

Doubling Farmers' Income by Technological Interventions



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Module	Farming Situation/AES	Village/Block	Name of existing farming System	Present Income/ ha (2016-17)	Proposed Income/ ha (2017-18)	Proposed Income/ ha (2018-19)	Risk/ Unsustainability	Remarks	
								Most Representative module for the District	Market Linkage
I	Rainfed Upland, Medium land & Homestead/ Low rainfall lateritic soils	KalchipadaDihi/Tileibani	Rice-Fallow	30,100.00	40,750.00	46,900.00	Poor resource, Marketing and intime input availability	Vegetable-Fallow Rice-Greengram, Mushroom, Poultry, Goatery	Demand for off season vegetable in local & nearby markets
II	Irrigated Upland, Medium land, Low land & Homestead/ Low rainfall lateritic soils	Sadhupalli/Reamal	Rice-Fallow, Rice-Greengram	41,000.00	51550.00	59,300.00	Limited Irrigation, climate, market and intime input availability	Vegetable-Fallow Rice-Greengram, Mushroom, Poultry, Goatery	Demand for off season vegetable in local & nearby markets, well market linkage for Rice
		Kumurapalli/Tileibani							
III	Irrigated(L.I/Perineal stream) Upland, Medium land, Low land & Homestead/ Low rainfall lateritic soils	Singhshal/Barkote	Rice-Fallow, Rice-Greengram, Rice- Vegetable	46,020.00	53700.00	64,650.00	Limited Irrigation, climate, market and intime input availability	Vegetable-Vegetable Rice- Vegetable Rice-Greengram, Mushroom, Poultry, Goatery	Demand for vegetable in local & nearby markets, well market linkage for Rice
		Kailash/Tileibani	Rice-Fallow, Rice-Greengram						

Module-I (Rainfed Ecosystem)

AES - Low rainfall lateritic soils

Farming situation	Existing practices 2015-16		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	Rice (Khandagiri)-Fallow (16q/ha) Rs. 850.00 /0.1 ha	<ul style="list-style-type: none"> • Low yield leads to low income 	<ul style="list-style-type: none"> ▪ Crop Diversification to Kharif tomato (Variety – Lakhmi), ▪ Raising seedling in poly tunnel ▪ Staking of plants ▪ Management of wilting (Metalyxyl 8%+ mancozeb 64%) + Streptocycline with seedling treatment and drenching after disease initiation) 	128 q/ha Rs. 5,300/- /0.1ha	<ul style="list-style-type: none"> ▪ STB fertilizer application including liming and micronutrient 	136 q/ha Rs. 6,800/- /0.1ha	<ul style="list-style-type: none"> ▪ Producer group formation for market linkage 	138 q/ha Rs. 7,500/- /0.1ha
	Rs. 850.00			Rs. 5300.00		Rs. 6800.00		Rs. 7500.00
Medium land	Rice (var. Lalat) Fallow 26q/ha- Rs. 14,930/-	<ul style="list-style-type: none"> • Broad casting method of sowing • Low yield due to improper fertilizer management 	<ul style="list-style-type: none"> • STB application of fertilizer including micronutrients 	36.4 q/ha Rs. 18,800/-	<ul style="list-style-type: none"> ▪ HYV Sabhagi Dhan ▪ Line transplanting ▪ Paira cropping Blackgram 	40 q/ha 3 q/ha Rs. 25,000/-	<ul style="list-style-type: none"> ▪ Weedicide (Bensulfuron methyle+Pret ilachlor @ 10 kg/ha at 3 DAT+ One HW at 35 DAT) ▪ ii)ST BF + Inoculation of rhizobium + ammonium 	42 q/ha 3.5 q/ha Rs. 28,000/-

							molybdate seed treatment in Blackgram	
	Rs.14,930.00			Rs. 18,800.00		Rs.25,000.00		Rs.28,000.00
Homestead	-	No income from other source	<ul style="list-style-type: none"> ▪ Mushroom cultivation in small scale 	1 Kg /bed Rs.100/ bed (20 beds) Rs. 1000.00	<ul style="list-style-type: none"> ▪ i) cultivation with rack system, ii)Soaking of paddy straw in 2% CaCo3(20 beds) 	1.2 kg/day Rs. 100/- per bed (20 beds) Rs. 1200.00	Oyster Mushroom production	1.3 kg/day Rs.100/ bed (40 beds) Rs. 2200.00
	Poultry (Rs. 3000/- per year)	<ul style="list-style-type: none"> • Desi breeds, low egg lying and poor body growth 	-	Rs. 3000.00	<ul style="list-style-type: none"> ▪ Color poultry bird Pallishree (2 batches of 20 birds) 	<ul style="list-style-type: none"> ▪ 1.8kg/bird Rs.5,000/- per year 	<ul style="list-style-type: none"> ▪ Color poultry bird Pallishree (2 batches of 20 birds) 	<ul style="list-style-type: none"> ▪ 2 kg/bird Rs.6,000/- per year
	Goatery (5 nos/farmer)- Rs.2000/-	<ul style="list-style-type: none"> • Worm infestation Mortality of kids • No additional feeding 	-	Rs. 2000.00	Deworming	Rs. 2750/-	Feed management	Rs. 3200/-
	Rs. 5000.00		-	Rs. 6000.00		Rs. 8950.00		Rs. 11400.00
Gross	20, 780.00			30, 100.00 (44.8%)		40,750.00 (96.1%)		46,900.00 (125.7%)

Module-II (Irrigated Ecosystem) AES - Low rainfall lateritic soils

Farming situation	Existing practices 2015-16		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
Upland	Rice (18q/ha) variety Khandagiri Vegetable 950.00/0.1ha	<ul style="list-style-type: none"> Low yield leads to low income 	<ul style="list-style-type: none"> Crop Diversification to Kharif onion (Variety – Bhima Shakti) Raising seedling in poly tunnel in the month of August and transplanted in September 	138 q/ha Rs. 9500/-/0.1ha	<ul style="list-style-type: none"> STB fertilizer application including liming if required in onion 	142 q/ha Rs. 9800/-/0.1ha	<ul style="list-style-type: none"> Control of Thrips by application of Imidachloprid 0.5ml/lit 	145 q/ha Rs. 10,200/-/0.1ha
	Rs.950.00			Rs. 9500.00		Rs. 9800.00		Rs. 10200.00
Medium land	Rice (var. Pratikhya)– Fallow (34 q - Rs. 20300.00)/ha (0.4ha)	<ul style="list-style-type: none"> Low yield due to improper fertilizer and agronomic management 	<ul style="list-style-type: none"> STB fertilizer application 	40 q/ha Rs. 23,500.00 (0.4 ha)	<ul style="list-style-type: none"> Line Transplanting Paira cropping Blackgram 	42 q/ha 4 q/ha Rs.32,000.00/ha (0.4 ha)	<ul style="list-style-type: none"> Weedicide (Bensulfuronmethyle+Pretilachlor @ 10 kg/ha at 3 DAT+ One HW at 35 DAT) ii)STBF + Inoculation of rhizobium + ammonium molybdate seed treatment in Blackgram 	45 q/ha 5 q/ha Rs.38,000.00/ha (0.4 ha)
	8,120.00			9,400.00		12,800.00		15200.00
Low land	Rice (38q)-Greengram (28,400)	<ul style="list-style-type: none"> Fertilizer mang., Severe stem 	<ul style="list-style-type: none"> STB fertilizer application 	Rice - 42 q/ha Greengram	i)Line transplanting in Rice	Rice-45q/ha Greengram-4.5 q/ha	i)IWM in transplanted Rice ii) IDM in Greengram	Rice-47q/ha Blackgram

		borer infestation in rice		- 3q Rs. 32,200	ii)STBF in Greengram	Rs 40000/-		-5 q/ha Rs 45000/-
	14,200.00			16,100.00		20,000.00		22500.00
Homestead	-	No income from other source	▪ Mushroom cultivation in small scale	1 Kg /bed Rs.100/ bed (20 beds) Rs. 1000.00	▪ i)cultivation with rack system, ii)Soaking of paddy straw in 2% CaCo3 (20 beds)	1.2 kg/day Rs. 100/- per bed (20 beds) Rs. 1200.00	Oyster Mushroom production	1.3 kg/day Rs.100/ bed (40 beds) Rs. 2200.00
	Poultry (Rs. 3000/- per year)	• Desi breeds, low egg lying and poor body growth	-	Rs. 3000.00	▪ Color poultry bird Pallishree (2 batches of 20 birds)	▪ 1.8kg/bird Rs.5,000/- per year	▪ Color poultry bird Pallishree (2 batches of 20 birds)	▪ 2 kg/bird Rs.6,000/- per year
	Goatery (5 nos/farmer)- Rs.2000/-	• Worm infestn • Mortality of kids • No additional feeding	-	Rs. 2000.00	Deworming	Rs. 2750/-	Feed management	Rs. 3200/-
	5000.00		-	6000.00		8950.00		11400.00
Gross	28270.00			41000.00 (45%)		51550.00 (82.3%)		59300.00 (109.7%)

Module : III, Irrigated Ecosystem(L.I./Perineal Stream) AES – Red Laterite Rainfed

Farming situation	Existing practices,2016-17		1 st year (2017-18)		2 nd year (2018-19)		3 rd year (2019-20)	
	Component	Problems/practices	Intervention	Yield & Net income/ha	Intervention	Expe Yield & net Income/ha	Intervention	Expected Yield & Income/ha
Upland land	Rice (24.7q/ha) - Vegetable (Cabbage-20q/ha) (0.2 ha)	<ul style="list-style-type: none"> • Low yielding paddy • High cost in manual weeding/ cultivation 	<ul style="list-style-type: none"> • Varietal substitution of Khandagiri with Sahabhagi • Improved nursery raising and planting technique of cabbage 	Rice- 30.2q/ha Cabbage – 260q/ha (0.2 ha)	<ul style="list-style-type: none"> • IWM with (Bispyribac Na)+ One HW • DBM management of Cabbage 	Rice- 32.8q/ha Cabbage – 280q/ha (0.2 ha)	<ul style="list-style-type: none"> • STB fertilizer application in Rice and cabbage 	Rice- 34.8q/ha Cabbage – 300q/ha (0.2 ha)
	8500.00			10200.00		11400.00		12800.00
Medium land	Rice (var. Pratikhya) (34 q/ha)– Vegetable (Pumpkin-200 q/ha) (0.4ha)	<ul style="list-style-type: none"> • Low yield due to improper fertilizer and agronomical management 	<ul style="list-style-type: none"> ▪ STB fertilizer application • Varietal substitution of local Makhan with Kashi Harit 	Rice - 40q/ha Pumpkin – 240q/ha (0.4 ha)	<ul style="list-style-type: none"> ▪ Line Transplanting ▪ STB fertilizer application in Pumpkin 	Rice - 42 q/ha Pumpkin – 260q/ha (0.4 ha)	<ul style="list-style-type: none"> i) Weedicide (Bensulfuro nmethyle+P retilachlor @ 10 kg/ha at 3 DAT+ One HW at 35 DAT) ii)applicatio n of Metalaxyl Mancozeb @2g/lit of water for control of Powedry mildew 	Rice - 45 q/ha Pumpkin – 280q/ha (0.4 ha)
	18320.00			21400.00		24,300.00		27200.00
Low land	Rice (38q)-Greengram	<ul style="list-style-type: none"> • Fertilizer mang., 	<ul style="list-style-type: none"> ▪ STB fertilizer application 	Rice - 42 q/ha	i)Line transplanting in	Rice-45q/ha Greengram-4.5	i)IWM in transplanted	Rice-47q/ha Greengram-5

	(2q)(0.4ha)	Severe stem borer infestation in rice	▪ Varietal replacement of PDM-54 with IPM-2-14	Greengram – 3.5q (0.4ha)	Rice ii)STBF in Greengram	q/ha (0.4ha)	Rice ii) IDM in Greengram	q/ha (0.4ha)
	14,200.00			16,100.00		20,000.00		22500.00
Homestead	-	No income from other source	▪ Mushroom cultivation in small scale	1 Kg /bed Rs.100/ bed (20 beds) Rs. 1000.00	i)cultivation with rack system, ii)Soaking of paddy straw in 2% CaCo3 (20 beds)	1.2 kg/day Rs. 100/- per bed (20 beds) Rs. 1200.00	Oyster Mushroom production	1.3 kg/day Rs.100/ bed (40 beds) Rs. 2200.00
	Poultry (Rs. 3000/- per year)	Desi breeds, low egg lying and poor body growth	-	Rs. 3000.00	Color poultry bird Pallishree (2 batches of 20 birds)	1.8kg/bird Rs.5,000/- per year	Color poultry bird Pallishree (2 batches of 20 birds)	2 kg/bird Rs.6,000/- per year
	Goatery (5 nos/farmer)- Rs.2000/-	<ul style="list-style-type: none"> • Worm infestation • Mortality of kids • No additional feeding 	-	Rs. 2000.00	Deworming	Rs. 2750/-	Feed management	Rs. 3200/-
	5000.00		-	6000.00		8950.00		11400.00
Gross	46020.00			53700.00 (16.7%)		64650.00 (40.5%)		73900.00 (60.6%)