

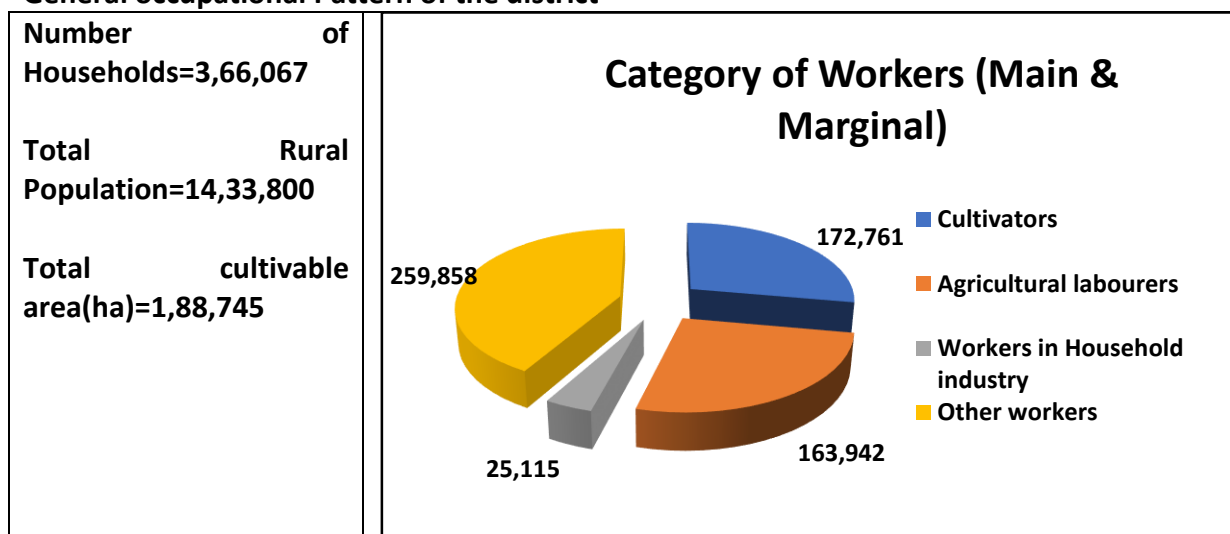
**ACTION PLAN 2020-21**  
**ATTRACTING AND RETAINING YOUTH IN AGRICULTURE (ARYA), ICAR**  
**ON**  
**SUSTAINABLE AGRICULTURAL EMPLOYMENT GENERATION FOR RURAL**  
**YOUTHS IN COASTAL DISTRICT OF ODISHA**  
**DISTRICT AT A GLANCE**

<b>Agro-climatic zone</b>	<b>East and South East Coastal plain</b>
<b>Geographical area ('000 ha)</b>	<b>264.988</b>
<b>Cultivated area ('000 ha)</b>	<b>188.745</b>
<b>Agro ecological situation</b>	<b>1. Coastal Alluvial Command</b> <b>2. Coastal Alluvial Non-command</b> <b>3. Coastal Alluvial Saline</b> <b>4. Rainfed Laterite</b> <b>5. Rainfed Red and Laterite</b>
<b>Annual Av. Rainfall (mm)</b>	<b>1408.8mm.</b>
<b>Soil type</b>	<b>Red, laterite, brown forest, alluvial and saline</b>
<b>Farming situation</b>	<b>Rainfed and irrigated</b>
<b>Cropping system</b>	<b>Rice-rice, rice- pulse, rice- oilseed, rice-vegetables</b>
<b>Major Crop/ enterprise</b>	<b>Rice, Betel vine, Coconut Vegetables Fish, Mushroom, Dairy, Poultry</b>
<b>Irrigation potential</b> <b>Kharif ('000ha)</b> <b>Rabi ('000ha)</b>	<b>145.49</b> <b>95.28</b>

**DEMOGRAPHIC STATUS**

<b>Total population</b> <b>(2011 Census)</b>	<b>1697983</b>
<b>Male</b>	<b>865209(50.96%)</b>
<b>Female</b>	<b>832774(49.04%)</b>
<b>Sex ratio</b>	<b>963 (Female per ,000 male)</b>
<b>Population density</b>	<b>488</b>
<b>Literacy rate (%)</b>	<b>84.67</b>
<b>Male Literacy (%)</b>	<b>90.85</b>
<b>Female Literacy (%)</b>	<b>78.28</b>
<b>No. of farm families</b>	<b>148935</b>
<b>Small farmer</b>	<b>40487</b>
<b>Marginal farmer</b>	<b>97439</b>
<b>Big farmer</b>	<b>2073</b>

### 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

Cluster Village	Enterprise to be conducted	Beneficiaries (No)
Kahnapur, Jipur, Tulasichaura, Gobind pur, Balikada, Bastapada, Chadrabhampur, Bhutpada, Biswanathpur, Sadanandapur, Sanabhimdaspur Block – Pipili, Satyabadi, Delanga & Puri Sadar	Mushroom	40
Bilipada, Singhberhampur, Janakideipur, Dalabhanapur, Akhupada, Sundara, Charishra, Paikarapur, Bijayaramchandrapur, Balipada, Biranarasinghpur, Samkula,	Fish production with fish seed	40

Kanalpada,Gubadiha,Samakula,Basantapur Block- Kanas, Delanga,Gop,Nimapada		
Harishankarpur,Kanjia,Dipursasan,Nuasahi,Dubduba,Ba runde,Podagun,Balikud, Jayapur, Muninda, Nahala,Dalabhanapur,Arokia Biranarasinghpur, Panchukera,Madhipur Block-Puri Sadar, Delanga,Satyabadi & Nimapada	Apiary	40
Katunia,Gadatotiha, Bhanpur, Purushtampur,Basantpur Gadabadaput, Kumarpada,Balipada,Gadapadanpur,Dhirpur, Munadpada,Kantabania,Kasiasasan,Arola Block –Nimapada ,Puri Sadar& Kanasa	Poultry	40

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

ARYA PROJECT-WISE,SUB-HEAD WISE BUDGET ALLOCATION FOR THE YEAR 2020-21				
Sl. No.	Equipment	Quantity (nos.)	Rate	Approx. Amount(Rs.)
A.MUSHROOM PRODUCTION				
Module-1 (Mushroom Spawn Production)				
EQUIPMENTS (CAPITAL)				
Mushroom Spawn production unit involving ARYA Youths				
1	Autoclave Size (18'' X 24'')	01	90,000	90,000
2	Laminar floor (3'x2'x2')	01	70,000	70,000
3	Hot Air oven (18''x18'')	01	24,000	24,000
4	Furniture			
	Stool	01	2000	2,000
	Iron Rack	02	5500	11,000
			<b>Sub Total</b>	<b>1,97,000</b>
Operational Expenses				
1	Utensils	-	-	3,675
2	Weighing Balance	1	4,000	4,000
3	Inoculation Needle	2	100	200
4	Spirit Lamp	2	250	500
5	Chemicals(Formalin, Spirit)	-	-	1,000
			<b>Sub Total</b>	<b>9,375</b>
Module -2 (Mushroom Production & Value addition)				
Mushroom Processing Unit (CAPITAL)				
1	Solar Dryer	02	25,000	50,000
2	Aluminium Foil Sealing Machine	01	8,000	8,000
3	Grinder	01	28,000	28,000
4	Table	01	7,000	7,000
			Sub Total	93,000
			<b>Total</b>	<b>2,90,000</b>
Operational Expenses				
1	Glass Bottles	100	15	1,500
2	Utensils	-	-	2,000
3	Packaging & Sticking	-	-	1,000
4	Preservatives	-	-	1,000
5	Poly pouches	500	-	1,000
6	Mixer Grinder	1	5,000	5,000
			Sub Total	11,500
Mushroom Production Demo Unit in KVK Campus(CAPITAL)				
1	Estimate for irrigation system and other	1 No	60,000	60,000

	additional civil work in mushroom production unit			
<b>Operational Expenses as Start up for Mushroom Production Unit for 10 beneficiaries</b>				
1	Shed Net for Mushroom House (75%)	10 nos.	4,400	44,000
2	Sprayer (Manual) capacity- 16lit.	10 nos.	1500	15,000
3	Rose cane(10 lt)	10	300	3,000
4	Digital Hygrometer	10 nos.	1200	12,000
5	Plastic tray	20 nos.	100	2,000
6	Polythene	100 kg	130	13,000
7	VermiBed(6'x4'x2')	10 nos.	1000	10,000
8	Vermiculture	10 Kg	500	5,000
			<b>Sub Total</b>	<b>1,04,400</b>
<b>Skill training for Mushroom production &amp; value addition</b>				
1	Training on Scientific Mushroom cultivation and post harvest management of mushroom(3 days)	30	150/day	11250
2	Training on Vermicomposting from Spent Mushroom Substrate(1 days)	10	150/day	1,500
3	Pen ,Pad & Folder	40 nos. each	80/trainee	3,200
4	Banner	3 Nos. (6'x3')	-	1,500
5	Resource person fee	06 (4 classes /day)	Rs.500/-	3,000
6	Exposure Visit	1	13,000	13,000
7	Transportation fee for resource person	02	1,500	3,000
			<b>Sub Total</b>	<b>36,450</b>

## 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.

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

ARYA PROJECT-WISE,SUB-HEAD WISE BUDGET ALLOCATION FOR THE YEAR 2020-21				
POULTRY PRODUCTION				
Sl.No.	Equipment	Quantity(nos.)	Rate	Approx. Amount(Rs.)
<b>Module1: Poultry production</b>				
<b>Capital expenditure</b>				
1	Estimate for water supply, additional civil work and electrification of brooding house	1 No	50,000	<b>50,000</b>
<b>R&amp; O Exp.</b>				
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
			<b>Sub Total</b>	<b>92,900</b>
Alternative feed management for backyard poultry				
1	Azolla polythene	10	1000	10,000
2	Azolla	10		1000
			<b>Sub Total</b>	<b>11,000</b>
<b>Module 2 : Hatchery unit</b>				
<b>Capital expenditure</b>				
1	Incubator cum Hatcher (400 capacity)	1	1,10,000	1,10,000
2	Inverter	1		70,000
3	Refrigerator	1		30,000
			<b>Sub Total</b>	<b>2,10,000</b>
<b>R&amp; O Exp.</b>				
1	Egg	400	15	6000
2	Chick transport Tray	8	500	4000
			<b>Sub Total</b>	<b>10,000</b>
<b>Training</b>				
1	Training on azolla cultivation(1day)	15	150/day	2250
2	Training on Rearing of Backyard Poultry (3 days)	25 farmers	150/day	11,250
3	Pen ,Pad & Folder	40	80/trainee	3200
4	Banner	2 nos.	500	1000
5	Resource person fee for 4 days	04	Rs.500/-	2000
6	Transportation			3,000
7	Exposure Visit	1	13000	13000
			<b>Sub Total</b>	<b>35,700</b>

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



ARYA PROJECT-WISE,SUB-HEAD WISE BUDGET ALLOCATION FOR THE YEAR 2020-21				
BUDGET				
C. APIARY				
1	Aluminium Foil Sealing Machine	1 No.	8,000	8,000
2	Stainless Steel Honey Extractor	2 Nos	4,000	8,000
			Total	16,000
DEMO UNITS				
4	Apiary Unit in KVK Farm	5 Nos.	5000	25,000
			<b>Sub total</b>	<b>41,000</b>
R & O Exp.(GENERAL)				
B. Apiary				
1	Training for Honey bee rearing (2 days)	20	150/day	6,000
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	02(6'x3')		1,000
4	Resource person fee for 4 days	04 (4 classes /day)	Rs.500/-	2,000
5	Exposure Visit	1	15,000	13,000
6	Conveyance to resource persons	2	1,500	3,000
7			Sub Total	34,200
Honey bee Rearing start up unit input for 10 Beneficiaries				
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
8	Planting Materials & Seeds	-	-	5,000
8		-	Sub Total	1,13,000
Apiary Input Supplier(Bee box & Colony) for 1 Beneficiary				
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

### 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"> <li>➤ Lack of technical knowhow about raising of fry, fingerlings and yearlings of IMC and exotic carps</li> <li>➤ Low fish production due to improper pond management practices</li> <li>➤ Marketing of fish at pond site and in local market</li> <li>➤ No live fish marketing</li> </ul>	<b>Module -1 (Fish seed and fish production with marketing of Live fish)</b> <ul style="list-style-type: none"> <li>➤ Production of fry, fingerlings and yearlings of IMC, exotic carps and its marketing</li> <li>➤ Scientific pond management with composite pisciculture</li> <li>➤ Marketing of Live fish through innovative transportation device for getting better price</li> </ul>
<ul style="list-style-type: none"> <li>➤ High cost of production due to higher price of feed</li> <li>➤ Unavailability of pelleted feed in local market</li> </ul>	<b>Module -2 (Fish feed preparation and Marketing )</b> <ul style="list-style-type: none"> <li>➤ Preparation of pelleted fish feed by using i. Small scale feed grinder and ii. Small scale feed pelletizer</li> <li>➤ Marketing of pelleted fish feed</li> </ul>
<ul style="list-style-type: none"> <li>➤ Unavailability of different aquaculture inputs at one place</li> </ul>	<b>Module-3 (Establishment of One Stop Aqua Shop (OAS))</b> <ul style="list-style-type: none"> <li>➤ Establishment of One Stop Aqua Shop (OAS) for availability of different types of feeds, medicines, probiotics, multiminerals and all other aquaculture inputs and services</li> </ul>

<b>ARYA PROJECT-WISE,SUB-HEAD WISE BUDGET ALLOCATION FOR THE YEAR 2020-21</b>				
Sl. No.	Equipment	Quantity (nos.)	Rate	Approx. Amount(Rs.)
<b>A. FISH PRODUCTION WITH FISH SEED</b>				
<b>Module -1 (Fish seed and fish production with marketing of Live fish)</b>				
<b>EQUIPMENTS (CAPITAL)</b>				
Fish seed production and marketing involving ARYA Youths				
1	Oxygen cylinder	5 nos.	10,000	50,000
			<b>Sub Total</b>	<b>50,000</b>
Operational Expenses for Yearling and Fish production				
1	Probiotics	5 kg	425	2125
2	CIFAX	5 Lt	1400	7000
3	Multimineral	50 kg	750/10 kg bag	3750
			Sub Total	12,875
<b>Module -2 (Fish Feed preparation and Marketing )</b>				
Pelleted Fish Feed Preparation (CAPITAL)				
1	Small Scale Feed Grinder (Capacity- 20-30 kg/hr)	2 nos	21,000	42,000
2	Small Scale Feed Pelletizer (Capacity- 20-30 kg/hr)	2 nos	20,000	40,000
3	Table	2 nos	7,500	15,000
			<b>Sub Total</b>	<b>97,000</b>
<b>Nursery pond Demo Unit in KVK Campus(CAPITAL)</b>				
1	Nursery Pond construction in KVK campus	1 No.(0.06 ha)	-	40,000
Operational Expenses as start-up inputs for Yearling and Fish production for 10 beneficiaries				
1	Fingerlings of IMC with oxygen packs	20,000 nos	1280 per 1000 nos	25,600
2	Conditioning Happa	10 nos	850	8,500
3	Water quality kit (pH and Alkalinity)	10 nos	900	9,000
4	Fry Drag net (60 ft ×18 ft)	10 nos	5500	55,000
5	Plankton net	10 nos	180	1,800
6	Floating fish feed	10 bags	1265	12,650
			<b>Sub Total</b>	<b>1,12,550</b>
<b>Skill training for Fish production with fish seed</b>				
1	Training on package of practices for fry, fingerling and Yearling production (3 days)	15 farmers	150/day	6,750
2	Training on Farm made fish feed preparation methods (3 days)	20 farmers	150/day	9,000
3	Pen, Pad & Folder	35 nos. each	80/trainee	2,800
4	Banner	2 nos	500	1,000
5	Resource person fee for 5 days	05	Rs.500/-	2,500
6	Conveyance to resource	-	-	3,000

	persons			
7	Exposure Visit	1	13,000	13,000
			Sub total	38,050

#### OFFICE EQUIPMENT (CAPITAL)

1	White board adjustable both sided(2*3)	1no	5500	5500
2	Spiral binder machine	1nos.	3500	3500
3	Laptop kit headache with mic wireless mouse	1no	2800	2800
4	Brochure display stand foldable	2nos.	1700	3400
5	Two tier stackable letter tray	4nos.	700	2800
			Sub total	18,000

#### SUMMARY OF BUDGET 2020-21

Sl. no.	Particulars	Capital	R&O Exp.(General)
1	Enterprise 1: Mushroom production	3,50,000	1,61,725
2	Enterprise 2: Poultry production	2,60,000	1,49,600
3	Enterprise 3: Apiary	41000	1,66,200
4	Enterprise 4: Fish production with fish seed	187,000	1,63,475
5	Office equipment	18000	-
6	TA	-	1,00,000
7	Hiring of Vehicle	-	1,00,000
8	Salary of Young professional (05 Month)	-	50,000
9	Workshop	-	10,000
10	Exhibition	-	10,000
11	Documentation (Certificate, Photography)/Enterprise	-	21,000
	<b>Total</b>	<b>8,56,000</b>	<b>9,32,000</b>

**Sd/-**  
**Signature**  
**Senior Scientist & Head**  
**KVK,Puri**