

ANNUAL REPORT - 2011-12

(APRIL : 2011 - MARCH : 2012)



**KRISHI VIGYAN KENDRA
BOLANGIR**



R.E. FARM, LARKIPALLI, BOLANGIR-767002

Orissa University of Agriculture & Technology

Bhubaneswar-751003

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REPORTING PERIOD – April 2011 to March, 2012

Summary of achievements during the reporting period

KVK Name	Activity	Target		Achievement		Total value of resource generated/Fund received from diff. sources (Rs.)
		Number of activity	No. of farmers/ beneficiaries	Number of activity	No. of farmers/ beneficiaries	
Bolangir	OFTs	18	98	15	82	
Bolangir	FLDs – Oilseeds (activity in ha)	5	10	5	10	
Bolangir	FLDs – Pulses (activity in ha)	5	10	5	10	
Bolangir	FLDs – Cotton (activity in ha)	-	-	-	-	
Bolangir	FLDs – Other than Oilseed and pulse crops(activity in ha)	12	120	9	90	
Bolangir	FLDs – Other than Crops (activity in no. of Unit/Enterprise)	6	30	4	17	
Bolangir	Training-Farmers and farm women	60	1500	56	1400	
Bolangir	Training-Rural youths	18	360	13	220	
Bolangir	Training- Extension functionaries	7	70	5	50	
Bolangir	Extension Activities	505	1250	560	1400	
Bolangir	Seed Production (Number of activity as seeds in quintal)			3.1		
Bolangir	Planting material ((Number of activity as quantity of planting material in quintal)			-	-	
Bolangir	Seedling Production (Number of activity as number of seedlings in numbers)			5050	60	
Bolangir	Sapling Production (Number of activity as number of sapling in numbers)					
Bolangir	Other Bio- products					
Bolangir	Live stock products					
Bolangir	SAC Meeting (Date & no. of core/official members) 28.02.12/ 30	2	50	1	30	
Bolangir	Newsletters (no.)	4	mass	4	mass	
Bolangir	Publication (Research papers, popular article)	12	mass	20	mass	
Bolangir	Convergence programmes / Sponsored programmes	-	-	1	50	63,000
Bolangir	KVK-ATMA Linkage programme (Number of activities)	-	-	10	90	
Bolangir	Outreach of KVK in the District (No. of blocks, no. of villages)			9, 55		
Bolangir	Soil sample tested			36	36	
Bolangir	Water sample tested			-	-	
Bolangir	KMA (No. of messages & beneficiaries)			15	1400	

1. GENERAL INFORMATION

1.1. Staff Position (as on date)

Name of KVK.	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)
Bolangir	Programme Coordinator	Dr. Prasanna Kumar Samant	Soil Science	Ph.D.	Soil Science	15600-8000-39000	15600-8000-39000	04.08.2011	Regular	Others
Bolangir	Subject Matter Specialist1	Sri Kamalakanta Behera	Agril. Extension	M.Sc(Ag)	Agril. Extension	15600-6000-39000	16250+6000	19.04.2010	Regular	Others
Bolangir	Subject Matter Specialist2	Mrs. Dipsika Paramjita	Ag. Engineering	M.Tech (Ag.Engg.)	Soil & water conservation Engineering	15600-6000-39000	16250+6000	04.06.2010	Regular	Others
Bolangir	Subject Matter Specialist3	Smt Sasmita Purohit	Home Sc	M.Sc (H.Sc.)	Food & Nutrition	15600-6000-39000	19050+6000	11.06.2010	Regular	Others
Bolangir	Subject Matter Specialist4	Smt Swagatika Srichandan	Horticulture	M.Sc (Hort)	Vegetable	15600-6000-39000	16250+6000	19-08-2011	Regular	Others
Bolangir	Subject Matter Specialist5	Sri Ashis Kumar Das	Plant Protection	M.Sc(Ag)	Entomology	15600-6000-39000	19050+6000	26-12-2011	Regular	Others
Bolangir	Subject Matter Specialist6	Vacant								
Bolangir	Programme Assistant	Vacant								
Bolangir	Farm Manager	Vacant								
Bolangir	Computer Programmer	Sri Rabi Narayan Satapathy		MCA		9300-4200-34000/-	13060-4200	21.11.2009	Regular	Others
Bolangir	Accountant / superintendent	Sri Bholanath Mishra		IA		9300-4200-34000/-	14170+4200	01.08.11	Regular	Other
Bolangir	Stenographer	Vacant								
Bolangir	Driver	Sri Srahanshu Sekhar Pattanaik				5200-1900-2400	5420	17.08.2010	Regular	Others
Bolangir	Driver	Sri Upendra Mishra				5200-1900-2400	5420	01.04.2011	Regular	Others
Bolangir	Supporting staff	Sri Sagar Chhatria				4440-1300-7440	4620	21.11.2009	Regular	SC
Bolangir	Supporting staff	Vacant								

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

Bolangir district lies between 20° 9' N to 21° 5' N latitude and 82° 39' E to 85° 15' E longitude under the west central table land (WCTL) zone. The district spread over 6569 sq. km. accounting for 38.21% of the total geographical area (17,190 sq.km.) of the WCTL zone. It has three physiographic units viz. Plain land, undulating plain land and undulating sub-mountainous tract. The district is surrounded by Sonepur, Bargarh, Nuapada, Kalahandi and Boudh district. The main river of the district is Tel. Besides Tel, there are other rivers like Sonegarh, Lanth, Ong, Suktel, Under and Rahul. The district consists of three Subdivisions, 14 Blocks, 285 Grampanchayats, 1794 villages and 4 local bodies.

01	Agro-climatic zone	West central table land zone	
01	Geographical area in ha		6,57,500
02	Location	Longitude	82° 39' E to 85° 15' E
		Latitude	20° 9' N to 21° 5' N
03	Forest area (ha)		154385
04	Cultivated area (ha)	Highland	1,89,325
		Medium land	70,155
		Low	85,995
		Total	3,45,475
05	Irrigated area (ha)	Kharif	76,770
		Rabi	30,100
06	No. of Sub-division		03
07	No. of Blocks		14
08	No. of G.P.		285
09	No. of D.A.O. circle		03
10	No. of A.A.O. circle		28
11	No. of PACS		160

12	No. seeds sale centre	Govt.	28
13	Population as per 2001 census		13,37,194
		Male	6,73,985
		Female	6,63,209
14	Sex ratio		1000:984
15	SC Population		226300 (17%)
16	ST population		275822 (21%)
17	Literacy rate		55.70%
18	Average holding size in ha		1.43
19.	Rain fall		1283mm
20.	Soil type		Mixed Red & black, Red, Laterite & Mixed red and yellow

1.3. DETAILS OF ADOPTED VILLAGE during the reporting period (Approved by competent Authority in meetings/workshops)

KVK Name	Village Name	Year of adoption	Block Name	Distance from KVK	Population	Number of farmers (having land in the village)
Bolangir	Fatakara	2009	Puintala	15	1180	473
Bolangir	Lepta	2009	Puintala	18	783	297
Bolangir	Larkipalli	2010	Bolangir	02	649	184
Bolangir	Khujenpali	2010	Bolangir	09	986	343
Bolangir	Kareldhua	2010`	Saintala	28	592	278

1.4. THRUST AREAS identified by KVK (Approved by competent Authority in meetings/workshop)

KVK Name	THRUST AREA
Bolangir	Crop diversification
Bolangir	Reclamation of degraded land
Bolangir	Integrated Nutrient Management practices
Bolangir	Integrated Disease and Pest Management practices
Bolangir	Quality seeds and seedling production
Bolangir	Income generating activities for rural women/ school dropouts
Bolangir	Value addition to seasonal vegetables
Bolangir	Integrated farming system
Bolangir	Proper health management of domestic animals & birds
Bolangir	Marketing and production strategies
Bolangir	Recycling of farm wastes for vermicompost
Bolangir	Farm mechanization
Bolangir	Off season vegetable cultivation
Bolangir	Promotional of nutritional garden
Bolangir	Introduction of suitable varieties with improved packages of practices
Bolangir	Effective use of family labour through need based livelihood option

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

KVK Name	Problem identified	Methods of problem identification
Bolangir	Severe soil erosion in sloppy uplands	Through PRA tools and Discussion with the group of farmer, farm women and rural youth
Bolangir	Soil acidity - Poor knowledge about soil testing and soil health management	Through District soil map and discuss with line department officers (Soil Chemist) and sample soil testing
Bolangir	Non availability of waste land management techniques	Group discussion, PRA in sample villages
Bolangir	Low and imbalance use of manures and fertilizers in all crops	Farmers meetings, harvest report, sample testing of crop & discuss with line department officers
Bolangir	Severe crop weed competition in Kharif upland crops	Discuss with farmers, crop observation, sample study and PRA
Bolangir	Non availability of enough inputs (seed, fertilizer, pesticides) in timely	Discuss with farmers and fertilizer dealers, discuss with district administration and JQCI of agriculture department
Bolangir	Lack of storage facility for fruits and vegetables	Sample study, discuss with district civil officer, discuss with fruit & vegetable merchant, discuss with farmers and horticulture officer
Bolangir	.Poor nutrient status and low water holding capacity of soil	Discuss with soil chemist & soil scientists of Zonal Research Station & ICAR institute and sample testing of soils of different villages
Bolangir	.Lack of irrigation facility during Rabi/Summer except Hirakud command area	Discuss with farmers, discuss with irrigation department & district civil administration and personal observation during field visit.
Bolangir	.Low availability and adoption of dryland farming technique	Through PRA tools and Discussion with the group of farmer, farm women and rural youth
Bolangir	.Inadequate knowledge about post harvest technology	Discuss with village leaders and old farmers, discuss with line department, sample observation, personal observation during field visit

2. On Farm Testing

2.1 Information about OFT

KVK name	Year/season	Problem diagnose	Category of technology (Assessment/Refinement)	Thematic Area	Crop/enterprise	Farming Situations	Title of OFT	No. of trials	Results (with parameter)		Net Returns (Rs./ha)		Recommendations
									Farmer practice T1	Rec. Tech T2	T1	T2	
Bolangir	2011 Kharif	Low yield of paddy due to ruling variety MTU-7029	Assessment	Varietal evaluation	Crop	Irrigated upland	Assessment of hybrid paddy var: JKRH-401	5	Yield- 48 q/ha No.of tillers/hill - 24	72 39	22,400	41,800	May be adopted with due care wrt fert. & Pest management
Bolangir	2011 Kharif	Low yield of direct seeded upland paddy due to severe weed infestation	Assessment	Weed management	Crop	Rainfed upland	Assessment of pyrazosulfuron ethyl in direct seeded upland paddy	5	Yield- 28.2q/ha Dry wt. of weed/ sq.mt- 126 gm	35.7 35	10,560	14,560	Weedicide application may be done to save cost & increase profit
Bolangir	2011-12 Rabi	Low yield of Groundnut due to severe weed infestation in irrigated upland	Assessment	Weed management	Crop	Irrigated upland	Assessment of weedicide Oxyfluorfen in groundnut	5	Yield- 18.2 q/ha Dry wt. of weed/ sq.mt-gm	22.8	21,400	30,400	Weedicide application may be done to save cost & increase profit
Bolangir	2011-12 Rabi	Low yield of Greengram due to severe weed infestation in irrigated upland	Assessment	Weed management	Crop	Irrigated upland	Assessment of Weedicide Imazethrepy in greengram	5	Yield- 5.8 q/ha Dry wt. of weed/ sq.mt-	7.9	11,200	18,400	Weedicide application may be done to save cost & increase profit
Bolangir	2011 Kharif	Low yield due to local variety	Assessment	Varietal evaluation	Crop	Sandyloam rainfed Mediumland	Assessment of YMV resistant improved Cowpea variety Utkal manic	5	Yield-121 q Pod size-20 cm	Yield-140q Pod size-30 cm	69,300	83,300	Utkal manic is moderately tolerant to YMV.
Bolangir	2011-12 Rabi	Cracking of head due to Boron deficiency	Assessment	INM	Crop	Sandy loam rainfed Medium land	Assessment of Boron in Cabbage	7	Yield-280 q	Yield-320 q	1,02,200	1,37,570	% of cracking decreased from 13% to 4%.

Bolangir	Summer 2011-12	Low yield due to sprouting of Onion and less storage life	Assessment		Crop	Sandyloam rainfed Mediumland	Assessment of Maleic hydrazide in Onion	5	-	-	-	-	
Bolangir	2011-12 Summer	Low yield due to more no. of male flowers	Assessment		Crop	Sandyloam rainfed Low land	Assessment of ethylene in Pumpkin	5	Yield-203 q	Yield-276 q	51,450	77,500	Upto 2 mths there is more no. of female flowers.
Bolangir	2011-12 Pre Summer	Low yield of Greengram due to moderate to severe infection powdery mildew	Assessment	Integrated disease management	Crop	Irrigated upland	Assessment of chemical management of powdery mildew in greengram	5	Yield- 6.2 q/ha No.of pods/plant- 17 Extent of damage-18.4%	Yield- 7.68 q/ha No.of pods/plant- 24.6 Extent of damage-9.0 %	9,700	13,880	Spraying of fungicide at 1 st incidence of disease & then at 15 days interval
Bolangir	2011/kharif	Low spread of OYM due to unavailability of spaddy straw	Assessment	Income generation	Enterprise	Rainfed	Assessment of cotton stalk as better substrate for OYM	5	1.5kg/bed	1 kg/bed	4500	2400	Cotton stalk was found a better substrate for replacement of paddy straw
Bolangir	2011/kharif	Less income from local variety	Assessment	Income generation	Crop	Rainfed	Assessment of marigold, Var:Pusabasanti	5	123.5	169.3	50600	85240	A good income generating remuneration for farmwomen
Bolangir	2011/kharif	Less income from local breed	Assessment	Income generation	Enterprise	Rainfed	Assessment of sirohibuck as small scale income generation enterprise	2	25 kg body weight in 3years	50 kg body weight in 3 years	10000	5000	Interested to adopt this variety for a good source of income.
Bolangir	2011/kharif	More labour, much time and highest involvement in manual weeding	Assessment	Location specific drudgery reduction techniques	Enterprise	Rainfed	Assessment of wheel hoe weeder in line sowing vegetable for drudgery reduction of farm women	3	Working width -40mm, working depth:30 mm, Output : 4n of farm women 5 m ² /h	Working width - 210mm, working depth:20-30 mm, Output : 150 m ² /h	17263	18833	Use of wheel hoe weeder is recommended for drudgery reduction

Bolangir	2011/Kharif	High labour intensive and cost involved in manual transplanting	Assessment	Farm mechanization	Enterprise	Sandy loam Rainfed Medium land	Assessment of paddy drum seeder for sowing of pregerminated paddy seeds	5	Field capacity : 0.005 ha/hr labour requirement : 31 MD/ha	Field capacity : 0.12 ha/hr labour requirement : 1.04 MD/ha	7190/-	13800/-	Use of drum seeder is recommended for solving labour and cost involved in manual transplanting
Bolangir	2011/kharif	High labour and cost involved in manual weeding & hoeing	Assessment	Farm mechanization	Enterprise	clayloam Rainfed Upland	Assessment of power weeder in cotton crop	5	Field capacity : 0.0039 ha/hr labour requirement : 32 MD/ha	Field capacity : 0.13 ha/hr labour requirement : 0.96 MD/ha	16160/-	21890/-	Use of power weeder is a solution for labour and cost involvement in weeding of cotton crop

2.2 Economic Performance

KVK name	OFT Title	Parameters			Average Cost of cultivation (Rs/ha)			Average Gross Return (Rs/ha)			Average Net Return (Rs/ha)			Benefit-Cost Ratio (Gross Return / Gross Cost)		
		Name and unit of Parameter	Demo	Check	FP (T ₁)	RP (T ₂)	Refined Practice, if any (T ₃)	FP (T ₁)	RP (T ₂)	Refined Practice, if any (T ₃)	FP (T ₁)	RP (T ₂)	Refined Practice, if any (T ₃)	FP (T ₁)	RP (T ₂)	Refined Practice, if any (T ₃)
Bolangir	Assessment of hybrid paddy var: JKRH-401	Tillers/hill, no. ; 1000 seed wt, gm	39	24	16,000	23,000		38,400	64,800		22,400	41,800		2.4	2.81	
Bolangir	Assessment of pyrazosulfuron ethyl in direct seeded upland paddy	Weedbio-mass/sq.mt , gm	35	126	12,000	14,400		22,560	28,560		10,560	14,160		1.88	1.98	
Bolangir	Assessment of weedicide Oxyfluorfen in groundnut	Weedbio mass/sq.mt , gm Pods/plant, no	39.5 17.4	135 13.2	24,000	27,000		69,160	86,640		45,160	59,640		2.88	3.20	
Bolangir	Assessment of Weedicide Imazethrepy	Weedbio mass/ sq.mt, gm	40	166	12,000	13,200		23,200	31,600		11,200	18,400		1.93	2.39	

	in greengram															
Bolangir	Assessment of YMV resistant improved Cowpea variety Utkal manic	Yield-q/ha Pod size- cm Extent of damage (YMV), %	Yield- 140 q Pod size- 30cm 11	Yield- 121 q Pod size- 20cm 23	27,500	28,700		96,800	1,12,000		69,300	83,300		3.5	3.9	
Bolangir	Assessment of Boron in Cabbage	Yield-q/ha Head size, gm	Yield- 320 q 980	Yield- 280 q 756	41,800	43,500		1,40,00 0	1,60,000		98,200	1,16,50 0		3.34	3.67	
Bolangir	Assessment of Maleic hydrazide in Onion	Yield-q/ha Percentage of bolting	-	-	-	-		-	-		-	-		-	-	
Bolangir	Assessment of ethylene in inducing female flower in Pumpkin	Yield-q/ha female flower/ plant, %	276 q 85	203 q 42	29,750	32,900		81,200	1,10,400		51,450	77,500		2.7	3.3	
Bolangir																
Bolangir	Assessment of cotton stalk as better substrate for OYM	Yield per bed/kg; Day to first flush, days	1 20	1.5 16-17	1500	1100		6000	3500		4500	2400		4	3.18	
Bolangir	Assessment of marigold, (Pusabasanti)	Yield (q/ha) flowers/ plant, No	169.3 58	123.5 35	48200	50200		98800	135440		50600	85240		2.05	2.7	
Bolangir	Assessment of sirohibuck in upgradation of offspring in goat	Average body weight	50kg/ 3 yrs,10- 12 offspring g/yr	25kg/3 yr,6-7 offspring g/yr	4000	6000		8000	36000		4000	30000		2	6	
Bolangir	Assessment of wheel hoe weeder in line sowing vegetable for drudgery reduction of farm women	Avg. cost of weeding (Rs/ha),lab our saving (no)	1350/ha ,22	4500/ha, 33	17500	14,350		34763	33183		17263	18833		1.98	2.31	
Bolangir	Assessment of paddy drum seeder for sowing of	Cost of operation, (Rs./ha Yield:q/ha	270, 34.2	2380, 29.7	22510	20400	-	29700	34200	-	7190	13800	-	1.32	1.67	

	pregerminated paddy seeds															
Bolangir	Assessment of power weeder in cotton crop	Cost of operation, (Rs./ha Yield:q/ha	2250/-, 12.6	3920/-, 11.8	21600	18430	-	37760	40320	-	16160	21890	-	1.74	2.18	

2.3 Feedback from KVK to Research System

Name of KVK	Feedback
Bolangir	Development of short duration hybrid paddy var. of 135-140 day
Bolangir	Development of technology to manage fungal infection in mushroom raised in cotton stalk
Bolangir	Development of Marigold variety with high flowering habit with longer duration of flower setting, easy to multiply with stem cutting
Bolangir	By application of Ethylene in pumpkin at 2-4 leaf stage the no. of female flowers increased drastically upto 2 mths ultimately resulting more fruit setting
Bolangir	Cowpea variety Utkal manik is moderately YMV tolerant
Bolangir	The power weeder may be developed to uproot the weeds close to plant roots, so that entire crop area can be weed free with the use of only weeder
Bolangir	The drum seeder may be refined so that seed dropping can be high
Bolangir	Wheel hoe weeder of adjustable/ rotating width may be developed
Bolangir	Farm women are getting good quality of offspring and this breed control in-breeding, infant mortality but availability of this breed is very scarce.
Bolangir	Steps to be taken to easily availability of this variety of seedling.
Bolangir	Cotton stalk should be boiled for 1 hr to maintained smoothness

3. Achievements of Frontline Demonstrations

3.1. Follow-up for results of FLDs implemented during previous year

List of technologies demonstrated and popularized during previous years and recommended for large scale adoption in the district

KVK Name	Crop/ Enterprise	Thematic Area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
Bolangir	Enterprise	Farm mechanization	Use of self propelled reaper for harvesting the crop	Field day, extension functionaries, media coverage	10	105	60
Bolangir	crop	ICM	High yielding Paddy var. Yogesh	Field day, extension functionaries, media coverage	7	50	40
Bolangir	Crop	ICM	Cultivation of tissue culture banana	Field day, extension functionaries, media coverage	24	60	15
Bolangir	Crop	ICM	Cultivation of Naveen var. of Bottle gourd	Field day, extension functionaries, media coverage	40	80	08

3.2 Details of FLDs implemented

KVK Name	Thematic area	Name of Crop/ Enterprise	Season and year	Technology demonstrated	Crop- Area (ha) / Entrep - No.	Name of Variety/Tec hnology/En treprizes	Results (q/ha)		% change	No. of farmers				
							Demons	Check		SC	ST	OBC	Others	Total
Bolangir	Varietal evaluation	Tomato	Rabi 11-12	Planting of Tomato variety Utkal raja at spacing of 75x50 cm	1 ha	Utkal raja	340 q	277q	23%	2	1	7	-	10
Bolangir	INM	Brinjal	Summer 2011-12	Application of azotobacter @ 10kg/ha & V.C-100 kg	1 ha	Azotobacter & vermicompost	310 q	245 q	26%	1	1	5	3	10
Bolangir	Varietal evaluation	Pointed gourd	Rabi 11-12	Planting Swarna alaukik at spacing of 2mx1m	1 ha	Swarna alaukik	-	-	-	-	-	-	--	
Bolangir		Water melon	Summer 2011-12	Application of Nitro benzene @ 2 ml/l at 15 DAT once in every 25 days	1 ha	Nitro benzene	369 q	275 q	34%	1	4	5	-	10
Bolangir	Varietal substitution	Papaya	Rabi-2011-12	Seedling treatment with bavistin @ 1.5gm/l lt of water, pit of 45*45*45cm, distance 1.2-1.8 mt.	2ha	Coorg honey dew		Awaited		1	1	3	0	5

Bolangir	IDM	Potato	Rabi-2011-12	Need based application of Metalaxyl+Mancozeb @ 2.5 gm/l & Carbendazim+Mancozeb @ 1gm/l alternately at 10 days interval with DDVP @ 1ml/l & Acephate @ 2gm /l alternately at 10 days interval	2 ha	Local	160	136	17.64	5	-	2	1	8
Bolangir	IDM	Cucumber	Rabi-2011-12	Need based application of Metalaxyl+Mancozeb @ 2.5 gm/l & COC @ 3gm/l alternately at 10 days interval with Acetamiprid @ 1gm / 5 lit & Thiamethoxam @ 1gm / 5 lit alternately at 10 days interval	1 ha	Trupti	96.5	78	23.71	-	-	-	5	5
Bolangir	IDM	Cowpea	Rabi-2011-12	Need based application of Imidacloprid @ 0.4ml /l & Triazophos @ 2ml /l alternately at 10 days interval	2 ha	Utkal Manik	115.3	89.75	28.46	2	-	5	1	8
Bolangir	Income generation activities for farm women	Paddy straw mushroom	Kharif-11	Disinfect the paddy bundles in 100 lts of water with 50 ml of formaline and 8 gms of bavistin for 12 hrs, drained absorbing excess water, prepared the bed.	200 beds	Volvarealla volvacea	1.5 kg/bed	New	100%	4	-	6	-	10
Bolangir	Location specific drudgery reduction	Sugarcane stripper	Kharif 11	It has got a dimension of (350 mm X 70 mm) and works by separating and pushing the leaf sheaths away from stalk and detopping of lane after harvest	7	Sugarcane stripper	-	-	-	3		4	0	7

Bolangir	Irrigation water management	Tissue culture banana	Kharif11	Drip irrigation with emitters having discharge of 4 lit/hr fitted to each plant with a spacing of 7' between each laterals	Tissue culture Banana – 0.04ha	Drip irrigation							2		2
Bolangir	Income generation activities for farm women	Banaraja chicks	Kharif-11	Feeding, rearing & vaccination practices	100 chicks	<i>Banaraja</i>	3.6 kg/body weight/year	1 kg body weight/year	260-	-	-		6	-	6
Bolangir	Vermi-composting	Vermicompost	Rabi-2011-12	Using of better substrate , ring preparation, harvesting technology, packaging	2 unit	Eu drillus eugeniae	.9 qtl/yr	Nil	-	1			1		2

3.3 Economic Impact of FLD

KVK Name	Name of Crop/ Enterprise	Technology demonstrated	Parameters			Cost of cultivation (Rs/ha)		Gross Return (Rs/ha)		Average Net Return (Rs/ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)	
			Name and unit of Parameter	Demo	Check	Demo	Check	Demo	Check	Demo	Check	Demo	Local Check
Bolangir	Tomato	Planting of Tomato variety Utkal raja at spacing of 75x50 cm	yield : q/ha	340 q	277q	39,500	37,900	1,36,000	1,10,800	96,500	72,900	3.4	2.9
Bolangir	Brinjal	Application of azotobacter @ 10kg/ha & V.C-100 kg	yield : q/ha	310q	245q	42,300	39,790	1,39,500	1,10,250	97,200	70,460	3.3	2.7
Bolangir	Pointed gourd	Planting Swarna alaukik at spacing of 2mx1m	yield : q/ha , No. of fruits/node	-	-	-	-	-	-	-	-	-	-
Bolangir	Water melon	Application of Nitro benzene @ 2 ml/l at 15 DAT once in every 25 days	yield : q/ha	369q	275q	38,750	36,900	1,47,600	1,10,000	1,08,850	73,100	3.8	2.9

Bolangir	Papaya	Seedling treatment with bavistin @1.5gm/l lt of water,pit of 45*45*45cm,distance 1.2-1.8 mt.	Yield : kg/plant	Awaited									
Bolangir	Potato	Need based application of Metalaxyl+Mancozeb @ 2.5 gm/l & Carbendazim+ Mancozeb @ 1gm/l alternately at 10 days interval with DDVP @1ml/l & Acephate @2gm /l alternately at 10 days interval	Yield, q/ha <u>Leaf blight</u> Extent of damage, % <u>Leaf curl</u> Extent of damage, %	160 15.75 20.62	136 24.87 42.18	57,000	52,000	1,28,000	1.08,800	71,000	56,800	2.24	2.09
Bolangir	Cucumber	Need based application of Metalaxyl+Mancozeb @ 2.5 gm/l & COC @ 3gm/l alternately at 10 days interval with Acetamiprid @1gm / 5 lit & Thiamethoxam@1g m / 5 lit alternately at 10 days interval	Yield, q/ha <u>Powdery mildew</u> Extent of damage, % <u>Mosaic</u> Extent of damage, %	96.5 17 22	78 33.5 43.5	42,000	38,000	96,500	78,000	54,500	40,000	2.29	2.05
Bolangir	Cowpea	Need based application of Imidacloprid @ 0.4ml /l & Triazophos @ 2ml /l alternately at 10 days interval	Yield, q/ha <u>Leaf curl</u> Extent of damage, % <u>Flea beetle</u> Extent of damage, %	115.3 18.75 13.75	89.75 33.15 20.3	38,000	35,000	92,240	71,800	54,240	36,800	2.42	2.05

Bolangir	Paddy straw mushroom	Disinfect the paddy bundles in 100 lts of water with 50 ml of formaline and 8 gms of bavistin for 12 hrs, drained absorbing excess water, prepared the bed.	Yield : kg/bed	1.5	New	50/bed	New	120	-	70	-	2.4	
Bolangir	Sugarcane stripper	It has got a dimension of (350 mm X 70 mm) and works by separating and pushing the leaf sheaths away from stalk and detopping of lane after harvest	kg of leaves/hr, Kg of Cane /hr	33, 156	27, 132	-	-	-	-	-	-	-	-
Bolangir	Tissue culture banana	Drip irrigation with emitters having discharge of 4 lit/hr fitted to each plant with a spacing of 7' between each laterals	yield : q/ha	674	513	65400	52500	269600	205200	204200	152700	4.12	3.90
Bolangir	Banaraja chicks	Feeding, rearing & vaccination practices	Kg/body weight	3.6	1	2250	2000	24500	8000	22250	6000	10.88	4
Bolangir	Vermicompost	Pit preparation by ring method, using of better sustrate, harvesting technology etc.	Yield	.9 qtl/yr	Nil	2000	Nil	4500	Nil	2500	Nil	2.25	Nil

3.4 Feedback of the Farmers

Name of KVK	Feedback
Bolangir	1. Utkal raja tomato is wilt tolerant ,more yielding variety but the variety can be grown only during pre rabi and rabi season &it needs staking which is cost effective
Bolangir	2. Application of Azotobacter @ 10 kg/ha along with vermin compost in brinjal there was more no.of feeder roots
	3. Swarna alaukik variety bears fruits @2-3/node. Size of fruit is approx. 12 cm as compared to local 9 cm in length. Leaf size is larger and the plant is robust.
Bolangir	4. Due to application of Nitro benzene in Water melon, there was enhancement in plant canopy & profuse flowering.
Bolangir	5. Farmwomen are getting good quality compost by utilising farm waste product.
Bolangir	6. Egg laying capacity of Banaraja breed may be increased
Bolangir	7. Yield of V.Volvacea is better than V.Diplasia
Bolangir	8. Farmers are happy as the drudgery reduction tool can strip the leaves on both sides of cane
Bolangir	9. Initial cost of drip irrigation is very high
Bolangir	10. Landless ladies are more interested about banaraja chicks and egg laying
Bolangir	11. Yield of V.volvacea is better than the variety v.diplasia & the farmwomen demanding easily availabilities of spawn due to additional income for the farm women

3.5 Training and Extension activities under FLD

KVK Name	Crop	Activity	No. of activities organized	Number of participants	Remarks
Bolangir	Pointed gourd	Field days			
		Farmers Training	1	25	
		Media coverage			
		Training for extension functionaries			
Bolangir	Tomato	Field days	1	50	
		Farmers Training	1	25	
		Media coverage			
		Training for extension functionaries			
Bolangir	Water melon	Field days			
		Farmers Training	1	25	
		Media coverage			
		Training for extension functionaries			
Bolangir	Brinjal	Field days			
		Farmers Training	1	25	
		Media coverage			
		Training for extension functionaries			
Bolangir		Field Day			
		Farmers Training			
		Media coverage			
		Training for extension functionaries			
Bolangir	Sugarcane Stripper	Field days			
		Farmers Training	1	25	
		Media coverage			
		Training for extension functionaries			
Bolangir	Banana	Field days			
		Farmers Training	1	25	
		Media coverage			
		Training for extension functionaries			
	Backyard poultry Banaraja	Field days	1	50	
		Farmers Training	1	25	
		Media coverage			
		Training for extension functionaries			

Bolangir	Potato	Field days	1	40	
		Farmers Training	1	25	
		Media coverage			
		Training for extension functionaries			
Bolangir	Cowpea	Field days	1	40	
		Farmers Training	1	25	
		Media coverage			
		Training for extension functionaries			
Bolangir	cucumber	Field days	1	25	
		Farmers Training			
		Media coverage			
		Training for extension functionaries			

4. Documentation of the need assessment conducted by the KVK for the training programme

Name of KVK	Category of the training	Methods of need assessment	Date and place	No. Of participants involved
Bolangir	FW	Group discussion, survey	20.08.11,Ghungi	25
Bolangir	FW	Group discussion, survey	19.10.11,Uparbahal	25
Bolangir	RY	Group discussion, survey	10.11.11,Larambha	15
Bolangir	FW	Group discussion	5.01.12,Lankabahal	25
Bolangir	FW	Group discussion	20.02.12,Larkipalli	25
Bolangir	FW	Group discussion, survey	25.02.12,Larkipalli	25
Bolangir	FW	Group discussion, survey	23.05.11, Tulandi	25
Bolangir	FW	Group discussion	14.10.11, Baghala	25
Bolangir	FW	Group discussion, PRA survey	22.09.11/ Mirdhapalli	25
Bolangir	FW	Group discussion, PRA	12.12.11/ Larambha	25

Abbreviation Used

FW	(A) Farmers & Farm Women
RY	(B) Rural Youths
IS	(C) Extension Personnel
ONC	On Campus Training Programme
OFC	Off Campus Training Programme
M	Male
F	Female
T	Total
Thematic Areas for Training	

CRP	Crop Production
HOV	Horticulture – Vegetable Crops
HOF	Horticulture-Fruits
HOO	Horticulture- Ornamental Plants
HOP	Horticulture- Plantation crops
HOT	Horticulture- Tuber crops
HOS	Horticulture- Spices
HOM	Horticulture- Medicinal and Aromatic Plants
SFM	Soil Health and Fertility Management
LPM	Livestock Production and Management
WOE	Home Science/Women empowerment
AEG	Agril. Engineering
PLP	Plant Protection
FIS	Fisheries
PIS	Production of Inputs at site
CBD	Capacity Building and Group Dynamics
AGF	Agro-forestry
OTH	Others
RYH	Rural Youth
EXP	Extension Personnel

5. TRAINING PROGRAMMES

Table 5.1. Details of Training programmes conducted by the KVKs

Name of KVK	Cate-gory	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants							
							General		SC		ST		Others	
							M	F	M	F	M	F	M	F
1	2	3	4	5	7	8	9	10	11	12	13	14	15	16
Bolangir	FW	ON	HOV	Micro nutrient application in Cole crops	1	1					4		21	
Bolangir	FW	ON	HOV	Planting techniques of Pointed gourd	1	1			1				24	
Bolangir	FW	ON	HOV	INM in Cabbage	1	1			1				24	
Bolangir	FW	ON	HOV	Seed production and seed extraction techniques of Tomato	1	1							25	
Bolangir	FW	ON	HOV	INM in Solanaceous crops	1	1			3		1		21	
Bolangir	FW	ON	HOV	Off season cultivation of Pumpkin	1	1	1		3		1		20	
Bolangir	FW	OFC	HOV	Cultivation of high yielding cowpea variety for higher income	1	1					1		24	
Bolangir	FW	OFC	HOF	Care and maintenance of Mango orchard	1	1	2				4		19	
Bolangir	RY	ON	HOF	Post harvest technology for export of Horticultural products	1	2			1		5		4	
Bolangir	FW	OFC	HOV	Post harvest care of Onion	1	1	1		1		1		22	
Bolangir	RY	ON	HOF	Inter cropping in Horticultural crops	1	2	1		2		3		9	
Bolangir	FW	OFC	HOV	Cultivation aspects of Bitter gourd	1	1					10		15	
Bolangir	FW	OFC	HOV	Off season cultivation of Vegetables	1	1							25	
Bolangir	INSERT	ON	HOO	Management of weeds in Horticultural crops	1	1			2		2	1	4	1
Bolangir	FW	OFC	HOV	Cultivation aspects of Onion	1	1							25	
Bolangir	RY	ON	HOP	Cost of cultivation of different Horticultural crops	1	2							15	
Bolangir	FW	ON	HOV	High yielding Okra as a profitable crop	1	1			4		9		12	
Bolangir	FW	OFC	HOF	Forcing Water melon out of season	1	1					6		19	
Bolangir	FW	OFC	AEG	Principles of ploughing and farm implements required for field preparation of Kharif crops	1	1	0	0	8	0	0	0	17	
Bolangir	FW	OFC	AEG	Use of sugarcane stripper	1	1	0	0	18	0	0	0	7	
Bolangir	FW	OFC	AEG	Working operation of tractor operated multi crop seed drill	1	1	0	0	1	1	0	0	12	11

Name of KVK	Cate-gory	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants							
							General		SC		ST		Others	
							M	F	M	F	M	F	M	F
1	2	3	4	5	7	8	9	10	11	12	13	14	15	16
				for sowing of paddy seeds										
Bolangir	FW	OFC	AEG	Principle & working operation of pre-germinated paddy drum seeder	1	1	0	0	1	0	3	0	21	0
Bolangir	FW	OFC	AEG	Use of power weeder in cotton crop	1	1	0	0	9	0	0	0	16	
Bolangir	FW	ONC	AEG	Low cost farm implements used in paddy cultivation	1	1	0	0	17	0	0	0	8	
Bolangir	FW	ONC	AEG	Water management in groundnut crop	1	1	1	0	5	6	1	0	5	7
Bolangir	FW	ONC	AEG	Management of banana crop under drip irrigation system	1	1	4	1	8	1	0	0	8	3
Bolangir	FW	ONC	AEG	Use and efficiency of sprinkler irrigation in field crops	1	1	0	0	4	0	5	0	16	0
Bolangir	FW	OFC	AEG	Custom hiring of paddy reaper	1	1							25	
Bolangir	RY	OFC	AEG	Cost effective method of paddy cultivation using self propelled rice transplanter	1	1	0	0	4	0	2	0	9	
Bolangir	RY	ONC	AEG	Agri Entrepreneurship to establish Agro service Centre	1	1	0	0	1	0	2	0	12	
Bolangir	RY	ONC	AEG	Use and efficiency of electrical pump in irrigation	1	1	0	0	3	0	1	0	16	0
Bolangir	FW	OFF	PLP	IDM in pulse	1	1	0	0	4	0	0	0	21	0
Bolangir	FW	OFF	PLP	IPM in groundnut	1	1	0	0	14	0	3	0	8	0
Bolangir	FW	OFF	PLP	IDM in solanaceous crops	1	1	0	0	16	0	0	0	9	0
Bolangir	FW	ONC	PLP	IPM in cabbage and cauliflower	1	2	0	0	7	0	7	0	11	0
Bolangir	FW	ONC	PLP	Latest and effective PP chemicals for pest management	1	2	0	0	4	0	7	0	14	0
Bolangir	FW	OFF	PLP	Management of sucking pest and diseases in green gram	1	1	0	0	10	0	2	0	13	0
Bolangir	FW	OFC	WOE	cultivation of Elephant footyam by farm women	1	1				3		0		22
Bolangir	FW	OFC	WOE	Preparation of value added product from mango	1	1				5		7		213
Bolangir	FW	OFC	WOE	Paddy straw mushroom cultivation	1	1				0		5		20
Bolangir	FW	ONC	WOE	Rearing , feeding & vaccination practices of Vanaraja Chicks	1	1				1		2		22
Bolangir	FW	ONC	WOE	Rearing practices of goat (Sirohibuck)	1	1				0		3		22

Name of KVK	Cate-gory	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants							
							General		SC		ST		Others	
							M	F	M	F	M	F	M	F
1	2	3	4	5	7	8	9	10	11	12	13	14	15	16
Bolangir	FW	ONC	WOE	Hybrid papaya cultivation by farm women	1	1				8		2		15
Bolangir	FW	ONC	WOE	Paddy straw mushroom cultivation phase-II	1	1				3		4		18
Bolangir	FW	ONC	WOE	Formation of SHG and development of entrepreneurship	1	1				3		9		12
Bolangir	FW	ONC	WOE	Paddy straw mushroom cultivation inside poly house	1	1				5		7		13
Bolangir	FW	ONC	WOE	Dhingri mushroom cultivation	1	1				5		7		13
Bolangir	FW	OFC	WOE	Preparation of value added product from dhingri mushroom	1	1				4		6		15
Bolangir	FW	OFC	WOE	Dhingri mushroom cultivation Phase-II	1	1				1		4		20
Bolangir	FW	OFC	WOE	Preparation of lowcost vermicompost unit	1	1				6		3		16
Bolangir	IS	OFC	WOE	Different homestead vocation activities for farmwomen	1	2				1		1		8
Bolangir	RY	ONC	WOE	Preparation of value added product from tomato	1	2				1		2		12
Bolangir	RY	ONC	WOE	Commercial floriculture an income generating remuneration for rural youth	1	2				0		5		10
Bolangir	RY	ONC	WOE	Formation of SHG and its management						1		7		7
Bolangir	FW	OFC	CBD	Income generation activities of SHG	1	1	0	0	0	25	0	0	0	0
Bolangir	FW	OFC	CBD	Alternate livelihood option for resource poor families	1	1	0	0	0	0	10	0	10	0
Bolangir	FW	OFC	CBD	Leadership development for community work	1	1	0	0	14	0	3	0	8	0
Bolangir	FW	OFC	CBD	IPM in Kharif pulses	1	1	0	0	6	0	2	0	17	0
Bolangir	FW	OFC	CBD	Formation and management of farmers group	2	2	0	0	10	0	12	0	30	0
Bolangir	FW	OFC	CBD	Mobilization of social capital in village	1	1	0	0	0	1	4	1	6	13
Bolangir	FW	OFC	CBD	Integrated nutrient management in pulse	1	1	0	0	0	0	0	0	18	7
Bolangir	FW	OFC	CBD	Management practices of Greengram	1	1	0	0	1	0	1	0	23	0
Bolangir	FW	OFC	CBD	Management skill of the farmers in diseasement	1	1	0	0	17	0	3	0	5	0
Bolangir	FW	OFC	CBD	Mnagement practices of Arhar	1	1	0	0	0	0	0	0	25	0

Name of KVK	Cate-gory	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants							
							General		SC		ST		Others	
							M	F	M	F	M	F	M	F
1	2	3	4	5	7	8	9	10	11	12	13	14	15	16
Bolangir	FW	OFC	CBD	Group approaches for rural developoement	1	1	0	0	6	0	2	0	17	0
Bolangir	RY	OFC	CBD	Marketing of agricultural practices	1	1	0	0	7	0	1	0	7	0
Bolangir	RY	OFC	CBD	Vermicomposting ffor income generation	1	1	0	0	5	0	1	0	9	0
Bolangir	RY	OFC	CBD	Agripreneurship development for Rural youth	2	2	0	0	0	0	0	0	15	0
Bolangir	IS	ONC	CBD	SWOT Analysis	1	1	0	0	0	0	1	0	9	0
Bolangir	IS	ONC	CBD	Market-led extension	1	1	0	1	3	0	1	0	5	0
Bolangir	IS	ONC	CBD	PRA methodology	2	2	0	0	0	0	0	0	10	0

Table 5.2. Details of Vocational training programmes for Rural Youth conducted by the KVKs

Name of KVK	Training title	Crop / Enterprise	Identified Thrust Area	Duration of training (days)	Number of Beneficiaries					
					SC		ST		Others	
					M	F	M	F	M	F
Bolangir	Preparation of value added product from mushroom, seasonal fruit & vegetable	mushroom, seasonal fruit & vegetable	Value addition	5	0	1	0	4	0	5
Bolangir	Sirohi buck – a small scale income generation enterprises for landless labourer									

Table 5.3. Details of training programme conducted for livelihood security in rural areas by the KVKs

Name of KVK	Training title	Self employed after training			Number of persons employed else where
		Type of units	Number of units	Number of persons employed	
Bolangir	Development of dual purpose backyard poultry-Banaraja	Free range	5	5	

Table 5.4. Sponsored Training Programmes

Name of KVK	Title	Thematic area (as given in abbreviation table)	Sub-theme (as per column no 5 of Table T1)	Client (FW/ RY/ IS)	Duration (days)	No. of courses	No. of Participants						Sponsoring Agency	Fund received for training (Rs.)
							Others		SC		ST			
							M	F	M	F	M	F		
Bolangir	Water management training programme	Increasing scale of water productivity		FW	7	1	30	17	2	1			AICRP on water management RRTTS, Chipilima	63000

Table 5.5 Training Programmes for Panchayatiraj Institutions Office-bearers & members

Name of KVK	Title	Thematic area (as given in abbreviation table)	Sub-theme (as per column no 5 of Table T1)	Client (FW/RY/IS)	Duration (days)	No. of courses	No. of Participants						Sponsoring Agency	Fund received for training (Rs.)
							Others		SC		ST			
							M	F	M	F	M	F		

Table 5.6 Evaluation/Follow up & Impact of the training programmes conducted by the KVK (all types of trainings)

Name of KVK	Title of the training	No. of trainees	Change in knowledge (Score)		Change in Production (q/ha)		Change in Income (Rs)		Impact on 1. Area expanded (ha) 2. No. of farmers adopted (no.) 3. % change in knowledge, production & Income
			Before	After	Before	After	Before	After	
Bolangir	Micro nutrient application in Cole crops	25	2	6	270	350	1,35,000	1,75,000	20, 15,
Bolangir	Planting techniques of Pointed gourd	25	17	60	289	383	2,89,000	3,83,000	% change in Income -33%
Bolangir	INM in Cabbage	25	5	49	280	370	1,40,000	1,85,000	% change in Income -32%
Bolangir	Seed production and seed extraction techniques of Tomato	25	4	78	0.7	1.2	70,000	1,20,000	% change in Income -71%
Bolangir	INM in Solanaceous crops	25	37	59	280	370	1,40,000	1,85,000	% change in Income -32%
Bolangir	Off season cultivation of Pumpkin	25	27	67	203	276	81,200	1,10,400	% change in Income -36%
Bolangir	Cultivation of high yielding cowpea variety for higher income	25	12	45	121	140	96,800	1,12,000	% change in Income -16%
Bolangir	Care and maintenance of Mango orchard	25	23	56	60	110	60,000	1,10,000	% change in Income -83%
Bolangir	Post harvest technology for export of Horticultural products	10	4	45	234	301	1,87,200	2,40,800	% change in Income -29%
Bolangir	Post harvest care of Onion	25	23	49	160	240	1,44,000	2,16,000	% change in Income -50%
Bolangir	Inter cropping in Horticultural crops	15	12	58	109	195	65,400	1,17,000	% change in Income -44%
Bolangir	Cultivation aspects of Bitter gourd	25	34	79	145	236	2,17,500	3,54,000	% change in Income -63%
Bolangir	Off season cultivation of Vegetables	25	11	87	85	165	1,70,000	3,30,000	% change in Income -82%

Bolangir	Management of weeds in Horticultural crops	10	8	59	157	242	62,800	98,000	% change in Income -56%
Bolangir	Cultivation aspects of Onion	25	26	81	156	239	1,40,400	2,15,100	% change in Income -53%
Bolangir	Cost of cultivation of different Horticultural crops	15	3	42	180	271	72,000	1,08,400	% change in Income -51%
Bolangir	High yielding Okra as a profitable crop	25	35	57	135	197	81,000	1,37,900	% change in Income -70%
Bolangir	Forcing Water melon out of season	25	24	72	275	369	1,92,500	2,58,300	% change in Income -34%
Bolangir	Principles of ploughing and farm implements required for field preparation of Kharif crops	25	06	10	-	-	8210	14672	25 nos. of trainee adopted,66.67,78.7
Bolangir	Use of sugarcane stripper	25	1	10	-	-	-	-	25 nos. of trainee adopted, 90%
Bolangir	Working operation of tractor operated multi crop seed drill for sowing of paddy seeds	25	3	8	29	34	6105	12505	19 nos. of trainee adopted, 166.67, 17.24
Bolangir	Principle & working operation of pre-germinated paddy drum seeder	25	1	10	28	36	7190	13800	6 nos. of trainee adopted, 90, 28.5,91.9
Bolangir	Use of power weeder in cotton crop	25	4	10	11.2	13.1	16100	20500	18 nos. of trainee adopted, 150,16.96,27.32
Bolangir	Low cost farm implements used in paddy cultivation	25	2	8	-	-	-	-	9 nos. of trainee adopted,300
Bolangir	Water management in groundnut crop	25	4	9	12.8	16.7	20200	28350	18 nos. of trainee adopted, 125, 30.46, 40.34
Bolangir	Management of banana crop under drip irrigation system	25	2	9	490	650	140100	190000	5 nos. of trainee adopted, 350, 32.65, 35.61
Bolangir	Custom hiring of paddy reaper	25	6	10	-	-	-	1745/ha	11 nos. of trainee adopted, 66.67
Bolangir	Cost effective method of paddy cultivation using self propelled rice transplanter	15	3	8	33	42	8250	15600	2 nos. of trainee adopted, 166.67, 27.27, 89
Bolangir	Agri Entrepreneurship to establish Agro service Centre	15	6	10	-	-	-	15000/month	1 no of trainee adopted, 66.67

Bolangir	Use and efficiency of sprinkler irrigation in field crops	25	5	10	-	-	7250	15210	18 nos. of trainee adopted, 100, 109
Bolangir	Use and efficiency of electrical pump in irrigation	20	4	9	-	-	-	-	20 nos. of trainees adopted, 125
Bolangir	cultivation of Elephant footyam by farm women	25	1	6	220	269	4400	5380	5,15,500%
Bolangir	Preparation of value added product from mango	25	2	8	-	-	1000	3000	16 villages,20 nos. of trainees adopted,300
Bolangir	Paddy straw mushroom cultivation	50	2	8	-	1.5 kg/bed		70/bed	30 nos. of trainee adopted
Bolangir	Rearing , feeding & vaccination practices of Vanaraja Chicks	25	3	7	1 kg/bird	3-3.5 kg/bird	180	420	15 nos. of trainee adopted
Bolangir	Rearing practices of goat (Sirohi buck)	25	3	7	25 kg/buck	80 kg/buck	5000	16000	10 nos. of trainee adopted
Bolangir	Hybrid papaya cultivation by farm women	25	2	8	20 kg/plant	40 kg/plant	38000	64800	15 nos. of trainee adopted
Bolangir	Formation of SHG and development of entrepreneurship	25	4	8	-	-	-	-	10 nos. of trainee adopted
Bolangir	Paddy straw mushroom cultivation inside poly house	25	0	3	-	1 kg/bed	-	90/bed	7 nos. of trainee adopted
Bolangir	Dhingri mushroom cultivation	50	2	7	-	2 kg/bed	-	90/bed	20 nos. of trainee adopted
Bolangir	Preparation of lowcost vermicompost unit	25	-	4	-	0.8 q/tank	-	2400/tank	12 nos. of trainee adopted
Bolangir	Commercial floriculture an income generating remuneration for rural youth	15	3	8	20 q/ha	80 q/ha	9600	37200	10 nos. of trainee adopted

6. EXTENSION ACTIVITIES

Name of the KVK	Activity	No. of activities (Targeted)	No. of activities (Achieved)	Detail of Participants						Remarks		
				Farmers (Others)		SC/ST (Farmers)		Extension Officials		Purpose	Topic s	Crop Stages
				M	F	M	F	M	F			
Bolangir	Field Day	10	7	148	46	95	37	24	0	On the principle of Seeing is Believing	1-Potato,2-Cowpea, 3- Cucumber, 4-Dual purpose poultry bird	
Bolangir	Kisan Mela											
Bolangir	Kisan Ghosthi		36	315	130	75	50	20	10	Strengthening and capacity building of Farmers groups		
Bolangir	Exhibition	2	2	MA SS								
Bolangir	Film Show		2	262	54	148	21	10	5	Information dissemination	1- IPM in Okra, 2- SRI method of cultivation	1-vegetative stage, 2- Nursery stage
Bolangir	Method Demonstrations											
Bolangir	Farmers Seminar	3	3									
Bolangir	Workshop											
Bolangir	Group meetings		12	62	25	15	12	6		Identification, prioritization of problems and problem analysis		
Bolangir	Lectures delivered as resource persons		86	525	365	422	298	60	80	Information dissemination		
Bolangir	Newspaper coverage		03	MA SS						Popularization of new technologies and highlighting the activities of KVK		
Bolangir	Radio talks	15	12	MA SS						Information dissemination and popularization of new technologies	1-Bamboo cultivation, 2- Sabuja ghara, 3-Plastic mulching, 4- vermicompost	
Bolangir	TV talks	3	1	MA SS						Information dissemination and popularization of new technologies	Cropping system	
Bolangir	Popular articles											
Bolangir	Extension Literature	20	20	-	-	-	-	-	-	-	-	-
Bolangir	Farm advisory Services											
Bolangir	Scientific visit to farmers field		130	345	121	132	56			Identification, prioritization of problems and problem analysis	Site selection for conducting OFT & FLD, pest and disease identification on Application of herbicide, Fruit and shoot borer in heliothis, bollworm management in cotton.	

Name of the KVK	Activity	No. of activities (Targeted)	No. of activities (Achieved)	Detail of Participants						Remarks		
				Farmers (Others)		SC/ST (Farmers)		Extension Officials		Purpose	Topic s	Crop Stages
				M	F	M	F	M	F			
Bolangir	Farmers visit to KVK		625	340	55	185	45	49	23	Information on new technologies, problem identification		
Bolangir	Diagnostic visits		27	94		46				Identification, prioritization of problems and problem analysis	BLB in paddy, blast in paddy	
Bolangir	Exposure visits	1	1	24	0	6	0	0	0	Seeing is believing	Bitter gourd seed production field at Khaprakhhol block	
Bolangir	Ex-trainees Sammelan		1	18		8	2			Sharing of experiences among peer groups and information		
Bolangir	Soil health Camp											
Bolangir	Animal Health Camp		1	31		9		2		Prophylactic prevention of disease outbreak		
Bolangir	Agri mobile clinic											
Bolangir	Soil test campaigns											
Bolangir	Farm Science Club conveners meet		4	43	20	32	5			Strengthening of farmers club, capacity building among members and Sharing of experiences among peer groups and information		
Bolangir	Self Help Group conveners meetings		1		34		16					
Bolangir	Mahila Mandals conveners meetings											
Bolangir	Celebration of important days		2		48		20		5	Popularization of important days	Womens Day	

7. Literature Developed/Published (with full title, author & reference)

7.1 KVK Newsletters

KVK Name	Date of start	Periodicity	Number of copies printed	Number of copies distributed
Bolangir	April-June 2011	1 st quarter	500	450
Bolangir	July-Sept-2011	2 nd quarter	500	450
Bolangir	October-December-2011	3 rd quarter	500	450

7.2 Literature developed/published

KVK Name	Type	Title	Author's name	Number of copies
Bolangir	Leaflet	Mahila manaka pain byabasika bhitire pala chhatu chasha	Smt Sasmita Purohit, SMS(H.Sc)	30
Bolangir	Leaflet	Sita Dinare mahilamanaka pain dhangiri chhatu chasha	Smt Sasmita Purohit, SMS(H.Sc)	30
Bolangir	Leaflet	Ambaru prastuta hoi paruthiba bibhinna prakarara sanrakshitia drabya	Smt Sasmita Purohit, SMS(H.Sc)	500
Bolangir	Leaflet	Bilati baiganaru prastuta hoi paruthiba bibhinna prakarara sanrakshita drabya	Smt Sasmita Purohit, SMS(H.Sc)	500
Bolangir	Leaflet	Adinia panipariba chasha	Smt. Swagatika Srichandan, SMS(Hort.)	500
Bolangir	Leaflet	Unnata pranalire tomato, baigana O lanka maricha chasha	Smt. Swagatika Srichandan, SMS(Hort.)	500
Bolangir	Leaflet	Bonsai	Smt. Swagatika Srichandan, SMS(Hort.)	500
Bolangir	Leaflet	Unnata pranalire harada chasha	Mr. Kamalakanta Behera, SMS(Ag. Extn.)	30
Bolangir	Leaflet	Unnata pranalire chinabadam chasha	Mr. Kamalakanta Behera, SMS(Ag. Extn.)	30
Bolangir	Leaflet	Unnata pranalire kapa chasha ebong samanyuita pranalire roga poka parichalana	Mr. Kamalakanta Behera, SMS(Ag. Extn.)	30
Bolangir	Leaflet	Dhana Phasala re balunga niyantrana	Mr. Ashis Kumar Das, SMS(PP)	500
Bolangir	Leaflet	Suskanchala pain stanatarana yogya kirosine pump ra upajogita O ehara karyaakrita paddhati	Mrs. Dipsika Paramjita, SMS(Ag. Engg.)	30

7.3 Details of Electronic Media Produced

KVK Name	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number
-	-	-	-

8. Production and supply of Technological products

8.1 SEED production

KVK Name	Major group/class	Crop	Variety	Type of produce (for Seed produced type hear SD; For Planting Material type here PM)	Quantity	Unit for quantity of produces (qtl for SD and Nos for PM)	Value (Rs.)	Provided to No. of Farmers
Bolangir	Pulse	Blackgram	Ujjala	SD	1.7	SD	14045	-
Bolangir	Pulse	Greengram	OBGG-52	SD	1.4	SD	13054	-

8.2 Planting Material production

KVK Name	Major group/class	Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
						Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Bolangir	Vegetable seedling	Tomato, Brinjal, Papaya, Broccoli, Chilli, drumstick	-	-	0.001	Utkalaraja, VNR-212, CO-7 & SINTA F1, Utkalava, PKM1	Seedlings	5050	1606	3000	

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

KVK Name	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
	BIOAGENTS				
	BIOFERTILIZERS				
	BIO PESTICIDES				

8.4 Livestock and fisheries production

KVK Name	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
	Cattle						
	Buffalo						
	Sheep and Goat						
	Poultry						
	Fisheries						
	Others (Specify)						

9. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : NOT AVAILABLE

Year of establishment : -

9.1 Details of soil & water samples analyzed so far :

KVK Name	Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Bolangir	Soil sample analysis	36	36	6	The samples have been tested in OUAT Laboratory at the cost st of farmer

10. Rainwater Harvesting : NOT AVAILABLE

Training programmes conducted by using Rainwater Harvesting Demonstration Unit

Name of KVK	Date	Title of the training course	Client (PF/R/Y/EF)	No. of Courses	No. of Participants including SC/ST			No. of SC/STParticipants		
					Male	Female	Total	Male	Female	Total
-	-	-	-	-	-	-	-	-	-	-

11. Utilization of Farmers Hostel facilities

Accommodation available (No. of beds) : NOT AVAILABLE

KVK Name	Months	Year	Title of the training course	Duration of training	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
-	-	-		-	-	-	-

12. Utilization of Staff Quarters facilities : NOT AVAILABLE

KVK Name	Year of construction	Year of allotment	No. of quarters occupied	No. of quarters vacant	Reasons for vacant quarters, if any
-	-	-	-	-	-

13. Details of SAC Meeting

KVK Name	Date of SAC meeting	No. of SAC members attended	Major recommendations
Bolangir	28-02-2012	30	<ol style="list-style-type: none"> 1. Popularization of kharif onion 2. Collaboration work with line depts, Bank, NGO 3. Popularization of hybrid rice & scented rice 4. Promotion of Arhar variety –Asha in Bolangir district 5. Inter cropping of paddy and arhar should be popularized 6. Awareness should be created on preservation of water 7. Popularization of subarcan variety : F602 rather than Co-7805 8. Awareness of farmers about farm mechanization such seed drill, power weeder, transplanter 9. 2 nos of farmers fair should be conducted in a year 10. Training should be given about bad impact of BT variety of cotton 11. More nos of OFT should be conducted on black gram 12. Pratiksha variety of paddy should popularized in Bolangir district 13. Popularization of upland maize 14. Promotion of Devi variety of G.nut rather than Smruti variety due to poor germination 15. More demonstration should be conducted on tomato variety : Utkala Raja

14. Status of Kisan Mobile Advisory (KVK-KMA)

KVK Name	No. of messages sent	No. of beneficiary		Major recommendations
		Farmers	Ext. Pers.	
Bolangir	15	1400	100	IPM, INM, Inter cropping, harvesting, post harvest technology, micro nutrient application, marketing, crop diversification, water management etc.

15. Status of Convergence with various agricultural schemes (Central & State sponsored)

KVK Name	Name of scheme	Name of Agency (Central/state)	Funds received (Rs.)	Activities organized	Operational Area	Remarks
Bolangir	ATMA	State	18000	Exposure visit of farmers, exhibition etc	Sambalpur	
	MNREGA					
	NHM					
Bolangir	RKVY					
	DRDA					
	Zila Panchyat					
	Seed village					
	NAIP					
	Climate Change					
	Others					

16. Status of Revolving Funds (Rs.)

KVK Name	Account No.	Opening balance (Rs.) as on 01.04.2011	Closing balance (Rs.) as on 31.03.2012	Current status (Rs.)
Bolangir	31149194881	14,000	6,01,000	-

16.Awards & Recognitions

KVK Name	Name of award /awardee	Type of award (Ind./Group/Inst./Farmer)	Awarding Organizations	Amount received
-	-	-	-	-

18. Case study and Success Story – Two best only in the following format

Success Story –I
Successful Farmwomen

Name of the KVK : KVK-Bolangir, OUAT, Bhubaneswar, Orissa

TITLE : Azolla Cultivation increased income from Dairy Farming

Introduction : Mrs. Sarojini Patel, W/o of Sri Dubai Patel, a middle aged women of village Fatakara in Puintala Block of Bolangir District included dairy as a component with three nos. of Jersey cows in her farming system since five years back. Other major component of her farming system are cultivation of pulses 0.4 ha, medium land paddy 1.2 ha and vegetable 0.56 ha along with paddy straw mushroom cultivation. Among all components maintaining the dairy unit was becoming difficult with ever increasing cost of cattle feeds.



KVK intervention : At this juncture the newly formed KVK, Bolangir intervened in the year 2010 and imparted training to her on Azolla cultivation and demonstration.

Output : The farmwomen constructed three pits of size 2m X 2m X 0.2m from which she gets on an average 4 kg Azolla per day.

Outcome : The farmwomen is able to saves Rs.24,000/- per year towards cost of cattle feeds and extra income Rs. 12,600/- per year

Impact : The milk production has increased from 12 ltrs per day to 15 ltrs per day. The encouraging result motivated another 5 nos farmers to adopt Azolla cultivation in the village.

Success Story –II **Successful Farmer**

Name of the KVK : KVK-Bolangir, OUAT, Bhubaneswar, Orissa

TITLE : Vegetable farming (Okra)

Introduction : Sri. Narahari Rout is a graduate farmer of Larkipalli village in Bolangir District. After completion of his graduation he started farming with his parental land of 2.4 ha adjacent to Bolangir Municipal area. Till the year 2009 he was continuing rice-pulse based farming system with less income of Rs. 60,000/- per annum.



KVK intervention : After the inception of KVK, Bolangir, scientists of KVK constantly guided him and insisted him to go for vegetable farming (Okra Var : Mahyco 10) In the year 2010 and imparted training to him on Okra cultivation and demonstration. He cultivated 0.2 ha of Okra in Kharif-2010

Output : He then went for cultivation of 1ha Okra during rabi season 2010. He harvested about 108 q/ha. Which is double than the earlier varieties.



Outcome : Sri Rout harvested about 108q/ha and earned Rs. 1,29,600 /- a net profit of Rs.81,135/- per ha was obtained against expenditure of Rs. 48,465

19. Details of KVK Agro-technological Park : NOT AVAILABLE

Name of KVK	Name of Component of Park	Detail Information (If established)
	Crop Cafeteria	
	Technology Desk	
	Visitors Gallery	
	Technology Exhibition	
	Technology Gate-Valve	

20. Important visitors to KVK

Name of KVK	Name of Visitor	Date of Visit	Remarks
Bolangir	Prof. D.P.Roy, V.C., OUAT, BBSR	21.11.11	
Bolangir	Dr. S.S. Nanda, DEE,OUAT,BBSR	23.11.11/ 28.02.12	Review KVK activities & attended SAC meeting
Bolangir	Dr. R.K.Raj Joint Director, Extension, Directorate of Extension Education, OUAT, BBSR	07.12.11	Review KVK activities

21. Status of KVK Website: AVAILABLE (kvkbolangirzpdvii.org)

22. E-CONNECTIVITY : NOT AVAILABLE

Name of KVK	Number and Date of Lecture delivered from KVK Hub				No of lectors organized by KVK	Brief achievements	Remarks
	Date	No of Staff attended	No of call received from Hub	No of Call mate to Hub by KVK			
-	-	-	-	-	-	-	-

23. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Name of KVK	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
Bolangir	Gosthies			
Bolangir	Lectures organized			
Bolangir	Exhibition			
Bolangir	Film show			
Bolangir	Fair			
Bolangir	Farm Visit			
Bolangir	Diagnostic Practical's			
Bolangir	Distribution of Literature (No.)			
Bolangir	Distribution of Seed (q)			
Bolangir	Distribution of Planting materials (No.)			
Bolangir	Bio Product distribution (Kg)			
Bolangir	Bio Fertilizers (q)			
Bolangir	Distribution of fingerlings (No)			
Bolangir	Distribution of Livestock specimen (No.)			
Bolangir	Total number of farmers visited the technology week			

24. INTERVENTIONS ON DROUGHT MITIGATION

Introduction of alternate crops/varieties

Introduction of alternate crops/ varieties			
Name of KVK	Crops/cultivars	Area (ha)	Number of beneficiaries
BOLANGIR			

Major area coverage under alternate crops/varieties

Major area coverage under alternate crops/ varieties			
Mane of KVK	Crops	Area (ha)	Number of beneficiaries
	Oilseeds		
	Pulses		
	Cereals		
	Vegetable crops		
	Tuber crops		
	Fruits		
	Spices		
	Cotton		
	Total		

Farmers-scientists interaction on livestock management

Name of KVK	Livestock components	Number of interactions	No.of participants
	Dairy Management		
	Disease management		
	Feed and fodder technology		
	Poultry management		

Animal health camps organised

Name of KVK	Number of camps	No.of animals	No.of farmers

Seed distribution in drought hit states

Name of KVK	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers

Seedlings and Saplings distributed

Name of KVK	Crops	Quantity (No.s)	Coverage of area (ha)	Number of farmers
	Seedlings			

Bio-control Agents

Name of KVK	Bio-control Agents	Quantity (q)	Coverage of Area (ha)	No. of farmers

(e) Bio-Fertilizer

Name of KVK	Bio-Fertilizer	Quantity (kg)	Coverage of Area (ha)	No. of farmers

(f) Verms Produced

Name of KVK	Verms Produced	Quantity (q)	Coverage of Area (ha)	No. of Farmers

(g) Large scale adoption of resource conservation technologies

Name of KVK	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers

(h) Awareness campaign

Name of KVK	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers
Bolangir												

25. Status of KVK Website: Already having website

If available, please provide the address of website: **kvkbolangirzpdvii.org**

26. Well labeled Photographs for each activity of the KVK (Soft copies as well as hard copy)

Attached in separate folder as photographs



Hybrid paddy – JKRH-401





Application Herbicide Pyrozosulfuron ethyl in
direct sown upland paddy



RECOMMENDED PRACTICE

FARMERS' PRACTICE





RECOMMENDED PRACTICE

FARMERS' PRACTICE



ASSESSMENT OF COWPEA VARIETY : UTKAL MANIK



ASSESSMENT OF BORON IN CABBAGE



Assessment of Maleic hydrazide in Onion







ASSESSMENT OF ETHYLENE IN PUMPKIN



OFT ON MARIEGOLD VAR : PUSABASANTI



**ASSESSMENT OF
SIROHIBUCK**





Farmer Operating paddy drum seeder for sowing pre germinated seeds



Farmer operating power weeder in cotton crop



RECOMMENDED PRACTICE



FARMERS' PRACTICE





RECOMMENDED PRACTICE



FARMERS' PRACTICE





PACKAGE DEMONSTRATION ON HIGH YIELDING TOMATO VAR: UTKALA RAJA



**CULTIVATION OF HIGH YIELDING POINTED GOURD
VAR –SWARNA ALAUKIK**



INM IN BRINJAL





**Demonstration of Papaya
variety Coorg honeydew**



RECOMMENDED PRACTICE

FARMERS' PRACTICE



**RECOMMENDED
PRACTICE**



FARMERS' PRACTICE



Paddy straw mushroom cultivation

EC



Demonstration on Sugarcane stripper



Drip irrigation system in Banana

E4



Dual purpose poultry farming

66



Low cost Vermicomposting through ring method