

# ANNUAL PROGRESS REPORT

*(April 2012-March 2013)*



***KVK, DHENKANAL***



**Orissa University of Agriculture & Technology**  
**Bhubaneswar**

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## REPORTING PERIOD – April, 2012 to March, 2013

### Summary of achievements during the reporting period

KVK Name	Activity	Target		Achievement	
		Number of activity	No. of farmers/ beneficiaries	Number of activity	No. of farmers/ beneficiaries
Dhenkanal	<b>Total Number of On-Farm Trials</b>	15	105	12	97
Dhenkanal	<b>FLDs – Oilseeds (activity in ha)</b>	15	39	10	26
Dhenkanal	<b>FLDs – Pulses (activity in ha)</b>	5	13	5	13
Dhenkanal	<b>FLDs – Cotton (activity in ha)</b>	-	-	-	-
Dhenkanal	<b>FLDs – Other than Oilseed and pulse crops(activity in ha)</b>	21.0	75	17.5	75
Dhenkanal	<b>FLDs – Other than Crops (activity in no. of Unit/Enterprise)</b>	40nos	25	40nos	30
Dhenkanal	<b>Training-Farmers and farm women</b>	53	1425	53	1425
Dhenkanal	<b>Training-Rural youths</b>	12	180	12	180
Dhenkanal	<b>Training- Extension functionaries</b>	07	110	07	110
Dhenkanal	<b>Extension Activities</b>	300	4000	586	5507
Dhenkanal	<b>Seed Production (Number of activity as seeds in quintal)</b>	1	110q	1	66.0q
Dhenkanal	<b>Planting material ((Number of activity as quantity of planting material in quintal)</b>	4	1500	4	1500
Dhenkanal	<b>Seedling Production (Number of activity as number of seedlings in numbers)</b>	10000	100	18000	90
Dhenkanal	<b>Sapling Production (Number of activity as number of sapling in numbers)</b>	2	250	0	0
Dhenkanal	<b>Other Bio- products (Vermicompost)</b>	1	10 q	1	10q
Dhenkanal	<b>Mushroom production</b>	1	2q	1	3.25q
Dhenkanal	<b>Live stock products</b>	1	200 birds	0	0
Dhenkanal	<b>SAC Meeting (Date &amp; no. of core/official members)</b>	1	40	1(08.11.12)	22
Dhenkanal	<b>Newsletters (no.)</b>	02	1000	04	400
Dhenkanal	<b>Publication (Research papers, popular article)</b>	03	-	07	-
Dhenkanal	<b>Outreach of KVK in the District (No. of blocks, no. of villages)</b>	08	180	08	180

# 1. GENERAL INFORMATION

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

Details of geographical area in hectare/Land utilization pattern

Geographical Area(000'Ha)	445
Cultivable Area(000'Ha)	186
Cultivable Waste land(000'Ha)	4
Current fallow(000'Ha)	31
Other fallows(000;ha)	20
Forest(000'Ha)	174
Pasture(000'Ha)	8
Land(Non Agriculture use) (000'ha)	42
Land under misc. plantation(000'ha)	6
Barren & un culturable land (000'ha)	5

Population of the District

Population	1066878
Male	544001
Female	522877
General	733097
ST	136501
SC	197280
No. of Farm families	108337
Small farmer	39823
Marginal farmer	50726
Big farmer	17788
Agricultural labour	122000

Area, Production & productivity of the major crops cultivated in the districts

Name of the crop	Area in ha	Production in (MT)	Yield q/ha
Paddy	112749	2543585	20.72
Sugarcane	1189	814580	685.1

Maize	2827	17280	6.11
Groundnut	15161	186520	12.30
Seasamum	15953	32790	2.06
Green gram	23529	52190	2.22
Black gram	23707	59200	2.50
Arhar	4689	34280	7.31
Vegetables	25186	3065350	121.71

### 1.2. 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)
Dhenkanal	Nachhipura	2011	Dhenkanal Sadar	10 km	950	120
Dhenkanal	Jamujhara	2010	Kamakshyanagar	30km	518	105
Dhenkanal	Bangursingh	2010	Odapada	30km	1600	320
Dhenkanal	Bangu	2009	Hindol	80 km	320	75
Dhenkanal	Majhisahi	2008	Dhenkanal Sadar	20 km	185	29
Dhenkanal	Deojhar	2008	Gondia	35 km	436	74

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

KVK Name	THRUST AREA
Dhenkanal	➤ Cultivation of HYV paddy with improved agro techniques (INM, IWM, IPM)
Dhenkanal	➤ Area expansion and seed production in groundnut
Dhenkanal	➤ Seed replacement in green gram and black gram for higher yield
Dhenkanal	➤ Improved cultivation techniques and area expansion of sugarcane
Dhenkanal	➤ Improved cultivation techniques of vegetables, mango, cashew, spices and tuber crops

Dhenkanal	➤ Composite fish culture, integrated fish farming and ornamental fish culture, polyculture of prawn, magur
Dhenkanal	➤ Back yard poultry rearing, diary, and goatery
Dhenkanal	➤ Mushroom cultivation
Dhenkanal	➤ Bee keeping
Dhenkanal	➤ Soil fertility, vermi-composting
Dhenkanal	➤ Commercial plantation of economically important tree species.
Dhenkanal	➤ Development of Agro-forestry systems
Dhenkanal	➤ Scientific management of minor forest produces

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

KVK Name	Problem identified	Methods of problem identification
Dhenkanal	Poor crop yield due to local varieties, application, inadequate plant population	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Imbalance fertilizer management	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Yield loss due to insect pest and diseases	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Weed problem	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Shortage of quality seeds	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Low pod yield pulses	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Traditional varieties	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Traditional method of sugarcane cultivation	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Lack of proper management practices of winter vegetables	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Shortage of planting material	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Improper management of cashew orchards, un employment problem of rural youths	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Un availability planting material and lack of knowledge about scientific method of cultivation.	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Lack of knowledge about scientific method of cultivation.	Through PRA tools and Discussion with the group of farmer

Dhenkanal	Insect pest attack	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Low income due to traditional method of fish culture	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Aquatic Weed	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Lack of feeding	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Diseases	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Non availability of ornamental fishes	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Low milk yield of desi cows	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Low body weight of desi birds	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Under utilization of paddy straw	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Under utilization of oyster mushroom cultivation	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Improper utilization of family labour and home stead lands	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Problematic soil Low organic matter content in the soil. Little knowledge about fertilizer doses	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Shortage of quality timbers	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Unutilization of Waste land	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Shortage of quality timbers, unutilized farm bunds	Through PRA tools and Discussion with the group of farmer
Dhenkanal	Lack of quality planting material of forest species	Through PRA tools and Discussion with the group of farmer

## 2. OFT (April 2012 to March 2013)

### 2.1 Basic information of the Technology taken by the KVK \* KVK+Year+Season+ Discipline & Code

KVK name	Year	Season	Category of technology (Assessment/Refinement)	OFT on crop/Enterprise	Title of OFT	OFT ID* (to be created by the KVK)	Name of Crop/Enterprise	No of trials		Area (ha)		Status of the OFT (Completed/Continued/Result awaited)
								Targeted	Achieved	Targeted	Achieved	
Dhenkanal	2012	Kharif	Assessment	Crop	Assessment of Gypsum and Borax in Kharif Groundnut	Dkl1213K001	Groundnut	05	05	1.0	1.0	Completed
Dhenkanal	2012	Kharif	Assessment	Crop	Assessment of Mango base solanaceous vegetable inter cropping system	Dkl 1213K002	Mango + Solanaceous Vegetable	05	09	1.0	1.0	Completed
Dhenkanal	2012	Kharif	Assessment	Crop	Assessment of fipronil for controlling Stem borer in Paddy	Dkl 1213K003	paddy	05	05	1.0	1.0	Completed
Dhenkanal	2012	Kharif	Assessment	Crop	Assessment of chemical (Carbendazim+Mancozeb) for controlling tikka disease in Groundnut	Dkl 1213K004	Groundnut	05	05	1.0	1.0	Completed
Dhenkanal	2012	Kharif	Assessment	Enterprise	Assessment of <i>V.volvaceae</i> in peak period of Summer	Dkl 1213K005	Mushroom	10	10	100 beds	250 beds	Completed
Dhenkanal	2012	Kharif	Assessment	Enterprise	Assessment of Bhindi plucker for drudgery reduction	Dkl 1213K006	Bhindi Plucker	25	25	25 nos	25 nos	Completed
Dhenkanal	2012-13	Rabi	Assessment	Crop	Assessment of profenophos for controlling Mealybug in Papaya	Dkl1213R007	Papaya	05	05	0.4	0.4	Completed
Dhenkanal	2012-13	Rabi	Assessment	Crop	Assessment of fungicide (Copper oxychloride + plantomycin) for controlling purple blotch disease in Onion	Dkl1213R008	Onion	05	05	0.4	0.4	Completed
Dhenkanal	2012-13	Rabi	Assessment	Crop	Assessment of brinjal variety <i>Utkala madhuri</i> with application of GA3 during post harvest period.	Dkl1213R009	Brinjal	05	08	1.0	1.0	Completed
Dhenkanal	2012-13	Rabi	Assessment	Enterprise	Assessment of Sunflower Threshing Bench for drudgery reduction of Farm women	Dkl1213R010	Sunflower Thresher	05	05	5 nos	5 nos	Completed
Dhenkanal	2012-13	Rabi	Assessment	Enterprise	Assessment of Oyster mushroom variety <i>P.sajarcaju</i>	Dkl1213R011	Mushroom	10	10	100 bags	40bags	Completed
Dhenkanal	2012-13	Rabi	Assessment	Enterprise	Assessment of 8-row Paddy drum seeder for sowing of	Dkl1213R012	Paddy Drum seeder	05	05	1.0	1.0	Completed



					pregerminated Paddy seeds							
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## 2.2 Details of Problems taken as OFT by the KVK

KVK name	OFT ID	Problem diagnose	Thematic area	Farmers' practice (T <sub>i</sub> )	Farming situation				Total Area of the district (in ha) affected by the problem	Name of the block(s) under KVK where the problem occurs
					Soil type	Irrigation	Type of Cultivation (Low land/ Mid land/ Up land)	Cropping system		
Dhenkanal	Dk11213K001	Low yield & shelling percentage of Groundnut due to Gypsum and Boron deficiency	INM	Use of micronutrient free fertilizers	Sandy loam	Rainfed	Upland	Groundnut-fallow	400	Dhenkanal sadara
Dhenkanal	Dkl 1213K002	Un utilization of waste space, Low income from mango as single crop, High intercultural operation cost.	ICM	Cultivation of only mango without utilization of waste space.	Laterite	Rainfed	Up land	Horticulture base	25000	Sadara, Gondia, Kamakhya nagar, Hindol, Bhuban, Kankadahad
Dhenkanal	Dkl 1213K003	Low yield of Paddy due to high infestation of stem borer	IPM	Spraying of monocrotophos @2ml / lit	Sandy loam	Rainfed	Mid land	Rice based	1250	Sadar, Odapada, Kamakhya Nagar
Dhenkanal	Dkl 1213K004	Low Yield of Groundnut due to high incidence of tikka disease	IDM	Spraying of bavistin @3 gm / lit	Sandy loam	Rainfed	Mid land	Groundnut-fallow	450	Sadar, Odapada,
Dhenkanal	Dkl 1213K005	Low yield of the ruling strength in peak period of summer (more than temp 40 degree centigrade)	Small scale IGA	Cultivation in summer not in practice	Sandy Loam	Rainfed	Mid Land	Paddy based	7000 beds	Sadar, Odapada, Kamakhya Nagar
Dhenkanal	Dkl 1213K006	Irregular cut and high drudgery due to manual plucking	Drudgery Reduction	Manual Plucking	Sandy Loam	Rainfed	Mid Land	Paddy plus vegetable based	15 hectare	Sadar, Odapada, Kamakhya Nagar, Kankadahad
Dhenkanal	Dk11213R007	Low yield of papaya due to high infestation of mealybug	IPM	Spraying of monocrotophos @2ml / lit	Sandy loam	Irrigated	Mid land	Vegetable based	50	Sadar, Odapada, Kamakhya Nagar
Dhenkanal	Dk11213R008	Low yield of onion due to high incidence of purple blotch disease	IDM	Spraying of bavistin @3 gm / lit	sandyloam	Irrigated	Mid land	Vegetable based	85	Sadar, Odapada,
Dhenkanal	Dk11213R009	Low yield, No post harvest cultivation management for annual crop.	ICM	Cultivation of green star & single harvest/Yield in annual crop.	Red laterite	Irrigated	Upland	Vegetable base	1500	Sadara, Gondia, Hindola, Kamakhya nagar
Dhenkanal	Dk11213R010	High drudgery due to manual threshing	Drudgery Reduction	Manual Threshing	Sandy Loam	Rainfed	Mid Land	Paddy plus Sun flower based	100 hectare	Sadar
Dhenkanal	Dk11213R011	Low yield due to use of local variety	Small scale IGA	Cultivation of <i>P. florida</i>	Sandy Loam	Rainfed	Mid Land	Paddy based	2000 bags	Sadar
Dhenkanal	Dk11213R012	High labour, cost and time involved in manual transplanting of Paddy	Farm Mechanization	Manual transplanting	Sandy loam	Irrigated	Upland	Rice based	500	Dhenkanal Sadara

### 2.3 Details of solution taken for technology assessment/refinement by the KVK

KVK Name	OFT ID No	Details of technology selected (T <sub>2</sub> )	Source of technology	Year of release of technology	If refinement in the technology, give details of refinement over recommended practices (T <sub>3</sub> )
Dhenkanal	Dk11213K001	Soil application of borax @ 8-10 kg/ha at sowing in kharif groundnut	OUAT	2001	-
Dhenkanal	Dk1 1213K002	Waste space management by intercropping of Tomato var. <i>Utkala srabani</i> , Brinjal variety <i>Green subarna</i> , Chilli var. <i>Utkala Abha</i> in mango variety <i>Amrapali</i> .	OUAT	2007	-
Dhenkanal	Dk1 1213K003	Spraying of fipronil @2ml / lit twice, once at tiling stage & at PI stage	OUAT, BBSR	2006	
Dhenkanal	Dk1 1213K004	Spraying of chemical (Carbendazim+ Mancozeb) @2 gm/ lit at vegetative stage twice at 15 days interval	OUAT, BBSR	2004	
Dhenkanal	Dk1 1213K005	Reducing temperature by use of wet gunny bags in walls of mushroom unit and putting moist sand throughout the day on floor	CTMRT	2009	-
Dhenkanal	Dk1 1213K006	Introduction of bhindi plucker instead of hand plucking	Falcon	2008	-
Dhenkanal	Dk1 1213R007	Spraying of profenophos @ 2 ml/ lit at vegetative & fruiting stage.	ANGRAU, Hyderabad	2008	
Dhenkana l	Dk11213R008	Spraying of fungicide(Copper oxychloride + plantomycin @2gm +1 gm/ lit at vegetative stage	NHRDF, Nasik	2000	
Dhenkana l	Dk11213R009	Use of Brinjal variety <i>Utkala Madhuri</i> with application of GA3 after first harvesting	OUAT	2010	-
Dhenkana l	Dk11213R010	Use of sunflower threshing bench for reducing drudgery of farm women	OUAT	2008	Refinement; change in dimensions of threshing bench from 24"X 24" X 6" to 24" X 24" X 9"
Dhenkana l	Dk11213R011	Cultivation of <i>P. Sajarkaju</i> for better acceptance	CTMRT	2008	
Dhenkana l	Dk11213R012	Use of 8-row drum seeder with working capacity 1.0 ha/day and 20 cm spacing in between two rows in each drum and plant to plant spacing of 3 inch.	TNAU, Coimbatore	2008	-

## 2.4 Performance of the technology for assessment/refinement

### A. Production

KVK Name	OFT ID	Main Products				Bye- Product			
		Unit of measurement	Farmer's Practice (T <sub>1</sub> )	Recommended Practice (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )	Unit of measurement	Farmer's Practice (T <sub>1</sub> )	Recommended Practice (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )
Dhenkana	Dkl1213K001	Kg/ha	1120	1530		q/ha	67	72	-
Dhenkana	Dkl 1213K002	Kg/ha	2020	2000	-	Kg./ha.	00	16750	-
Dhenkana	Dkl 1213K003	q./ha	39.7	55.6					
Dhenkana	Dkl 1213K004	q./ha	10.2	14.6					
Dhenkana	Dkl 1213K005	Kg/bed	0.3	0.5	-	-	-	-	-
Dhenkana	Dkl 1213K006	Kg/hr	3.0	9.0	-	-	-	-	-
Dhenkana	Dkl 1213R007	q./ha	360	430	-	-	-	-	-
Dhenkana	Dkl1213R008	q./ha	158	230	-	-	-	-	-
Dhenkana	Dkl1213R009	kg/ha	26000	31200	-	Kg./ha.	00	00	-
Dhenkana	Dkl1213R010	Kg/hr	1.39	5.12					
Dhenkana	Dkl1213R011	Kg/bag	1.5	2.1	-	-	-	-	-
Dhenkana	Dkl1213R012	ha/hr q/ha	0.004 39.7	0.12 42.3		MD/ha	31	2	

### B. Parameters

KVK Name	OFT ID	Observations taken on parameter I					Observations taken on parameter II				
		Parameter name	Unit of measurement	Farmer's Practice (T <sub>1</sub> )	Recommended Practice (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )	Parameter name	Unit of measurement	Farmer's Practice (T <sub>1</sub> )	Recommended Practice (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )
Dhenkanal	Dkl1213K001	No. of pods per plant	Number	10	18	-	No of plants/m2	No	26	36	-

Dhenkanal	Dkl 1213K002	Mango Fruit length	cm.	7	7.1	-	Vegetables fruit length, Tomato, Brinjal, Chilli	Cm.	-	4. 2, 7. 2, 5. 8	-
Dhenkanal	Dkl 1213K003	Dead heart	%	9.2	3.8		White earhead	%	7.6	2.7	
Dhenkanal	Dkl 1213K004	Leaf area infected	%	16.0	5.8						
Dhenkanal	Dkl 1213K005	Colour of mushroom		Off white	Blackish white		Size of Head		Small	Big	
Dhenkanal	Dkl 1213K006	Heart Rate: Labour efficiency	Beats/ Min: MD/qtl	110 6	104 1		Cardiac cost	beats/kg	36.2	27.6	
Dhenkanal	Dkl 1213R007	Sedimentary insects	Nos/sq cm	18.6	2.4						
Dhenkanal	Dkl 1213R008	Leaf area infected	%	14.8	4.2						
Dhenkanal	Dkl1213R009	Fruit size	Cm	6.5	8.2	-	Number of fruit per cluster	No.	01	07	-
Dhenkanal	Dkl1213R010	Cost of threshing	Rs/kg	6.02	2.44	-					-
Dhenkanal	Dkl1213R011	Colour of mushroom		Off white	Blackish white		Tenderness		Slightly hard	Soft & tasty	
Dhenkanal	Dkl1213R012	Cost of operation	Rs/ha	3100	310						

### C. Economic Performance

KVK name	OFT ID	Average Cost of cultivation (Rs/ha)			Average Gross Return (Rs/ha)			Average Net Return (Rs/ha)			Benefit-Cost Ratio (Gross Return / Gross Cost)		
		Farmer's Practice (T <sub>1</sub> )	Recommended Practice (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )	Farmer's Practice (T <sub>1</sub> )	Recommended Practice (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )	Farmer's Practice (T <sub>1</sub> )	Recommended Practice (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )	Farmer's Practice (T <sub>1</sub> )	Recommended Practice (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )
Dhenkanal	Dkl1213K001	17100	20700		39200	53550		22100	32850		2.29	2.59	
Dhenkanal	Dkl 1213K002	9670	60680	-	31970	216740	-	22300	156060	-	3.30	3.57	-
Dhenkanal	Dkl 1213K003	20600	21510		49625	72250		29025	50740		2.4	3.35	-
Dhenkanal	Dkl 1213K004	8000	10000		21500	29250		13500	19250		2.63	2.93	-
Dhenkanal	Dkl 1213K005	Rs35/bed	Rs40/bed		45	75		10	35		1.28	1.87	
Dhenkanal	Dkl 1213K006	23000	25000		42000	49000		19000	24000		1.82	1.96	
Dhenkanal	Dkl 1213R007	55000	61000		180000	215000		125000	154000		3.27	3.52	
Dhenkanal	Dkl1213R008	58000	65000		132000	165000		74000	100000		2.27	2.54	
Dhenkanal	Dkl1213R009	90000	92000	-	312000	374000	-	222000	282400	-	3.46	4.07	-
Dhenkanal	Dkl1213R010	23000	24500		28500	33800		5500	9300		1.24	1.38	
Dhenkanal	Dkl1213R011	Rs20/bed	Rs23/bed	-	90	126		70	103		4.5	5.47	

Dhenkanal	Dkl1213R012	24480	20700	49625	52875	25145	32175	2.02	2.55
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## 2.5 Recommendations/message from assessed/refined technology

KVK Name	OFT ID No	Final recommendation for micro level situation	Constraints identified and feedback for research	Process of farmers participation and their reaction	Farmers feed back	Process for sensitization of the line departments for replacement of the technology			
						Workshop/ meetings	Trainings	Visits	Publications
Dhenkanal	Dkl1213K001	Soil application of borax @ 10 kg/ha is recommended at sowing in khrif groundnut	-	Farmers' meeting, Training and Farmers' Visit	Lower return was obtained due to B deficiency	02	01	05	01
Dhenkanal	Dkl 1213K002	Inter cropping of solanaceous vegetable especially tomato, Brinjal is highly profitable for this region. Horticulture base Intercropping system will be a profitable enterprise for farmer.	-	Farmer meeting, Field visit & Individual farm contact. Accepted the technology after discussion.	Technology is highly profitable. Waste space is utilized by intercropping so less intercropping operation cost.	01	02	06	02
Dhenkanal	Dkl 1213K003	Spraying of fipronil @2ml / lit twice, once at tiling stage & at PI stage is recommended		Farmers' meeting, Training and Farmers' Visit	Grain yield has been increased & disease is checked due to chemical application	-	01	06	01
Dhenkanal	Dkl 1213K004	Spraying of chemical (Carbendazim+ Mancozeb) @2 gm/ lit at vegetative stage twice at 15 days interval is recommended		Farmers' meeting, Training and Farmers' Visit	Pod yield has been increased and incidence of Tikka disease has been reduced.	-	01	04	-
Dhenkanal	Dkl 1213K005	It is technically feasible to cultivate paddy straw mushroom during peak period of summer	Difficulty to maintain required temperature as sand and gunny bags get dried	Increase in involvement of women for maintaining wetness	Develop mechanical system to maintain wetness of sand and gunny bag	02	01	04	01 (success story)
Dhenkanal	Dkl 1213K006	Potential tool for adoption by farm women	No specific constraint	Involvement of farm women in adoption of technology; Male members supporting farm women to use technology	Increases plucking efficiency and reduces hand injury	-	01	03	01 (Newsletter)
Dhenkanal	Dkl 1213R007	Spraying of profenophos @ 2 ml/ lit at vegetative & fruiting stage is recommended		Farmers' meeting, Training and Farmers' Visit	Fruit yield has been increased & pest infestation is reduced	01	01	05	01
Dhenkanal	Dkl1213R008	Spraying of fungicide(Copper	-	Farmers' meeting,	Yield has been increased	02	01	05	01

		oxychloride + plantomycin @2gm +1 gm/ lit at vegetative stage recommended		Training and Farmers' Visit	drastically & disease is checked due to fungicide application				
Dhenkanal	Dk11213R009	Application of GA3 in post harvest period increase a yield about 25 %. Brinjal variety is suitable for this region.	-	Training, Meeting, Field work shop.	Yield of Utkala madhuri is good. Application of GA3 hormone after first harvest increases number of new leaf & bud..	01	01	07	
Dhenkanal	Dk11213R010	Technology suitable for use after reducing mesh dimensions	In case sun flower is not fully dried, the some seeds at the centre gets damaged	Technology led to more involvement of women	Increase in threshing efficiency	-	01	03	01
Dhenkanal	Dk11213R011	Introduced variety suitable for the area	No specific constraint	Initially farmers were reluctant to adopt new variety for fear of non acceptance by consumers	Alternate variety of spawn available for cultivation	01	01	04	-
Dhenkanal	Dk11213R012	Paddy drum seeder is recommended for upland irrigated farming situation in Rabi season	Seeds are falling in a distracted manner	Training, Farmers' visit, group meeting	Farmers are very happy as it saves time, labour and cost of operation compared to manual transplanting	02	01	08	02

## 2.6 Farmer-wise performance of the technology for assessment/refinement

KVK Name	OFT ID No	Farmers' name	Main Product (kg/ha)			By-Product (kg/ha)			Observations on Other Parameter					Observations on Other Parameter				
			T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>
Dhenkanal	Dk11213K001	Pradyumna Kumar Sahoo	1110	1530		6700	7220	-	No.of pods/plant	Nos.	09	17		No. of plants/sq. m	Nos.	25	35	-
Dhenkanal	Dk11213K001	Prasanta Kumar Sahoo	1120	1540		6680	7210	-	No.of pods/plant	Nos.	10	18		No. of plants/sq. m	Nos.	26	36	-
Dhenkanal	Dk11213K001	Giridhari Nayak	1130	1550		6705	7195	-	No.of pods/plant	Nos.	11	19		No. of plants/sq. m	Nos.	26	37	-
Dhenkanal	Dk11213K001	Rusia Nayak	1150	1520		6730	7205		No.of pods/plant	Nos.	12	20		No. of plants/sq. m	Nos.	29	38	-
Dhenkanal	Dk11213K001	Trinath	1090	1510		668	7170		No.of	Nos.	08	16		No. of	Nos.	24	34	-

KVK Name	OFT ID No	Farmers' name	Main Product (kg/ha)			By-Product (kg/ha)			Observations on Other Parameter					Observations on Other Parameter				
			T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>
		Sahoo				5			Pods/plant					plants/sq.m				
Dhenkanal	Dkl 1213K002	Jagabandhu Nayak	2000	1880	0	0	6620	0	Net profit	Rs.	22079	1574	00	0				
Dhenkanal	Dkl 1213K002	Kanduri Ch. Dehuri	2040	1920	0	0	6450	0	Net profit	Rs.	22521	1670	00	0				
Dhenkanal	Dkl 1213K002	Radha Kanta Behura	2040	1935	0	0	6510	0	Net profit	Rs.	22521	1452	00	0				
Dhenkanal	Dkl 1213K002	Gokulana nda Dehuri	2030	1970	0	0	6480	0	Net profit	Rs.	22410	1545	00	0				
Dhenkanal	Dkl 1213K002	Bimbadhara Dehuri	2035	1820	0	0	6470	0	Net profit	Rs.	22466	1510	00	0				
Dhenkanal	Dkl 1213K002	Sarat Rout	2000	1870	0	0	6510	0	Net profit	Rs.	22079	1580	00	0				
Dhenkanal	Dkl 1213K002	Soumendra Ku. Barala	2020	1910	0	0	6440	0	Net profit	Rs.	22300	1564	00	0				
Dhenkanal	Dkl 1213K002	Lalita Behera	2015	1850	0	0	6630	0	Net profit	Rs.	22245	1563	00	0				
Dhenkanal	Dkl 1213K002	Pradeep Naik	2000	1945	0	0	6390	0	Net profit	Rs.	22079	1582	00	0				
Dhenkanal	Dkl 1213K003	Prakash Behera	4170	5130					Dead heart	%	8.8	4.0		White earhead	%	7.4	2.9	
Dhenkanal	Dkl 1213K003	Digambar Behera	3846	5720					Dead heart	%	9.4	3.7		White earhead	%	7.7	2.6	
Dhenkanal	Dkl 1213K003	Pravakar Sahoo	4000	5780					Dead heart	%	9.3	3.6		White earhead	%	7.5	2.5	
Dhenkanal	Dkl 1213K003	Ramesh Ch Rout	3834	5520					Dead heart	%	9.4	3.9		White earhead	%	7.8	2.8	
Dhenkanal	Dkl 1213K003	Dayanidhi Behera	4000	5650					Dead heart	%	9.1	3.8		White earhead	%	7.6	2.7	
Dhenkanal	Dkl 1213K004	Dibakar saho	900	1630					Leaf area infected	%	18.0	5.6						
Dhenkanal	Dkl 1213K004	Prafulla kumar saho	1200	1520					Leaf area infected	%	14.5	5.8						
Dhenkanal	Dkl 1213K004	Duryadhan saho	1000	1500					Leaf area infected	%	15.0	5.9						



KVK Name	OFT ID No	Farmers' name	Main Product (kg/ha)			By-Product (kg/ha)			Observations on Other Parameter					Observations on Other Parameter				
			T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>
Dhenkanal	Dkl 1213K004	Antarjami saho	1100	1530					Leaf area infected	%	16.0	5.7						
Dhenkanal	Dkl 1213K004	Babaji saho	900	1120					Leaf area infected	%	16.5	6.0						
Dhenkanal	Dkl 1213K005	Kanak Behera	0.3	0.5														
Dhenkanal	Dkl 1213K005	Geli Nayak	0.3	0.5														
Dhenkanal	Dkl 1213K005	Sabitri Behera	0.2	0.5														
Dhenkanal	Dkl 1213K005	Dula Raut	0.4	0.7														
Dhenkanal	Dkl 1213K005	Nirmala Behera	0.3	0.4														
Dhenkanal	Dkl 1213K005	Malli Behera	0.3	0.5														
Dhenkanal	Dkl 1213K005	Pravati Raut	0.4	0.4														
Dhenkanal	Dkl 1213K005	Sasmita Raut	0.2	0.3														
Dhenkanal	Dkl 1213K005	Mamata raut	0.3	0.6														
Dhenkanal	Dkl 1213K005	Phula Raut	0.3	0.6														
Dhenkanal	Dkl 1213K006	Sasmita Barala	3Kg/hr	10kg/hr					Heart rate	Beats/min	110	103						
Dhenkanal	Dkl 1213K006	Nirupama Baral	2	9							109	104						
Dhenkanal	Dkl 1213K006	Jyotsnarani Baral	4	8							110	106						
Dhenkanal	Dkl 1213K006	Lili Baral	3	7							110	107						
Dhenkana	Dkl 1213K006	Mamata Lenka	3	6							110	106						
Dhenkana	Dkl 1213K006	Jhunubala Barala	3	11							108	104						
Dhenkana	Dkl 1213K006	Saudami ni Parida	3	7							109	104						
Dhenkana	Dkl 1213K006	Puni Lenka	3 kg/hr	9 kg/hr							110	103						
Dhenkana	Dkl 1213K006	Kalyani Baral	4 kg/hr	9 kg/hr							110	102						
Dhenkana	Dkl 1213K006	Sulochana Baral	3 kg/hr	10 kg/hr							112	105						

KVK Name	OFT ID No	Farmers' name	Main Product (kg/ha)			By-Product (kg/ha)			Observations on Other Parameter					Observations on Other Parameter				
			T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>
Dhenkana	Dkl 1213K006	Pramila Baral	2 kg/h r	12 kg/h r														
Dhenkana	Dkl 1213K006	Ramesh Chandra Lenka	2 kg/h r	11 kg/h r														
Dhenkana	Dkl 1213K006	Subhadra Puhana	2 kg/h r	10 kg/h r														
Dhenkana	Dkl 1213K006	Surekha Khuntia	3 kg/h r	8 kg/h r														
Dhenkana	Dkl 1213K006	Debasmita Puhana	3 kg/h r	9 kg/h r														
Dhenkana	Dkl 1213K006	Laxmipriya Khuntia	2 kg/h r	9 kg/h r														
Dhenkana	Dkl 1213K006	Labanya Puhana	3 kg/h r	8 kg/h r														
Dhenkana	Dkl 1213K006	Phulan Puhana	3 kg/h r	11 kg/h r														
Dhenkana	Dkl 1213K006	Gitisri Khuntia	4 kg/h r	10 kg/h r														
Dhenkana	Dkl 1213K006	Kamalini Khuntia	3 kg/h r	10 kg/h r														
Dhenkana	Dkl 1213K006	Mamata Prusti	3 kg/h r	10 kg/h r														
Dhenkana	Dkl 1213K006	Hiranya sahu	4 kg/h r	9 kg/h r														

KVK Name	OFT ID No	Farmers' name	Main Product (kg/ha)			By-Product (kg/ha)			Observations on Other Parameter					Observations on Other Parameter				
			T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>
			kg/hr	kg/hr														
Dhenkana	Dkl 1213K006	Puspa Rout	4 kg/hr	8 kg/hr							110	106						
Dhenkana	Dkl 1213K006	Bimali Rout	3 kg/hr	7 kg/hr							110	105						
Dhenkanal	Dkl 1213K006	Padmabati Lenka	3 kg/hr	7 kg/hr							110	106						
Dhenkanal	Dkl 1213R007	Chitta ranjan puhana	36000	41000					No. of sedentary insects	Nos/sqcm	18.8	2.0						
Dhenkanal	Dkl 1213R007	Sisira khuntia	35500	40500							19.0	2.8						
Dhenkanal	Dkl 1213R007	Mayadhar prusty	26500	35000							18.2	2.0						
Dhenkanal	Dkl 1213R007	Sribatsa prusty	30000	36000							18.5	2.6						
Dhenkanal	Dkl 1213R007	Biranchi narayana puhan	32000	37500							18.5	2.6						
Dhenkanal	Dkl 1213R008	Sisira khuntia	15700	24800					Leaf area infected	%	14.8	4.0						
Dhenkanal	Dkl 1213R008	Mayadhar prusty	15000	22500							15.2	4.4						
Dhenkanal	Dkl 1213R008	Sribatsa prusty	15200	23200							14.9	4.2						
Dhenkanal	Dkl 1213R008	Biranchi narayana puhan	17000	25500							14.4	3.8						
Dhenkanal	Dkl 1213R008	Chitta ranjan puhana	16100	19000							14.7	4.6						
Dhenkanal	Dkl 1213R009	Sisira Khuntia	26500	31600	0	0	0	0	Fruit size	Cm.	6	8.4	0	Fruit/cluster	No.	1	7	0
Dhenkanal	Dkl 1213R009	Prabhakar Rout	26000	31500	0	0	0	0	Fruit size	Cm.	6.5	8.5	0	Fruit/cluster	No.	1	7	0
Dhenkanal	Dkl 1213R009	Narendra	25800	30900	0	0	0	0	Fruit	Cm.	6.7	8.2	0	Fruit/cluster	No.	1	8	0

KVK Name	OFT ID No	Farmers' name	Main Product (kg/ha)			By-Product (kg/ha)			Observations on Other Parameter					Observations on Other Parameter				
			T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>
		Ku. Mishra	0	0					size					ster				
Dhenkanal	Dkl 1213R009	Dasarathi Maharana	2620	3080	0	0	0	0	Fruit size	Cm.	6.5	8.1	0	Fruit/cluster	No.	1	7	0
Dhenkanal	Dkl 1213R009	Prasana Barala	2650	3210	0	0	0	0	Fruit size	Cm.	6.6	8.5	0	Fruit/cluster	No.	1	7	0
Dhenkanal	Dkl 1213R009	Susanta nayak	2500	3040	0	0	0	0	Fruit size	Cm.	6.6	7.7	0	Fruit/cluster	No.	1	6	0
Dhenkanal	Dkl 1213R009	Bidyadhara Sahoo	2560	3060	0	0	0	0	Fruit size	Cm.	6.5	8.4	0	Fruit/cluster	No.	1	7	0
Dhenkanal	Dkl 1213R009	Tikili Sahoo	2640	3170	0	0	0	0	Fruit size	Cm.	6.6	7.8	0	Fruit/cluster	No.	1	7	0
Dhenkanal	Dkl 1213R010	Mandakini Mohapatra	1.42kg/hr	5.12kg/hr					Cost of threshing	Rs/kg	6.05	2.44						
Dhenkanal	Dkl 1213R010	Urbasi Behera	1.36kg/hr	5.18kg/hr							6.00	2.42						
Dhenkanal	Dkl 1213R010	Janaki Behera	1.3	5.06							6.02	2.48						
Dhenkanal	Dkl 1213R010	Sabita Behera	1.4	5.08							6.04	2.38						
Dhenkanal	Dkl 1213R010	Rebati Barik	1.4	5.16							6.00	2.47						
Dhenkanal	Dkl 1213R011	Puspalata Sahu	1.4	2.2														
Dhenkanal	Dkl 1213R011	Babita Sahu	1.5	2.1														
Dhenkanal	Dkl 1213R011	Mamata Sahu	1.5	2.1														
Dhenkanal	Dkl 1213R011	Jail Sahu	1.6	2.2														
Dhenkanal	Dkl 1213R011	Rasmita Sahu	1.7	2														
Dhenkanal	Dkl 1213R011	Dulana Behera	1.6	2.2														
Dhenkanal	Dkl 1213R011	Ahalya Behera	1.4	2.1														
Dhenkanal	Dkl 1213R011	Jhumara Behera	1.4	2														

KVK Name	OFT ID No	Farmers' name	Main Product (kg/ha)			By-Product (kg/ha)			Observations on Other Parameter					Observations on Other Parameter				
			T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	Parameter name	Unit	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>
Dhenkanal	Dkl 1213R011	Sobhagini Behera	1.4	2.1														
Dhenkanal	Dkl 1213R011	Sumitra Behera	1.5	2														
Dhenkanal	Dkl 1213R012	Daitari Jena	4000	4320					Cost of operation	Rs/ha	3300	330		Labour efficiency	MD/ha	33	3	
Dhenkanal	Dkl 1213R012	Trilochan Rout	3970	4230							3000	325				30	2	
Dhenkanal	Dkl 1213R012	Raghava Rout	3980	4260							3100	300				31	1	
Dhenkanal	Dkl 1213R012	Joginath Rout	3940	4115							2900	310				29	2	
Dhenkanal	Dkl 1213R012	Dhruba Charan Rout	3960	4225							3200	285				32	2	

### 3. Achievements of Frontline Demonstrations (conducted during 1-04-2012 to 31-03-2013) (On the basis of Soil Test based fertilizer application for Acceptability of your results)

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

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 village s	No. of farmer s	Area in ha
Dhenkanal	Paddy	Varietal Evaluation	Cultivation of high yielding rice variety Pratikhya in medium land	Training and demonstration	10	5000	4000
Dhenkanal	Brinjal	Varietal substantiation	Introduction of CTCRI variety of sweet potato, elephant foot yam	Training and demonstration	10	1500	150
Dhenkanal	Maize	ICM	Sulphur management in maize	Training and demonstration	14	1240	400
Dhenkanal	Maize	INM	Management of acid soil in maize	Training and demonstration	14	1200	200
Dhenkanal	Paddy	IPM	1-Stemborer management in summer paddy.	Training and demonstration	20	250	150
Dhenkanal	Fish	Income Generation	Integrated farming system	Training and demonstration	10	07	1
Dhenkanal	Mushroom	Income Generation	Technique of raising mushroom beds	Training and demonstration	16	260	1200
Dhenkanal	Blackrock poultry	Income Generation	Introduction of Blackrock poultry	Training and demonstration	23	250	300
Dhenkanal	Cole crop and tomato	INM	Introduction of hybrid cabbage, cauliflower & wilt resistant tomato	Training and demonstration	22	2200	560
Dhenkanal	Vegetable	Varietal evaluation	High yielding & hybrid variety with recommended dose of fertilizer & pesticides	Training and demonstration	10	20000	1100

### 3.2 Details of FLDs implemented

KVK Name	Type (Crop/Enterprise)	Name of Crop/Enterprise	Category of crops*	Category of Enterprise**	Season and year	Thematic area	Area (ha) in case of crop	No. of Units, in case of Enterprise	Size of Unit in case of Enterprise	No. of farmers				
										SC	ST	OBC	Others	Total
Dhenkanal	Crop	Paddy	cereal	-	Kharif 2012	INM	1.0	-	-	0	0		5	5
Dhenkanal	Crop	Bitter gourd	Vegetable	--	Kharif 2012	ICM	1.0	--	--	4	0	2	1	7
Dhenkanal	Crop	Cassava	Vegetable	--	Kharif 2012	ICM	0.2	--	--	3	0	1	1	5
Dhenkanal	Crop	Paddy	Cereal		Kharif, 2012	IDM	2						5	5
Dhenkanal	Crop	Brinjal	Vegetable		Kharif, 2012	IPM	1						5	5
Dhenkanal	Crop	Ground Nut	Oil seed	-	Kharif 2012	ICM	10.0	-	-	8	0		18	26
Dhenkanal	Crop	Arhar	Pulse	-	Kharif 2012	ICM	5.0	-	-				13	13
Dhenkanal	Enterprise	Mushroom	-	Mushroom	Kharif 2012	Small scale income generating activities	-	200 beds	-	2		8		10
Dhenkanal	Enterprise	Goat		Deworming	Kharif 2012	Livestock Production management		100		9			1	10
Dhenkanal	Enterprise	Fish	-	Fish	Kharif 2012	Small scale income generating activities	-		1.0ha	1	1		3	5
Dhenkanal	Enterprise	Fish	-	Fish	Kharif 2012	Small scale income generating activities	-		2.0ha	1			4	5
Dhenkanal	Crop	TC Banana	Fruit	--	Rabi 2012-13	Varietal evaluation	0.1	--	--	0	0	0	5	5
Dhenkanal	Crop	Onion	Vegetable	--	Rabi 2012-13	ICM	2	--	--	4	1	7	2	14
Dhenkanal	Crop	Potato	Vegetable	--	Rabi 2012-13	ICM	0.2	--	--	0	2	1	1	4
Dhenkanal	Crop	Okra	Vegetable		Rabi, 2012-13	IPM	1						5	5
Dhenkanal	Crop	Chilli	Vegetable		Rabi, 2012-13	IDM	1						5	5
Dhenkanal	Enterprise	Improved sickle		Improved sickle	Rabi 2012-13	Drudgery reduction		5 nos					5	5
Dhenkanal	Enterprise	Sugarcane stripper		Sugarcane Stripper	Rabi 2012-13	Drudgery reduction		5 nos		2			3	5
Dhenkanal	Enterprise	Power Thresher cum Winnow	Cereal	Power Thresher cum Winnow	Rabi 2012-13	Farm mechanization	5.0						5	5

\* Cereal/Oilseed/Pulse/Vegetable/Fruit/Flower/Spice/Medicinal&Aromatic/Fibre/Plantation/Fodder/

\*\* Farm Implements/ Livestock Enterprises (Dairy/Buffalo/Goatery/Poultry etc.)/Mushroom/Apiary/Sericulture/Vermi-composting/Lac production etc.

### 3.3 Details of farming situation

KVK Name	Name of Crop/ Enterprise	Farming situation (Rain fed/ Irrigated)	Soil type	Type of Cultivation (Low land/ Mid land/ Upland)	Cropping system	Previous crops	Status of soil (kg/ha)			Sowing Time	Harvest date	Seasonal rainfall (mm)	No. of rainy days	Status of the FLD (Completed/ Continued/ Result awaited)
							N	P	K					
Dhenkanal	Paddy	Rainfed	Sandy loam	Med land	Paddy-pulse	pulse	Low	Med	Med	July I week	Nov I week	823	49	Completed
Dhenkanal	Bitter gourd	Rain fed	Sandy loam	Medium land	Vegetable - vegetable	Vegetable	85	10	130	May I week	25.8.2012	1200	60	Completed
Dhenkanal	Cassava	Rain fed	Laterite	Upland	Pulse - Vegetable	Pulse	80	8	125	June III week	05.02.2013	1200	60	Completed
Dhenkanal	Paddy	Rainfed	Sandy loam	Med land	Paddy	Paddy	Low	Med	Med	July I week	Nov I week	823	49	Completed
Dhenkanal	Brinjal	Rainfed	Sandy loam	Med land	Veg. - fellow	Veg.	Low	Med	Med	June 3 week	Dec. 4 week	823	49	Completed
Dhenkanal	Ground Nut	Rainfed	Sandy loam	Upland	Ground nut-fallow	Fallow	Low	Med	Med	July I week	Nov II week	823	49	Completed
Dhenkanal	Arhar	Rainfed	Sandy loam	Upland	Arhar-fallow	Fallow	Low	Med	Med	July I week	Feb II week	823	49	Completed
Dhenkanal	Mushroom	-	-	-	-	-	-	-	-	-	-	-	-	Completed
Dhenkanal	Goat	-	-	-	-	-	-	-	-	-	-	-	-	Completed
Dhenkanal	Fish	Rainfed	Sandy Clay loam	Med land	Pond based	-	Low	Med	Med	Aug II week	-	536	31	Completed
Dhenkanal	Fish	Rainfed	Sandy Clay loam	Med land	Pond based	-	Low	Med	Med	Sept I week	-	205	12	Completed
Dhenkanal	TC Banana	Irrigated	Sandy loam	Medium land	Vegetable	Vegetable	90	10	145	October II week	Contd.	550	28	Continued
Dhenkanal	Onion	Irrigated	Sandy loam to loam	Medium land	Paddy - Vegetable	Vegetable	90	10	140	October II week	20.02.2013	550	30	Completed



Dhenkanal	Potato	Irrigated	Sandy loam	Medium land	Vegetable	Pulse	92	8	150	October I week	01.2.2013	550	30	Completed
Dhenkanal	Okra	Irrigated	Sandy loam	Med land	Veg. - paddy	Paddy	Low	Med	Med	Dec 2 <sup>nd</sup> week	Apr 2 <sup>nd</sup> week	24	6	Completed
Dhenkanal	Chilli	Irrigated	Sandy loam	Med land	Veg. - paddy	Paddy	Low	Med	Med	Dec 2 <sup>nd</sup> week	Apr 2 <sup>nd</sup> week	22	4	Completed
Dhenkanal	Improved sickle	-	-	-	-	-	-	-	-	-	-	-	-	Completed
Dhenkanal	Sugarcane stripper	-												Completed
Dhenkanal	Power Thresher cum Winnowar	Rainfed	Sandy clay loam	Med land	Paddy-Pulse	pulse	Low	Med	Med	July I week	Nov I week	1025	49	Completed

### 3.4 Details of Technology demonstrated

KVK Name	Name of Crop/ Enterprise	Problem Identified	Detail of Farmers practice (Local Check)	Name of Technology	Detail of the technology demonstrated	Source and year of technology released	Thematic Area	Name of Variety Used	Characteristic of the variety	Source of variety and year of release	Whether assessed under OFT or not
Dhenkanal	Paddy	Low yield of Paddy due to Zinc deficiency	Use of micronutrient free fertilizers	Performance of zinc sulphate in mediumland Paddy	Soil application of ZnSO <sub>4</sub> @ 25kg/ha at planting in medium land Paddy	OUAT, 2006	INM	Lalat	Med duration (120days), high yielding (15-20)qtl/ha	OUAT 2005	Yes
Dhenkanal	Bitter gourd	Low yield & less no. of female flower, flower drop, Low medicinal value.	Use of local variety	Cultivation of bitter gourd variety Pusa mousumi with application of PGR.	Use of high yielding variety, application of triconanol 2ml. lit. of water.	IVRI 2010	ICM	Pusa mousami	High yield, Fruit size 12 cm. with uniform rib, Good medicinal value with rich mormoreidin content.	IVRI 2010	Yes
Dhenkanal	Cassava	Waste space due to unavailability of irrigation facility.	No use of land	Cultivation of cassava variety Shree vishakham.	Use of high yielding variety of cassava in drought situation.	CTCRI 2008	ICM	Shree Vishakham	High yield, Good starch content, Good processing quality.	CTCRI 2008	Yes

KVK Name	Name of Crop/ Enterprise	Problem Identified	Detail of Farmers practice (Local Check)	Name of Technology	Detail of the technology demonstrated	Source and year of technology released	Thematic Area	Name of Variety Used	Characteristic of the variety	Source of variety and year of release	Whether assessed under OFT or not
Dhenkanal	Paddy	Low yield of paddy due to high incidence of bacterial leaf blight disease	Use of Bavistin @3gm / lit of water	Use of chemicals for controlling bacterial leaf blight disease in paddy	Application of chemicals(Copper oxichloride + Plantomycine) for control of BLB in rice.	OUAT, 2002	IDM	Swarna		ANGRA U, 2000	Yes
Dhenkanal	Brinjal	Low yield of brinjal due high infestation of brinjal shoot and fruit borer	Spraying of triazophos @2ml/lit of water	Use of bio pesticides for controlling fruit and shoot borer in brinjal	Application of bio-control measure (soil incorporation of neem cake with foliar application of multineem for management of brinjal fruit and shoot borer.	OUAT, 2004	IPM	Utkal madhuri		OUAT, 2006	Yes
Dhenkanal	Ground Nut	Low yield due to weed infestation and imbalance use of fertilizer	Not using balance fertilizer and weedicide	FLD on Groundnut	Package demonstration	OUAT (1995)	ICM	Smruti, ICGB 91114	Duration (105 days), high yielding (15-20q/ha)	OUAT (2005)	Yes
Dhenkanal	Arhar	Low yield due to weed infestation and imbalance use of fertilizer	Not using balance fertilizer and weedicide	FLD on Arhar	Package demonstration	OUAT (2005)	ICM	ICPL 87119	Duration (150 days), bushy, semi dwarf	ICRISAT (2003)	Yes
Dhenkanal	Mushroom	Pulse Powder leads to increase in cost of cultivation	Use of pulse powder as feeding	Use of rice bran as substrate for cultivation of Paddy straw mushroom	Use of rice bran as feeding material instead of pulse powder	CTMRT, 2008	Small scale income generation	<i>V.volvaceae</i>	Remunerative	CTMRT	No
Dhenkanal	Goat	Low body wt of kids due to worm infection	No control measure	Deworming of kids	Deworming of kids by use of albendazole along with vitamin supplementation	OUAT (2007)	Small Scale income generating enterprises	Valvazin +Meboliv	-	-	No

KVK Name	Name of Crop/ Enterprise	Problem Identified	Detail of Farmers practice (Local Check)	Name of Technology	Detail of the technology demonstrated	Source and year of technology released	Thematic Area	Name of Variety Used	Characteristic of the variety	Source of variety and year of release	Whether assessed under OFT or not
Dhenkanal	Fish	Low income due to traditional farming	Only fish stocking but not utilizing dyke area	Integrated fish farming	Adoption of fish cum horticulture cum duck ,integrated farming system for better family income	CIFA (2001)	Small scale income generation	Catla, Rohu mrigal Papaya(red lady), Drumstick (PKM 1), TC banana (Bantala) and Duck(Khaki Campbell)	Rapid growth	CIFA (2001)	Yes
Dhenkanal	Fish	Low yield due to improper feed management	Only fish stocking but not giving artificial feed	Feed management in composite pisci culture	Improved feed management practice for better fish yield	CIFA (2001)	Small scale income generation	Ground nut oil cake, rice bran, and vitamins (Agrimin forte)	Balance diet	CIFA (2001)	Yes
Dhenkanal	TC Banana	Low yield of local variety	Use of local variety	Cultivation of TC Banana var Bantala.	Cultivation of Drought & disease resistance Bantala Variety of banana.	OUAT (2008)	ICM	Bantala	High yielding, used for vegetable purpose	OUAT (2008)	Yes
Dhenkanal	Onion	Low yield, less market demand, Imbalance use of fertilizer.	Use of local variety with imbalance use of fertilizer.	Response of bio-fertilizer in onion variety N-53.	Use of High yielding variety N-53 with use of organic seed treatment measure T. viridae & Azospirillum & PSB 10 Kg. / ha. Bio-fertilizer.	OUAT 2009	ICM	N-53	High yielding, TSS is 13-14 %, Attractive colour, Better storage performance.	NHRDF 2009	Yes
Dhenkanal	Potato	Low yield and Low keeping quality	Use of local variety Kufri Jyoti.	Cultivation of Potato variety Kufri Surya.	Soil application of Borax in potato @ 10kg/ha along with recommended dose of fertilizer checks cracking in potato	OUAT (2005)	ICM	Kufri Surya	High yielding, Good ascorbic acid & carotenoids content. & good Keeping & processing quality	CPRI 2007	Yes

KVK Name	Name of Crop/ Enterprise	Problem Identified	Detail of Farmers practice (Local Check)	Name of Technology	Detail of the technology demonstrated	Source and year of technology released	Thematic Area	Name of Variety Used	Characteristic of the variety	Source of variety and year of release	Whether assessed under OFT or not
Dhenkanal	Okra	Low yield of Okra due high infestation of fruit borer	Spraying of triazophos @2ml/lit of water	Use of bio pesticides for controlling fruit borer in Okra	Application of <i>Bacillus thuringiensis</i> for control of fruit borer in okra	OUAT, 2003	IPM	Arka Anamika		IIHR, 2006	Yes
Dhenkanal	Chilli	Low yield of chili due to high incidence of leaf curl virus disease	Use of Bavistin @3gm / lit of water	Use of organic bioagent and sucking pest for controlling leaf curl virus	Application of Neem cake & Imidachloprid for control of chilly leaf curl virus	OUAT, 2005	IDM	Utkal Ava		OUAT, 2007	Yes
Dhenkanal	Improved Sickle	High drudgery & injury involved due to use of local sickle	Use of local sickle	Improved Sickle	Use of improved sickle having working capacity 152m <sup>2</sup> /hr	OUAT, 2009	Drudgery reduction	-	-	-	yes
Dhenkanal	Sugarcane stripper	High drudgery involved during harvesting of sugarcane	Use of local sickle	Demonstration on sugarcane stripper	Use of sugarcane stripper of working capacity 43kg/hr	OUAT, 2008	Drudgery reduction				Yes
Dhenkanal	Power Thresher cum Winnower	High labour, cost and time involved in bullock treading	Manual threshing by bullock treading	Demonstration on Power Thresher cum Winnower	Power thresher cum winnower is having threshing capacity of 1.5qtl/hr. & winnowing capacity of 3.7qtl/hr	OUAT, 2004	Farm mechanization				No

### 3.5 Performance of FLD

#### A. Production

KVK Name	Name of Crop/Enterprise	Thematic Area	Variety	No. of Farmers	Area (ha)	Production (q/ha)				Increase in yield (%)
						Demonstration			Local Check	
						Maxi	Min	Average		
1	2	3	4	5	6	7	8	9	10	11
Dhenkanal	Paddy	INM	Lalat	5	1.0	46.1	42.5	44.3	38.8	14.17
Dhenkanal	Bitter gourd	ICM	Pusa mousami	7	1.0	128	116	122	85	43.52
Dhenkanal	Cassava	ICM	Shree Vishakhram	5	0.2	279	261	270	210	28.57
Dhenkanal	Paddy	IDM	Swarna	5	2.0	44.8	34.8	38.46	32.54	18.19
Dhenkanal	Brinjal	IPM	Utkal madhuri	5	1.0	340.8	298.0	315.5	261.7	20.5
Dhenkanal	Ground Nut	ICM	Smruti, ICGV 91114	26	10.0	19.0	13.8	16.4	10.8	51.85
Dhenkanal	Arhar	ICM	ICPL 87 119	13	5.0	12.6	10.0	11.3	7.2	56.94
Dhenkanal	Mushroom	Small scale income generation	<i>V. volvaceae</i>	10	200 beds	1.4	1.1	1.3kg/bed	0.8kg/bed	62.5
Dhenkanal	Goat	Small Scale income generating enterprises	Valvazin +Meboliv	10	100 nos	12kg	5kg	9.5kg	7.0kg	35.7
Dhenkanal	Fish	Small scale income generation	Catla, Rohu, Mrigal	5	1.0	32.4	26.8	29.6	15.4	92.2
Dhenkanal	Fish	Small scale income generation	Ground nut oil cake, rice bran, and vitamins (Agrimin forte)	5	2.0	30.6	26.4	28.5	14.6	95.2
Dhenkanal	TC Banana	ICM	<i>Bantala</i>	5	0.1	-	-	-	-	-
Dhenkanal	Onion	ICM	<i>N-53</i>	14	2.0	231	225	228	150	52
Dhenkanal	Potato	ICM	<i>Kufri surya</i>	4	0.2	341	335	338	260	30
Dhenkanal	Okra	IPM	<i>Arka anamika</i>	5	1.0	100.1	82.9	90.74	59.16	53.38
Dhenkanal	Chilli	IDM	<i>Utkal ava</i>	5	1.0	223.9	217.3	220.60	176.48	25
Dhenkanal	Improved Sickle	Drudgery reduction	<i>Swarna</i>	5	1.0	156.0	148.0	152 m <sup>2</sup> /hr	145m <sup>2</sup> /hr	4.82
Dhenkanal	Sugarcane stripper	Drudgery reduction	<i>CO3</i>	5	1.0	45kg/hr	41kg/hr	43kg/hr	34kg/hr	26.47
Dhenkanal	Power Thresher cum Winnow	Farm mechanization	<i>Swarna</i>	5	5.0	1.7qtl/hr	1.3qtl/hr	1.5qtl/hr	35kg/hr	328.57

#### B. Other Parameters (continuation of previous table)

KVK Name	Name of Crop/Enterprise	Data on parameter in relation to technology demonstrated				Data on parameter in relation to technology demonstrated				Data on parameter in relation to technology demonstrated			
		Name of parameter	Unit	Demo	Local Check	Name of parameter	Unit	Demo	Local Check	Name of parameter	Unit	Demo	Local Check
		12	13	14	15	16	17	18	19	20	21	22	23
Dhenkanal	Paddy	Straw yield	q/ha	46.8	41.3	No. of panicles per plant	Number	12	10	No of grains per panicle	Number	136	119
Dhenkanal	Bitter gourd	Fruit length	Cm.	10.5	6	Fruit wt.	Gm.	120	60	Number of Ribs	No.	10	6
Dhenkanal	Cassava	Stem	No.	7	4	Stem length	cm.	28	19.5				
Dhenkanal	Paddy	Yield	q/ha	38.46	32.54	Disease incidence	%	6	28.4				
Dhenkanal	Brinjal	Yield	q/ha	315.5	261.5	Shoot damage	%	7.4	21.5	Fruit damage	%	9.2	23.8
Dhenkanal	Ground Nut	Population/m <sup>2</sup>	Number	41	28	No. of pod/plant	Number	11	7	-	-	-	-
Dhenkanal	Arhar	Plant height	Cm.	225	242	No. of pod/plant	Number	382	292	-	-	-	-
Dhenkanal	Mushroom	Non edible mushroom	%	1.2	8.7	-	-	-	-	-	-	-	-
Dhenkanal	Goat	Body wt.	gm/day	35	15	Mortality rate	%	Nil	15	-	-	-	-
Dhenkanal	Fish	Fish wt	gm	900	400	Survival	%	85	35	-	-	-	-
Dhenkanal	Fish	Fish wt	gm	950	460	Survival	%	90	40				
Dhenkanal	TC Banana	continuing											
Dhenkanal	Onion	Bulb wt.	gm.	80	20	Bulb diameter	cm	3.5	2.0				
Dhenkanal	Potato	Tuber width	cm	7.3	4.1	Tuber length	cm	10	6				
Dhenkanal	Okra	Yield	q/ha	90.74	59.16	Pest infestation	%	5.2	26.8				
Dhenkanal	Chilli	Yield	q/ha	220.60	176.48	Disease incidence	%	3.2	18.6				
Dhenkanal	Improved Sickler	Working capacity	m <sup>2</sup> /hr	152	145	Heart Rate	Beats/min	109	120	Cardiac cost	Beats/sq.m	11	15
Dhenkanal	Sugarcane Stripper	Working capacity	Kg/hr	43	34	Heart Rate	Beats/min	110	120				
Dhenkanal	Power Thresher cum Winnower	Working capacity	Kg/hr	150	35	Labour efficiency	Manhrs/ql	0.6	5.7	Cost of operation/ql	Rs/ql	30	95

C. Economic Impact (continuation of previous table)

KVK Name	Name of Crop/Enterprise	Average Cost of cultivation (Rs/ha)		Average Gross Return (Rs/ha)		Average Net Return (Rs/ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)	
		Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check
		24	25	26	27	28	29	30	31
Dhenkanal	Paddy	24300	22200	55375	48500	31075	26300	2.28	2.18
Dhenkanal	Bitter gourd	30000	27000	80000	64000	50000	37000	2.66	2.37
Dhenkanal	Cassava	24000	21000	48000	37000	24000	16000	2.0	1.76
Dhenkanal	Paddy	21500	19800	48075	40675	26575	20875	2.23	2.05
Dhenkanal	Brinjal	37200	33600	94650	78510	54450	44910	2.54	2.3
Dhenkanal	Ground Nut	20000	16500	57400	37800	37400	21300	2.87	2.29
Dhenkanal	Arhar	22000	18000	54240	34560	32240	16560	2.46	1.92
Dhenkanal	TC Banana								
Dhenkanal	Onion	65000	58000	132000	88000	60000	30000	2.03	1.51
Dhenkanal	Potato	62000	58000	152100	117000	90100	59000	2.45	2.02
Dhenkanal	Mushroom	50/- per bed	40/- per bed	130/- per bed	80/- per bed	80/- per bed	40/- per bed	2.6	2.0
Dhenkanal	Goat	Rs100/- per kid	-	1500/- per kid	-	1400/- per kid	-	15	-
Dhenkanal	Fish	130000	75000	296000	154000	166000	79000	2.27	2.05
Dhenkanal	Fish	120000	80000	285000	146000	165000	66000	2.37	1.82
Dhenkanal	Okra	32300	29800	181480	118320	149180	88520	5.6	3.9
Dhenkanal	Chilli	57800	52500	198540	158832	140740	106332	3.43	3.0
Dhenkanal	Improved Sickle	22000	22950	52500	52500	30500	29550	2.38	2.28
Dhenkanal	Sugarcane Stripper	70250	70100	138800	135000	68550	64900	1.97	1.92
Dhenkanal	Power Thresher cum Winnower	20700	23560	55000	55000	34300	31440	2.65	2.33

### 3.6 Analytical Review of component demonstrations

KVK Name	Crop	Season	Type of Demo (Full Package/ Component)	Components provided by KVK	Components provided by Farmers	Farming situation	Average yield under demonstration (q/ha)	Average yield under Local check (q/ha)	Percentage increase in productivity over local check
Dhenkanal	Paddy	Kharif, 2012	Component	Micro nutrients	Seed, FYM & labour Pesticide	Rainfed	44.3	38.8	14.17
Dhenkanal	Bitter gourd	Kharif	Seeds, RDF, PGR, PP	Seeds, PGR	RDF, Plant protection measures.	Rain fed	122	85	43.5
Dhenkanal	Cassava	Kharif	Seedling, vermin compost, RDF	Seedling, Vermi compost.	RDF, IPM	Rain fed	270	210	28.57
Dhenkanal	Paddy	Kharif, 2012	Component	Fungicide	Seed, FYM & labour	Rainfed	38.46	32.54	18.19
Dhenkanal	Brinjal	Kharif, 2012	Component	Pesticides	Seed, Fertilizer, & labour	Rainfed	315.5	261.7	20.5
Dhenkanal	Groundnut	Kharif, 2012	Full packaget	Seed, fertilizer, weedicide, pesticide	FYM	Rainfed	16.4	10.8	51.85
Dhenkanal	Arhar	Kharif, 2012	Full packaget	Seed, fertilizer, weedicide, pesticide	FYM	Rainfed	11.3	7.2	56.94
Dhenkanal	Mushroom	Kharif, 2012	Component	Spawn	Straw, watering	-	1.3	0.8	62.5
Dhenkanal	Goat	Kharif 2012	Component	vaccine	-	-	9.5	7	35.7
Dhenkanal	Fish	Kharif, 2012	Component	Fingerlings, seedling	Fertilizer, cowdung, lime	Rainfed	29.6	15.4	92.2
Dhenkanal	Fish	Kharif, 2012	Component	Fingerlings	Fertilizer, cowdung, lime, feed	Rainfed	28.5	14.6	95.2
Dhenkanal	TC Banana	Rabi 2012-13	Tissue culture saplings, RDF, INM	Saplings, Micro nutrient	RDF, INM	Irrigated			
Dhenkanal	Onion	Rabi 2012-13	Seeds, Bio-fertilizer IPM measures, RDF, INM	Seeds, T. viridae, Azospirillum, PSB.	RDF, IPM	Irrigated	228	150	52
Dhenkanal	Potato	Rabi 2012-13	Seeds, RDF, INM	Seed tuber	RDF, INM	Irrigated	286	260	10
Dhenkanal	Okra	Rabi, 2012-13	Component	Bio-Pesticides	Seed, Fertilizer & labour	Irrigated	90.74	59.16	53.38
Dhenkanal	Chilli	Rabi, 2012-13	Component	Organic bio agent and sucking pest	Seed, Fertilizer & labour	Irrigated	203.72	176.48	15.43
Dhenkanal	Improved Sickle	Rabi, 2012-13	Component	Improved Sickle	Labour, seed, fertilizer, pesticide	Rainfed	152 m <sup>2</sup> /hr	145m <sup>2</sup> /hr	4.82
Dhenkanal	Sugarcane Stripper	Rabi, 2012-13	Component	Sugarcane Stripper	Labour, seed, fertilizer, pesticide	Rainfed	43kg/hr	34kg/hr	26.47
Dhenkanal	Power Thresher cum Winnow	Rabi, 2012-13	Component	Power Thresher cum Winnow provided but after completion of threshing taken back from farmer	Labour, electricity, seed, fertilizer, pesticide	Rainfed	150kg/hr	35kg/hr	328.57

### 3.7 Technical Feedback on the demonstrated technologies



KVK Name	Crop	Demonstrated Technology	Village	Block Name	Feed Back
Dhenkanal	Paddy	Soil application of ZnSO <sub>4</sub> @ 25kg/ha at planting in medium land Paddy	Harekrushnapur	Dhenkanal sadar	Application of zinc sulphate contributes in increasing yield.
Dhenkanal	Bitter gourd	Use of Bitter gourd variety Pusa mousumi. Application of triconanol @ 2ml. / liter of water in 2-4 leaf stage.	Patrabhaga, Harekrushnapur	Sadara	Bittergourd variety Pusa mousumi is suitable in early planting in kharif as well as in late kharif. Application of triconanol @2ml./lit. in 2-4 leaf stage & during flower drop increase yield up to 43 % in comparison to local variety.
Dhenkanal	Cassava	Use of cassava variety Shree vishakham. Application organic manure (Vermi compost).	Mahisapat, Bhubana	Sadara & Bhubana	Variety is suitable for this reason. Waste space having fencing can be utilized in drought situation. Application of vermin compost increases the tuber size.
Dhenkanal	Paddy	Application of chemicals(Copper oxichloride + Plantomycine) for control of BLB in rice.	Bangursingh	Odapada	Application of chemicals(Copper oxichloride + Plantomycine) for control of BLB in rice effectively
Dhenkanal	Brinjal	Application of bio-control measure (soil incorporation of neem cake with foliar application of multineem for management of brinjal fruit and shoot borer.	HarekrushnaPur	Sadar	Use of neem cake and multi neem effectively control fruit and shoot borer
Dhenkanal	Groundnut	Package demonstration	Ranja	Sadara	Biofertiliser & micronutrient of G.nut increase in yield & oil content
Dhenkanal	Arhar	Package demonstration	Nagiapasi	Sadara	Variety performing well with no. or very less sensitive to pest and disease management
Dhenkanal	Mushroom	Cultivation of Paddy Straw Mushroom	Kakudibhaga, Guhaladihi, Patrabhaga, Harekrushnapur	Sadara	Rice bran could be combined with low cost profitable feed
Dhenkanal	Goat	Deworming of kids by use of albendazole along with vitamin supplementation	Manipur	Dhenkanal sadar	Use of albendazole is effective in recovery of animal health due to control of worm infection
Dhenkanal	Fish	Adoption of fish cum horticulture cum duck ,integrated farming system for better family income	Khamar, Harekrushnapur, Ranja, Tavapala, Ghatipiri,	Dhenkanal Sadar	Increase in income and employment generation
Dhenkanal	Fish	Improved feed management practice for better fish yield	Khandabandha, Lahada, Majhisahi, Dakhinakali, Chaipur	Dhenkanal Sadar Odapada, Gondia	Increase in income and employment generation
Dhenkanal	TC Banana	Use of Tissue culture banana variety Bantala.	Bhubana, Anlaberani, Bhaliapata, Gadasila,	Bhubana, Sadara, Gondia	

			Bhojadeipur		
Dhenkanal	Onion	Use of onion variety N-53, Use of bio-fertilizer Azospirillum & PSB @ 10 Kg. per ha. And seedling deep method. Use of <i>Trichoderma viridae</i> as seed treatment measures.	Khatakhura, Belpada, Khandabandha, Lahada, siminai, Brahmanipal, Bhojadeipur, Bhangamal	Sadara, Hindola, Gondia, Kamakhyanager	N-53 variety is suitable for this reason for its high content of sulphonet compound, colour & flavor. Application organic manure (bio-fertilizer @ 10 kg./ha.) improve the medicinal values of onion. So onion can be grown in organic way for commercial production. Other variety may test for organic onion production.
Dhenkanal	Potato	Use of Potato variety Kufri Surya & Use of Recommended dose of fertilizer. Weedicide application of Metribuzen @ 0.75 Kg./ha. In pre emrging stage.	Lahada, Kasipur, Bhubana, Harekrushnapur	Gondia, Bhubana, Sadara	Variety is suitable for commercial production and good for processing, Long post harvest life. Chemical weed control reduces the labour cost. This area is highly susceptible with blight , viral diseases & bacterial diseases in potato so further work on IDM is requires to increase yield.
Dhenkanal	Okra	Application of <i>Bacillus thuringiensis</i> for control of fruit borer in okra	Harekrushna Pur	Sadar	Use of bacillus thuringiensis control fruit borer in effectively
Dhenkanal	Chilli	Application of Neem cake & Imidachloprid for control of chilly leaf curl virus	Harekrushna Pur	Sadar	Application of Neem cake & Imidachloprid for control of chilly leaf curl virus effectively
Dhenkanal	Improved Sickle	Use of improved sickle with working capacity 152m <sup>2</sup> /hr and heart rate 109 beats/min	Kantanali	Sadar	Location specific adaptation
Dhenkanal	Sugarcane Stripper	Use of sugarcane stripper with working capacity 43kg/hr	Kantanali, Gobindpur	Sadar	During continuous stripping of leaves, the spring which is fitted in the Stripper gets destroyed in a very few hours. So an alternative to this spring is needed
Dhenkanal	Power Thresher cum Winnower	Power thresher cum winnower is having working capacity of 1.5qtl/hr and winnowing capacity 3.7qtl/hr	Talabarkote, Kurunti	Sadar, Odapada	Use of Power thresher saves labour, time and cost of paddy threshing but it requires high voltage to continue both threshing and winnowing operation simultaneously

### 3.8 Farmers' reactions on specific technologies

KVK Name	Crop	Demonstrated Technology	Farmers' Name	Feed Back
Dhenkanal	Paddy	Soil application of ZnSO <sub>4</sub> @ 25kg/ha at planting in medium land Paddy	Lalit Mohan Prusty	Application of zinc sulphate increases the yield appreciably
Dhenkanal	Bitter gourd	Cultivation of bitter gourd variety Pusa mousumi with application of PGR.	Bimala Nayak, Sisira Khuntia Manmohan Priusty Gokula nanda Dehuri, Susanta Nayak	This variety is suitable in early & late plantings in Kharif., Hormone application has increases nos. of flower in plant., Size of fruit is bigger than traditional one., This variety fruit weight is more than local one. , This variety may more profit in winter though input cost for stalking in kharif is more.
Dhenkanal	Cassava	Cultivation of cassava variety Shree vishakham.	Bramah Nanda nayak, Muralidhar Sahoo, Gyana Ranjan Pati	Yield is good. Though this crop is new improvement of market is require, Test of this tuber crop is good in early maturity stage. Late harvesting is increases fibers, Yield is very good. This crop influence other farmer for multiplication of cultivation of cassava in others farmers field.
Dhenkanal	Paddy	Application of chemicals(Copper oxichloride + Plantomycine) for control of BLB in rice.	Bidyadhar Sahoo	Application of chemicals for controlling BLB is very much appreciated
Dhenkanal	Brinjal	Application of bio-control measure (soil incorporation of neem cake with foliar application of multineem for management of brinjal fruit and shoot borer.	Indramani Khuntia	Use of neem cake and bio pesticides was popular
Dhenkanal	Ground Nut	Package demonstration	Pradyumna Kumar Sahoo	Biofertiliser & micronutrient of G.nut increase in yield & oil content
Dhenkanal	Arhar	Package demonstration	Ranjan Behera	Variety performing well with no. or very less sensitive to pest and disease management
Dhenkanal	Mushroom	Cultivation of Paddy Straw Mushroom	Bimala Naik	Appreciated profitability but concerned about yield
Dhenkanal	Goat	Deworming of kids by use of albendazole along with vitamin supplementation	Atara Dehuri	Use of albendazole is effective in recovery of animal health due to control of worm infection
Dhenkanal	Fish	Adoption of fish cum horticulture cum duck ,integrated farming system for better family income	Udayabhanu Das	Farmers are interested to adopt the technology due to high income
Dhenkanal	Fish	Improved feed management practice for better fish yield	Kodandadhar Sahoo	Farmers are interested to adopt the technology due to high income
Dhenkanal	TC Banana	Cultivation of TC Banana var Bantala.		
Dhenkanal	Onion	Response of bio-fertilizer in onion variety N-53.	Nalini Sahoo, Swarna Lata Swain, Debendra Aicha, Shashi Bushan	Onion Var. N-53 is highly profitable., Increasing market rate of onion has provide up a remarkable return, Yield of N-53 is more than traditional one, Onion is appreciable in our area by other farmer due to potential yield & good

			Mishra, Bichitrananda Rout	market demand., Allpication of bio-fertiliser with cow dung compost changes the soil colour. Yield of onion is good. Taste of onion bulb is also good.
Dhenkanal	Potato	Cultivation of Potato variety Kufri Surya.		
Dhenkanal	Okra	Application of <i>Bacillus thuringiensis</i> for control of fruit borer in okra	Chittaranjan Puhan	Biopesticide can be the best alternative to control okra fruit borer
Dhenkanal	Chilli	Application of Neem cake & Imidachloprid for control of chilly leaf curl virus	Sribatsa Prusty	Farmers are interested to adopt the technology due to high income
Dhenkanal	Improved Sickle	Use of improved sickle with working capacity 152m <sup>2</sup> /hr and heart rate 109 beats/min	Sujata Palei	Location specific adaptation
Dhenkanal	Sugarcane Stripper	Use of sugarcane stripper with working capacity 43kg/hr	Tuni Padhan	During continuous stripping of leaves, the spring which is fitted in the Stripper gets destroyed in a very few hours. So an alternative to this spring is needed
Dhenkanal	Power Thresher cum Winnower	Power thresher cum winnower is having working capacity of 1.5qtl/hr and winnowing capacity 3.7qtl/hr	KirtiNayak	Interested about the implement but it requires trained labour & high voltage electricity so that both threshing and winnowing operation can be continued simultaneously for a long period of time.

### 3.9 Extension and Training activities under FLD

KVK Name	Crop	Activity	No. of activities organized	Number of participants	Remarks
Dhenkanal	Paddy	Field days	2	100	
		Farmers Training	1	25	
		Media coverage	1	-	
		Training for extension functionaries			
Dhenkanal	Groundnut	Field days	1	50	
		Farmers Training	1	25	
		Media coverage	1	-	
		Training for extension functionaries			
Dhenkanal	Arhar	Field days	1	50	
		Farmers Training	1	25	
		Media coverage	1	-	
		Training for extension functionaries			
Dhenkanal	Brinjal	Field days	2	100	
		Farmers Training	1	25	
		Media coverage	1	-	
		Training for extension functionaries			
Dhenkanal	Okra	Field days			

		Farmers Training	1	25	
		Media coverage	1	-	
		Training for extension functionaries			
<b>Dhenkanal</b>	<b>Chilli</b>	Field days			
		Farmers Training	1	25	
		Media coverage	1	-	
		Training for extension functionaries			
Dhenkanal	Onion	Field days	1	50	-
		Farmers Training	2	50	-
		Media coverage	4	-	-
		Training for extension functionaries	1	15	-
Dhenkanal	Bitter gourd	Field days			-
		Farmers Training	1	25	-
		Media coverage	1	-	-
		Training for extension functionaries			-
Dhenkanal	TC Banana	Field days			-
		Farmers Training	1	25	-
		Media coverage	1	-	-
		Training for extension functionaries	1	15	-
Dhenkanal	Potato	Field days			-
		Farmers Training	1	25	-
		Media coverage			-
		Training for extension functionaries			-
Dhenkanal	Cassava	Field days	-	-	-
		Farmers Training	1	25	-
		Media coverage	-	-	-
		Training for extension functionaries	1	15	-
Dhenkanal	Improved sickle	Field days	1	50	-
		Farmers Training	2	40	-
		Media coverage	-	-	-
		Training for extension functionaries			-
Dhenkanal	Fish	Field days	1	50	-
		Farmers Training	6	150	-
		Media coverage	-	-	-
		Training for extension functionaries	1	15	-
Dhenkanal	Goat	Field days	1	50	-
		Farmers Training	1	25	-
		Media coverage	-	-	-
		Training for extension functionaries	1	15	-

### 3.10 FLD on Farm implements and machinery

Name of KVK	Name of the implement	Crop	Name of the technology demonstrated	No. of Farmer	Area (ha)	Filed observation Heart Rate: Beats /Min		% change in major parameter	Labor reduction (man days)		Cost reduction (Rs./ha or Rs./Unit ect.)	
						Demonstration	Check		Demonstration	Check	Demonstration	Check
Dhenkanal	Improved sickle	Paddy	Use of improved sickle with working capacity 152m <sup>2</sup> /hr and heart rate 109 beats/min	05	1.0	109	120	9.16	8	-	950	-
Dhenkanal	Sugarcane stripper	Sugarcane	Use of sugarcane stripper with working capacity 43kg/hr	05	1.0	110	120	8.33	7	-	400	-
Dhenkanal	Power Thresher cum winnower	Paddy	Power thresher cum winnower is having working capacity of 1.5qtl/hr and winnowing capacity 3.7qtl/hr	05	5.0	-	-	-	5.7		65/qtl	-

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

# FORMAT 2 – STAFF POSITION, TRAININGS, EXTENSION ACTIVITIES

## REPORTING PERIOD – 1<sup>st</sup> April, 2012 to 31<sup>st</sup> March, 2013

### 1. Staff Position (as on 31<sup>st</sup> March 2013)

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)
Dhenkanal	Programme Coordinator	Dr.RadheShyam Panigrahi	Agril.Extension	Ph.D.	Extension	37,400-67,000	48120+9000	01.09.12	Permanent	Gen
Dhenkanal	Subject Matter Specialist1	Smt. S. Pal	Home Science	M.Phil	Home Science	15,600-39,100	19810/+6000 (GP)	15.11.07	Temporary	Gen
Dhenkanal	Subject Matter Specialist2	Sri Sidhartha Kar	Horticulture	MSc(Ag)	Horticulture	15,600-39,100	16920+6000 (GP)	01.10.09	Temporary	Gen
Dhenkanal	Subject Matter Specialist3	Sri D Panda	Entomology	M.Sc. (Ag.)	Entomology	15,600-39,100	19810/+6000 (GP)	06.04.11	Temporary	Gen
Dhenkanal	Subject Matter Specialist4	Smt.D. Paramjita	Agril.Engg	MTech	Soil & Water Conservation Engg	15,600-39,100	16920+6000 (GP)	07.12.12	Temporary	Gen
Dhenkanal	Subject Matter Specialist5	Sri M.Mohanty	Forestry	MSc (Forestry)	Forestry	15,600-39,100	19810+6000 (GP)	15.12.12	Temporary	Gen
Dhenkanal	Subject Matter Specialist6	Vacant								
Dhenkanal	Programme Assistant	Sri. Jashobanta Sahoo	fishery	BFSc.	Fishery	9300-34,800	12430/-+4200(GP)	04.10.09	Temporary	OBC
Dhenkanal	Farm Manager	Sri. Manoj Kumar Pradhan	Seed Technology	Msc(Ag)	Seed Technology	9300-34,800	9300+4200(GP)	03.07.12	Temporary	Gen
Dhenkanal	Computer Programmer	Sri. G. D. Moharana	Computer	MCA	Computer	9300-34,800	11940/-+4200(GP)	18.06.12	Temporary	Gen
Dhenkanal	Accountant / superintendent	<b>Vacant</b>								
Dhenkanal	Stenographer	Sri G.R. Das	-	B.A.	-	5,200-20,200	6430/-+2400/-	08.01.07	Temporary	Gen
Dhenkanal	Driver	Sri K.B. Mohanty	-	UP	-	5,200-20,200	5870+1900/-	24.07.07	Temporary	Gen
Dhenkanal	Driver	Sri N.M. Sahoo	-	UP	-	5,200-20,200	5870+1900/-	25.07.07	Temporary	Gen
Dhenkanal	Supporting staff	Smt. Ahalya Baral	-	UP	-	4440-7440	4800/- + 1300	28.07.08	Temporary	Gen
Dhenkanal	Supporting staff	Sri Bhagir Dalai	-	UP	-	4440-7440	4800/- + 1300	29.07.08	Temporary	SC

## 2. 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
Dhenkanal	Farmer and Farm woman	PRA tools and Group Discussion – Need assessment of farmers and farmer women was done through PRA tools and discussion with them.	Jamujhara 22.7.2012, Bangursingh 11.8.2012	40 each
Dhenkanal	Rural Youth	PRA tools and Group Discussion – Need assessment of Rural youth was done through PRA tools and discussion with them.	Majhisahi, 24.9.12Nachipura, 13.11.12	25 each

## 3. TRAINING PROGRAMMES

**Table 3.1. Details of Training programmes conducted by the KVKs**

Name of KVK	Category	Training Type	Theme code	Sub-theme	No. of Courses (Targeted)	No. of Courses (Achieved)	Duration (Days)	Participants					
								SC		ST		Others	
								M	F	M	F	M	F
1	2	3	4	5	7	8	10	11	12	13	14		
Dhenkanal	FW	OFC	SFM	Integrated nutrient management in paddy	1	1	1	4	1	2	-	13	5
Dhenkanal	FW	OFC	SFM	Soil test based fertilizer response in crops	1	1	1	6	3	-	-	11	5
Dhenkanal	FW	OFC	SFM	Fertilizer management in Kharif paddy	1	1	1	2				23	
Dhenkanal	FW	OFC	HOV	Training on vegetable based intercropping system.	1	1	1	14	00	01	00	10	00
Dhenkanal	FW	OFC	HOV	Training on off season vegetable cultivation.	1	1	1	10	00	00	00	15	00
Dhenkanal	FW	OFC	HOV	Training on winter vegetable cultivation.	1	1	1	23	00	00	00	02	00
Dhenkanal	FW	OFC	HOV	Training on cultivation of cucurbits.	1	1	1	17	00	01	00	07	00
Dhenkanal	FW	OFC	HOV	Training on summer vegetable production.	1	1	1	01	00	00	00	24	00
Dhenkanal	FW	OFC	HOF	Training on cultivation of fruit crops	1	1	1	14	00	00	00	16	00
Dhenkanal	FW	OFC	HOF	Training on value addition of fruit crops	1	1	1	06	00	04	00	15	00
Dhenkanal	FW	OFC	HOT	Training on production of tuber crop.	1	1	1	11	00	05	00	09	00
Dhenkanal	FW	OFC	HOS	Training on spices Production.	1	1	1	17	00	02	00	06	00
Dhenkanal	FW	OFC	HOM	Training on medicinal farming.	1	1	1	14	00	00	00	11	00
Dhenkanal	FW	OFC	HOO	Training on flower production.	1	1	1	14	11	00	00	00	00
Dhenkanal	FW	OFC	PLP	Integrated Pest Management in paddy	1	1	1	10				15	
Dhenkanal	FW	OFC	PLP	Management of blast, sheath blight, and BLB disease in paddy	1	1	1					16	9
Dhenkanal	FW	OFC	PLP	Integrated pest & disease management in brinjal	1	1	1	1				21	3
Dhenkanal	FW	OFC	PLP	Integrated pest & disease management in pigeon pea	1	1	1	3				22	
Dhenkanal	FW	OFC	PLP	Integrated Pest and disease management in mango	1	1	1					25	



Name of KVK	Category	Training Type	Theme code	Sub-theme	No. of Courses (Targeted)	No. of Courses (Achieved)	Duration (Days)	Participants						
								SC		ST		Others		
								M	F	M	F	M	F	
1	2	3	4	5	7	8	10	11	12	13	14			
Dhenkanal	FW	OFC	PLP	Bio control of pest and disease in vegetable crops	1	1	1	5					20	
Dhenkanal	FW	OFC	PLP	Integrated Pest and disease management in papaya	1	1	1						25	
Dhenkanal	FW	OFC	PLP	Management of pest & diseases of G. nut	1	1	1						25	
Dhenkanal	FW	OFC	PLP	Integrated Pest and disease management in cole crops	1	1	1	1					24	
Dhenkanal	FW	OFC	PLP	Use of pheromone trap and bio pesticides in sugarcane	1	1	1	6			3		16	
Dhenkanal	FW	OFC	PLP	Integrated Pest and disease management in tuber crops	1	1	1	8			6		11	
Dhenkanal	FW	OFC	PLP	Integrated Pest and disease management in sunflower	1	1	1	6					19	
Dhenkanal	FW	OFC	PLP	Integrated Pest and disease management in onion	1	1	1	3					22	
Dhenkanal	FW	OFC	LPM	Fodder cultivation for diary	1	1	1	6	3	4	1		8	3
Dhenkanal	FW	OFC	FIS	Integrated fish farming	2	2	2	16					34	
Dhenkanal	FW	OFC	FIS	Carp fry and fingerling rearing	1	1	1	8					17	
Dhenkanal	FW	OFC	FIS	Composite fish culture	2	2	2	22			8		20	
Dhenkanal	FW	OFC	FIS	Carp breeding and hatchery management	1	1	1	9					16	
Dhenkanal	FW	OFC	FIS	Fresh water prawn culture	1	1	1	5			7		13	
Dhenkanal	FW	OFC	FIS	Disease management in carp culture	1	1	1	11					14	
Dhenkanal	FW	OFC	FIS	Fish cum prawn culture	1	1	1	6					19	
Dhenkanal	FW	OFC	FIS	Cat fish farming	1	1	1	4			7		14	
Dhenkanal	FW	OFC	FIS	Yearling rearing	1	1	1	8					17	
Dhenkanal	FW	OFC	WOE	Malnutrition and balanced diet	1	1	1		3					22
Dhenkanal	FW	OFC	WOE	Preparation of low cost diet for rural infants	1	1	1		16					9
Dhenkanal	FW	OFC	WOE	Use of women friendly tools and implements for drudgery reduction	1	1	1		19					6
Dhenkanal	FW	OFC	WOE	Off season paddy straw Mushroom cultivation	1	1	1							25
Dhenkanal	FW	OFC	WOE	Household food security by kitchen gardening	1	1	1		20			2		3
Dhenkanal	FW	OFC	WOE	Storage loss minimization techniques	1	1	1							25
Dhenkanal	FW	OFC	WOE	Income generation activities for empowerment of rural Women	1	1	1							25
Dhenkanal	FW	OFC	WOE	Value addition of fruits and vegetables	2	2	2							25
Dhenkanal	FW	OFC	WOE	Floriculture in backyard	1	1	1							25
Dhenkanal	FW	OFC	WOE	Preservation of vegetables by drying	1	1	1		6			8		11
Dhenkanal	FW	OFC	WOE	Role of women in preservation of biodiversity	1	1	1		6					19
Dhenkanal	FW	ONC	AGF	Macro propagation of bamboo	1	1	1	7					18	

Name of KVK	Category	Training Type	Theme code	Sub-theme	No. of Courses (Targeted)	No. of Courses (Achieved)	Duration (Days)	Participants						
								SC		ST		Others		
								M	F	M	F	M	F	
1	2	3	4	5	7	8	10	11	12	13	14			
Dhenkanal	FW	OFC	AEG	Use of drum seeder for line sowing of pregerminated paddy seeds	1	1	1						25	
Dhenkanal	FW	OFC	AEG	Operation and Maintenance of various Paddy threshers	1	1	1	1					24	
Dhenkanal	FW	OFC	AEG	Repair & Maintenance of Power Tiller	1	1	1	3					22	
Dhenkanal	RY	ONC	RYH	Different avenues for income generation	1	1	2		6		9			
Dhenkanal	RY	ONC	RYH	Vermicomposting technique	1	1	2	4		4			7	
Dhenkanal	RY	ONC	RYH	Nursery management	1	1	2	1					14	
Dhenkanal	RY	ONC	RYH	Training on Orchard management	1	1	2	1		4			10	
Dhenkanal	RY	ONC	RYH	Raising of quality planting material	1	1	2	3		12				
Dhenkanal	RY	ONC	PLP	Treatment of seed and seedlings for control of diseases	1	1	2		2				8	5
Dhenkanal	RY	ONC	PLP	Bee keeping	1	1	2	3	1	2			7	2
Dhenkanal	RY	ONC	RYH	Leadership development of rural youth	1	1	2	6					9	
Dhenkanal	RY	ONC	RYH	Formation and management of SHG group	1	1	2							15
Dhenkanal	RY	ONC	RYH	Ornamental fisheries	1	1	2	7					8	
Dhenkanal	RY	ONC	RYH	Freshwater prawn culture	1	1	2			6			9	
Dhenkanal	RY	ONC	AGF	Nursery raising technique of forest tree species	1	1	2	9					6	
Dhenkanal	IS	ONC	EXP	Integrated fish farming for rural livelihood	1	1	2	5					10	
Dhenkanal	IS	ONC	EXP	Use of women friendly tools and implements for drudgery reduction	1	1	2							15
Dhenkanal	IS	ONC	HOV	Application of plant growth regulator in vegetable crops	1	1	1	6		4			5	
Dhenkanal	IS	ONC	HOF	Training on Intercropping in fruit crops.	1	1	1	08	00	02	00		05	00
Dhenkanal	IS	ONC	HOO	Cultivation of flowers in poly house	1	1	2	5					10	
Dhenkanal	IS	ONC	EXP	Recent development in eco friendly pest management concept	1	1	2						15	
Dhenkanal	IS	ONC	AGF	Selection of tree species for crop field bond	1	1	1	1	1				14	4

**Table 3.2. 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
Dhenkanal	Grafting technique in mango and cashew	Crop	Propagation technique	7	5	0	0	0	10	0
Dhenkanal	Bee keeping	Enterprise	Bee keeping	5	0	0	0	0	15	0
Dhenkanal	Fingerling production	Enterprise	Small scale income generation	5		0	15	0	0	0
Dhenkanal	Nursery management & seedling production	Crop	Development of Horticulture – Fruit Crops	7	0	0	0	0	15	0

**Table 3.3. 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 elsewhere
		Type of units	Number of units	Number of persons employed	
Dhenkanal	Bee keeping	Bee units	7	7	-
Dhenkanal	Paddy straw mushroom cultivation	Mushroom beds	1200	60	-
Dhenkanal	Vermicomposting	Vermicompost units	5	5	-
Dhenkanal	Nursery raising	Nursery units	5	5	-

**Table 3.4. 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/R/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		
Dhenkanal	Gender Sensitization	Income generation	Small scale income generation	FW	1	1	10	29	1				OUAT	3000

#### 4. 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	
Dhenkanal	Integrated Fish farming	25	27	54	15	24	140000	220000	1. 2ha 2. Out of 25 trainees, 14 farmers adopted the technology 3. (i) Knowledge: 50 (After-Before)/Before *100 (ii) Production: 60 %, (ii) Income: 57 %
Dhenkanal	Mushroom cultivation from agricultural waste	25	25	12	45	35	45	30000	1. 25 farmers 2. Out of 25 trainees, 7 farmers adopted the technology 3. (i) Knowledge: 75 (After-Before)/Before *100 (ii) Production: 66 %, (ii) Income: 50 %
Dhenkanal	Vermi-composting	25	48	74	6	10	3000	4500	1. 25 farmers 2. Out of 25 trainees, 7 farmers adopted the technology 3. (i) Knowledge: 75 (After-Before)/Before *100 (ii) Production: 66 %, (ii) Income: 64 %
Dhenkanal	Integrated nutrient management in paddy	25	28	43	34	43	35000	42000	1. 130 ha 2. Out of 25 trainees, 15 farmers adopted drip irrigation for orchard crops 3. (i) Knowledge: 50 (After-Before)/Before *100 (ii) Production: 28 %, (ii) Income: 27%
Dhenkanal	Scientific Bee keeping for self employment	25	45	74	2kg	2.5kg	300	375	1. 25 farmers 2. Out of 25 trainees, 5 farmers adopted the technology 3. (i) Knowledge: 64 (After-Before)/Before *100 (ii) Production: 25 %, (ii) Income: 25%
Dhenkanal	SRI method of rice cultivation	25	43	56	45	64	45000	65000	1. 400 ha 2. Out of 25 trainees, 15 farmers adopted drip irrigation for orchard crops 3. (i) Knowledge: 50 (After-Before)/Before *100 (ii) Production: 43 %, (ii) Income: 42%
Dhenkanal	Fertilizer management in potato	25	43	67	240	270	120000	135000	1. 140 ha 2. Out of 25 trainees, 10 farmers adopted drip irrigation for orchard crops 3. (i) Knowledge: 50 (After-Before)/Before *100 (ii) Production: 55%, (ii) Income: 56%

Dhenkanal	Acid soil management	25	12	45	35	45	30000	45000	<ol style="list-style-type: none"> <li>210 ha</li> <li>Out of 25 trainees, 5 farmers adopted drip irrigation for orchard crops</li> <li>(i) Knowledge: 50 (After-Before)/Before *100 (ii) Production: 29 %, (ii) Income: 50%</li> </ol>
Dhenkanal	Nursery Management & seedling production	25	44	75	210	340	36000	56000	<ol style="list-style-type: none"> <li>300 ha</li> <li>Out of 25 trainees, 10 farmers adopted poly house for seedling raising</li> <li>(i) Knowledge: 70 (After-Before)/Before *100 (ii) Production: 62%, (ii) Income: 55%</li> </ol>
Dhenkanal	Use of women friendly tools & implements for drudgery reduction	25	25	12	45	35	45	30000	<ol style="list-style-type: none"> <li>25 farmers</li> <li>Out of 25 trainees, 8 farmers adopted the technology</li> <li>(i) Knowledge: 75 (After-Before)/Before *100 (ii) Production: 66 %, (ii) Income: 50 %</li> </ol>
Dhenkanal	Integrated pest management in paddy	25	28	43	34	43	35000	42000	<ol style="list-style-type: none"> <li>160 ha</li> <li>Out of 25 trainees, 9 farmers adopted drip irrigation for orchard crops</li> <li>(i) Knowledge: 50 (After-Before)/Before *100 (ii) Production: 28 %, (ii) Income:</li> </ol>
Dhenkanal	Management of blast, sheath blight & blb disease in rice	25	28	43	34	43	35000	42000	<ol style="list-style-type: none"> <li>120ha</li> <li>Out of 25 trainees, 15 farmers adopted drip irrigation for orchard crops</li> <li>(i) Knowledge: 50 (After-Before)/Before *100 (ii) Production: 28 %, (ii) Income:</li> </ol>

## 5. 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			
Dhenkanal	Field Day	10	10	320	46	94	30	8	2	Popularization and dissemination of improved cultivation of crops	Improved cultivation of crops	Early maturity stage
Dhenkanal	Kisan Mela	1	1	65	10	20	5	8	0	0	0	0
Dhenkanal	Kisan Ghosthi	8	8	194	0	40	0	3	3	Popularization and dissemination of technology	Improved cultivation of Kharif crops	Kharif crop season
Dhenkanal	Exhibition	4	4	0	0	0	0	0	0	0	0	0

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			
Dhenkanal	Film Show	15	15	602	448	98	32	10	10	Popularization and improved technology	44 film CDs	Kharif crop season
Dhenkanal	Method Demonstrations	2	2	45	8	5	2	3	1	Popularization and improved technology	Improved cultivation of Kharif crops	Kharif crop season
Dhenkanal	Farmers Seminar	0	0	0	0	0	0	0	0	0	0	0
Dhenkanal	Workshop	1	1	32	4	2	1	1	0	Popularization of maize cultivation	Improved cultivation of maize	Maturity stage
Dhenkanal	Group meetings	26	36	240	110	35	9	2	0	Problem analysis	-	Kharif crop season
Dhenkanal	Lectures delivered as resource persons	9	15	-	-	-	-	-	-	Popularization and improved technology	Mushroom, vermicompost	-
Dhenkanal	Newspaper coverage	5	7	-	-	-	-	-	-	Popularization and improved technology	-	-
Dhenkanal	Radio talks	4	7	-	-	-	-	-	-	-	Soil sampling	-
Dhenkanal	TV talks	2	2	-	-	-	-	-	-	-	Fruit cultivation	-
Dhenkanal	Popular articles	1	1	-	-	-	-	-	-	-	Banana cultivation	-
Dhenkanal	Extension Literature	4	10	-	-	-	-	-	-	Popularization and improved technology	Banana, bittergourd, potato, ITK	-
Dhenkanal	Farm advisory Services	40	40	15	6	10	9	-	-	-	-	-
Dhenkanal	Scientific visit to farmers field	150	168	545	190	258	63			-	-	-
Dhenkanal	Farmers visit to KVK	180	205	125	25	45	10	-	-	Popularization and improved technology	Improved cultivation of Kharif crops	Kharif crop season
Dhenkanal	Diagnostic visits	60	95	210	70	120	30	-	-	-	-	-
Dhenkanal	Exposure visits	1	1	5	0	0	0	0	0	0	0	0
Dhenkanal	Ex-trainees Sammelan	3	3	80	30	30	10	-	-	-	-	-

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			
Dhenkanal	Soil health Camp	1	1	20	5	4	1	-	-	-	-	-
Dhenkanal	Agri mobile clinic	0	0	0	0	0	0	0	0	0	0	0
Dhenkanal	Soil test campaigns	2	1	21	5	3	1	-	-	-	-	-
Dhenkanal	Farm Science Club conveners meet	10	08	70	0	30	0	20	-	-	-	-
Dhenkanal	Self Help Group conveners meetings	6	10	0	210	0	40	0	0	0	0	0
Dhenkanal	Mahila Mandals conveners meetings	0	0	0	0	0	0	0	0	0	0	0
Dhenkanal	Celebration of important days	2	2	34	45	6	15	0	2	0	0	0
Dhenkanal	Animal Health Camp	1	1	55	15	40	90	3	0	0	0	0
Dhenkanal	Electronic Media (CD./DVD)	6	3	0	0	0	0	0	0	0	0	0

# FORMAT 3- MISCELLANEOUS ACTIVITY

REPORTING PERIOD – 1<sup>st</sup> April, 2012 to 31<sup>st</sup> March, 2013

## 1 BIO PRODUCTS

KVK Name	Major group/class	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
				No	(kg)		
Dhenkanal	BIOAGENTS						
Dhenkanal	BIOFERTILIZERS	Vermicompost	-		1000	5000	10

## 2 LIVESTOCK

Name of KVK	Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dhenkanal	Poultry				
Dhenkanal	Broiler				
Dhenkanal	Layers				
Dhenkanal	Duals (broiler and layer)				
Dhenkanal	Fisheries				
Dhenkanal	Indian carp				
Dhenkanal	Exotic carp				
Dhenkanal	Others (Pl. specify)				
Dhenkanal	Total				

## 3 Literature Developed/Published (with full title, author & reference)

### (A) KVK News Letter ((,etc.)

KVK Name	Date of start	Periodicity	Number of copies printed	Number of copies distributed
Dhenkanal	March 2008	Quarterly yearly	2000	1500

### (B) Literature developed/published

KVK Name	Type	Title	Authors name	Number of copies
Dhenkanal	Booklet	Annual plan for fish cultivation	J Sahoo	500
Dhenkanal	Booklet	Fasalare Mitra kita	D Panda	500
Dhenkanal	Booklet	Mahila upajogi unnata krushi jantrapati	S Pal	500
Dhenkanal	Booklet	Scientific method of bitter gourd cultivation	S Kar	250



Dhenkanal	Booklet	KVK Agri Brochure	R.S.Panigrahi	500
Dhenkanal	Booklet	Innovative farmers success story	S.Kar	100
Dhenkanal	Booklet	Directory of Agripreneurs	-	100
Dhenkanal	Research Paper	Evaluation of the collection for adaptability, processing quality and reaction to biotic and abiotic stresses of potato varieties in mid central table land zone of Odisha.	S.Kar, S.Pal	-
Dhenkanal	Research Paper	Sustainable development through horticultural plantation for tribal community of Dhenkanal district.	S.Kar	-
Dhenkanal	Research Paper	Effect of intercropping of vegetables on yield & economics of mango ( <i>Mangifera indica</i> ) variety amrapali.	S.Kar	-
Dhenkanal	Popular Article	Tissue culture banana cultivation	S Kar	-

**(C) Details of Electronic Media Produced**

KVK Name	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number
Dhenkanal	CD	Mushroom cultivation Vermicomposting technique	1 1

**4 Activities of Soil and Water Testing Laboratory**

Status of establishment of Lab : Established

Year of establishment : 2004-05

**1. List of equipments purchased with amount :**

KVK Name	Name of the Equipment	Qty.	Cost
Dhenkanal	Kelplus automatic Nitrogen estimation system	1 no.	3,57,056
Dhenkanal	Flame photometer & visible spectrophotometer	1 no. each	65,808
Dhenkanal	Servo voltage stabilizer	1 no.	13,500
Dhenkanal	Hot plate	1 no.	2,520
Dhenkanal	Micro processor based pH meter	1 no.	10,200
Dhenkanal	Conductivity meter	1 no.	10,200
Dhenkanal	Refrigerator	1 no.	9,200
Dhenkanal	Electric top pan balance	1 no.	95,000
Dhenkanal	Physical balance	1 no.	4,500
Dhenkanal	Soil augur	1 no.	2,850
Dhenkanal	Bouyoucos hydrometer	1 no.	6,500
Dhenkanal	Mechanical stirrer	1 no.	8,200
Dhenkanal	Colony counter	1 no.	4,500

Dhenkanal	Plant sample grinder	1 no.	8,000
Dhenkanal	Hot water bath	1 no.	4,000
Dhenkanal	Horizontal shaker	1 no.	11,000
Dhenkanal	Distilled water unit	1 no.	7,200
Dhenkanal	Hot air oven	1 no.	10,500
Dhenkanal	Laboratory Centrifuge	1 no.	9,000
Dhenkanal	Sieves (10 mesh)	1 no.	700
Dhenkanal	Sampling tube (60 mesh)	1 no.	423
Dhenkanal	Soil thermometer	1 no.	2,712
Dhenkanal	Olympus model ML-M	1 no.	17,900
Dhenkanal	Olympus model MS-13	1 no.	26,890
Dhenkanal	BOD incubator	1 no.	42,000

**2. Details of samples analyzed so far :**

KVK Name	Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Dhenkanal	Soil Samples	265	114	28	1325
Dhenkanal	Water Samples				
Dhenkanal	Plant Samples				
Dhenkanal	Petiole Samples				

## 5 Production and supply of Technological products

### SEED AND PLANTING MATERIALS

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
Dhenkanal	Cereals	Paddy	Ranidhana	SD	66.0	Qtl.	85875	Public sale
		Paddy	Manaswini	SD	21.0	Qtl.	29675	
Dhenkanal	Vegetables	Tomato	U.pragyan	PM	6000	Nos.	3000	Public sale
Dhenkanal	Vegetables	Brinjal	U.madhuri	PM	6000	Nos.	3000	
Dhenkanal		Chilli	U.ava	PM	6000	Nos.	3000	

SD – Seed; PM – Planting Material

## 6 Performance of instructional farm (Crops) including seed production (as on 31.03.2013)

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	
Dhenkanal	Cereals	Paddy	02.07.2012	18-27.12.2012	3.0	Ranidhana	Bulk	66.0 qtl.	83772		-
		Paddy	15.07.2012	14-16.12.2012	1.0	Manaswini	Bulk	21.0qtl.	27924		-
Dhenkanal	Cereals	Paddy straw mushroom	-	-	225 bed & 100 bag	V/volvaceae P.sajarcaju		3.25qtl			-

## 7 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)

KVK Name	Name of the Product	Qty (q)	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
Dhenkanal	Vermi compost	10.0	2000	5000	Public sale
Dhenkanal	Mushroom (Paddy straw)	2.25	5990	11250	Public sale
Dhenkanal	Mushroom (Oyster mushroom)	1.0	2660	5000	Public sale

## 8 Performance of instructional farm (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	
Dhenkanal							

## 9 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Demonstration Unit

Name of KVK	Date	Title of the training course	No. of Courses	No of Demonstrations	Client (PF/R Y/EF)	No. of planting material produced	No of Officials/extension persons Visited	No. of farmers visitors including SC/ST			No. of SC/STParticipants		
								Male	Female	Total	Male	Female	Total
<b>Dhenkanal</b>	-	-		-	-			-	-	-	-	-	-

#### 10 Utilization of hostel facilities

Accommodation available (No. of beds) :20

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)
<b>Dhenkanal</b>	June	2012	Bee keeping	5	15	5	
<b>Dhenkanal</b>	August	2012	Agro polytechnique student (20 nos.)				

#### 11. Documentation of Innovative technologies at the district level: NA

#### 12. Some importance success stories and case studies: Attached Separate File (Annexure – II)

#### 13. Well labeled Photographs for each activity of the KVK (Soft copies as well as hard copy- specially for all OFT along with the problem) – Enclosed Separately (Annexure – I)

#### 14. INTERVENTIONS ON DROUGHT MITIGATION

Introduction of alternate crops/varieties

Name of KVK	Crops/cultivars	Area (ha)	Number of beneficiaries
<b>Dhenkanal</b>	Arhar	5	13
<b>Dhenkanal</b>	Gnut	10	26

Major area coverage under alternate crops/varieties

Name of KVK	Crops	Area (ha)	Number of beneficiaries
Dhenkanal	Oilseeds	11.0	31
Dhenkanal	Pulses	5.0	13
Dhenkanal	Cereals	3.0	15
Dhenkanal	Vegetable crops	6.0	30
Dhenkanal	Fruits	1.0	05
Dhenkanal	Spices		

Dhenkanal	Cotton		
Dhenkanal	<b>Total</b>	<b>26.0</b>	<b>94</b>

Farmers-scientists interaction on livestock management

Name of KVK	Livestock components	Number of interactions	No.of participants
Dhenkanal	Dairy Management	3	150
Dhenkanal	Disease management	1	50
Dhenkanal	Feed and fodder technology	1	25
Dhenkanal	Deworming of kids	1	50

Animal health camps organised

Name of KVK	Number of camps	No.of animals	No.of farmers
Dhenkanal	1	200	50

Seed distribution in drought hit states

Name of KVK	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Dhenkanal	Groundnut	6	10	26
Dhenkanal	Paddy	2.25	3	15
Dhenkanal	vegetables	0.5	4	10
Dhenkanal	Arhar	1.0	5	13

Seedlings and Saplings distributed

Name of KVK	Crops	Quantity (No.s)	Coverage of area (ha)	Number of farmers
<b>Seedlings</b>				
Dhenkanal	Brinjal	5000	0.2	2
Dhenkanal	Chilli	2000	0.1	4

Bio-control Agents

Name of KVK	Bio-control Agents	Quantity (q)	Coverage of Area (ha)	No. of farmers
Dhenkanal	Tricho derma Viride	10	2.0	10

(e) Bio-Fertilizer

Name of KVK	Bio-Fertilizer	Quantity (kg)	Coverage of Area (ha)	No. of farmers
Dhenkanal	Azatobactor	10	5	13
Dhenkanal	Rizobium	15	10	26

(f) Verms Produced

Name of KVK	Verms Produced	Quantity (q)	Coverage of Area (ha)	No. of Farmers
Dhenkanal	Vermicompost	10	-	10

Large scale adoption of resource conservation technologies

Name of KVK	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Dhenkanal	Cultivation of fruits	25	125
Dhenkanal	Drought tolerant crop and sort duration variety	100	220
Dhenkanal	Integrated Crop Management	150	400
Dhenkanal	SRI	800	2000
Dhenkanal	weed management in groundnut	1200	2500
<b>Total</b>			

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
Dhenkanal	20	500	5	150	4	200	1	100	1	400	10	300
<b>Total</b>	20	500	5	150	4	200	1	100	1	400	10	300

## 15. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Name of KVK	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
Dhenkanal	Fish feed management	1	25	Fish farming
Dhenkanal	Drudgery reduction	1	25	Improved sickle, sugarcane stripper, sunflower thresher
Dhenkanal	Film show	2	60	ICM of kharif crops
Dhenkanal	Farm Visit(IFS)	1	25	Diagnostic visit

Dhenkanal	Animal health camp	1	200	Cow buffalo goat etc
Dhenkanal	IPM	1	25	Pp chemicals
Dhenkanal	Value addition	1	25	Tomato soup and pickle
Dhenkanal	Vegetable based cropping system	1	25	Brinjal, tomato, Potato
	Total number of farmers visited the technology week	09	410	

## 16. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Date of SAC Meeting	Number of Member Participated	Major recommendations
Dhenkanal	08.11.2012	22	DEE advised to develop mushroom villages in the district and value addition of mushroom and EFY.
			He advised to develop new orchards with newly introduced variety, cultivation of off-season vegetables and increase the area under floriculture to enhance the income of rural farmers. He also suggested to plant mango and cashew in 15 ha of fallow land of KVK, Dhenkanal.
			He advised to look out the income generation activities of farm science clubs in the district with the help of NABARD. He emphasized the renovation of WHS of the KVK, Dhenkanal and to develop IFS model.
			He suggested publishing a booklet covering technologies of all disciplines instead of publishing individual leaflets.
			He advised to survey the economic status of fish farmers.
			He emphasized on documentation of success stories.
			He also advised to promote dairy and backyard poultry with NABARD finance.
			DAO, Dhenkanal suggested to popularise wilt resistant tomato variety (sun) and YMV resistant variety of papaya.
			CDVO, Dhenkanal suggested to provide fund to KVK for fodder development in the district and KVK should undertake the training programmes with Animal Husbandry department. KVK scientists should also popularise of the availability of Banaraja chicks from Animal Husbandry department of the district.
			Principal, RITE suggested for effective control of the wilting in brinjal in the district.
DAO, Kamakhyanagar suggested to popularise the use of Zargon for controlling weed in groundnut in Kamakhyanagar and Kankadahada block.			

			AGM, NABARD suggested to give importance on SRI method of rice cultivation, vermicomposting, value addition of mushroom particularly pickles and soup. He also suggested to adopt Bengal poultry, dairy scheme.
			DEE advised to encourage in increasing hybrid paddy area and non paddy crop in uplands along with to increase fertility status of soil through GM practice.

#### 17. E-CONNECTIVITY

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

#### 18. Kisan Mobile Advisory Services

Name of KVKs	Month and year of Starting	No. of SMSs sent	No. of farmers benefited	Remark (Continued/Discontinued)
Dhenkanal	09.04.2012	73 (49375)	775	Continued

#### 19. Details of KVK Agro-technological Park

Name of KVK	Name of Component of Park	Detail Information (If established)
Dhenkanal	Crop Cafeteria	Started
Dhenkanal	Technology Desk	Not established
Dhenkanal	Visitors Gallery	Not established
Dhenkanal	Technology Exhibition	Not established
Dhenkanal	Technology Gate-Valve	Not established

#### 20. Status of KVK Website: Available

#### 21. Important visitors to KVK

Name of KVK	Name of Visitor	Date of Visit	Remarks
Dhenkanal	Dr SS Nanda, Dean Extension education	08.11.2012	SAC Meeting



Dhenkanal	Sri K.P.singhDeo, Former Information & Broadcasting Minister of Govt. of India	16.02.2013	Visit of campus activity
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