ANNUAL ACTION PLAN 2017-18
KVK, BHADRAK

Contents

PERIOD – April2017to March, 2018
Summary of the activities

Activity	Target	
	Number of activity	No. of farmers/ beneficiaries
OFTs	**10**	**73**
FLDs – Oilseeds (activity in ha)	**-**	**-**
FLDs – Pulses (activity in ha)	**2**	**20**
FLDs – Cotton (activity in ha)	**-**	**-**
FLDs – Other than Oilseed and pulse crops(activity in ha)	**9**	**80**
FLDs – Other than Crops (activity in no. of Unit/Enterprise)	**7**	**119**
Training-Farmers and farm women	**67**	**2105**
Training-Rural youths	**09**	**180**
Training- Extension functionaries	**12**	**240**
Extension Activities	**2673**	**-**
Seed Production (Number of activity as seeds in quintal)	**390 q**	**-**
Planting material ((Number of activity as quantity of planting material in quintal)	**-**	**-**
Seedling Production (Number of activity as number of seedlings in numbers)	**38000**	**-**
Sapling Production (Number of activity as number of sapling in numbers)	**8500**	**-**
Other Bio- products (No. of quantity)	**Vermiculture- 5 kg Vermicompost- 30 q**	
Live stock products	**600 nos. 21 days brooded chicks**	
Activities of Soil and Water Testing Laboratory	**Soil- 1000 Water- 200**	**-**
Rainwater Harvesting System	**-**	**-**
Kisan Mobile Advisory (KVK-KMA)	**80**	**-**

Activity	Target	
	Number of activity	No. of farmers/ beneficiaries
SAC Meeting (Date & no. of core/ official members)	**1**	**30**
Literature to be Developed/Published	**135**	**-**
Convergence programmes / Sponsored programmes	**8**	**50**
Utilization of Farmers Hostel	-	-
Utilization of Staff Quarters	-	-
Details of KVK Agro-technological Park	-	-
Crop Cafeteria-	**02**	-
Farm Innovators- list of 10 farm innovators from the District	**1**	-
Status of Revolving Funds	-	-
Awards and Recognitions	-	-
Case study / Success Story to be developed	-	-
KVK Progressive Farmers interaction	-	-
Outreach of KVK in the District (No. of blocks, no. of villages)	-	-
Technology Demonstration under Tribal Sub Plan	-	-
KVK Ring	-	-
Important visitors to KVK	-	-
Status of KVK Website	-	-
Status of RTI	-	-
E-connectivity	-	-
Details of Technology Week Celebrations	-	-
Interventions on Drought Mitigation	-	-
Proposal of NAIP	-	-
Proposal of NICRA	-	-
Well labeled photographs	-	-
Other Activities	-	-

1. GENERAL INFORMATION

1.1. Staff Position (as on 01.04.2017)

Sanctioned post	Name of the incumbent	Discipline	Highest degree	Subject of Specialization	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
Senior Scientist and Head	Dr. Aurovinda Das	Agronomy	Ph.D	Agronomy	15600-39100 & GP-8000	35170	03.09.12	Permanent	Others
Scientist 1	Sri Ambika Prasad Nayak	Fishery Science	M.F Sc	Aquaculture	15600-39100 & GP-6000	29950	24.03.05	Permanent	OBC
Scientist 2	Smt Saswati Pattnaik	Home Science	Ph.D	Child Development & Family Relation	15600-39100 & GP-6000	29950	05.09.14	Permanent	Others
Scientist 3	Dr. Debiprasad Dash	Soil Science	Ph.D	Soil Science & Agril. Chemistry	15600-39100 & GP-6000	26590	11.02.14	Contractual	Others
Scientist 4	Dr. B.N.Sahoo	Horticulture	Ph.D	Horticulture	15600-39100 & GP-6000	29070	18.06.12	Permanent	Others
Scientist 5	Dr. Tapan kumar Palai	Animal Science	Ph.D	Animal Biochemistry	15600-39100 & GP-6000	22250	17.06.15	Contractual	Others
Scientist 6	Vacant								
Programme Assistant	Sri Gayadhar Shial	Forestry	M. Sc (Forestry)	Agro-Forestry	9300-34,800 & GP-4200	18180	01.10.12	Permanent	SC
Farm Manager	Sri Debashis Nayak	Agronomy	M.Sc (Ag)	Weed Science	9300-34,800 & GP-4200	15670	31.07.13	Permanent	Others
Computer Programmer	Sri Gopal Krushna Ojha	Computer Application	M.C.A.	Computer Application	9300-34,800 & GP-4200	20030	12.08.16	Permanent	OBC
Accountant / superintendent	Sri Somanath Mandal	-	B.A	-	9300-34,800 & GP-4600	23910	01.08.09	Permanent	SC
Stenographer	Smt Rajashree Singh	-	B.A.	-	5200-20200 & GP-2400	10060	11.10.06	Contractual	OBC
Driver	Sri Bijaya Kumar Barik	-	-	-	5200-20,200 & GP-1900	9300	01.07.15	Contractual	Others
Driver	Sri Sradhansu Sekhar Pattnaik	-	-	-	5200-20,200 & GP-1900	8760	27.01.11	Contractual	Others
Supporting staff	Sri Prasanta Kumar Dalai	-	9th Pass	-	4440-7440 & GP-1300	7320	28.07.08	Contractual	OBC
Supporting staff	Sri Harihara Nayak	-	9th Pass	-	4440-7440 & GP-1300	7530	17.07.13	Contractual	Others

1.2. DISTRICT PROFILE (detail of geographical area, cultivation, Land, resources, opportunities, irrigation, populations etc.)–

Agro-climatic zone	No . of Blocks	No. of Panchayats	Population	Literacy	SC and ST Population	No. of farmers	Average land holding, ha
North Eastern coastal plain zone	7	193	1506522	83.25	311864	148239	1.187

1.3. DETAILS OF ADOPTED VILLAGE during 1.4.2017 to 31.3.2018 (Approved by competent Authority in meetings/workshops)

Village Name	Year of adoption	Block Name	Distance from KVK	Population	Number of farmers (having land in the village)
Thaila	2017	Bhandaripokhari	44	1363	235
Kuanrda	2017	Bonth	40	1200	150
Orali	2017	Tihidi	40	1070	160
Solagaon	2017	Dhamnagar	45	1200	146
Junuda	2017	Chandbali	60	430	53

1.4. THRUST AREAS identifiedby KVK (Approved by competent Authorityin meetings/workshop)

THRUST AREA
Doubling Farmers income
Agronomic management of flood affected Rice
Varietal evaluation for salt affected rice areas
Area expansion of rainfed areas during rabi through RCT
Nutrient management of pulses and area expansion under rainfed rice-fallow
Promotion of farm mechanization in rice
Management of Pest-diseases of rice
Site specific nutrient management of rice
Promotion of vermicompost as organic source of nutrients
Soil health management and management of problematic soil
Pest management of vegetable crops
Scientific management practices in pisciculture
Promoting pond based integrated farming system
Promotion of scientific and low cost feeding practices in livestock through promotion of fodder and Azolla production

Promotion of Backyard poultry rearing system in poor farmers
Technology for enhancing mushroom production

1.5. PROBLEM IDENTIFIED by KVK (Approved by competent Authority in meetings/workshop)

Crop/ Enterprise	Problem identified	Methods of problem identification	Location Name of Village & Block
Paddy	• Labour scarcity during peak season for operations like transplanting, weeding, harvesting ▪ Flash flood damaging the paddy crop at early and late condition ▪ Biotic stress such as insect, disease (BPH/WBPH, Stem borer, Sheath blight and Blast) ▪ Imbalanced fertilizer application with no micronutrient application ▪ High cost of cultivation in direct seeded rice due to severe weed infestation and practice of *beushaning*	Benchmark survey, FGD, Problem analysis	Solagaon, Orali, Kuanrada, Thaila
Pulses and Oilseeds	▪ Extensive rice fallows in rainfed shallow lowland to low lands due to stray cattle menace ▪ Low or no fertilizer application to blackgram in paira system ▪ Moisture stress often affecting the productivity of blackgram in paira system ▪ Poor soil physical condition for pulses due to puddle rice ▪ Severe YMV incidence in summer greengram ▪ High infestation of pod borer in blackgram & greengram ▪ Acid soil causing poor nodulation and yield in pulses ▪ Use of low yielding degenerated variety (M-27) in mustard	FGD, Problem analysis, Benchmark survey, Farmers footfall,	Solagaon, Orali
Vegetables and fruits	▪ High incidence of pest and disease in vegetabels and fruits ▪ Using traditionalvarities of vegetables leading to less profit	Benchmark survey and FGD	Thaila, Kuanrada
Fish	▪ Low income from production of table-size fishes in small ponds ▪ High incidence of Fish lice infestation and EUS ▪ Prevellance of submerged aquatic weeds, insects in fish ponds ▪ Use of nutritionally imbalanced traditional fish feed (Oil cake and rice bran)	FGD, Problem analysis, Benchmark survey	Thaila, Kuanrada
Livestock and Poultry	▪ Bull menace and higher incidence of natural breeding ▪ Higher incidence of FMD (Foot and Mouth Disease), mastitis and contagious diseases during rainy season ▪ High calf and chick mortality due to contagious diseases ▪ High cost of concentrates leaindg to unprofitable milk production	FGD, Problem analysis	Thaila, Kuanrada, Solagaon, Orali, Junuda

	▪ Slow growth rate in goats with out any feed supplementation except browsing and higher incidence of endoparasites ▪ Slow growth rate andpoor egg production in desi birds leading to less income generation		

2.On Farm Testing

2.1 Information about OFTto be conducted

	Year/ season	Problem diagnose	Category of technology (Assessment / Refinement)	Thematic Area	Crop/ enterprise	Farming Situations	No. of trials	Title of OFT	Details of technology	Source of technology	Observation parameters
1	Rabi, 2017-18	Moisture stress affects performance of blackgram grown under residual soil moisture	Assessment	ICM	Rice	Rainfed shallow low land; rice-blackgram paira cropping system	07	Assessment of hydrogel for moisture conservation under rice-blackgram paira cropping system	**FP**:Sowing under residual soil moisture condition without moisture conservation measures **TO** 1:Hydrogel Seed coating @20 g/kg seed and broadcast **TO** 2:Hydrogel mixing with soil (1:10) and broadcast along with seed	IARI, 2012	Soil moisture content at 30, 45 DAS, No. of branches/plant, no. of pods/plant, no. of grains/pod, grain yield
2	Rabi, 2017-18	Acidic soil adversely affecting growth and yield of greengram	Assessment	Soil management	Greengram	Irrigated medium land, rice-summer greengram	07	Assessment of seed coating of greengram with lime in rice-greengram CS under acid soil	**FP**:Soil test based fertilizer recommendation with no Rhizobium inoculation **TO** 1:STBF+Inoculation of Rhizobium **TO** 2:STBF+Inoculation of Rhizobium with Lime seed coating	OUAT, 2016	Farmers field germination test, nodulation/plant, Chlorophyll content, No of pods/plant, test weight, Yield q/ha
3	Rabi, 2017-18	Severity of wilt complex leading to yield loss	Assessment	Varietal Evalulation	Tamato	Irrigated medium land, rice-tomato CS	07	Assessment of triple disease resistant tomato hybrids inrice-tomato cropping system	**FP**:Use of bacterial wilt ,early blight and ToLCV susceptible variety of tomato cv. Avinash **TO** 1:Arka Rakshak **TO** 2:Arka Samrat	IIHR, 2012	Wilt incidence (%), PDI of early blight and ToLCV, fruit weight, Yield (q/ha),
4	Rabi, 2017-18	Lack of information about	Assessment	Hi tech horticulture	vegetable	Vegetable based cropping	02	Assessment of vegetable-based cropping	**FP**:Practices of Monocropping under protected condition	ICAR, RCNEH, 2009	No. of fruits/plant Avg. fruit weight (g), Yield (q/ha),

		cropping calendar under protected cultivation				system under protected condition		sequences under protected condition	**TO** 1:Off season cauliflower-capsicum-spinach **TO** 2:Tomato-Cucumber-French-Bean- Coriander T **O** 3: Brocoli-capsicum- fenugreek		
5	Kharif, 2017	Heavy wastage of feed due to improper daily feeding, FCR exceeds beyond 2.5, cost involvement towards artificial feeding is very high	Assessment	Production & Management	Fish	Small to medium ponds, canal-fed, non-drainable ponds	03	Assessment of performance of short term starvation and re-feeding on growth of IMCs	**FP**:Inappropriate daily feeding **TO** 1:8 weeks continuous feeding with 2 weeks starvation **TO** 2:4 weeks continuous feeding with 2 weeks starvation	IIWM, Agriculture Nutrition, 2014	ABW (at the end 3 months trial) Yield (q/ha), FCR
6	Rabi, 2017-18	Use of pyrethroid (Cypermethrin , Deltamethrin) group of pesticides, which deplete zooplankton population and is a limiting factor for prawn polyculture	Assessment	IDM	Fish	Small to Medium tanks (Canal fed)	05	Assessment of Ivermectin in controlling Argulosis in fish ponds	**FP**:Use of pyrethroid (Cypermethrin) group of pesticides, which depletes zooplankton population and is a limiting factor for carp-cum-FW prawn polyculture system **TO** 1:'Paracure I.V. '(Ivermectin 2% w/w) with fish feed @ 250 ppm **TO** 2:TO-1 + Paracure B.T. @ 200ml/acre in water	CIIFA, 2013	Disease incidence (%) Yield (q/ha)
7	Kharif 2017 and Rabi-2017-18	High cost of commercial concentrate feeding	Assessment	LPM	Cow	Homestead and grazing	04	Assessment of farm made feed on milk production in cows	**FP**:Grazing, household feeding and Commercial feed (Very less and inappropiate) **TO** 1:Grazing and household feeding **TO** 2:TO-1 + commercial feed **T O 3**: TO-1 + farm made feeding(maize and broken rice- 40%, GNOC/MOC/SOC/Pulse	NDDB, 2012	Cost of production Milk production Yield/cow/day

									barn- 25%, DORB -20%, wheat bran/chuni -10%, Mineral mix and Salt - 5%)		
8	Rabi, 2017-18	Slow growth rate of goat due to imbalanced ration	Assessment	LPM	Goat	Homestead and browsing	10	Assessment of concentrate and mineral mixture supplementation on body weight gain in goats	**FP**:Browsing **TO** 1:Browsing + Mineral mixture @10g/adult goat **TO** 2:Browsing+ Concentrate @100g/adult goat **T O** 3: Browsing+ Mineral mixture @ @10g/adult goat + Concentrate @100g/adult goat	NIANP, 2012	Body weight increase in 3 months of feeding strategy followed
9	Kharif 2017	Low biological efficiency (10%) of conventional method of bed preparation for paddy straw mushroom	Assessment	IGA	Mushroom	Homestead	13	Assessment of semi composting method for production of paddy straw mushroom	**FP**:Paddy straw mushroom cultivation by bed method **TO** 1:Paddy straw mushroom cutivation by composting method with 1.0% spawning **TO** 2:Paddy straw mushroom cutivation by composting method with 1.5% spawning	DMR, 2011 CTMRT, 2016	Yield/ bag, Biological Efficiency %
10	Kharif 2017	Low Haemoglobin (Hb) content in pregnant ladies and adolescent girls	Assessment	Nutrtion Security	Kitchen garden	Backyard	15	Assessment of Nutritional supplementation of Iron for pregnant ladies, adolescent girls through kitchen garden	**FP**:Consuming cereal based diet devoid of green leafy vegetables **TO** 1:Inclusion of green leafy vegetables as per RDA recommendation for one time after deworming **TO** 2:Inclusion of green leafy vegetables as per RDA recommendation for two times after deworming	ICMR, 2007	% of Hb after 4 months

3. Frontline Demonstrations

3.2 Details of FLDs to be implemented during 2017-18

Thematic area	Name of Crop/ Enterprise	Season and year	Technology demonstrated	Source of technology	Details of demonstration	Crop- Area (ha) / Entrep - No.	Observation parameters
ICM	Rice	Kharif 2017	Demonstration of integrated crop management by mechanized direct seeding	OUAT, 2014	**FP**: Broadcast sowing under direct seeded condition, no soil test, no herbicide application, beushaning followed **Demo**: Line sowing using seed cum ferti drill, herbicide: Bispyribac Na, STBFR	8.0	No.of hills/m^2, no.of EBT/hill, no.of grains/panicle, grain yield, B:C ratio
Varietal evaluation	Rice	Kharif, 2017	Demonstration of Salt tolerant rice variety Luna Sampad for saline AES	NRRI, 2012	**FP**:Local salt tolerant vars. **Demo**:Luna Suvarna, Luna Sampad; (Transplanted rice, STBFR)	2.0	No. of EBT/hill, no. of grainss/panicle, grain yield, cooking quality

INM	Rice	Kharif, 2017	Demonstration of soil test based fertilizer recommendation in rice under DFI modules	OUAT-STR	**FP**:Imbalance application of fertilizer **Demo**:Soil test for NPK using Mridaparikshyak Fertilizer recommendation as per the soil test value	2.0	No. of EBT/hill, sterility %, incidence of pest and diseases, grain yield
Varietal evaluation	Rice	Kharif, 2017	Demonstration of flood tolerant rice variety Swarna Sub 1 under flash flood situation of AES II	NRRI, 2009	**FP**:Cultivation of rice variety Swarna/CR 1009 **Demo**:Flood tolerant variety Swarna Sub 1 + STBF	2.0	No. of hills/m^2, EBT/ hill, Grain yield, Economics
IPM	Rice	Kharif, 2017	Demonstration of of IPM modules for the management of plant hoppers in rice	DRR, 2012	**FP**: Spraying of imidacloprid/ acetamiprid/ quinalphos **Demo**: Skip row planting (after 3 m), installation of spider trap @ 25/ ha. Need based alternate spraying (based on ETL) of Flonicamid 175 g/ ha and Dichlorvos @ 750 ml/ ha with tank mix of neem oil	2.0	BPH & WBPH/ hill, Spiders/ hill, mirid bugs/ hill, Yield (q/ha), B:C

INM	Blackgram	Rabi, 2017-18	Demonstration of blackgram as paira crop for intensification of rice-fallow under DFI module	IIPR, 2006	**FP**:Rabi fallow after kharif rice **Demo**:Paira crop: Greengram (IPM 2-14)/ Blackgram (PU 35/Prasad) Broadcast of seeds 7-10 days before harvest of kharif rice	2.0	No of pods/plant, Grain yield
INM	Blackgram	Rabi, 2017-18	Demonstration of nutrient management in rice-blackgram paira cropping system	OUAT, 2010	**FP**:Sowing of paira blackgram at 7-10 days before harvesting No fertilizer application to blackgram **Demo**:Blackgram (PU 35/Prasad) NPK 20-40-20; Fertilizers mixed with soil for 2 days and broadcast 2 days before sowing	2.0	No of pods/plant, Grain yield
Vermicomposting	Vermicomposting	Kharif 2017-18	Demonstration of vermicompost production using locally available resources	OUAT, 2012 STR	**FP**:No vermicomposting **Demo**:Partial decomposition of plant residues and cow dung (1:1) up to 45 days + Vermicomposting	10 no.	Vermicompost production Composition
Prodcution and management	Fish	Kharif, 2017	Demonstration on Nursery raising of carp spawns to frys in small backyard tanks	CIFE, 2008	**FP**:Stocking of grow-out ponds with catla: traditional rohu: mrigal fingerlings :: 3000:4000:3000 nos. per ha. respectively **Demo**:Stocking of mixed carp spawns @ 75 Lakhs per ha and reared for 21 days Stocking of small ponds (0.02-0.06 ha size) with catla: : mrigal spawns :: 9:12:9 Lakhs per ha. Respectively	0.6 (03nos)	Yield (Lakhs/ha)

Pisciculture	Fish	Rabi, 2017-18	Demonstration on 'Jayanti rohu' (CIFA-IR)in lieu of traditional rohu in 3-species IMC culture	CIFA, 2006	**FP**:Stocking of grow-out ponds with catla: traditional rohu: mrigal fingerlings :: 3000:4000:3000 nos. per ha. respectively **Demo**:Stocking of grow-out ponds with catla: Jayanti rohu: mrigal fingerlings :: 3000:4000:3000 nos. per ha. respectively	2.0 (05nos)	Yield (Lakhs/ha)
IFS	Vegetables	Round the year 2017-18	Demonstration of high valued crops on dykes of backyard small ponds	ICAR, RCNEH, 2009	**FP**:Planting of banana suckers or perennial plants **Demo**:Banana (Gaja bantala)+Papaya (Coorg honey dew)+ Elephant foot yam (Gajendra) + Yam (Odisha elite/Hatikhoj)	1.2	Wt. of tuber & fruit, No. of fingers/bunch
Varietal evaluation	Potato	Rabi, 2017-18	Demonstration of heat tolerant potato cv. Kufri Surya	CPRI, Shimla (2004)	**FP**:Use of heat susceptible potato cv. Kufri Jyoti **Demo**:Heat tolerant potato variety cv. Kufri Surya	0.4	Avg. tuber wt., Yield (q/ha)
ICM	Okra	Summer, 2018	Demonstration of Thiourea in Okra	RAU, Jobner	**FP**: Application of N:P:K @80:30:30 kg ha-1, no use of bio-regulator and micronutrient **Demo**: Seed treatment with 500 ppm thiourea+ foliar application of thiourea at flowering and vegetative stage and basal application of zinc @ 5 kg ha^{-1} +RDF	0.4	No. of fruits/plant, fruit yield (q/ha)

LPM	Dairy	Round the year 2017-18	Demonstration on fodder and Azolla production for feed management of cattle	NDDB, 2006 NIANP	**FP**:Grazing, straw and inappropriate quantity of commercial cattle feed **Demo**:Azolla cultivation using polythene sheet (6 x 9 ft) Hybrid nappier (CO 4)/Paragrass planting Feeding: Fresh Azolla – 1 kg/cow/day + Fodder @25 kg/cow (Depending on body weight and status of milk production)	10nos.	Milk yield, cost saving, Economics
LPM	Poultry	Through out the year 2017-18	Demonstration of Rainbow rooster/Kegg in backyard system	CARI, IVRI, 2007	**FP**:Rearing Desi birds **Demo**:Poultry breed: Rainbow rooster/ Kegg for meat and egg production Brooding of day old chicks upto 21 days with proper vaccination and feeding	10nos. (150 birds)	Mortality rate Day of egg laying BW gain in 2 months and egg production after 6m up to 9m Economics
LPM	Poultry	Through out the year 2017-18	Demonstration on OUAT synthetic colour poultry in backyard system	OUAT	**FP**:Rearing Desi birds **Demo**:Poultry breed: Pallishree Proper brooding and medication of one day old chicks up to 21 days. Low cost management of poultry chicks for income generation	30nos. (300 birds)	Mortality rate BW gain at 2 months interval, Economics

LPM	Poultry	Through out the year 2017-18	Demonstration on Khaki Campbell duck breed in pond/unused water bodies for income generation of Farm Women	CARI, Bhubaneswar, 2004	**FP**:Un-organised fish farming and less use of small pond dykes **Demo**:Khaki Campbell duck breed in pond/unused water bodies for income generation of Farm Women Proper brooding, medication, vaccination and feed management of backyard duckery.	30nos. (300 birds)	Mortality rate Age of sexual maturity BW gain in 2 months Economics
IGA	Mushroom	Kharif - 2017	Demonstration on paddy straw mushroom cultivation for efficient utilization of paddy straw	CTMRT, 2001	**FP**:-No activity **Demo**:Paddy straw mushroom cultivation For one bed: Paddy straw:12 kg, soaking for 12 hrs, spwan: one bottle, covering polythene for 15 days, regular water spray for 7 days	21 nos.	Yield (kg/bed) Economics Feedback

3.4Training and Extension activities proposed under FLD

Crop	Activity	No. of activities organized	Number of participants	Remarks
Rice	Field days	3	150	
	Farmers Training	3	90	
	Media coverage	-	-	
	Training for extension functionaries	-	-	
Blackgram	Field days	2	50	
	Farmers Training	1	30	
	Media coverage	-	-	
	Training for extension functionaries	-	-	
Vermicompost	Field days	1	50	
	Farmers Training	2	30	
	Media coverage	-	-	
	Training for extension functionaries	-	-	
Potato	Field days	1	50	
	Farmers Training	1	30	
	Media coverage	1	-	

	Training for extension functionaries	-	-	
Vegetable	Field days	1	50	
	Farmers Training	1	30	
	Media coverage		-	
	Training for extension functionaries	-	-	
Fish	Field days	2	100	
	Farmers Training	2	60	
	Media coverage	-	-	
	Training for extension functionaries	-	-	
Fodder, Azolla	Field days	1	50	
	Farmers Training	2	30	
	Media coverage			
	Training for extension functionaries	-	-	
Poultry	Field days	2	70	
	Farmers Training	2	60	
	Media coverage			
	Training for extension functionaries			

5. TRAINING PROGRAMMES

Table 5.2. Details of Training programmes to be conducted by the KVKs.

Cate-gory	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Target for No. of participants
F/FW	OFC	CP	Mat nursery preparation for mechanised transplanting	1	1	30
F/FW	OFC	CP	Mat nursery preparation for mechanized transplanting	1	1	30
IS	ONC	CP	Season long training on Production technology for mechanized transplanted rice (Mat nursery, mechanical transplanting, weed and nutrient management, pest management, mechanical harvesting)	1	5	20
F/FW	OFC	CP	Weed management in direct seeded and transplanted rice	1	1	30
F/FW	ONC	CP	Weed management in direct seeded and transplanted rice	1	1	20
F/FW	OFC	CP	Line planting of mustard using seed cum fertilizer drill	1	1	25
F/FW	OFC	CP	Use of seed drill for line planting of greengram and blackgram	1	1	25
F/FW	OFC	FIS	Pre stocking management in nursery and grow-out tanks	1	1	35
F/FW	OFC	FIS	Fish cum Horticulture system for higher profitability in small ponds	1	1	35
F/FW	OFC	FIS	Fish Seed Production Te1chnology in Small ponds	1	1	35

Cate-gory	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Target for No. of participants
F/FW	OFC	FIS	Post-stocking management in nursery and grow-out tanks	1	1	35
F/FW	OFC	FIS	Fish Seed Production Technology in Small ponds	1	1	35
F/FW	OFC	FIS	Multiple cropping pattern in pisciculture	1	1	35
F/FW	OFC	FIS	Prophylaxis and Fish disease control in Pisciculture tanks	1	1	35
F/FW	OFC	FIS	Use of chemicals (medicines, growth promoters) and probiotics in Aquaculture	1	1	35
F/FW	OFC	FIS	Multiple cropping pattern in Pisciculture	1	1	35
F/FW	OFC	FIS	Intercropping of Minor barbs and medium size carps in 3 species IMC culture	1	1	35
RY	ONC	FIS	Quality Seed Production technology (Fry , Fingerlings, Advance Fingerlings) of Indian Major carps	1	3	20
IS	ONC	FIS	Recent advances in freshwater aquaculture technology	1	2	20
F/FW	OFC	IFS	Fish cum Horticulture system for higher profitability in small ponds	1	1	30
F/FW	OFC	HOV	Nutrient Management and bunch enhancement technique in Tissue culture banana	1	1	30
F/FW	OFC	HOV	Off season caulifower cultivation for higher income	1	1	30
F/FW	OFC	HOT	Agro techniques for late Kharif Onion	1	1	30
F/FW	OFC	HOT	Production technology of potato	1	1	30
F/FW	OFC	HOV	Package of practices of cucumber	1	1	30
F/FW	OFC	HOV	Production techniques of papaya	1	1	30
F/FW	OFC	HOT	Special package practices of Colocasia cultivation	1	1	30
F/FW	OFC	HOV	Production technology of Capsicum	1	1	30
F/FW	OFC	HOV	Application techniques of Plant growth regulators in Pointed gourd	1	1	30
F/FW	OFC	HOV	Weed management of potato and onion	1	1	30
F/FW	OFC	HOT	Production technology of Elephant foot yam	1	1	30
RY	ONC	HOV	Techniques of raising nursery for planting materials of vegetable and fruit crops	1	4	20
RY	ONC	HOV	Nursery raising techniques for quality vegetable planting material	1	2	20
IS	ONC	HOV	Advance nersery raising techniques for production of planting materials of vegetable crops	1	1	20

Cate-gory	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Target for No. of participants
IS	ONC	HOV	Cultivation of high value horticultural crops under protected cultivation	1	1	20
F/FW	OFC	SFM	Summer management for vermiculture to enhance compost production	1	1	30
F/FW	OFC	SFM	Production technology for raising Azolla nursery and its multidimensional use	1	1	35
F/FW	OFC	SFM	Vermicomposting	1	1	30
F/FW	OFC	SFM	Production technology for raising Azolla nursery as feed for livestock	1	1	35
F/FW	OFC	SFM	Management of saline soil for Rabi seanson	1	1	30
F/FW	OFC	SFM	Management of Micronurient deficiencies in cauliflower	1	1	30
F/FW	OFC	SFM	Production technology for raising Azolla nursery as feed for livestock	1	1	35
F/FW	OFC	SFM	Vermicomposting	1	1	30
F/FW	OFC	SFM	Production technology for raising Azolla nursery and its multidimensional use	1	1	35
F/FW	OFC	SFM	Vermicomposting	1	1	30
F/FW	OFC	SFM	Vermicomposting	1	1	30
RY	ONC	SFM	Method of soil sampling, analysis and interpretation of results	1	5	20
RY	ONC	SFM	Methods of Vermicomposting and vermin wash production	1	3	20
IS	ONC	SFM	Recycling of farm wastes and green manuring to enhance soil health	1	2	20
IS	ONC	SFM	Recycling of farm wastes and green manuring to enhance soil health	1	2	20
F/FW	OFC	LPM	Production technology for raising Azolla nursery and its multidimensional use	1	1	35
F/FW	OFC	LPM	Alternate and low cost effective feeding for economic milk production	1	1	35
F/FW	OFC	LPM	Use of Fodder (Hybrid Napier and cowpea) for increased milk production	1	1	35
F/FW	OFC	LPM	Production technology for raising Azolla nursery as feed for livestock	1	1	35

Cate-gory	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Target for No. of participants
F/FW	OFC	LPM	Use of Fodder (Hybrid Napier and cowpea) for increased milk production	1	1	35
F/FW	OFC	LPM	Disease management in livestock during rainy season	1	1	30
F/FW	OFC	LPM	Brooding and Vaccination techniques in backyard poultry	1	1	35
F/FW	OFC	LPM	Production technology for raising Azolla nursery and its multidimensional use	1	1	35
F/FW	OFC	LPM	Care and management of newborn animals: With special reference to Deworming and Vaccination	1	1	35
F/FW	OFC	LPM	Strategies to increase milk production in dairy animals	1	1	35
RY	ONC	LPM	Goat farming as a source of income	1	3	20
RY	ONC	LPM	Intensive, semi intensive and backyard Broiler farming	1	3	20
IS	ONC	LPM	Effect of indiscriminate use of drugs in livestock and recent trends in treatment of Mastitis	1	2	20
F/FW	OFC	WOE	Preparation of Squash and Jam from Mango and Papaya	1	1	30
F/FW	OFC	WOE	Production technology of Paddy straw mushroom	1	1	30
F/FW	OFC	WOE	Post harvest management and packing of paddy straw mushroom	1	1	30
F/FW	OFC	WOE	Production technology of Paddy straw mushroom	1	1	30
F/FW	ONC	WOE	Spawn production technique	1	5	15
F/FW	OFC	WOE	Production technology of Paddy straw mushroom	1	1	30
F/FW	OFC	WOE	Preparation of mixed fruit jam	1	1	30
F/FW	OFC	WOE	Textile decoration through block printing	1	1	30
F/FW	OFC	WOE	Home baking	1	1	30
F/FW	OFC	WOE	Paddy craft	1	2	20
F/FW	OFC	WOE	Pickle and sauce preparation from Oyster mushroom	1	1	30
F/FW	OFC	WOE	Pickle preparation from vegetables	1	1	30
F/FW	OFC	WOE	Low cost diet preparation	1	1	30
RY	ONC	WOE	Paddy craft	1	3	20
RY	ONC	WOE	Low cost brooding management	1	1	20
IS	ONC	WOE	Mushroom production technology	1	1	20
IS	ONC	WOE	Meal planning and low cost diet preparation	1	1	20
F/FW	OFC	ÀGF	Propagation technology of teak stumps from seedlings	1	1	35

Cate-gory	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Target for No. of participants
F/FW	OFC	ÀGF	Vegetative propagation of Bamboo by flute technology	1	1	35
F/FW	OFC	ÀGF	Plantation and management of nectar producing trees for Honey bee insects	1	1	35
F/FW	OFC	ÀGF	Nursery raising techniques of forest plants	1	1	35
F/FW	OFC	ÀGF	Suitable Agroforestry practices in coastal areas	1	1	35

Table 5.3. Details of Vocational training programmes for Rural Youth to be conducted by the KVKs

Training title	Crop / Enterprise	Identified Thrust Area	Duration of training (days)
Quality Seed Production technology (Fry , Fingerlings, Advance Fingerlings & Yearlings) of Indian Major carps	Fish	Quality Seed Production technology	3
Techniques of raising nursery for planting materials of vegetable and fruit crops	Vegetable and fruit	Nursery raising	4
Method of soil sampling, analysis and interpretation of results	Soil	Soil testing	5
Methods of Vermicomposting and vermin wash production	Vermicomposting	Vermi compost production	3
Goat farming as an income source for unemployed rural youths	Goat	Scientific goat farming	3
Intensive, semi intensive and backyard Broiler farming	Poultry	Scientific poultry farming	3
Paddy craft	Enterprise	IGA	3
Spawn production technique	Mushroom	Spawn production	5

6. EXTENSION ACTIVITIES

Activity	No. of activities (Targeted)
Field Day	14
Kisan Mela	2
Kisan Ghosthi	3

Activity	No. of activities (Targeted)
Exhibition	3
Film Show	22
Method Demonstrations	10
Farmers Seminar	2
Workshop	0
Group meetings	6
Lectures delivered as resource persons	20
Newspaper coverage	10
Radio talks	10
TV talks	8
Popular Articles	8
Extension Literature	6
Farm Advisory Services	350
Scientific visit to farmers field	135
Farmers Visit to KVK	2000
Diagnostic Visits	40
Exposure Visits	2
Ex-trainees Sammelan	4
Soil Health Camp	4
Animal Health Camp	3
Agri Mobile Clinic	4
Soil Test Campaigns	4
Farm Science Club conveners meet	1
Self Help Group conveners meetings	2

7. Production and supply of Technological products

7.1 SEED production

Major group/class	Crop	Variety	Type of produce (for Seed produced type here SD; For Planting Material type herePM)	Quantity
Cereals	Paddy	Swarna Sub1, MTU 1075	SD	350q

7.2 Planting Material production

Major group/class	Name of the crop	Area (ha)	Details of production		
			Variety	Type of Produce	Qty./ No.
Vegetables	Brinjal	0.1 ha	Swarna Shyamali	seedling	5000
Vegetables	Chilli		Agnirekha, Utkal Ava, Utkal Rashmi, Utkal Ragini	seedling	5000
Vegetables	Tomato		Utkal Kumari, Utkal Raja, Swarna Sampad	seedling	10000
Vegetables	Cabbage		Real ball, Rare ball, Globe master	seedling	5000
Vegetables	Cauliflower		Snow White, Megha, Barkha, Deepali	seedling	5000
Vegetables	Knolkhol		Winner	seedling	3000
Spices	Onion		Bhima super, N-53	seedling	5000
Forest plants	Teak	0.1 ha	-	sapling	2000
Forest plants	Mangium		-	sapling	1000
Forest plants	Acacia			sapling	2000
Forest plants	Mahogany		-	sapling	500
Forest plants	Others		-	sapling	3000
Spawn	Mushroom		*V.volacea, P.sajarcaju,*	Spawn	1832 bottles

7.3 Production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)

Name of the Product	Qty
BIOAGENTS (Vermiculture)	5 kg
BIOFERTILIZERS (Vermicompost)	30 q

7.4 Livestock and fisheries production

Name of the animal / bird / aquatics	Details of production		
	Breed	Type of Produce	Qty.
Cattle			
Buffalo			
Sheep and Goat			
Poultry	**Rainbow rooster/ Pallishree**	**21 days brooded chicks**	**600**

Fisheries	**Fish seed**	**spawns** **Nos.yearlings** **ornamental fish**	**35,00,000** **60,000** **6000**

8. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : YES/NO, If yes, then

Year of establishment : **- 2006**

8.1 Details of soil & water samples to be analyzed :

Type	No. of Samples
Soil Sample	1000
Water Sample	200

10. Kisan Mobile Advisory (KVK-KMA)

No. of messages to be sent	No. of beneficiaries	
	Farmers	Ext. Pers.
80	45000	50

12. Literature to be Last Developed/Published (with full title, author & reference)

12.1 KVK Newsletters

Date of start	Periodicity	Number of copies to be printed	Number of copies to be distributed
August, 2017	Half yearly	500	500
February, 2018	Half yearly	500	500

12.3 PUBLICATIONS

Category	Number	Type	Title	Author's name	Number of copies
Research Paper	4				2000
Technical bulletins	6	-			30
Technical reports	100	-			100
Popular article	6	-			100
News paper coverage	10				
Year Planner	1				
Booklets, leaflets	6				

16. Details of KVK Agro-technological Park –

Crop Cafeteria-

Sr. No.	Theme of Crop Cafeteria	No. of Crop Cafeteria
1	Demonstration of rice varieties	1
2	Demonstration of potentialities of oilseed and pulse crops	1

SUPPLEMENTARY FORMATS FOR ACTION PLAN

Format 1: Agro-ecological situations (AES)

Agro-ecological situations	Blocks covered	Major crops and commodities	Strength	Weakness and Challenges	Opportunity
Alluvial Canal Irrigated (LTA rainfall: 1354 mm)	Bonth,Bhandaripokahri,Tihidi,Dhamnagar, parts of Basudevpur, Bhadrak	Rice, greengram, fish, vegetables, dairy, poultry	Mushroom production is picking up	No irrigation facility during dry seasons	Scope for pond based farming system
Low lying and flood prone area (LTA rainfall: 1417 mm)	Tihidi,Dhamnagar, parts of Basudevpur, Chandbali	Rice, blackgram, vegetables, dairy	Vegetable production in Tihidi and Dhamnagar blocks	Frequent flash flood situation	Scope for strengthening Pisciculture, mushroom
Saline soil group (LTA rainfall: 1143 to 1627 mm)	Basudevpur, Chandbali , parts of Tihidi, Dhamnagar	Rice, dairy, poultry, pisciculture	Dairy intensive areas, large numbers of ponds	Taping of ground water banned, vast rice fallows	Need for development of rain water harvesting structures, availability of large number of ponds for pisciculture

Format 2: Intervention Framework

Sl. No.	Major Crop/Enterprises (Total area / No.)	Major Farming situations of the crop/enterprise	Prioritized Problems	Area (ha/No.)affected by the problem (Approx.)	Name of the cluster/villages identified for intervention	Proposed Intervention (OFT, FLD, Ext activity, QPM etc.)
1	Rice (kharif)	➡ Rainfed medium-low land	➡ Labour scarcity during peak season for operations like transplanting, weeding, harvesting	All situations	Kuanrda, Thaila	• Training on mechanized transplanting, weeding • Season long training on production technology of

		➡ Canal Irrigated medium-lowland	➡ High cost of cultivation in direct seeded rice due to severe weed infestation and practice of *beushaning* ➡ Extensive rice fallows in rainfed shallow lowland to low lands due to stray cattle menace			mechanized transplanting at KVK farm • Demonstration of integrated crop management by mechanized direct seeding • Training on weed management under direct seeded rice • Demonstration of blackgram and greengram as paira crop
			➡ High incidence of BPH/WBPH	All situation	Thaila, Kuanrda, Orali	• Demonstration of of IPM modules for the management of plant hoppers in rice Training on management of BPH and WBPH in kharif rice • Publication of leaflet and distribution to farmers on BPH management • KMA – advisory through text messages
		➡ Flood prone shallow-lowland	➡ Flash flood damaging the crop at early and late condition ➡ High cost of cultivation in direct seeded rice due to severe weed infestation and practice of *beushaning*	33000 ha	Solagaon, Orali	• Demonstration of flood tolerant rice var. Swarna sub 1 • Seed production in RF: Swarna sub 1 • Contingent crop planning • Demonstration of integrated crop management by mechanized direct seeding
		➡ Saline affected	➡ Use of tall indica local varieties under saline soil condition ➡ Imbalanced fertilizer application with no micronutrient application	50000 ha	Junuda	• Demonstration of salt tolerant rice var. Luna Suvarna, Luna Sampad • Demonstration of soil test based fertilizer recommendation in rice
2	Pulses (Blackgram&Greengram)	➡ Rainfed: Rice-blackgrampaira	➡ Low or no fertilizer application to blackgram in paira system ➡ Moisture stress often affecting the productivity of blackgram in paira system	5000 ha	Solagan, Orali	Demonstration of nutrient management in rice-blackgrampaira cropping system OFT on assessment of hydrogel for moisture conservation under rice-blackgrampaira cropping system
		➡ Irrigated: Rice - (summer) greengram	➡ Greengram: Broadcast sowing and non-uniform plant stand	7000 ha		• Demonstration of line planting through seed cum fertilizer drill (CFLD)

						• Training on line sowing of greengram by seed cum fertilizer drill
			➡ Use of traditional varieties	7000 ha	CFLD village to be decided	Demonstration of new HYV of greengram under CFLD on pulse
			➡ Poor soil physical condition for pulses due to puddle rice	8000 ha	Solagan	Awareness program on promotion of direct seeded rice vs transplanted rice
			➡ Severe YMV incidence in summer greengram ➡ High infestation of pod borer in blackgram&greengram	7000 ha	CFLD village to be decided	• YMV tolerant var. IPM 02-14, IPM 02-03 under CFLD • Seed production of these vars. under Seed Hub • Advisory through KMA
			➡ Poor nutrient and weed management practices	10000 ha		• STBFR and weed management technology under CFLD
			➡ Acid soil causing poor nodulation and yield			• OFT:Assessment of seed coating c Greengram with lime in rice greengram CS in acid soil
3	Oilseed crops	➡ Irrigated Rice-mustard	➡ Delayed planting of mustard due to late harvest of paddy	2000 ha		• Training: Line planting of mustar using seed cum fertilizer drill
			➡ Use of low yielding degenerated variety (M-27) in mustard ➡ Severe infestation of *Spodopteralitura*in mustard ➡ Imbalancedfertiliser and poor weed management in sunflower	2000 ha		• CFLD on mustard; use of HYV,lin planting, STBFR,weed managemen IPM

4	Vegetables	➢ Field crop	➢ High incidence of wilt complex in tomato ➢ Low price of vegetable during on season and thereby low profitability ➢ Delayed planting of potato affecting yield due to susceptibility to high temperature ➢ Flower dropping in okra and reduction in yield ➢ Lack of information about crop calendar under protected cultivation ➢ (Opportunity): Cultivation of root crops, papaya, banana on pond dykes of small backyard ponds ➢ Lack of information to farmers on suitable varieties Unavailability of good hybrids every year	3500 ha	Kuanrda, Thaila	• OFT: Assessment of triple diseas resistant tomato hybrids inrice tomato cropping system • Training: Off season caulifowe cultivation for higher income • Training: Preparation of pickle fro vegetables • Agro techniques for late Khar Onion • Training: Production technology c capsicum • FLD on heat tolerant potato cv. Kuf Surya • Training on production technolog of potato • Training: Weed management c potato and onion • FLD on Thiourea in Okra • OFT on Assessment of vegetabl cropping sequences under protecte condition • Training: Cultivation of high valu horticultural crops under protecte cultivation • FLD on high valued crops on pon dykes of small backyard ponds • Training: Fish cum Horticultu system for higher profitability i small ponds • Production of QPM on vegetabl seedlings under RF
5	Fruits	Orchard	Unavailability of planting materials of banana, papaya, drumstick, coconut, mango			• QPM in saplings of drumstic papaya of good varieties • Training: Production techniques c papaya
			Distress sale of mango and other fruits			• Training: Preparation of squash an jam of mango and papaya • Training: Preparation of mixed fru jam

6	Fish	Small backyard fish ponds and Medium tanks	Low income from production of table-size fishes in small ponds Underutilized pond dykes	1870 ha	Thaila, Kuanrda	• FLD on Nursery raising of car spawns to frys • Training: Fish Seed Productio Technology in Small ponds • Training: Fish cum Horticultur system for higher profitability i small ponds
			Cultivation of traditional Rohu	3492 ha	Solagaon, Thaila	• FLD on 'Jayanti rohu' (CIFA-IR)i lieu of traditional rohu in 3-specie IMC culture • Training: Intercropping of Mino barbs and medium size carps in species IMC culture
		Small and medium fish tanks	Outbreak of fish lice infestation	1657 ha	Thaila, Kuanrda	• OFT on Assessment of chemicals i controlling Argulosis
			Infestation of submerged aquatic weeds in fish ponds	1285 ha	Thaila, Junuda	• FLD on Biological control of aquati weeds by stocking grass carps @25 nos./ha
			Incidence of EUS in fish during winter months is higher Lack of knowledge on quality fish seed production High cost involvement towards supplementary feeding	950 ha 2870 ha	Solagan, Thaila	• FLD on Management of EU (Epizootic Ulcerative Syndrome) i fish ponds by applying CIFAX @ 1L/ha • Training: Prophylaxis and Fis disease control in Pisciculture tanks • Training: Quality Seed Productio technology (Fry , Fingerling Advance Fingerlings) of India Major carps • OFT on Assessment of performanc of short term starvation and re feeding on growth of IMCs
			Use of nutritionally imbalanced traditional fish feed (Oil cake and rice bran)	2300 ha	Kuanrda, Thaila, Solagan	• OFT on Use of vitamin-mineral premix @ 1% in the feed to increase fish yield Use of Farm made fish feed by utilizing locally available feed stuffs
		Small Nursery Ponds	Infestation of aquatic insects	910 ha	Kuanrda, Thaila	FLD on Chemical control of aquatic insects by using Synthetic Pyrithroids CLINAR (High-cis-

						cypermethrin- 10W/V) in nursery ponds (Dose-0.01 ppm)
7	Dairy (Desi Cow)	Homestead and grazing	• No green fodder for feeding • Imbalanced feed supplements • Excessive feeding of paddy straw	145000	Kuanrda Solagan	• FLD on fodder and Azolla production for feed management of cattle • Training to farmers on Alternate feeding strategy to increase milk yield • OFT on Assessment of farm made feed on milk production in cows • Training on Strategies to increase milk production in desi cows • Training on Use of Fodder (Hybrid Napier and cowpea) for increased milk production • Training on Production technology for raising Azolla nursery as feed for livestock
			Bull menace and higher incidence of natural breeding	150000		• Awareness campaign on Benefits o Artificial insemination in desi cows
			Higher incidence of FMD (Foot and Mouth Disease)	19000	Kuanrda	• Training to farmers regardin importance of vaccination an preventive measures for FMD
8	Dairy (CB cow)	Homestead and stallfed	Higher incidence of Mastitis	6000 CB cows	Junuda	• IS Training to VLWs and LIs regarding control measures and recent treatment strategies for Mastitis • Training to farmers on Mastitis management of in cattle
			High cost of concentrates leading to unprofitable milk production No fodder supplements	12000 CB cows	Thaila, Kuanrda, Junuda, Orali, Solagan	• FLD on fodder production for feeding management of cattle • FLD on Azolla cultivation using polythene shits for feeding management of cattle • OFT on Assessment of farm made feed on milk production in cows • Training on Alternate and low cost effective feeding for economic milk production • Training on Use of Fodder (Hybrid Napier and cowpea) for increased milk production

						• Training on Production technology for raising Azolla nursery as feed for livestock
			No vitamin-mineral supplements	7000 CB cows	Solagan, Orali	• OFT on Assessment of Minera mixture and probiotics to increas milk yield in CB cows
9	Goat	Backyard and browsing	Slow growth rate in goats because of only browsing	120000	Orali	• OFT on Assessment of concentrat and mineral mixtur supplementation on body weigl gain in goats
			High incidence of endoparasites	59000		• OFT on Assessment of Ivermecti and Closantel as anthelmintics i goats
10	Poultry	Backyard	Slow growth rate and poor egg production High mortality in chicks	450000	Thaila, Kuanrda	• FLD on Rainbow rooster in backyard system • Training on Brooding and Vaccination techniques in backyard poultry
11	Mushroom	Backyard	Low biological efficiency (10%) of conventional method of bed preparation for paddy straw mushroom		Solagan, Thaila	• OFT:Assessment of semi composting method for production of paddy straw mushroom
			Opportunity for expansion of mushroom in Dhamnagar			• FLD on paddy straw mushroom cultivation for efficient utilization of paddy straw • Training: Production technology of paddy straw mushroom
			Low sale rate of mushroom during peak growing season			• Training: Preparation of pickle and sauce from oyster mushroom

Format 3: Trainings

Crop/ Commodity	Thematic Training Areas	Link Activities (OFT / FLD/ Other Extension Activities / Flagship programmes if any)	No of Courses	No of participants
Rice	Crop establishment	FLD/Awareness	2	100
	Weed management	FLD	2	50
	Plant protection	FLD	2	50
	Nutrient management	FLD	1	30
	Crop establishment	CFLD	2	60

Greengram	Weed and nutrient management	CFLD	1	30
Blackgram	Crop establishment	Seed hub/FLD	1	25
Mustard	Crop establishment	CFLD	1	25
Vegetables	INM	OFT/FLD	15	430
Vegetable/Fruits/Mushroom	Value addition		5	150
IFS	IFS	FLD	2	65
Fish	Production & Management	OFT/FLD	9	215
Fish	Integrated Disease Management	OFT	1	35
Azolla, Fodder	LPM	FLD	5	170
Cattle	LPM	OFT	7	220
Poultry	LPM	FLD	3	80
Goat	LPM	OFT	1	20
Mushroom	IGA	FLD/OFT	7	175
Nutrition	Nutritional Security	OFT	2	50
Agroforestry	Production Technology		5	175

Format 4: Flagship Programmes

SL.No.	Programmes	Activities	Linked Agency
1.	CFLD	Pulses (Greengram 40 ha), Season: Summer 2018 Oilseed (Mustard 30 ha), Season: Rabi 2017-18	OSSC/CSISA
2	Pulse Seed Hub	Pulse Crop: Blackgram, Variety: PU 31, Season: Spring/Summer Area: 200 ha Target: 1000 q	OSSC
3	IRRI Head-Head Trials	Rice Varieties: Swarna sub 1 (16 no. demos) Bina 11 (20 no. demo) CR 1009 sub 1 (4 no. demo)	IRRI

Format 5: Capacity Building of KVK Personnel

S. No	Name of the Scientist / Staff	Areas of Training Required	Institution proposed to attend if identified	Justification
	Sr Scientist & Head	Leadership Development	NAARM, Hyderabad	To develop the leadership quality and improve the efficiency of Head such training will be helpful
	Sr Scientist & Head	Conservation agriculture and soil health	PAU, Punjab	Advance training and exposure is required in conservation agriculture since KVK has initiated work in this direction in the district
	Scientist (Soil Science)	Analytical tools and techniques for development of soil health card (SHC) and its interpretations	NBSSLUP, Nagpur	For updating the recent advances in tools and techniques used for soil health analysis and interpretation
	Scientist (Horticulture)	Technological Advances to Minimize Pre-and Post-Harvest Losses in Agricultural and Horticultural Crops to Enhance Farmer's Income	GBPUAT, Panthnagar	
	Scientist (Fishery Sc)	Good Extension Practices in Fisheries and Aquaculture	CIFE, Mumbai	Modern Fishery technologies will reach to each of the fishers/fish farmers of the district through good extension practices
	Scientist (Animal Sc)	Nutrition for Health: Advances in the Science of Animal Nutrition	IVRI, Izatnagar	Updating knowledge in nutrition and health of animals

- Indicate the training requirement of Scientific and technical staff

Format 6 :Cross-learning across KVKs

S.No.	Name of the KVKs included in the cluster	What do you intend to share with Cluster KVKs	What do you expect from Cluster KVKs
1	Bhadrak, Balasore, Jajpur, Kendrapada, Jagatsinghpur and Puri	• Skill on Zero till planting, Mechanised transplanting, mechanised direct seeding • Skill on stunted fingerling and yearling production • Skill on round the year fish production • Skill on nutritional strategy preparation for different livestocks and poultry at different times	Services of Scientist, Plant protection

DOUBLING FARMERS' INCOME

Module village basic information

Name of the Village with GPS	GP	Block	House hold (nos.)	Population				Total cultivable land (ha)	Land type with area (ha)			Irrigation with area (ha)		Soil type with area (ha)	Major crop	
				Others	SC	ST	Total		Low	Med	Up	Kharif	Rabi		Kharif	Rabi
Thaila N $20^0$59.921' E $86^0$20.085'	Rajendrapur	Bhandaripokhari	235	805	558	0	1363	600	400	-	200	160 (canal)	-	Silt loam-240 Heavy clay-240 Sandy-120	Paddy	-
Kuanrada N$21^0$10.85' E$86^0$20.483'	Aadia	Bonth	150	700	400	100	1200	120	72	4	44	80 (canal)	-	Heavy clay-84 Sandy Soil-36	Paddy	Pulses-6 ha
Solagaon 20◦ 55.189' 086◦ 28.783'	Radhaballavpur	Dhamnagar	146	800	400	0	1200	200	140	40	20	40 (canal) LI- 36	LI-10	Heavy clay-100 Silt loam-25	Paddy	Pulses-180 ha Vegetable- 8 ha
Orali N 20◦ 55.271' E 086◦ 35.705'	Bodak	Tihidi	160	710	360	0	1070	400	280	120	-	-	-	Silt loam-220 Heavy clay-80 Salty- 100	Paddy	Blackgram-160 ha Sugarcane-8 ha
Junuda N$20^0$50.659' E $86^0$48.932'	Mousudha	Chandbali	53	430	0	0	430	88	64	-	24	-	-	Silt loam-50 Salty- 38	Paddy	Vegetable- 1 ha

SUMMARY OF MODULES FOR DOUBLING FARMERS' INCOME (BHADRAK)

Module	**Farming situation/AES**	**Existing farming system**	**Proposed Farming system**	**Village/block**	**Present income 2015-16**	**Proposed income 2018-19**	**Risk/ unsustainability**	**Remarks**	
								Market linkage	Most representative module for the district
Module I	Irrigated shallow lowland (Kharif-canal, Rabi – no irrigation) **AES I -Alluvial Canal Irrigated** Vill: Thaila, Kuanrda	Rice-fallow+fish+fruits/vegetable+Dairy	Rice-greengram/blackgram+ Fish+vegetable/fruits+ Dairy+ poultry	▪ Thaila /Bhandaripokhari ▪ Kuanrda / Bonth	25800	51250	▪ Stray cattle menace during rabi ▪ Plantation of perennial trees on pond dykes	▪ Value addition of Milk and marketing through SHGs	Rice-greengram/blackgram+Fish+vegetable/ fruits+Dairy+poultry
Module II	Rainfed lowland **AES II – Low lying flood prone areas** Vill: Solagaon, Orali	Rice-blackgram paira+Dairy+Poultry	Rice-blackgram paira+Dairy+Poultry+Mushroom	▪ Solagaon/ Dhamnagar ▪ Orali/Tihidi	28800	59700	▪ Flash flood ▪ Stray cattle menace during rabi ▪ Low market price of pulses	Processing of pulses through mini dal mills	
Module III	Rainfed shallow lowland **AES III – Coastal Saline soil group** Vill: Junuda	Rice-fallow+Dairy+Poultry	Rice-blackgram paira+Dairy+Poultry+Mushroom	▪ Junuda/ Chandbali	20200	41700	▪ Stray cattle menace during rabi ▪ unavailability of sufficient chicks ▪ lack of market facility	Linkage of mushroom growers to producer company	

MODULE I AES- Alluvial Canal Irrigated Vill: Thaila,Kuanrda

Farming situation	Existing practices 2015-16		1st year (2016-17)		2nd year (2017-18)		3rd year (2018-19)	
	Component & Net income	**Problems/ practices**	**Intervention**	**Yield & Net income/ha**	**Intervention**	**Expected Yield & net Income/ha**	**Intervention**	**Expected Yield & net Income/ha**
▪ Irrigated shallow low land (Canal in kharif, no irrigation in rabi)	Rice-fallow Area:0.8 ha Rice: 42 q/ha Rs. 12300	▪ Broadcast sowing ▪ Beushaning ▪ Imbalanced fertilization ▪ Rabi fallow	▪ Line sowing ▪ Herbicide: Bispyribac Na	45.0 q/ha Rs. 15200	▪ Line sowing ▪ Herbicide: Bispyribac Na ▪ STBF (FLD 1) ▪ Greengram (IPM 2-14)/ blackgram (PU 35) as paira (Area 0.4 ha) (FLD 2)	47.0 q/ha Rs.17000 2.5 q/ha Rs.3000	▪ Line sowing ▪ Herbicide: Bispyribac Na+ Hand weeding ▪ STBF ▪ Greengram/blackgram with NPK 20-40-20	47.0 q/ha Rs.17000 4 q/ha Rs.5000
▪ Small tanks (5-30 cent)	Fish 1 q/15 cent Rs. 5000	▪ Fish production – low profit	▪ Fish seed production (spawn-fry)	166000 fry Rs. 7500	▪ Fry+stunted fingerlings and yearlings production (FLD 3)	75000 fry 25000 SFL/SYL Rs.10000	▪ Fry+stunted fingerlings and yearlings production	75000 fry 25000 SFL/SYL Rs.10000

Farming situation	**Existing practices(2015-16)**		**1st year (2016-17)**		**2nd year (2017-18)**		**3rd year (2018-19)**	
	Component & Net income	Problems/ Practices	Intervention	Yield & Net income/ha	Intervention	Expected Yield & net Income/ha	Intervention	Expected Yield & net Income/ha
Pond dykes	Banana Rs.500	Underutilized pond dyke	Banana (Gaja Bantala)	1100 fingers Rs. 1500	▪ Banana+ Papaya (Coorg Honeydew)+Elephant foot yam (Gajendra)+ Yam (FLD 4)	Banana:1100 fingers Papaya: 3 q Foot yam: 0.8 q Rs.3000	▪ Banana+ Papaya (Coorg Honeydew)+Elephant foot yam (Gajendra)+ Yam	Banana:1100 fingers Papaya: 3 q Foot yam: 0.8 q Rs.3000
					▪ Vermicomposting (Unit size:12x4x3 ft) (FLD 5)	20 q Rs.2500	▪ Vermicomposting (Unit size:12x4x3 ft)	20 q Rs.4000

Farming situation	**Existing practices (2015-16)**		**1st year (2016-17)**		**2nd year (2017-18)**		**3rd year (2018-19)**	
	Component& Net income	Problems/practices	Intervention	Yield & Net income/ha	Intervention	Expected Yield & net Income/ha	Intervention	Expected Yield & net Income/ha
Homestead	Dairy 1 desi cow Milk: 2.0 Rs.4000	▪ No green fodder supplements ▪ High cost of concentrate feeding, low milk yield	Hybrid nappier , var. CO 4/ Paragrass	Milk : 2.0 l/day Rs. 4500/yr	▪ Hybrid nappier , var. CO 4/Paragrass ▪ Azolla production (FLD 6) ▪ Farm made feed (broken rice ,DORB, pulse bran , wheat bran , GNOC , salt , mineral mixture)	Milk: 2.2 l/day Rs.5000 Rs.5500	▪ Hybrid nappier /Paragrass ▪ Azolla production ▪ Farm made feed ▪ Value addition of milk (50%)for chhena making	Milk: 1.0 L/day Chhena: 0.25 kg/day Rs.6000/yr
	Poultry (local breeds) Rs.4000		Backyard poultry, Rainbow Rooster/Kegg (20 birds)	Body wt: 2.0 kg/ bird+ 750 eggs/yr Rs. 4500	▪ Rainbow rooster in 2 batches/yr (FLD 7)		▪ Rainbow rooster in 2 batches/yr	Rs.6250
Total	**Rs.25800**			**Rs.33200 (28.68%)***		**Rs.46000 (78.29%)***		**Rs.51250 (98.64%)***

MODULE II AES-Low lying and flood prone area Vill: Solagaon, Orali

Farming situation	Existing practices 2015-16		1st year (2016-17)		2nd year (2017-18)		3rd year (2018-19)	
	Component& Net income	**Problems/ practices**	**Intervention**	**Yield & Net income/ha**	**Intervention**	**Expected Yield & net Income/ha**	**Intervention**	**Expected Yield & net Income/ha**
Rainfed lowland	Rice-blackgram paira Area: 0.8 ha Rice: 40.0 q/ha Rs. 9600	Frequent flood damages Swarna & other cultivars Imbalanced fertilization Broadcast & high cost in beushening	HYV Swarna	45.0 q/ha Rs. 11800	HYV Swarna sub 1 sub1 (FLD8) STBF	47.0 q/ha Rs.13000	HYV Swarna sub 1 STBF Line sowing & Herbicide-Bispyribac Na@200ml/ha	48.5 q/ha Rs.14500
	Blackgram paira Area: 0.4 ha 4.5 q/ha Rs.7600	No fertilizer application to blackgram Use of local var. of blackgram	NPK 20-40-20; Fertilizers mixed with soil for 2 days	5.5 q/ha Rs.8800	NPK 20-40-20 Var. PU 35 / Prasad	6.5 q/ha Rs.10400	NPK 20-40-20 Var. PU 35 / Prasad	6.5 q/ha Rs.10400

Farming situation	Existing practices(2015-16)		1st year (2016-17)		2nd year (2017-18)		3rd year (2018-19)	
	Component& Net income	**Problems/practices**	**Intervention**	**Yield & Net income/ha**	**Intervention**	**Expected Yield & net Income/ha**	**Intervention**	**Expected Yield & net Income/ha**
Homestead	Dairy, 1 desi cow Milk Y: 2 l/day Rs. 4000	No green fodder supplements	Hybrid nappier, var. CO 4/ Paragrass	Milk : 2.0 l/day Rs. 4500/yr	Hybrid nappier /Paragrass Azolla production (FLD 6)	Milk Y: 2.2 l/day Rs.5300/yr	Hybrid nappier /Paragrass Azolla production	Milk Y: 2.2 l/day Rs.5300/yr
Homestead			Backyard poultry, Rainbow Rooster (20 birds)	Body wt: 2.0 kg/ bird+ 750 eggs/yr Rs. 4500	Rainbow rooster in 2 batches/yr (FLD 7)	2 kg/bird+ 750 egg/yr Rs.5500	Rainbow rooster in 2 batches/yr	2 kg/bird+ 1000 egg/yr Rs.6250
Homestead					Paddy straw Mushroom production (3 beds/day) for June – November (FLD 9)	2.4 kg/day Rs. 7000/yr	Paddy straw Mushroom (3 beds/day) June – Nov.	2.4 kg/day Rs. 7000/yr
Homestead							Oyster mushroom, 2beds/day, Dec-Feb	3.0 kg/day Rs.5850
Total	Rs.21200			Rs.29600 (39.6%)*		Rs.41200 (94.3 %)*		Rs.49300 (132.5%)*

MODULE III AES -Coastal Saline Soil group Vill: Junuda

Farming situation	Existing practices 2015-16		1st year (2016-17)		2nd year (2017-18)		3rd year (2018-19)	
	Component & Net income	Problems/ practices	Intervention	Yield & Net income/ha	Intervention	Expected Yield & net Income/ha	Intervention	Expected Yield & net Income/ha
Rainfed shallow submerged land	Rice-fallow 32.9 q/ha Area:0.8 ha Rs.12200	local var. Broadcast sowing Blanket fertilization Hand weeding Rabi fallow	(Option 1) HYV Luna Suvarna/ Luna Sampad (Option 2): Local var. Pateni, line sowing, STBF	38.5 q/ha Rs.15000	(Option 1) HYV Luna Suvarna/Luna Sampad (FLD 10) Line sowing STBF Herbicide-Bispyribac Na	41.5 q/ha Rs.16000	HYV Luna Suvarna Line sowing STBF Herbicide-Bispyribac Na	41.5 q/ha Rs.16000
			Blackgram paira, var.PU 35/Prasad Area : 0.4 ha	1.7 q/ha Rs.2500	Blackgram as paira (PU 35/Prasad, NPK 20-40-20	3.0 q/ha Rs.3700	Blackgram as paira (var. PU 35/Prasad, NPK 20-40-20	3.5 q/ha Rs.4700

Farming situation	Existing practices(2015-16)		1st year (2016-17)		2nd year (2017-18)		3rd year (2018-19)	
	Component & Net income	**Problems/ practices**	**Intervention**	**Yield & Net income/ha**	**Intervention**	**Expected Yield & Income/ha**	**Intervention**	**Expected Yield & net Income/ha**
Homestead	Dairy 1 Cow Milk: 2 l/day Rs. 4000/yr	No green fodder supplements High cost of concentrate feeding, low milk yield	Hybrid nappier , var. CO 4/Paragrass	Milk : 2.0 l/day 4500/yr	Hybrid nappier , var. CO 4 /Paragrass Azolla production (FLD 6) Farm made feed	Milk: 2.4 l/day Rs. 6000	Hybrid nappier /Paragrass Farm made feed Value addition of milk (50%)for *chhena* making	Milk: 1.2 L & Chhena: 0.3 kg/day Rs.7500/yr
	Poultry – desi bird Rs.4000	Slow growth rate	Colour poultry bird Pallishree/ Rainbow Rooster (20 birds), vaccination	2 kg/bird Rs.5000	Pallishree/ Rainbow Rooster (2 batches of 20 birds each) (FLD 11)	2 kg/bird Rs.7500/yr	Pallishree /Rainbow Rooster poultry (2 batches of 20 birds each)	2kg/bird Rs.7500
					Paddy straw mushroom from June to November (2 beds/day) (FLD 9)	2.0kg/day Rs. 4000/yr	Paddy straw mushroom, 3 beds per day	2. kg/day Rs.6000
Total	Rs. 20200			Rs.27000 (33.6%)*		Rs.37200 (84 %)*		Rs.41700 (106.0 %)*