

ACTION PLAN 2021-22
ATTRACTING AND RETAINING YOUTH IN AGRICULTURE (ARYA), ICAR
ON
SUSTAINABLE AGRICULTURAL EMPLOYMENT GENERATION FOR RURAL
YOUTHS IN COASTAL DISTRICT OF ODISHA

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

DISTRICT AT A GLANCE

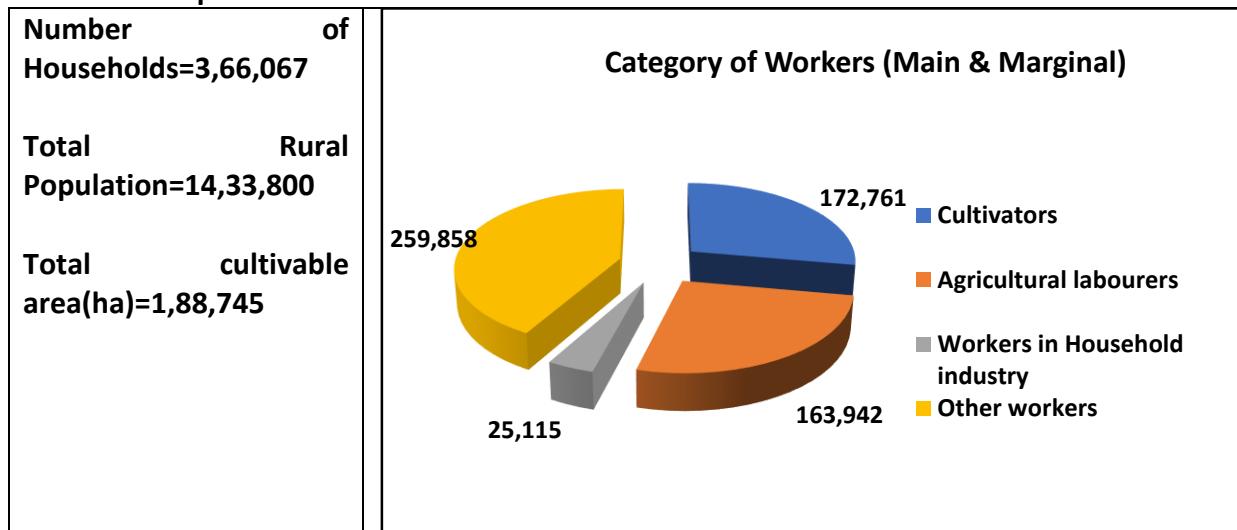
Agro-climatic zone	East and South East Coastal plain
Geographical area ('000 ha)	264.988
Cultivated area ('000 ha)	188.745

Agro ecological situation	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
Farming situation	Rainfed and irrigated
Cropping system	Rice-rice, rice- pulse, rice- oilseed, rice-vegetables
Major Crop/ enterprise	Rice, Betel vine, Coconut Vegetables Fish, Mushroom, Dairy, Poultry
Irrigation potential	145.49
Kharif ('000ha)	95.28
Rabi ('000ha)	

DEMOGRAPHIC STATUS

Total population (2011 Census)	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

General occupational Pattern of the district



Having cultivable land Without having cultivable land

Coconut orchard	Apiary
Beetle vine cultivation	Mushroom
Vegetable cultivation	Backyard poultry
Paddy seed production	Rural craft
Pulse production	Processing Unit of fruits & vegetables
Floriculture	Goatery
Fishery	Marine fish value added products

LOCATION OF 4 ENTERPRISES IN THE DISTRICT

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

ARYA PROJECT-WISE, SUB-HEAD WISE BUDGET ALLOCATION FOR THE YEAR 2021-22

3	PURI	Dubduba, Panchukera, Jayapur, Nuasahi, Panakera, Nahala, Padmapur, Madhipur, Balikud, Muninda, Badakanjia, Block-Satyabadi Dalabhanapur, Gadatoriha Block-Nimapada Gobind pur, Block-Delanga Ankia, Bira narasinghpur, Randio Block-Puri Sadar Abalapur, Barundi, Podagun, Uttarbada Block-Pipili Dahikia, Block-Kakatpur	Apiary
4	PURI	Taraboisasan, sanabhimsaspur, Gadachandapur, Talapada, jayapur, bharatipur, Raisha, Bangurusha, Hasanpur, Katunia, Gadatotihan, Gadabadaput, Resinga, Samakula, , Talajanag, Kumbharpada, Bhagabansundara, Patnaikia, Narasinghpur, Gadasanaput, Gadapanpur, Arola Blocks –Nimapada ,Puri Sadar, Gop, Satyabadi & Kanasa	Poultry

1. Enterprise Domain- Mushroom Production

- Spread in Area / No. Commercial growers-224
- Production-PSM-29242 q/yr
 - Oyster-14648 q/yr
 - Total-43890 q/yr
- Strength: Large no. of mushroom growers, 44 nos. of spawn unit, Availability of bundle straw, Congenial climatic condition, Existence of KVK,
- Opportunities: Coconut orchard, Nearer to Capital, Govt.Schemes, Easy access to CTMRT

Entrepreneurial activities

- Spawn production
- Mushroom Production
- Postharvest management & marketing
- Service provider
- Value addition

Status of Youths before adoption of ARYA Project	Different Modules for ARYA Youths for entrepreneurship development
<ul style="list-style-type: none"> ➤ Timely availability of spawn. ➤ Non availability of quality spawns. 	Module-1 (Mushroom Spawn Production) <ul style="list-style-type: none"> ➤ Establishment of one Mushroom Spawn Production Unit in ARYA Project area involving ARYA youths for quality Spawn Production
<ul style="list-style-type: none"> ➤ Lack of technical knowledge about scientific mushroom production. ➤ Farmers dependent on middle man for marketing at distant places. ➤ Marketing of mushroom in local markets at low price 	Module -2 (Mushroom Production & Marketing) <ul style="list-style-type: none"> ➤ Scientific Mushroom cultivation ➤ Post-Harvest Management practices for effective marketing (Grading, Packing, Processing, Drying and Pickling)
<ul style="list-style-type: none"> ➤ Non availability of raw materials at door steps ➤ High rate of inputs due to low volume purchase 	Module -3 (Establishment of Everything Mushroom Supply Centre for supply of inputs)

Sl. No.	Equipment	Quantity (nos.)	Rate	Approx. Amount(Rs.)
A.MUSHROOM PRODUCTION				
MUSHROOM PRODUCTION & VALUE ADDITION				
OPERATIONAL EXPENSES AS START UP FOR MUSHROOM PROCESSING UNIT				
1	Glass Bottles	100	15	1,500
2	Utensils	-	-	2,000
3	Packaging & Stickering	-	-	1,000
4	Preservatives	-	-	1,000
5	Poly pouches	500	-	1,000
6	Mixer Grinder	1	5,000	5,000
			Sub Total	11,500
OPERATIONAL EXPENSES AS START UP FOR MUSHROOM PRODUCTION UNIT				
1	Shed Net for Mushroom House (75%), Size-10'x165'	10 nos.	4,600	46,000
2	Sprayer (Manual) capacity- 16lit.	10 nos.	1800	18,000
3	Rose can (10 lt)	10	300	3,000
4	Plastic Tub	20 nos.	200	4,000
5	Mushroom Spawn	1000 Nos.	13	13,000
6	Polythene	50 kg	200	10,000
7	VermiBed(6'x4'x2')	10 nos.	1200	12,000
8	Vermiculture	10 Kg	500	5,000
			Sub Total	1,11,000
SKILL TRAINING FOR MUSHROOM PRODUCTION & VALUE ADDITION				
1	Training on Scientific Mushroom cultivation in Shed net House (2 days)	20	150/day	6000
2	Training on Vermin composting from Spent Mushroom Substrate (2 days)	10	150/day	3000
3	Training on Post Harvest Management & Value addition (3 days)	10	150/day	4500
3	Pen ,Pad & Folder	40 nos. each	80/trainee	3,200
4	Banner	4 Nos. (6'x3')	-	1,000
5	Resource person fee for Training	7 (4 classes /day)	Rs.1000/-	7,000
6	Exposure Visit	1	15,000	15,000
7	Resource person fee for Exposure Visit	02	500	1,000
			Sub Total	40,700
			Total	1,63,200

Enterprise domain: Poultry production

- **Spread in No. - 975430**
- **Production-o.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.

Status of Youths before adoption of ARYA Project	Different Modules for ARYA Youths for entrepreneurship development
<ul style="list-style-type: none"> • Migration to cities due to unemployment. • Lack of knowledge regarding scientific rearing of backyard poultry. • Traditional feed management in backyard poultry • Lack of knowledge about alternatives of poultry feed. 	Module1: Poultry production (scientific rearing of backyard poultry, selling of 21 day reared chicks and rearing under semi range system
<ul style="list-style-type: none"> • Low adoption of backyard poultry by farm women, SHG members • Unavailability of quality chicks at village level 	Module 2 : Hatchery unit (production of poultry chicks of Banaraja & Kadaknath) and marketing thereof . Collection of eggs from the farmers supplied brooding stocks
<ul style="list-style-type: none"> • Non availability of inputs at door steps. • Various agencies are involved to provide various inputs. 	Module 3 : One stop poultry shop (establishment of one stop poultry shop for availability of feed, medicine, equipments, eggs, live birds and service provider (Paravet)

ARYA PROJECT-WISE,SUB-HEAD WISE BUDGET ALLOCATION FOR THE YEAR 2021-22				
POULTRY PRODUCTION				
Sl.No.	Equipment	Quantity(nos.)	Rate	Approx. Amount(Rs.)
Poultry production				
R & O EXP. FOR POULTRY UNIT				
1	Day old chicks Var. (Banaraja and Kadaknath)- 2000 nos	10 units	-	58500
2	Feeder	20 nos.	270	5400
3	Drinker	20 nos.	250	5000
4	Poultry Feed	10 units		18,000
5	Medicine	10 units		6000
			Sub Total	92,900
ALTERNATIVE FEED MANAGEMENT FOR BACKYARD POULTRY				
1	Azolla polythene	10	1000	10,000
2	Azolla	10		1000
			Sub Total	11,000
SKILL TRAINING				
1	Training on azolla cultivation(1day)	10	150/day	1500
2	Training on Rearing of Backyard Poultry (2 days)	20	150/day	6,000
3	Training on Management of Hatchery Unit (2 days)	10	150/day	3,000
4	Pen ,Pad & Folder	40	80/trainee	3200
5	Banner	4 nos.	-	1000
6	Resource person fee for Training	05	1000/-	5000
7	Resource person fee for Exposure Visit	02	500	1,000
8	Exposure Visit	1	15,000	15,000
			Sub Total	35,700
			Total	1,39,600

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

Status of Youths before adoption of ARYA Project	Different Modules for ARYA Youths for entrepreneurship development
<ul style="list-style-type: none"> • Less income from Sole flower cultivation & Coconut Orchard • Lack of knowledge regarding scientific rearing of honey bee. • Non availability of quality honey 	Module1: Honey production &Honey processing
<ul style="list-style-type: none"> • Non availability of bee accessories at door step. • Various agencies are involved to provide various inputs. • Few skilled persons on bee keeping are available in the district 	Module 2 : Single window bee solution for supply of inputs and services

ARYA PROJECT-WISE, SUB-HEAD WISE BUDGET ALLOCATION FOR THE YEAR 2021-22				
BUDGET				
C. APIARY				
R & O Exp.(GENERAL)				
SKILL TRAINING				
1	Training for Honey bee rearing (3 days)	20	150/day	9,000
2	Training on Bee Management & By-products preparation (2 days)	20	150/day	6,000
2	Pen ,Pad & Folder	40 nos. each	80/trainee	3,200
3	Banner	03(6'x3')	-	750
4	Resource person fee for 4 days	05 (4 classes /day)	Rs.1000/-	5,000
5	Exposure Visit	1	15,000	15,000
6	Resource person fee for Exposure Visit	2	500	1,000
7			Sub Total	39,950
Honey bee Rearing start up input				
1	Bee Box	20 nos.	3000	60,000
2	Bee Colony	20 nos.	1000	20,000
3	Smoker	10nos.	350	3,500
4	Bee veil	10nos.	150	1,500
5	Queen Gate	20 nos.	25	500
6	Honey Extractor	10 nos.	2000	20,000
7	Queen excluder	10 nos.	250	2,500
		-	Sub Total	1,08,000
Apiary Input Supplier(Bee box & Colony)				
2	Sander	1	4,000	4,000
3	Router	1	8,000	8,000
			Sub total	12,000
Honey Processing Start up input				
1	Utensils	2	1,500	3,000
2	Glass Bottle	100	20	2,000
3	Plastic Bottle	100	10	1,000
4	Stickering & Labeling	-	-	1,000
			Sub total	7,000
			Total	1,66,950

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

Status of Youths before adoption of ARYA Project	Different Modules for ARYA Youths for entrepreneurship development
<ul style="list-style-type: none"> ➤ Lack of technical knowhow about raising of stunted fingerlings (SFLs) and yearlings (SYLs) of carps ➤ Low fish production due to improper pond management practices ➤ Marketing of fish at pond site and in local market ➤ No idea about live fish transportation and marketing 	<p>Module - (SFLs/SYLs and table-size fish production with marketing of Live fish)</p> <ul style="list-style-type: none"> ➤ Production of SFLs /SYLs of carps and its marketing ➤ Scientific pond management with composite pisciculture for production of table-size fishes ➤ Marketing of Live fish through innovative transportation device for getting better price

ARYA PROJECT-WISE, SUB-HEAD WISE BUDGET ALLOCATION FOR THE YEAR 2021-22				
Sl. No.	Equipments / Implements / Critical Inputs	Quantity (nos.)	Rate	Approx. Amount(Rs.)
A. QUALITY FISH SEED (SFL/SYL) PRODUCTION				
OPERATIONAL EXPENSES AS START-UP INPUTS FOR STUNTED FINGERLINGS / YEARLINGS PRODUCTION IN CAPTIVE NURSERY				
1	Probiotics (PROFS Power, Biostadt India Ltd.)	5 kg	3200	16750
2	CIFAX	5 litres	1400	7000
3	Vitamin-mineral premix (Agrimin forte, Virbac India Ltd.)	50 kg (5kg pkt. X 10 nos.)	700/5 kg pkt.	7000
			Sub Total (i)	30,750
OPERATIONAL EXPENSES AS START-UP INPUTS FOR TABLE-SIZE FISH PRODUCTION				
1	Stunted fingerlings of IMC with oxygen polypacks	20,000 nos.	2/- per fish and 20/- per oxypolypack	42000
2	Conditioning Hapa	10 nos	850	8,500
3	Water quality test kit (pH and Alkalinity)	10 nos	900	9,000
4	Fry Drag net (60 ft ×18 ft)	10 nos	4000	40,000
5	Plankton net	10 nos	180	1,800
			Sub Total (ii)	1,01,300
			Total (i + ii)	1,32,050
SKILL TRAINING FOR FISH PRODUCTION WITH FISH SEED				
1	Training on package of practices for Multiple Cropping pattern in Pisciculture (3 days)	20	150/day	9,000
2	Training on Farm made fish feed preparation methods (3 days)	20	150/day	9,000
3	Pen, Pad & Folder	40 nos. each	80/trainee	3,200
4	Banner	3 nos.	-	750
5	Resource person fee for 6 days	06	1000	6,000
6	Resource person fee for Exposure Visit	02	500	1,000
7	Exposure Visit	1	15,000	15,000
			Sub total (iii)	43,950
			Total (i + ii + iii)	1,76,000

SUMMARY OF BUDGET 2021-22

Sl. no.	Particulars	R&O Exp.(General)
1	Enterprise 1: Mushroom production & Value addition	1,63,200
2	Enterprise 2: Poultry production	1,39,600
3	Enterprise 3: Apiary	1,66,950
4	Enterprise 4: Fish production with fish seed	1,76,000
6	TA	70,000
7	Hiring of Vehicle	80,000
8	Salary of Young professional (03 Month)@Rs.25,000/Month	75,000
9	Workshop	15,000
10	Exhibition	15,000
11	Documentation (Certificate, Photography)/Enterprise	19,250
	Total	9,20,000

Sd/-
Signature
Senior Scientist & Head
KVK,Puri