mechanization using 13 different agri-implements were demonstrated in the adopted villages. Introduced black gram var. PU-31, green gram var. IPM-2-3, okra var. *Arka anamika*, brinjal var. VNR-B-5, tomato var. S-1004, bitter gourd var. Nakhara, ridge gourd var. Rama and pumpkin var. VNR-14/BSS-750. The yield advantage recorded for okra, brinjal, tomato, ridge gourd, bitter gourd and pumpkin were 24.26, 187.84, 204.16, 120.40, 44.33 and 178.76%, respectively compared to the local checks. Papaya, tissue culture banana and drumstick were also introduced in the project area. Backyard poultry farming with Vanaraja and backyard duck farming with Khaki Campbell were promoted. Twenty Vanaraja chicks and 20 Khaki Campbell ducklings per family with feed, feeder, drinker along with initial vaccines were supplied to the farmers. Total income from poultry and duck farming was increased substantially. Vermicomposting using *Eisenia fetida* strain was popularized to promote organic farming. During 2017-18, farmers' training programme-cum-kharif workshop on 08.09.2017, and exposure visit for 200 farmers at ICAR-ICFMD, Arugul,

Bhubaneswar on 01.04.2017 and exposure visit for 4 farmers at ICAR-NAARM, Hyderabad on 21.12.17 were organized in the project.





### *ICAR-IIWM, Bhubaneswar.*

Line transplantation, application of fertilizer and application of cono-weeder were included in the intervention of rice cultivation. It increased average income of the farmers in the adopted villages to the tune of 13.14%. Brinjal seedlings were distributed among 25 farmers, of which 19 farmers could maintain the plants till production. Other farmers could not save plants due to chronic shortage of water. Average increase of gross income from brinjal farming was recorded to be 101.49%. Innovative farmer Mrs. Meena Mohanta from Village Khuntapingu received “Best Farmer Award” on the occasion of “World Water Day 2018” celebrated by International Water Management Institute in collaboration with ICAR-IIWM, Bhubaneswar. Four capacity building training programmes were imparted to the farmers and farm women in the project area. A total of 401 farmers including 126 farm women were trained on water management and income generating activities in agriculture. Scientific fish farming was initiated in three community ponds by three water user groups. About 7000 fries and 3 quintal fish feed were supplied to the farmers of adopted villages. The average weight of fishes was around 275 gm in 4 months. Three water pumps along with conveyance pipes and 10 cono-weeders were provided to the farmer groups. Nine power thresher cum winnowers were procured and supplied to them for drudgery reduction. One convergence meeting was organized with state line departments for collaborative works in the project area. Social media was used through “*whatsapp group*” for communicating problems to the concerned scientists and solutions to the affected farmers. Video films of successful farmers were prepared as motivation for other farmers. One brochure was also prepared regarding the activities of the project.



### *OUAT, Bhubaneswar.*

A farmer producer's organisation i.e. Parichhal Vegetables and Fruits Growers Association (PGFGA) has been formed for promoting cultivation and marketing of cucumber, pumpkin, banana and papaya on cluster basis in collective approach. Varietal substitution in rice i.e. 'Prateekshya' rice in place of local rice varieties was taken up in 20 ha involving 50

households to facilitate growing of greengram in rice fallow. Greengram *var.* IPM 02-14 (YMV resistant) was grown with mechanised sowing after harvesting of rice in rain-fed condition. 'Prateekshya' rice recorded grain yield of 5.2 t/ ha and net return of Rs. 29,600/- per ha as against yield of 4.0 t/ ha and Rs. 24,700/- per ha from farmers' practice. Green gram *var.* 'IPM 02.14' gave grain yield of 380 kg/ ha and net return of Rs. 6000/- per ha as against grain yield of 200 kg/ ha and net return of Rs.2000/- per ha. Short grain aromatic rice variety 'Nua Kalajeera' was grown in 0.8 ha involving 2 households. Farmers got grain yield of 3.6 t/ ha and net return of Rs. 37,000/- per ha. Farmers were demonstrated with 8,250 plantlets tissue culture banana cv. Bantala in 3.0 ha involving 30 households, 3000 plants of hybrid papaya (Red lady) in 1.2 ha involving 10 households, off season cucumber in 1.6 ha involving 13 farmers and pumpkin (Tokita) in 6.4 ha involving 26 households during the period. Farmers got an average fruit yield of 26.25 t/ ha and net profit of Rs. 3, 67, 690/- per ha with an expenditure of Rs. 80,625/- per ha. During the year 2017-18, 600 paddy straw spawn bottles and 1000 oyster mushroom bottles were provided to women SHGs for skill and economic empowerment of farm women. The farmers got net return of Rs. 74/- and Rs. 60/- per bed of paddy straw and oyster mushroom, respectively. A total of 35 bee boxes and colonies and accessories were provided for scientific apiculture. Goatery and dairy activities were taken up for the purpose. The IIPR model mini dal mill costing Rs. 1,29,640/- were provided to women group for dal processing. After training and demonstration on mushroom cultivation, two educated youth Sh. Sarat Samantray and Sh. Ajay Kumar Paltasingh started their independent unit for production of paddy straw and oyster mushroom. Seven capacity building programmes on tissue culture banana, vermicomposting, group formation, rice fallow system, paddy straw mushroom, oyster mushroom and soil testing were organised. A total of 18 farmer-scientist interface, one kisan mela and one animal health camp were organised. One publication in Oriya language i.e. tissue culture banana (*pesiposhana kadali chasha*) was published and circulated among farmers.

