

ANNUAL REPORT
ATTRACTING AND RETAINING YOUTH IN
AGRICULTURE (ARYA), ICAR
2019-20



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(A) Introduction-

Puri, the abode of 'Lord Jagannath' and enriched cultural heritage with sculpture of excellence and the black Pagoda 'Konark' makes the state of Odisha famous in the world. Krishi Vigyan Kendra Puri was established in August, 2006. It comes under the East and South East Coastal Plain zone of Odisha. KVK Puri has been extending technical support to the farming community by conducting need based location specific trials, demonstrations trainings and other extension activities. The major focus is for doubling farmers' income by decreasing production cost, popularizing resource conservation practices and promotion of entrepreneurship in different enterprises.

1. Project Initiation:

In the recent scenario there is serious concern regarding unemployment of rural youths directly influencing their migration from rural areas. The promotion of agri-enterprises will not only generate employment opportunity but also at the same time would provide support to the livelihood of the farmers. The ARYA Project is an attempt to arrest the migration and develop entrepreneurs of different enterprises. The project was initiated in Puri district of Odisha during the year 2018-19.

2. Objective:

- To attract and empower the Youth in Rural Areas to take up various Agriculture, allied and service sector enterprises for sustainable income and gainful employment in Puri district.
- To enable the Farm Youth to establish network groups to take up resource and capital intensive activities like processing, value addition and marketing.
- To demonstrate functional linkage with different institutions and stakeholders for convergence of opportunities available under various schemes/program for sustainable development of youth.
- To develop entrepreneurs those act as brand ambassador for these identified enterprises for further up-scaling.
- To establish Models of agro-entrepreneurship which influence the unemployed youth to adopt new technology

(B) Name of ARYA villages

Table-1

Sl. No.	KVK name	Name of ARYA village	Established enterprise
1	PURI	Sanabhimadaspura, Talapatana Kanhupur, Jipur Singhakuda , Bastapada , Itatali, Chandrabrahma pur , Bhutpada, Biswanathapur Block-Satyabadi Suhagpur, Mahari pokhari Block-Pipili Tulashichura, Gopinathpur Block-Puri Sadar Resinga, Block-Nimapada	Mushroom

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		Gobindapur,Block-Deleanga	
2	PURI	Billipada, Singhbrahmapur, Janakideipur, Dalabhanapur,Akhupada,Sundara, Charishra,Paikarapur,Bijayaramchandrapur, Balipada,Biranarasinghpur, Kanalpada, Samakula,Basantapur Blocks- Satyabadi, Puri Sadar, Delanga, Gop, Nimapada	Fish production with fish seed
3	PURI	Dubduba, Panchukera, Jayapur, Nuasahi, Panakera, Nahala, Padmapur, Madhipur, Balikud, Muninda, Badakanjia, Block-Satyabadi Dalabhanapur, Block-Nimapada Gobind pur, Block-Delanga Ankia, Bira narasinghpur , Block-Puri Sadar Barundi, Podagun, Block-Pipili	Apiary
4	PURI	Katunia,Gadatotihan,Gadabadaput, Resinga, Samakula, ,Talajanag, Kumbharpada, Bhagabansundara, Pattnaikia, Narasinghpur, Gadasanaput,Gadapadanpur, Arola Blocks –Nimapada ,Puri Sadar, Gop, Satyabadi & Kanasa	Poultry

(C) KVK PURI

1. District Profile:

Puri is a coastal district of Odisha coming under East and South East Coastal Plain Agro-climatic Zone. The geographical area of the district is 348102 ha and the cultivated area is 188745 ha. The major crop paddy covers about 142000 ha and 19100 ha is under non-paddy crop. The cropping intensity is 191 %. About 82 % of farmers in the state are small and marginal with average holding size of < 0.8 ha. The existing cropping systems challenged with degradation of natural resources, yield stagnation, increase in cost of cultivation and erratic rain fall due to climate change.

Demographic status (2011 Senses)

Total populatin	1697983
Male	865209(50.96%)
Female	832774(49.04%)
Sex ratio	963 (Female per ,000 male)
Population density	488
Literacy rate (%)	84.67
Male Literacy (%)	90.85
Female Literacy (%)	78.28
No. of farm families	148935
Small farmer	40487
Marginal farmer	97439
Big farmer	2073

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Basic agricultural information

Agro-climatic Zone	Agro ecological situation
East and South Eastern Coastal Plain Zone	1. Coastal Alluvial Command 2. Coastal Alluvial Non-command 3. Coastal Alluvial Saline 4. Rainfed Laterite 5. Rainfed Red and Laterite
Annual Av. Rainfall (mm)	1408.8mm.
Soil type	Red, laterite, brown forest, alluvial and saline
Total Geographical area	348102 ha
Farming situation	Rainfed and irrigated
Cropping system	Rice-Rice, Rice- Pulse, Rice- Oilseed, Rice-Vegetables, Fallow-Rice
Major Crop/ enterprise	Rice, Blackgram, Greengram, Groundnut, Betel vine, Coconut, Vegetables, Fish, Mushroom, Dairy, Poultry
Irrigation potential	
 Kharif ('000ha)	116.08 (61.5%)
 Rabi ('000ha)	76.715(40.64%)

2. Identification of youth

- ❖ Identification of villages was made through diagnostic field visits and contact with key farmers, entrepreneurs, krushak sathi, input dealers, mushroom federation, fish growers association, ARD & other line departments.
- ❖ Bench mark survey of the prevailing enterprises was undertaken of the district to know the scope of various enterprises.
- ❖ Assessed the existing market supply chain in the district and finally four enterprises namely Mushroom, Fishery, Apiary and Poultry were selected.
- ❖ Rigorous Field Visits were made to different villages in the district.
- ❖ Focus Group Discussion with farmers & more specifically rural youths of the enterprises selected under the project in their village.
- ❖ Collection of Basic Information of youths using interview schedule was done.
- ❖ Selected Youths having preliminary knowledge on Mushroom, Fishery, Apiary and Poultry farming activities.
- ❖ Preliminary screening of youths on the basis of personal information, qualification, age and resources *etc.* was done.

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- ❖ DLC Meeting was conducted involving various line department officials and list of 120 beneficiaries was finalized.
- ❖ Organized consultative workshop of various stakeholders to sensitize the youths.
- ❖ Successful entrepreneurs were invited to share their experiences in the Inception workshop.
- ❖ Discussed about scope, opportunity and challenges of each enterprise in the Inception workshop by doing some group exercises.

			
Rigorous Field Visit & data collection	District Level Committee Meeting	Inception Workshop	Enterprise wise focus group discussion

3. Name of cooperating Institutions for technical support

- ICAR, ATARI ,KOLKATA
- ICAR, IIWM, Bhubaneswar
- CIWA,ICAR, Bhubaneswar
- CIFA,ICAR, Bhubaneswar
- CTMRT,OUAT, Bhubaneswar
- CPDO,IPDP, Bhubaneswar
- AICRP, Honey Bee, OUAT, Bhubaneswar
- NABARD, Puri
- Animal Husbandry Department, Puri
- District Agriculture Office, Puri
- Horticulture Department, Puri
- Fishery Department, Puri

4. Enterprise details (For each enterprise)-

i. Detail description

Enterprise Domain- Mushroom

✚ Spread in Area / No. Commercial growers- 400 Nos.

✚ **Production**-Paddy Straw Mushroom-29242 q/yr

Oyster Mushroom-14648 q/yr

Total Production-43890 q/yr

✚ **Strength:** Large no. of mushroom growers,54 nos. of spawn units, Availability of bundle straw, Congenial climatic condition, Existence of KVK in the district.

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✚ **Opportunities:** Coconut orchard (9990 ha), Nearer to Capital of Odisha, promotion of mushroom enterprises through Govt. Schemes, Easy access to CTMRT, OUAT, Bhubaneswar.

✚ **Entrepreneurial activities:** Mushroom Production, Spawn production, Postharvest management & marketing, Service provider, Value addition of mushroom.

Enterprise domain: Poultry production

✚ Spread in No. - 975430

✚ **Production-**0.45TMT

✚ **Strength:** SHG, KVK, Landless/Marginal farmers ,Functional Hatchery unit-1

✚ **Opportunities:** CPDO, IPDP Bhubaneswar

✚ **Entrepreneurial activities:** Hatchery, Input services, Poultry production, service provider (Paravet), Marketing of birds.

Enterprise Domain- Apiary

✚ Spread in No. –30 Entrepreneurs

✚ Production-22q

✚ **Strength:** AICRP honey bee, CDB,KVK, existence of Flora & Fauna

✚ **Opportunities:** Govt. schemes to promote bee cultivation in the district, high market demand,

✚ **Entrepreneurial activities:** Input ,Technology ,Production, Processing and marketing

Enterprise Domain- Fish production with fish seed

✚ Spread in Area – 5323 ha

✚ **Production-** 20583.5 MT

✚ **Strength:** lowland 70%, CIFA, annual rainfall, more no of perennial ponds, existence of KVK, Co-ordination with stakeholders

✚ **Opportunities:** nearer to capital, govt schemes, high market demand,

✚ **Entrepreneurial activities:** Spawn production , Input supplier, Yearling Production ,Marketing, Service provider

ii. Input /Support provided to youth groups (2018-19 & 2019-20)

Year	1.Mushroom Production		
	Items/ Heads (5 Units)	Quantity	Amount(Rs.)
2018-19	Mushroom Spawn bottles	750 bottles	9000.00
	Sprayer (Manual) capacity-16lit.	5 nos	8699.99
	Digital Weighing Machine (1gm-10kg)	5 nos	5015.00
	Chaff Cuter with stand	5 nos	4000.20
	Plastic tray	10 nos	1000.05
	Digital Hygrometer	5 nos	3835.00
	Polythene	70kg	11151.00

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	Heating Sealing Machine(8")	5nos	7550.05
	Total A		50251.29
2019-20	Items/ Heads (10 Units)	Quantity	Amount(Rs.)
	Mushroom Spawn bottles	1000 nos.	12000
	Sprayer (Manual) capacity-16lit.	10 nos.	17145
	Digital Weighing Machine (1gm-10kg)	10 nos.	10440
	Chaff Cuter with stand	10 nos.	15930
	Plastic tray	20 nos.	2397
	Digital Hygrometer	10 nos.	7,735
	Polythene	700 kg	12390
		Total B	78037
2019-20	Marketing/post harvest		
	Item/s/Head	Quqntity	Amount(Rs.)
	Aluminum Trays	10 Nos.	4425
	Crates	10 Nos	5,546
	Heating Sealing Machine(8")	10 Nos	14750
	Paper bags with printed with Brand name	720 Nos	6,450
		Total C	31171
		Total (A+B+C)	1,59,495
Year	2.Poultry Production		
2018-19	Items/ Heads (5 Units)	Quantity	Amount(Rs.)
	Chicks (nos.)	1000	24610
	Feeder (nos.)	10	6300
	Drinker (nos.)	10	
		Total A	30910
2019-20	Items/ Heads (10 Units)	Quantity	Amount(Rs.)
	Chicks (nos.)	2000	46900
	Feeder (nos.)	24	17460
	Drinker (nos.)	24	
	Medicine	10units	
	Brooder (nos.)	1	27060
	Feed	800kg	
		Total B	
		Total (A+B)	122,330
Year	3.Apiary		
2018-19	Items/ Heads (5 Units)	Quantity	Amount(Rs.)
	Bee Box	10 nos	17000

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	Bee Colony	10 nos	10000
	Smoker	5 nos	1000
	Bee veil	5 nos.	750
	Queen Gate	10 nos	200
	Honey Extractor	5 nos	7500
	Queen excluder	5 nos	1250
	Transportation	-	8640
	Total A		46340
2019-20	Items/ Heads (10 Units)	Quantity	Amount(Rs.)
	Bee Box	20 nos.	34000
	Bee Colony	20 nos.	20000
	Smoker	10nos.	2000
	Bee veil	10nos.	1500
	Queen Gate	20 nos.	400
	Honey Extractor	10 nos.	20000
	Queen excluder	10 nos.	2500
	Transportation	-	9000
	Total B		89400
2019-20	Apiary input Unit		
	Item/s/Head	Quqntity	Amount(Rs.)
	Planner	1	5699
	Cutter	1	
	Total C		5699
	Total (A+B+C)		141439
Year	4. Fish production with fish seed		
2018-19	Items/ Heads (5 Units)	Quantity	Amount(Rs.)
	Fry Drag net (60 ft × 18 ft)	5 numbers	26,500
	Plankton net	5 numbers	800
	Fry of Indian Major Carps	50,000 numbers	9,250
	Total A		36,550
2019-20	Items/ Heads (10 Units)	Quantity	Amount(Rs.)
	Fry Drag Net (60 ft × 18 ft)	10 numbers	43,155
	Plankton Net	10 numbers	1,837
	Happa (3 mt × 1.5 mt × 1.5 mt)	15 numbers	12,750
	Water quality kit (PH and Alkalinity)	15 numbers	13,350
	Floating fish feed – 1.2 mm	15 bags (20 kg packing)	18,000
Fry of Indian Major Carps	1,00,000 numbers	18,500	

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	Total B	1,07,592
	Total (A+B)	1,44,142
	Total(1+2+3+4)	5,67,406

Start-up Input Distribution of each enterprise			
			
Mushroom	Poultry	Apiary	Fish production with fish seed

iii. Progress made

Table-2

Enterprise name	No. of youth involved	Unit/No.	Measurable indicators of output in suitable unit		% increase	Economic of enterprise		
			Before adopting ARYA	After adopting ARYA		Gross cost	Net return	BCR
Mushroom	30	5 Units Established 10 Units Initiated	Avg. No. of Beds /yr-1505 Nos.	Avg. No. of PSM Beds /yr-2380 +Avg. No. of Oyster Bags/yr-90	58.13	Paddy straw mushroom for 8 months-Rs.2,92,320 Oyster Mushroom for 2 months-Rs.6,090	Paddy straw mushroom for 8 months-Rs.149,520 Oyster Mushroom for 2 months-Rs.3390	2.05
			Avg. Annual Production-1063.98kg	Avg. Annual Production-1948.8kg	83.16			
			Avg. Production/Bed-0.708kg	Avg. Production/Bed- 0.82kg	15.81			
			Avg. Employment Generation/ annum-160	Avg. Employment Generation/ annum-202	26			
			Avg. Gross Income per annum-Rs.1,38,317	Avg. Gross Income per annum-Rs.2,98,410	115			
Poultry	30	5 Units Established 10 Units Initiated	Avg. body weight Banaraja-1.9Kg	Avg. body weight Banaraja-2.1Kg	Banaraja-10.5%	Banaraja-26000	Banaraja-42040	2.61
			Avg. body weight Kadaknath-1.45Kg	Avg. body weight Kadaknath-	Kadaknath-17%	Kadaknath -	kadaknath - 53625	3.1

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				1.7 Kg		250 00		
			Mortality rate - 12%	Mortality rate -10%	-	-	-	-
			Avg. Gross Income per annum-Banaraj-43040 Kadakhnath-45625	Avg. Gross Income per annum-Banaraj-68040 Kadakhnath-78625	Banaraj-58 Kadakhnath-72			
Apiary	30	5 Units Established 10 Units Initiated	Additional Employment Generation/yr-12	Additional Employment Generation/yr-27	125	Rs.14,100	Rs.4,460	1.46
			Avg. Honey Production/Box-3 kg	Avg. Honey Production/Box-4.5 kg Bee Colony-2 Nos./Box	50	Avg. Boxes/ Unit-3 Nos.	Avg. Boxes/ Unit-3 Nos. (Support from Project -Rs.6940 & own investment Rs.2700)	
			Additional Gross Income-Rs.1800/Box	Additional Gross Income-Rs.4700/box	161			
Fish production with fish seed	30	5 Units Established 10 Units Initiated	Avg. body weight of fish (kg) – 0.520	Avg. body weight of fish (kg) – 0.830	59.61	Rs 1,97,600 /ha/year	Rs 2,58,900/ha/ year	2.31
			Avg. fish production (qtl/ha/year) – 28.75	Avg. fish production (qtl/ha/year) – 41.50	44.34			
			Avg. Gross Return (Rs/ha/year) – 2,87,500	Avg. Gross Return (Rs/ha/year) – 4,56,500	58.78			
			Avg. employment generation per annum - 97	Avg. employment generation per annum - 123	26.80			

ARYA UNITS OF KVK,PURI

			
Scientists visit & supervision of Unit	Interaction with Youth	Selling of mushroom at farm gate	Marketing of mushroom in Paper bags

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Scientists visit & supervision of Unit	Interaction with youth	Weighing of birds during field visit	Selling of birds at farmer's doorstep
			
Interaction with Youth	Scientists visit & supervision of Unit	Bee Colony supervision	Honey produced by youth for sale
			
Distribution of IMC fry at ARYA farmers unit	Visit of scientists to observe growth rate during sampling	Monitoring Fish health status	Harvesting of Fish

iv. Name of youths involved
Table-3

Sl. No.	Youth Name	Village Name	Name of adopting enterprise
1.	Manoj kumar Behera	At-Sanabhimadapura, Block-Satyabadi	
2.	Ranjan Behera		
3.	Sadashib Behera		
4.	Satyabrat Sahoo		
5.	Purna chandra Behera		
6.	Kamalini Rout	At-Bhut pada,Block-Satyabadi	
7.	Sujata Swain		
8.	Renubala Das	At-Tulashichura,Block-Puri Sadra	
9.	Binapani Behera	At-Jipur,Block-Satyabadi	
10.	Karttik Behera		
11.	Satyabhama Bastia	At-Suhagpur,Block-Pipili	
12.	Rasmita Patra	At-Resinga,Block-Nimapada	
13.	Radheya Bhoi	At-Chandrabrahma pur,Block-Satyabadi	

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14.	Rajkishor Sethi		Mushroom	
15.	Mana ranjan Barik			
16.	Priya krushna Das	At-Itatali,Block-Satyabadi		
17.	Kurshan chandra Pradhan	At- Kanhupur,Block-Satyabadi		
18.	Tapas kumar Behera			
19.	Sardhanjali Gil			
20.	Damburu dhar Behera			
21.	Pratap Behera			
22.	Niranjana Majhi	At-Talapatana,Block-Satyabadi		
23.	Sudarsan Das	At-Gobindapur,Block-Deleanga		
24.	Aswini Baral	At-Balikuda,Block-Satyabadi		
25.	Debendra Jena	At-Gopinathpur,Block- Puri Sadar		
26.	Pimku Pradhan			
27.	Pradeep Biswal	At-Singhakuda,Block-Satyabadi		
28.	Suryakanta Patra	At-Bastapada,Block-Satyabadi		
29.	Chhabi Bhoi	At-Biswanathapur,Block-Satyabadi		
30.	Narandra Behera	At-Mahari pokhari,Block-Pipili		
31.	Tapan kumar Behera	At-Gadapadan pur Block-Nimapada		Poultry
32.	Golap manjari Behera			
33.	Prashanta kumar patra			
34.	Rudra narayan patra			
35.	Dipti ranjan chhatoi			
36.	Sudiptarani Patra			
37.	Rupali patra			
38.	Santosh kumar patra			
39.	Suchitra Patra			
40.	Rajat behera			
41.	Sagrika Mohanty			
42.	Rajalaxmi mohanty	At-Kantunia Block-Nimapada		
43.	Sangram kesari patra	At-Resinga Block-Nimapada		
44.	Pradipta kumar Ray	At-Kumbharpada Block-Nimapada		
45.	Dali patra			
46.	Monali patra	At-Bhagabansundara Block-Nimapada		
47.	Pravati Pradhan	At-Arol Block- Puri Sadar		
48.	Mitali Pradhan			
49.	Rina Pradhan			
50.	Gitanjali Pradhan			
51.	Digambar Pradhan			
52.	Prasanta Rout			
53.	Salima pradhan			
54.	Puspanjali nayak	At-Talajanga Block- Puri Sadar		
55.	Partha sarathi Behera	At-Samakula Block- Gop		
56.	Subhransu behera			
57.	Subhransu sekhar Nayak			
58.	Ranjita Nayak	At-Pattnaikia Block-Satyabadi		

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59.	Lokanath saho	At-Gadasanaput Block- Kanas	Apiary
60.	Anjana Ray	At-Narasinghpursasan Block- Kanas	
61.	Manisha Biswal	At-Dubduba,Block-Satyabadi	
62.	Rajesh Biswal		
63.	Sujata Biswal		
64.	Rinalata Behera		
65.	Santosh kumar Pradhan		
66.	Dharanidhara Bhoi	At-Dalabhanapur,Block-Nimapada	
67.	Gagan Bihari Barik		
68.	Basanti Biswal	At-Nuasahi,Block-Satyabadi	
69.	Kailash Mohanty	At-Jayapur,Block-Sakhigopal	
70.	Santosh kumar Behera		
71.	Dibakar Maharana	At-Gobind pur,Block-Delanga	
72.	Sarbeswar Maharana		
73.	Trilochan Martha	At-Ankia,Block-Puri	
74.	Somyaranjan Mahapatra	At-Bira narasinghpur,Block-Purisadar	
75.	Trilochan Sethi	At-Panakera,Block-Satyabadi	
76.	Susanta Das	At-Nahala,Block-Satyabadi	
77.	Biswanath Behera		
78.	Sukanta kumar Parida	At-Barundi,Block-Pipili	
79.	Prasanna kumar Pradhan	At-Podagun,Block-Pipili	
80.	Sanjay Bhanja	At-Badakanjia,Block-Satyabadi	
81.	Dama Maharana	At-Harishankarpur,Block-Satyabadi	
82.	Babuli Muduli	At-Muninda,Block-Satyabadi	
83.	Anirudha Baral		
84.	Sita kanta Das	At-Balikud,Block-Satyabadi	
85.	Bikram Pradhan		
86.	Mamata Jena	At-Madhipur,Block-Satyabadi	
87.	Sahadeb Pradhan	At-Padmapur,Block-Satyabadi	
88.	Satyabhama Baral	At-Panchukera,Block-Satyabadi	
89.	Tilottama Parida		
90.	Gouripriya Mohapatra	At-Nuasahi,Block-Nimapada	
91.	Rabindra kumar Swain		Fish production
92.	Srittam Pradhan	At- Basantapur, Block - Delanga	
93.	Trilochan Pradhan		
94.	Srihari Mohapatra		
95.	Ramakrushna Pradhan	At- Singhbrahmapur, Block - Delanga	
96.	Ms Smitanjali Swain	At- Akhupada, Block – Puri Sadar	
97.	Prakash Chandra Parida	At- Sundar, Block – Puri Sadar	
98.	Prafulla Behera	At- Pratappurusottampur, Block–Puri sadar	
99.	Swapna Ranjan Mishra	At- Bijayramchandrapur, Block – Puri sadar	
100.	Baban Das	At- Janakideipur, Block – Puri Sadar	
101.	Ms Subhashree Swain	At- Moradpada, Block – Puri Sadar	
102.	Ms Shradhanjali Choudhry	At- Paikarapur, Block – Puri Sadar	
103.	Santosh Kumar Das	At- Janakideipur, Block – Puri Sadar	

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104.	Bichitra kumar Pradhan		
105.	Bahana Biswal	At- Arala, Block – Puri Sadar	
106.	Suresh Das	At- Janakideipur, Block – Puri Sadar	
107.	Gyanaranjan Behera	At- Gabakunda, Block – Puri Sadar	
108.	Sadashiba Sahoo		
109.	Sidharth sankar Behera		
110.	Lipun Behera	At- Samankula, Block - Gop	
111.	Chinmaya Sankar Patra	At- Gabadiha, Block - Gop	
112.	Rasmi Ranjan Routaray	At- Kanalpada, Block - Satyabadi	
113.	Kapilash Baral		
114.	Laxmikanta Baral		
115.	Deepak kumar Pradhan		
116.	Bibhu Prasad Baral		
117.	Suryakant Baral	At- Billipada, Block - Satyabadi	
118.	Ms Geeta Patra	At- Balanga, Block – Satyabadi	
119.	Jyoti Prakash Nanda	At- Bharatipur, Block - Pipili	
120.	Manoj Kumar Pradhan	At- Dalabhanapur, Block – Nimapada	

v. Capital Generation

Table-4

Particulars/ Equipment	Quantity (No.)	Amount(Rs.)
Desktop with UPS	1	59405
Laptop	1	29655
Portable PA	1	12500
Computer Table	1	11799
Revolving Chair	1	12721
External Hard Disk	2	7898
DSLR with lens, Battery Charger, stand	1	93315
Printer with Scanner	1	20000
S-type Executive chair	5 No.	33737
Table	2 No.	20400
Almirah	5 No.	50764
File Cabinet	2 No.	25800
Misc.		00006
	Total	3,78,000

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vi. Income level

Table-5

Enterprise	Area (Acre)/ No.	Cost of production (Rs. per unit/yr)	Return (Rs. Per unit/yr)	Net Income (Rs. Per unit/yr)
Mushroom	Paddy Straw Mushroom (300 Beds)-21 days/cycle Oyster Mushroom (100 Bags)-2months/cycle	168000	330000	165000
Poultry Production	200 chicks /unit(Banaraja)	26,000	68040	42,040
	200 chicks /unit(Kadakhnath)	25,000	78,625	53,625
Apiary	2 Boxes/Unit	Establishment Cost Rs.6940 (through project support)	9400	2460
Fish production with fish seed	1 ha (pond water area)	1,97,600	4,56,500	2,58,900

vii. Impact

- It has increased the outreach of centre tremendously in the district especially due to association of rural youths with the KVK.
- KVK has drawn attention of various stakeholders for technological backstopping and their expectations and reliance have increased for development of entrepreneurship in the district.
- The 120 beneficiaries has been recognized and included in various other agricultural & allied schemes in convergence with the line departments which will further boost their all round development as an entrepreneur.
- The most important ingredient in the process of entrepreneurship development *i.e.* credit flow has been ensured for the ARYA beneficiaries as the lead bank in the district has assured for providing credit facility to the eligible youths.
- Seeing the successful youths in the village many SHGs and farmers group are interested to take up the enterprise. This group approach will solve the marketing problem in future and enhance the sustainability of the enterprise and project as a whole.
- The project ARYA has paved the way to honour out of box innovative ideas of different enterprises.
- Four dedicated enterprise wise whatsapp groups for 120 beneficiaries' have been formed for sharing of ideas for adoption.

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(A) Capacity Building

Table-6

Thematic Area	Topic of training	No. of courses	No. of beneficiaries		
			Male	Female	Total
Mushroom Production	Scientific Mushroom cultivation	1(2 days)	24	6	30
	Post harvest management & value addition of mushroom	1(3 days)			
Poultry Production	Rearing of backyard poultry	1(4days)	14	16	30
Beekeeping	Honey bee rearing	1(4 days)	22	8	30
Fish production with fish seed	Nursery pond Management Practices	1(2 days)	26	4	30
	Rearing of Fry for fingerling and yearling production	1(2 days)			
Total			86	34	120

Capacity Building Trainings Photographs

Skill Training on Scientific Mushroom Cultivation Mushroom



Skill Training on Mushroom value addition



Mushroom Badi preparation

Mushroom Papad preparation

Mushroom Pickle preparation

Skill Training on Poultry Production

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Skill Training on Apiary



Skill Training on Fish production with fish seed



(E) Success stories of ARYA youths

Success Story-1

1. **Name of the Enterprise:** Poultry production
2. **Name of Beneficiary:** Partha sarathi Behera
3. **Address:** S/O-Mahendra Behera,village-Samakula, Block-Gop, mob- 7326866423
4. **Introduction/Background:**



Cyclone 'FANI' have caused the biggest-ever death of poultry sector in Odisha. Yet farmers are accumulating strength to overcome the loss by taking initiative in poultry farming. Partha sarathi is the epitome of success and opened the eyes of other youths of the locality by shining as an entrepreneur. Partha sarathi Behera, s/o- Mahendra Behera a resident of village samakula, block- Gop was unemployed after completion of ITI in a nearby college and helping his family in various agricultural activities. Earlier his father had a broiler farm. But heavy loss incurred due to effect of FANI, he left the enterprise in the middle. During one training programme in his village, he came in contact with the scientists of KVK and discussed his problems. During beneficiary selection for ARYA project he was taken considered due to his experience and interest in poultry farming.

5. Progress made:

- After joining the project he repaired the poultry farm.
- First time he kept 200 Banaraja chicks with the project support.

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- Now he is rearing 600chicks per annum.
- He is selling chicks for meat purpose @ Rs.180/-per kg.
- Mortality rate has been reduced from 12% to 10%.
- Employment generated 135 days/annum.

6. Benefit to youth:

He has undergone a 4 day training programme in KVK, Puri and made exposure to various successful poultry farmers and experts in the field. He has gained knowledge in scientific rearing of backyard poultry. Now he has been recognized as a successful backyard poultry farmer in his locality. He is now self-employed with a permanent source of income and earned a special niche in the society.

7. Change in economic status of the youth due to adoption of ARYA project:

Now he is no more dependent upon his parents and has earned avg. income of Rs.1, 26, 120/- per annum. He has planned to start a layer unit and brooding unit in near future.

8. Constraints faced:

As his family had already incurred losses in the broiler farm it took some time to convince them to take up the same enterprise. Timely unavailability of chicks is a problem due to absence of hatchery unit in the locality.

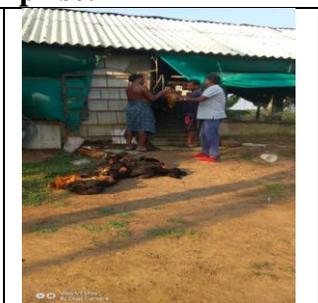
9. Perception of others in the village:

Two new farms have already been started the enterprise in the village. Some women SHGs and youths are also interested to take up backyard poultry in the village.

10. Conclusion:

Mr. Behera has proved the success in poultry farming due to dedication determination and strong will power. Moreover constant touch with the KVK and other successful entrepreneurs the success of partha is radiating to other villages. The project has aimed to ensure availability of chicks and support of other services at the doorstep in coming years. Seeing the profitability of enterprise he is interested to scale up the activity. The project has attracted some other youths and women SHGs in the village. Solving the problem of timely chicks and other inputs and services unavailability will increase the sustainability of the enterprise.

11. Good quality of action photograph of the enterprise:

			
<p>Scientists Visit to Unit</p>	<p>Feeding the birds</p>	<p>Selling of birds at farmer's doorstep</p>	<p>Weighing of birds during field visit</p>

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Success Story-2-Mushroom

1. **Name of the Enterprise:** Mushroom production
2. **Name of Beneficiary:** Mrs.Srandhanjali Gil
3. **Address:** W/O-Laxman Gil, At-Kanhupur, Block-Satyabadi
Mobile No.8658098875



4. Introduction/Background:

The tropical humid climate of Puri is mostly suitable for growth of mushroom. In fact it is not wrong to say that Puri is the mushroom capital of Odisha. But the devastating super cyclone FANI broke the backbone of the mushroom growers of Puri district. In this crisis situation Mrs. Srandhanjali Gil (Age-32yr), a mushroom grower of Kahnapur village of Satyabadi block doesn't lost her hope though she has lost her coconut orchard where in the interspace being utilized for growing mushroom. She was cultivating mushroom with her husband since last 2yrs in unscientific manner with very less production. So she decided to leave mushroom farming. However, during the occasion of web telecast programme of KVK she came in contact with Scientist of KVK and discussed her problems. She also visited the KVK demonstration Unit *i.e.* Mushroom in shed-net house and hence got motivated to adopt scientific mushroom cultivation. She was included in ARYA project and got trained on both scientific cultivation and post harvest management of mushroom. Now she is successful in her farming and able to establish a model mushroom farm to attract the youths to adopt the new technology.

5. Progress made:

- Currently she is preparing 320 paddy straw mushroom beds per month.
- She owns a semi structured shed-net house
- Average Production is 0.8 kg/bed (21days/cycle)
- She is producing 2304kg mushroom in 9 months.
- Previously she was selling mushroom Rs.130/kg. Now she is getting an additional income of Rs.10/kg due to use of paper bags for selling which is the innovation of ARYA project.
- Employment generation 220 days/year

6. Benefit to youth:

- Scientific management increases the production from 0.72kg/bed to 0.8 kg/bed
- Additional employment generated 40days/annum
- Post harvest management of mushroom by cleaning, sorting & grading enhances the profit @ Rs.10/-per kg.

7. Change in economic status of the youth due to adoption of ARYA project:

- Before inclusion in ARYA project her income was Rs.66,528/-

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- After involvement in ARYA project her income is Rs.1,72,800/
- 159% increase in income over the previous income

8. Constraints faced:

- Non availability of paddy straw bundles due to FANI
- Non availability of quality mushroom spawn

9. Perception of others in the village:

Seeing the success of Mrs. Sradhanjali Gil some women SHGs and other youths of nearby villages got motivated to adopt the model for their livelihood enhancement.

10. Conclusion:

This low cost semi-structured shed-net house model for mushroom cultivation and knowledge of post management of mushroom has not only created an interest among rural educated youths in farming but also has changed the mindset for growing mushroom in open condition. The institutional support from ARYA & NHM can be a boost to retain in mushroom farming. She has also a future plan to establish a Mushroom Processing Unit after involvement in the project. Now she is the eye opener and source of inspiration to the neighbouring farmers. Her success has become the common man’s voice in the locality.

11. Good quality of action photograph of the enterprise:

		
<p>Scientific mushroom cultivation enhance the production/bed</p>	<p>Scientist Visit to her Unit</p>	<p>Mushroom harvested from her unit</p>

Success Story 3-Fishery

1. **Name of the Enterprise:** Fish Production with fish seed
2. **Name of Beneficiary:** Santosh Kumar Das
3. **Address:** S/O-Bina Das, village-Janakideipur, Block- Puri Sadar, Mobile - 8249087691
4. **Introduction/Background:**



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Pisciculture is an important livelihood activity for economic upliftment of farmers of Puri District. The success of fish farming mostly depends on stocking of good quality fingerlings/yearlings in proper stocking density and ratio, feeding and water quality management. Indian Major Carps are most popular fish used for cultivation in Fresh water ponds of the District due to high growth rate and better consumer preference. The introduction of ARYA project in the village provided an opportunity for more income and additional income generation through the identified enterprise.

Sri Santosh Kumar Das, aged 34 years, S/o- Bina Das of village Janakideipur belongs to a Scheduled caste family left school after 8th standard to support his family. Earlier he was having 2 numbers (2Ac) of fish pond where he practiced composite fish culture. He was stocking fry of IMC and getting a production of 25qtl/ha. His monthly income was around Rs. 19,000. During an occasion he came in contact with KVK Scientist and considered as beneficiary in pisciculture. Sri Das was got trained on Nursery pond management practices, rearing of fry to fingerling and yearling production. He also got exposure visit to progressive farmers' field to enrich his knowledge.

5. Progress made:

- Sri Das constructed 4 numbers (2.5 Ac) of new ponds where he practiced stunted fingerling/yearling production in 2 cycles per year
- He also continued for table size fish production in his 2 old ponds (2 Ac) by stocking yearlings of IMC @ 5000 numbers/ha with proper feeding schedule and scientific pond management practices
- Before inception of ARYA project he was doing IMC culture through stocking of fry in 2Ac of pond with a production of 25qtl/ha wherein a monthly net income of Rs. 19000/- was not sufficient to manage his family.
- Production and Income
 - i) 12.50 qtl of stunted fingerling/yearling @ Rs 215/ per kg = Rs 2,68,750
 - ii) 2 cycles of stunted fingerling/yearling per year = Rs 5,37,500
 - iii) 32 qtl of table size fish per year @ Rs 110/ = Rs 3,52,000
 - iv) Gross income per year from 6 nos. of ponds (4.5 Ac) = Rs 5,37,500+Rs 3,52,000 = Rs 8,89,500
 - v) Net Return = Rs 5,39,400 and BC ratio is 2.54

6. Benefit to youth:

- i) Previous income of the Farmer was Rs 19,000 per month
- ii) Present income of the farmer (from yearling and table size fish production) is Rs 44,950 per month
- iii) Increase in income = 136% over previous income
- iv) Cost of production for table size fish production is reduced because of stocking of own yearlings and no transportation cost
- v) Employment generated (123days/annum) for daily laborers, yearling vendors and persons involved in netting for harvesting of yearlings and fish for marketing.

7. Constraints faced:

- Water Scarcity during summer
- Non availability of inputs such as feed, medicines in nearby market.

8. Perception of others in the village:

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Youths are more interested for fish production by stocking yearlings as the production and profit is more after seeing the success of Sri Santosh Das. Three other youths have already started stunted fingerling and yearling production in the village. Farmers expect Fishery department to execute different schemes for excavation and renovation of ponds and assistance of aquaculture inputs.

9. Conclusion:

Mr Santosh Das is very much satisfied adopting the enterprise. This year he has planned to sell fish feeds, medicines and other aquaculture inputs in the name of “DAS FISH FEED FARM” which will further boost his income level. Other nearby farmers will be benefitted getting stunted fingerlings/ yearlings and all other inputs from one place. Now Mr. Das has been the eye opener and tempted other unemployed youths to take up pisciculture in leased out ponds in a competitive mode. Mr. Santosh Das’s success wave is spreading in the neighboring villages. Moreover some youths and young SHG members have planned to adopt pisciculture as a lucrative enterprise.

10. Good quality of action photograph of the enterprise:

			
Visit of scientist to monitor growth rate of yearlings during sampling	Harvesting of table size		Marketing of fish

(F) Profile of ARYA youths earning more than Rs. 10000 and more than Rs. 50000

Youth Name	Father's /Husband's Name	Address	Age	Adhar No.	Mobile No.	Educational Qualification	Status Year	Income/ Month	Name of adopting Enterprise
Sadashib Behera	Gouranga Behera	Sanabhimadapur Block-Satyabadi	36	4705 4984 0860	99373255 22	10th	3	10600	Mushroom
Kurshan chandra Pradhan	Sankar Pradhan	Kanhupur, Block-Satyabadi	39	4834 1614 2704	80181285 30	8th	4	14562	Mushroom
Kartik Behera	Trilochan Behera	Jipur,Block-Satyabadi	27	4252 0874 3133	63712858 18	10th	3	13500	Mushroom
Kamalini Rout	Bishwanath Majhi	Bhutpada,Block-Satyabadi	33	9858 5776 4041	77358533 67	7th	2	10650	Mushroom

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Sardhanjali Gil	Lakshman Gil	Kanhupur, Block-Satyabadi	32	8964 9626 9345	86580988 75	10th	2	14400	Mushroom
Sangram kesari patra	Parsuram patra	Resinga, block-Nimapada	39	370412032 262	99377419 15	Graduation	1	10420	Poultry
Tapan kumar behera	Panchan behera	Kantunia, Nimapada	35	998995347 554	95569081	Matriculation	2	10510	Poultry
Rajalaxmi Mohanty	w/o-prafulla kumar Mohanty	Kantunia, Nimapada	40	474814629 613	98613136 81	12 th	New	13012	Poultry
Partha sarathi behera	Mahendra behera	Sama, Block-Gop	25	316331730 109	73268664 23	ITI	New	10600	Poultry
Gitanjali pradhan	Bichitra pradhan	Arol, Puri sadar	27	265639111 392	81443914 11	5 th	2	13800	Poultry
Santosh Kumar Das	Bina Das	At- Janakideipur, BI- Puri Sadar	34	39668424437 9	824908769 1	8 th	3	44,000	Fish production with fish seed
Ramakrushna Pradhan	Prasanta ku Pradhan	At – Singhbrahmapur, BI- Delanga	23	82535610130 3	955687372 6	10 th	3	37,000	Fish production with fish seed
Ms Smitanjali Swain	Naresh Ch Swain	At – Akhupada, BI- Puri Sadar	33	94594806399 9	876393880 3	10+2	3	38,000	Fish production with fish seed
Kapilash Baral	Kailash Baral	At – Billipada, BI - Satyabadi	35	33517254201 3	768105685 9	9 th	4	18,000	Fish production with fish seed
Ms Sradhanjali Choudhary	Krushna Ch Das	At- Paikarapur, BI – Puri Sadar	36	70292528616 8	965873068 2	10+2	3	21,600	Fish production with fish seed

(G) Dignitaries visited to ARYA villages



Interaction of Principal scientist Dr. P. P. Pal, ATARI, Kolkata with KVK Scientist



Visit of DLC Members to Mushroom Unit

- Nodal Officer ARYA, ATARI, Kolkata
- Assistant Director Horticulture, Puri

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Block Livestock Veterinary, Officer, Satyabadi
Secretary, Mushroom Association, Odisha

(H) Newspaper coverage

 <p>କୁକୁଡ଼ା ଚିଆଁ ବଣ୍ଟନ UP INPUT DISTRIBUTION ER ICAR-ARYA PRO Vigyan Kendra</p>	
<p>Distribution of Chicks</p>	<p>Popularization of Paper Bags through local channel for Mushroom marketing</p>

(I) Publications

		
<p>Distribution of Booklet on Mushroom Cultivation</p>	<p>Inauguration of Mushroom App by Hon'ble Minister Agriculture & Higher education, Dr Arun Sahoo</p>	<p>Mushroom App KVK PURI</p>

Sl.No	Name of the Publications	Author
1	Byabasaya bhitika Chhatu Chasa O Bihana Uptadana	Sumita Acharya, Sanjay Kumar mohanty
2	Backyard Poultry Management	Manas Ranjan Behera, Sanjay Kumar mohanty
3	Apiary in Coconut Orchard	Sumita Acharya, Sanjay Kumar mohanty
4	Nursery Pond Management & Yearling production Management	Manas Ranjan Behera, Sanjay Kumar mohanty

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(K) Migration status

Unemployment Scenario among rural Youths

	Male	Female	Total
Population	865380	833350	1698730
Unemployment			
Qualification	Male	Female	Total
Below Matric	3300	315	3615
Matric	6301	1722	8023
+2	12301	7612	19913
+3	6106	4711	10817
ITI	1325	2	1327
Diploma	460	70	530
	29793	14432	44225

Source; District Employment Office, PURI, Odisha

Migration Scenario of Puri District

Total no. of household surveyed	Migrant Households	Percentage of Household Migration	Total Number of Rural Households*	Estimated Number of Migrant Households	Average Number of Migrants per Panchayat	Number of Panchayats**	Estimated Number of Migrants
7820	2099	26.8	312855	83975	347.8	230	79688.0

As per census 2011 ** as per panchayat directory

(L) Quality Action Photographs



Visit of Exhibition stall by the Dignitaries
