

Doubling Farmers' Income by Technological Interventions

Krishi Vigyan Kendra, Ganjam-1

Doubling Farmers' Income by Technological Interventions, KVK, Ganjam-I

Sl.No.	Name of AES	AES features	Blocks covered
1	Rainfed Red and Laterite	Sandy loam,loamy sand Rainfall 1376mm Cropping Intensity - 187%, Gross cropped Area - 59.3th. Ha Paddy, Blackgram, Green gram, Horse gram, Groundnut	Polsara, Beguniapada, Kabisurya nagar
2	Black, Medium rainfall and Irrigated	Black soil, Rainfall 1100-1300mm Cropping Intensity - 186%, Gross cropped area - 131.8th. Ha Paddy,Ragi, Greengram, Blackgram, Sesamum, Vegetable	Bhanjanagar, Belaguntha
3	Alluvial, Low rainfall and Irrigated	Alluvial, Rainfall 900-1100mm, Cropping Intensity - 194%, Gross cropped area - 214.9th. ha Paddy,Sugarcane, Blackgram, Greengram, Niger, Mustard,Sesamum,Horse gram	Aska, Dharakote, Sheragada
4	Laterite, Moderate Rainfall and Irrigated	Laterite, Rainfall 1100-1300mm, Cropping Intensity - 145%, Gross cropped area - 173.5th. Ha Paddy, Maize,Ragi,Pigeonpea, Greengram, Blackgram, Sesamum, Sugarcane, Ground nut.	Jagannath Prasad, Buguda, Sorada

SUMMARY TABLE

District- Ganjam-I	Module	Farmer's Situation/ AES	Village/ Block	Name of Existing farming system	Present Income 2016-17	Proposed income 2017-18	Risk / unsustainability	Remark	
								Most Representative module for the district	Market linkage
Module-1	Maize/Sweetcorn-fallow(up) Rice -Green gram(Medium) Goatery, Poultry, Mushroom	Rainfed (AES-I) (AES-IV)	Village-Barida, Block-Kabisurya Nagar Vil.-Lepa, Block-JN prasad	Rice-fallow Rice - Greengram Goatery	Rs.62000	Rs.77250 (68%)	Wild boar menace in Maize Low soil moisture affect Green gram crop	Module-1	- Local market available for Green gram - Maize seed is lifted by local dealer for Poultry & Cattle feed
Module-2	Vegetable-vegetable-vegetable (up)	Irrigated (AES-IV)	Vil.-Padmapur, Block-Soroda	Vegetable-Vegetable-Vegetable . Paddy-	Rs.276000	Rs.309550 (12%)	Cyclone Distress sale of vegetable		Sale of vegetable in local market

	Paddy-Greengram(medium) Mushroom, kitchen gardening			Greengram					• t Produce r group to be formed
Module-3	Paddy-Beans, Paddy-Greengram, Dairy,Mushroom , Poultry	Irrigated-AES-II	Village-Patulisahi, Block-Bellaguntha	Paddy-Beans(medium land) Paddy-Greengram (low land) Dairy	Rs.124000	Rs.147950 (19%)	Flood		• Local market available for Beans, Green gram & Mushroom
Module-4	Veg.-Veg.-Veg(upland) Rice-Brinjal(medium land) Goatery, Mushroom	Irrigated-AES-III	Vil.-Phulasarapalli, Block-Aska	Veg.-Veg-Veg. Rice-Brinjal Goatery	Rs.320000	Rs.389750 (22%)	Flood		• Sale of vegetable in local market • Producer group to be formed

MODULE I: Village: Lepa, Block: Jagannath Prasad (AES: Laterite, Moderate Rainfall and Irrigated)

Farming Situation	Existing practice		1 st year (2016-17)		2 nd year (2017-18)		3 rd year (2018-19)	
	Component	Problems/ practices	Intervention	Yield & Net income/ha	Intervention	Expected Yield & net Income/ha	Intervention	Expected Yield & Income/ha
Rainfed Upland								
Paddy-fallow	Paddy 17.5q/ ha. Rs.10,000	less profit from Rice	1. Hybrid Maize/Sweetcorn	40q/ ha. Rs. 17500	2. Weedicide- Atrazine@ 2kg/ha. 3.STBF	47.5 q/ ha Rs.22500	4. Weedicide- Atrazine@ 2kg/ha. STBF	47.5q/ ha Rs.22500
Rainfed Medium land								
Paddy-Greengram	Paddy- 33q/ha. Rs.17500	-Blast disease -Weed infestation	1.Seed treatment with Carboxyn +Thiram@ 2gm/kg & spraying of Tricyclazole @ 1gm/ltr or Isoprothialone@ 2 ml/ltr. for Blast disease in Paddy	37.5q/ ha Rs.22500	2.Hiranmayee/Manaswini 3.Weedicide- Bensulfuronmethyl + Pretilachlor @ 10 kg/ha at 03 -07 DAT/Bispyribac Sodium @ 200 ml./ha. at 20 DAT	40q/ ha. Rs.25000	4.STBF with line transplanting	40q/ ha. Rs.25000
Greengram	Green gram 3.5q/ha Rs.8500	-YMV in local Greengram varieties	1.Green gram-TARM-1, 2.Spraying- Thiamethoxam or Acetamiprid@150 gram/ha	5q/ ha. Rs.10000	3.Green gram-IPM-02-- 3/IPM-02-14 4.Yellow sticky trap	5.75q/ha. Rs.13000	5.Water soluble fertilizer@ 10 gram/ltr.	6.25q/ha. Rs.14750
Total	Rs.36000			Rs.50000		Rs.60500		Rs.62250
Homestead	Goatery-5	worm	1.Fenbendazole@	14kg/	2.Insurance	14kg/goat	3.Goatery-	14kg/goat

d	nos.12kg/ yr Rs. 10000/yr	infestation	150 mg/ 30 kg -03 times annually	goat Rs.12000/ yr		Rs.12000/ yr	10 nos.	Rs.14000/ yr
Poultry		No alternate source of income	-	-	1.Poultry-Pallishree-10 no. 2.Calcium supplementation	50eggs/bi rd Rs.1200		2.4kg/bir d 110 eggs/bird Rs.5000
Mushroom		No alternate source of income	-	-	1.Mushroom: Paddy straw 30 no.& Oyster-25no.	30kg Rs. 1800 30kg Rs.750	Paddy straw 30 no.& oyster- 25no.	30kg Rs. 1800 30kg Rs.750
Total	10000			12000		15750		21500
G.Total	46000			62000 (35%)		76250 (66%)		83750 (82%)

MODULE - II:, Village: Padmapur, Block:-Soroda (AES: Laterite, Moderate Rainfall and Irrigated)

Farmin g Situati on	Existing practice		1 st year (2016-17)		2 nd year (2017-18)		3 rd year (2018-19)	
	Component	Proble ms/ practice s	Intervention	Yield & Net income/ha	Intervention	Expect ed Yield & net Incom e/ha	Intervention	Expece d Yield & Income /ha
Irrigated Upland								
Vegeta ble- Vegeta	Cauliflower 105q/ha.,	-High cost of manual weeding in Cauliflower	1.Pendimethalin @ 2.5 lt./ha. as pre- emergence	115q/ha Rs.145000	2.STBF	125q/h a. Rs.185	STBF	125q/h a. Rs.1850

ble-Vegetable	Rs.125000	-Improper nutrient management	application			000		00
Cabbage	Cabbage-170q/ha.,Rs.55000	Diamond back moth infestation	-	170q/ha.,Rs.55000	1.Pheromone trap@20/ha Spinosad@150ml/ha.	190q/ha. Rs.65000	2.STBF	215q/ha. Rs.77500
Brinjal	Brinjal 195q/ha. Rs.65000	-Shoot & fruit borer infestation -Improper nutrient management	1. Pheromone trap@ 20/ha., Spraying of Neemoil(1500PPM)@ 2ml/lit & Spinosad @ 150ml/ha or Indoxacarb@ 500ml/ha.	220q./ha.,Rs.75000	2.STBF	250q/ha. Rs.90000	STBF	250q/0.2ha. Rs.90000
Total	Rs.245000			Rs.275000		Rs.340000		Rs.352000
Irrigated Medium land								
Paddy-Greengram	Paddy-Greengram Paddy- RGL 37.5q/ha Rs.20000	-Stem borer infestation -Weed infestation high	-	37.5q/ha Rs.20000	1.Pheromone trap @ 20/ha. Trichocard, @ 15 cards/ha. & Cartap Hydrochloride @ 1.5gm/lit or Prophenophos @ 2ml/lit. 2.STBF	42.5q/ha. Rs.25000	3.Weedicide- Bensulfuron methyl + Pretilachlor @ 10 kg/ha at 03 -07 DAT/ Bispyribac sodium @ 200ml/ha. at 20DAT	45q/ha. Rs.27500
Greengram	Green gram 4q/ha. Rs.11000	YMV incidence in local Greengram	1.Greengram-TARM-1, 2.Thiomethoxam/Ac etamiprid @ 150 gram/ha. for	5q/ha. Rs.11250	3.Greengram-IPM-02-03/IPM-02-14 4. Thiomethoxam/Ac etamiprid @ 150	5.5q/ha. Rs.13000	3.Water soluble fertilizer(19:19:19)@10gram/lit.	6.5q/ha . Rs.16000

		varieties	sucking pests		gram/ha. for sucking pests 5.Yellow stick trap			
Total	31000			31250		38000		43500
Homes tead	-	-No alternate source of income by family member in leisure period	1.Paddy straw Mushroom cultivation(60 beds from July to Oct.)	55 kg Rs.3300	Paddy straw 120 no.& oyster-100no.	120kg Rs. 7200 120 kg Rs.3000		120kg Rs. 7200 120 kg Rs.3000
Total	-			Rs3300		Rs.10200		Rs.10200
Grand Total	Rs.276000			Rs.309550 (12%)		Rs.388200 (41%)		Rs.405700 (47%)

MODULE III: Village: Patulisahi, Block: Bellaguntha (AES: Black, Medium rainfall and Irrigated)

Farming Situation	Existing practice		1 st year (2017-18)		2 nd year (2018-19)		3 rd year (2019-20)	
	Component	Problems/ practices	Intervention	Yield & Net income/ha	Intervention	Expected Yield & net Income/ha	Intervention	Expected Yield & Income/ha
Irrigated medium land								
Paddy-Beans	Paddy-MTU-	-Weed infestation	1.Weedicide-Bensulfuron Methyl +	40q/ha. Rs.	3.STBF	45q./ha. Rs.25000	STBF	45q./ha. Rs.25000

	1001 35q/ha. Rs.17000	n is high -Blast disease incidence is high	Pretilachlor @ 10 kg/ha at 03 -07 DAT or Bispyribac sodium @ 200ml/ha. at 20DAT 2.Seed treatment with Carboxyn +Thiram@ 2gm/kg & spraying of Tricyclazole @ 1gm/ltr or Isoprothialone@ 2 gram/ltr.	22000				
Beans	Beans 80q/ha. Rs.70000	-YMV -Rust disease -- Improper nutrient managem ent	1.Imidaclorid @0.5ml/ltr. & Yellow sticky traps @ 50/ha. 2. Tridemorph@ 0.5 ml/ltr.	90q/ha Rs.80000	3.STBF	100q/ha . Rs.90000	4.STBF	100q/ha. Rs.90000
	Rs.87000			Rs.102000		Rs.1150 00		Rs.115000
Irrigated Low land								
Paddy- Greengr am	Paddy- Greengra m Paddy- pooja 40/ha Rs.20000	-Stem borer infestatio n -Weed infestatio	1.Pheromone trap @ 20/ha. Trichocard, @ 15 cards/ha. & Cartap Hydrochloride @ 1.5gm/ltr or Prophenophos @ 2ml/ltr. 2.Weedicide-	45q/ha Rs.23000	.3.STBF	48q/ha. Rs.25000	4.STBF	48q/ha. Rs.25000

		n high -improper nutrient managem ent	Bensulfuron methyl + Pretilachlor @ 10 kg/ha at 03 -07 DAT/Bispyribac sodium @ 200ml/ha. at 20DAT					
Greengr am	Green gram 4q/ha. Rs.11000	YMV incidence in local Greengra m varieties Low yield	1.Greengram- IPM-02- 3/ipm-02-14, 2.Thiomethoxam/Aceta miprid @ 150 gram/ha. for sucking pests, Yellow stick trap@50/ha.	5.5q/ha. Rs.13000	.Water soluble fertilizer(19:19:19)@10gr am/lt.	6.5q/ha. Rs.16000	Boron applicatio n @ 2gram/lt.	7q/ha. Rs.17000
	31000			36000		38000		42000
Homeste ad	Dairy-01 no. desi cow. 300 lt per cow Rs 6000	Low milk yield	1.Supplementation of area specific mineral mixture @ 30 gm per cow 2.A.I	400 lt/ cow Rs 8000	3.Fodder grass Hybrid Napier (CO-4) -0.05 ha 4.Deworming with Fenbendazole @1.5gm /300kg	450 lt/cow Rs9000	5.Preparat ion of low cost concentrat e from ingredient s like Maize, GNOC , DORB	530 lt/cow Rs 10000
Poultry	-	No use of backyard space	1.Poultry: Pallishree-10 no. 2.Calcium supplementation	50eggs/b ird Rs.1200	.Calcium supplementation	2.4kg/bi rd 110 eggs/bir d	Pallishree- 50birds	250eggs/b ird Rs.6000

						Rs.5000		
Mushroom		No alternate source of income by family member in leisure period	1.Paddy straw 30 no.& oyster-25no.	30kg Rs. 1800 30kg Rs.750	2.Paddy straw 60 no.& oyster-50no.	60kg Rs. 3600 60kg Rs.1500	3.Paddy straw 60 no.& oyster-50no.	60kg Rs. 3600 60kg Rs.1500
Total	6000			9950		15500		17500
Grand Total	124000			147950 (19%)		168500 (36%)		174500 (40%)

MODULE IV Village:- Phulsarapalli, Block: Aska (AES: Alluvial, Low rainfall and Irrigated)

Farming Situation	Existing practice		1 st year (2017-18)		2 nd year (2018-19)		3 rd year (2019-20)	
	Component	Problems/practices	Intervention	Yield & Net income/ha	Intervention	Expected Yield & net Income/ha	Intervention	Expected Yield & Income/ha
Irrigated Upland								
Vegetable - Vegetable	Vegetable-vegetable (Brinjal) -Cowpea-Okra Brinjal (Greenstar	-Shoot & fruit borer infestation. -Wilting -Improper nutrient management	1. Pheromone trap@ 20/ha.Neem oil(1500PPM)@ 2ml/lit & Spinosad @ 150ml/ha or Indoxacarb@ 500ml/ha. 2.Carbandazim @ 1.5 gram/lit. + streptocyclene0.1gram/lit. for	220q/ha. Rs 165000	3.STBF	230q/ha. Rs.180000	STBF	230q/ha. Rs.180000

	) 200q/ha Rs135000		wilting					
Cowpea	Cowpea (Anthua) 50q/ha. Rs.35000	-Pod borer -Leaf miner -Improper nutrient manageme nt	1.Indoxacarb@ 500ml/ha. 2.Spinosad-150ml/ha.	60q/ha. Rs.40000	3.STBF	70q/ha. Rs.45000	STBF	70q/ha. Rs.45000
Okra	Okra 80q/ha. 30000	-YMV -Red mite -Fruit borer	1.Prophenophos@ 2ml/lit. 2.Spiromesifen@ 1ml/lit	95q/ha Rs.41000	3.Spinosad @ 150ml/ha.	105q/ha Rs.48000	4.STBF	115q/ha. Rs.55000
Total	Rs.200000			Rs.246000		Rs. 273000		Rs.280000
Irrigated Medium land								
Paddy- Brinjal	Paddy- MTU-1001 35q/ha. Rs.17500	-Weed infestation is high -Blast disease incidence is high	1.Weedicide-Bensulfuron Methyl + Pretilachlor @ 10 kg/ha at 03 -07 DAT or Bispyribac sodium @ 200ml/ha. at 20DAT 2.Seed treatment with Carboxyn +Thiram@ 2gm/kg & spraying of Tricyclazole @ 1gm/lit or Isoprothialone@ 2 gram/lit.	40q/ha. Rs. 22500	3.STBF	45q./ha. Rs.25000	STBF	45q./ha. Rs.25000
Brinjal	Brinjal 95q/ha. Rs.32500	Shoot & fruit borer infestation .	1.Installation of Pheromone trap@ 20/ha.,Spraying of neemoil(1500PPM)@ 2ml/lit & Spinosad @ 150ml/ha or cartap hydrochloride@	107.5q/ha. Rs.37500	2.STBF	117.5q/ha. Rs.43750	3.Wilt manageme nt	125q/ha. 46250

			1.5gram/lt					
Total	Rs.50000			Rs.60000		Rs.68750		Rs.71250
Homestead	-	No alternate source of income by family member in leisure period	1.Paddy straw 30 no.& oyster-25no.	30kg Rs. 1800 30kg Rs.750	2.Paddy straw 60 no.& oyster-50no.	60kg Rs. 3600 60kg Rs.1500	Paddy straw 60 no.& oyster-50no.	60kg Rs. 3600 60kg Rs.1500
Goatery	Goatery-5 nos.12kg/yr Rs. 10000/yr	Low body growth rate due to worm infestation	1.Fenbendazole@50mg./30 kg-03 times annually	14kg/goat Rs.12000/yr	2.Insurace	14kg/goat Rs.12000/yr	3.Goatery-10 nos.	14kg/goat Rs.14000/yr
Total	10000			14750		16100		19100
Grand Total	Rs.260000			Rs.320750 (23%)		Rs.357850 (38%)		Rs.445350 (42%)

Sd/-

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