

Agro-ecological Situation

Jharkhand state falls under VIIth Agro climatic Region. This state is also divided into three agro climatic regions i.e. IVth, Vth and VIth. Among the three Bokaro district comes under the Central and North-Eastern Plateau Sub region (Agro-climatic region IV) Based on the variation in soil types, forest cover, vegetation, cropping pattern, Irrigation and problem of pollution (district has been divided into Three agro-Ecological situation (AESs) for the purpose of SREP preparation. One representative village of each AES was selected for participatory data collection through multidisciplinary AES teams. These AES are named as under.

- AES- I Rainfed undulated plateau area having sandy-loam soil.
- AES- II Rainfed upper plateau partial forest area having gravelly soil area.
- AES- III Degraded forest and mining area.

Table No. – 5.1: AES and villages selected for participatory data collection

AES NO.	Name of AES	Blocks	Representative village identified	Geographical Area in (ha)	% of total geographical area
AES-I	Rainfed undulated plateau area having sandy-loam soil	Chas, Chandankiyari	Machatanr	93270.61	33.5%
AES-II	Rainfed upper plateau partial forest area having gravelly soil area.	Peterwar, Kasmar, Jaridih	Koh	70279.34	25.2%
AES-III	Degraded forest and mining area.	Bermo, Nawadih, Gomia, Chandrapura	Alargo	114970.00	41.3%

Table No. – 5.2: Demographic Information of the representative village (AES)

Representative Village	No. of House Hold	Total Population	SC Population	ST Population	Others
AES-I MACHATANR	161	887	52	61	774
AES-II KOH	208	1189	260	630	299
AES-III LARGO	356	2484	274	596	1614

Sex Ratio

Representative Village	Total population	Male	Female	Male female ratio
AES-I MACHATANR	887	443	444	
AES-II KOH	1189	602	587	
AES-III LARGO	2484	1321	1163	

Literacy

Representative Village	Total literate	Male literate	Female literate
AES-I MACHATANR	356	268	87
AES-II KOH	378	273	105
AES-III LARGO	1303	829	474

Population up to 6 years age

Representative Village	Total	Male	Female
AES-I MACHATANR	133	65	68
AES-II KOH	250	124	126
AES-III LARGO	443	236	207

Table No. – 5.3: Worker Classification of representative village (AES)

Village	Total Worker	Main					Marginal					Non Worker
		Worker	Cultivator	Agricultural Labour	House Hold Worker	Others worker	Marginal Worker	Cultivator	Agricultural Labour	House Holdd worker	Other worker	
AES-I MACHATANR	484	150	128	01	01	20	334	02	331	0	01	403
AES-II KOH	542	331	221	89	02	19	211	57	132	05	17	647
AES-III LARGO	703	254	37	04	03	210	449	206	26	0	217	1781

Table No. – 5.4: Information on Land Use Pattern of the representative village (AES) (in acre)

Sl No.	Land Use Pattern	Koh	Alargo	Machatanr
1	Geographical Area	969.26	717.31	564.5
2	Cultivable Area	126.18	328.58	246.90
3	Cultivated Area	142.88	-	138.60
4	Cultivated Waste Land	100.4	-	317.27
5	Current Follow	0.0	220	-
6	Forest	192.62	50.0	-
7	Pasture	18.24	-	-
8	Land Put to Non-Agril. Use	109.54	05	-
9	Land under Misc. Plantation	0.0	-	-
10	Barren & Uncultivable land (Waste Land)	60.12	32	-

Table No. – 5.5: Detail about the number of families under each kind of resource situation in different AES

Sl. No.	Categories	AES – I		AES – II		AES - III	
		No.	%	No.	%	No.	%
1.	Resource Rich	20	10	100	34.1	70	18
2.	Resource Poor	180	90	193	65.9	320	82

Table No. – 5.6: Detail about predominant existing farming systems (EFS) in the representative village

Sl. No.	Existing farming system	AES – I				AES – II				AES – III			
		RR	%	RP	%	RR	%	RP	%	RR	%	RP	%
EFS I	Aril + Hort. + A.H.	5	25	140	77.8	100	100	188	97.4	60	86	60	19
EFS II	Agri. +Hort.	-	-	25	13.9	-	-	05	2.6	-	-	-	-
EFS III	Agri + A.H.	-	-	-	-	-	-	-	-	-	-	200	62
EFS IV	Agri + A.H + Hort.+Fish	15	75	15	8.3	-	-	-	-	10	14	-	-
EFS V	Agri + Lobour	-	-	-	-	-	-	-	-	-	-	60	19

* RR - Resource Rice

** RP - Resource Poor

Table No. – 5.7
Major enterprises associated with each Existing Farming System

Resource Rich farmers

TYPE OF ENTERPRISES / COMMODITIES	% of families associated with dominant enterprises									
	AES-1				AES-2		AES-3			
	EFS-1		EFS-4		EFS-1		EFS-1		EFS-4	
	No.	%	No.	%	No.	%	No.	%	No.	%
Agricultural crops										
Irrigated										
Wheat	02	40			25	25			04	40
Gram	03	60			90	90	12	20		
Mustard	05	100			50	50	30	50	10	100
Rainfed										
Paddy	05	100	15	100	100	100	60	100	10	100
Maize	05	100	15	100	100	100	60	100	10	100
Arhar	05	100	08	53	20	20	36	60	08	80
Kulthi	-	-	-	-	20	20	42	70	08	80
Urad	05	100	12	80	20	20	30	50	07	70
Niger	-	-	-	-	20	20	36	60	08	80
Groundnut	04	80	06	40	30	30	-	-	-	-
Sweet potato	-	-	-	-	60	60	-	-	-	-
Horticulture										
Vegetable										
Tomato	05	100	10	67	80	80	40	67	06	60
Potato	05	100	15	100	100	100	50	38	10	100
Brinjal	04	80	14	93	40	40	40	67	07	70
Cauliflower	05	100	15	100	30	30				
Ledy Finger	03	60	12	80	50	50	40	67	08	80
Cucurbits	05	100	15	100	40	40	45	65	08	80
Animal Husbandry										
Cows	05	100	15	100	85	85	40	67	10	100
Buffalo	-	-	-	-	01	01	-	-	-	-
Goat	05	100	15	100	100	100	60	100	10	100
Pig	-	-	-	-	-	-	-	-	-	-
Duckry	-	-	10	66	-	-	-	-	-	-
Poultry	05	100	-	-	100	100	30	50	08	100
Fisheries	-	-	15	100	-	-	-	-	10	100

Table No. – 5.8
Major enterprises associated with each Existing Farming System

Resource Poor farmers

TYPE OF ENTERPRISE S/ COMMODITIES	% of families associated with dominant enterprises															
	AES-1						AES-2				AES-3					
	EFS-1		EFS-2		EFS-4		EFS-1		EFS-2		EFS-1		EFS-3		EFS-5	
%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Agricultural crops																
Irrigated																
Wheat	14	10	-	-	05	33	25	13	-	-	-	-	-	-	-	-
Gram	80	07	-	-	05	33	25	13	-	-	-	-	-	-	-	-
Mustard	25	18	20	80	12	80	100	53	-	-	30	50	-	-	-	-
Rainfed																
Paddy	140	100	25	100	15	100	188	100	05	100	60	100	200	100	60	100
Maize	100	71	25	100	15	100	188	100	05	100	60	100	200	100	60	100
Arhar	90	64	20	80	12	80	100	53	05	80	40	67	160	80	40	67
Kulthi	-	-	-	-	-	-	150	80	04	80	45	75	180	90	50	83
Black gram	110	79	20	80	14	93	110	59	04	80	45	75	160	80	40	67
Niger	-	-	-	-	-	-	150	80	04	80	45	75	180	90	50	83
Groundnut	30	21	10	40	05	33	30	16	02	40	45	75	-	-	-	-
Sweet potato	-	-	-	-	-	-	160	85	05	100	-	-	-	-	-	-
Horticulture																
Vegetable																
Tomato	100	71	20	80	10	67	120	64	04	80	40	67	-	-	-	-
Potato	140	100	25	100	15	100	188	100	05	100	60	100	-	-	-	-
Brinjal	110	79	20	80	11	73	130	69	04	80	45	75	-	-	-	-
Cauliflower	40	29	10	40	07	50	70	37	04	80			-	-	-	-
Ledy Finger	80	57	20	80	12	80	170	90	04	80	30	50	-	-	-	-
Cucurbits	120	86	25	100	15	100	180	96	04	80	40	67	-	-	-	-
Animal Husbandry																
Cows	70	50	-	-	15	100	150	80	-	-	40	67	180	90	-	-
Buffalo	-	-	-	-					-	-	-	-	-	-	-	-
Goat	140	100	-	-	15	100	188	100	-	-	60	100	200	100	-	-
Pig			-	-			-	-	-	-	-	-	-	-	-	-
Duckry	10	07	-	-	15	100	-	-	-	-	-	-	-	-	-	-
Poultry	40	29	-	-	10	67	175	93	-	-	40	67	150	75	-	-
Fisheries	-	-	-	-	15	100	-	-	-	-	-	-	-	-	-	-
Labour	-	-	-	-			-	-	-	-	-	-	-	-	60	100

Table No. – 5.9

Contribution of different enterprises towards annual income under each farming system

Resource Rich farmers

TYPE OF ENTERPRISES / COMMODITIES	Unit	Contribution of different enterprises in terms of P/S/T/Q and net income in Rs.									
		AES-1				AES-2		AES-3			
		EFS-1		EFS-4		EFS-1		EFS-1		EFS-4	
Agricultural crops											
Irrigated											
Wheat	ha.	4500				4000		-		3000	
Gram	ha.	3000				3000		2500			
Mustard	ha.	3500				4000		2500		3000	
Rainfed	ha.										
Paddy		3500		4000		4000		3000		3500	
Maize	ha.	3000	S	3500	S	3500	P	2000	T	2000	T
Arhar	ha.	2800		3000		3000		2000		2000	
Kulthi	ha.	-		-		2000		1500		1500	
Black gram	ha.	2500		2500		2200		1500		1500	
Niger	ha.	-		-		2000		1500		1500	
Groundnut	ha.	4000		4200		4000					
Sweet potato	ha.					3500					
Total		26800		17200		35200		16500		18000	
Horticulture											
Vegetable						-					
Tomato	Acre	50000		52000		50000		10000		15000	
Potato	Acre	45000		50000		46000		15000		18000	
Brinjal	Acre	40000		45000		40000		15000		18000	
Cauliflower	Acre	60000	P	60000	P	50000	S	-	P	-	P
Ledy Finger	Acre	35000		36000		40000		10000		12000	
Cucurbits	Acre	35000		36000		30000		8000		10000	
Total		265000		279000		256000		58000		73000	
Animal Husbandry				-							
Cows per 4 animal		4000		4200		3500		4000		5000	
Buffalo per 4 animal				-		4000					
Goat per 5 animal		6000	T	6000	T	7000		9000	S	10000	S
Pig per 5 animal				-							
Duckry per 10 birds				2600							
Poultry per 10 birds		2500		2500		5000		5000		4000	
Total		12500		12800		19500		18000		19000	
Fisheries per acre	acre			5000						4000	
Total		304300		314000		310700		92500		114000	
B.C Ratio		1.98:1		2.14:1		1.95:1		1.37:1		1.54:1	

Table No. – 5.10
Contribution of different enterprises towards annual income under each farming system
Resource Poor farmers

TYPE OF ENTERPRISES / COMMODITIES	Unit	Contribution of different enterprises in terms of P/S/T/Q and net income in Rs.											
		AES-1			AES-2			AES-3					
		EFS-1	EFS-2	EFS-4	EFS-1	EFS-2	EFS-1	EFS-3	EFS-5				
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.		
Agricultural crops													
Irrigated													
Wheat	Ha.	4000	-	4000	4200	-	-	-	-	-	-	-	-
Gram	Ha.	3000	-	3200	3000	-	-	-	-	-	-	-	-
Mustard	Ha.	3500	3200	4000	3800	-	3000	-	-	-	-	-	-
Rainfed													
Paddy	Ha.	3200	3000	3500	3800	3200	3000	3200	3000	3200	3000	3000	3000
Maize	Ha.	2800	2500	3000	3000	2500	2200	2500	2200	2500	2000	2000	2000
Arhar	Ha.	2500	2400	2600	2800	2500	2200	2500	2200	2500	2000	2000	2000
Kulthi	Ha.	-	-	-	2200	2000	1800	2000	2000	2000	1500	1500	1500
Black gram	Ha.	2200	2000	2500	2500	2200	2000	2000	2000	2200	1800	1800	1800
Niger	Ha.	-	-	-	2000	2000	1800	2000	2000	2000	1500	1500	1500
Groundnut	Ha.	3500	3000	4000	4000	3500	3000	3000	3000	-	-	-	-
Sweet potato	Ha.	-	-	-	-	3000	-	-	-	-	-	-	-
Total		24700	16100	26800	31300	20900	19000	14400	11800				
Horticulture													
Vegetable													
Tomato	acre	30000	25000	40000	40000	30000	8000	-	-	-	-	-	-
Potato	acre	35000	32000	40000	42000	35000	10000	-	-	-	-	-	-
Brinjal	acre	30000	28000	35000	38000	30000	8000	-	-	-	-	-	-
Cauliflower	acre	35000	30000	42000	40000	25000	10000	-	-	-	-	-	-
Ledy Finger	acre	30000	25000	28000	30000	28000	8000	-	-	-	-	-	-
Cucurbits	acre	30000	25000	30000	30000	28000	8000	-	-	-	-	-	-
Total		190000	165000	215000	220000	176000	52000	-	-				
Animal Husbandry													
Cows per 4 animal		3000	-	4000	3500	-	4000	5000	-	-	-	-	-
Buffalo per 4 animal		-	-	-	-	-	-	-	-	-	-	-	-
Goat per 5 animal		6500	-	8000	7000	-	10000	15000	-	-	-	-	-
Pig per 5 animal		-	-	-	-	-	-	-	-	-	-	-	-
Duckry per 10 birds		2000	-	2500	-	-	-	-	-	-	-	-	-
Poultry per 10 birds		2500	-	2600	4000	-	4000	5000	-	-	-	-	-
Fisheries	acre	-	-	-	-	-	-	-	-	-	-	-	-
Total		14000		17100	14500		18000	25000					
Labour													
Total		228700	181100	262900	265800	196900	89000	39400	26800				
B.C. Ratio		1.84	1.75	1.95	1.95	1.80	1.35	1.76	1.22				

Table No. – 5.11

Analysis of Specific Problems associated with each Existing Farming System and its Solutions and Strategies as perceived by the Farmers

AES-I

Resource Rich farmers

Agro-ecological situationa-1

TYPE OF ENTERPRISES / COMMODITIES	Unit	EFS-1					EFS-4										
		Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy##	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy##						
Agricultural crops																	
Irrigated																	
Paddy	Ha.	-	-	-	-	-	-	-	-	-	-						
Wheat	Ha.	2,5,6,7,8,10,13,17,18	02	2,4,7,11,16	1,4,6,10	2,5,7,8	-	-	-	-	-						
Gram	Ha.	3,4,6,7,8,10,13,21	03	1,3,5,6,8,11,16	4,6,9	2,4,7,9	-	-	-	-	-						
Mustard	Ha.	3,7,8,10,11,13,16,18,21	04	1,3,5,6,10,15	2,4,6,9	1,3,9	-	-	-	-	-						
Rainfed																	
Paddy	Ha.	2,4,6,7,8,10,11,13,17,18,19,21	05	1,4,5,7,10,15	1,3,6,10	1,3,5	3,4,6,7,8,10,13,17,18,20,21	15	1,4,7,10,11,16,17	1,2,7,12	2,3,6						
Maize	Ha.	2,6,7,8,10,13,14,16,18,21	04	1,2,3,5,7,10,15	2,3,5,7	1,3,5,9	3,6,7,8,10,11,16,17,19,20,21	15	1,2,3,7,10,15	1,2,4,6	1,3,6,9						
Arhar	Ha.	2,4,6,7,8,10,13,17,19,21	04	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9	3,4,6,7,8,10,11,13,19,21		1,3,7,10,16,17	2,4,5,12	2,5,6,8,9						
Kulti	Ha.	-	-	-	-	-	-	-	-	-	-						
Black gram	Ha.	2,4,6,7,8,10,13,17,19,21	05	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9	3,4,6,7,8,10,11,13,19,21	10	1,3,7,10,16,17	2,4,5,12	2,5,6,8,9						
Niger	Ha.	-	-	-	-	-	-	-	-	-	-						
Groundnut	Ha.	2,4,6,7,8,10,13,17,19,21	04	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9	3,4,6,7,8,10,11,13,19,21	06	1,3,7,10,16,17	2,4,5,12	2,5,6,8,9						
Sweet potato	Ha.	-	-	-	-	-	-	-	-	-	-						
Horticulture																	
Vegetable																	
Tomato	acre	2,6,7,10,16,20,21	05	1,3,6,7,11,16,17	4,5,6	2,7,8,9	3,6,7,10,11,17,21	10	1,5,6,7,11,12,15	5,6	1,5,7,8,9						
Potato	acre	3,6,8,9,10,16	05	2,5,6,11,12,15	2,4,6,9	1,3,5,7	2,7,8,9,10,17	14	2,5,6,11,15	2,4,6,11	1,5,7,8						
Brinjal	acre	3,6,7,10,11,13,21	04	1,6,10,11,15	4,6,7,9	1,4,7,8	2,6,7,10,14,17,21	12	1,6,11,16	4,6,9,12	2,4,7,13						
Cauliflower	acre	2,6,7,10,16,20,21	05	1,3,6,7,11,16,17	4,5,6	2,7,8,9	3,6,7,10,11,17,21	12	5,6,7,11,12,15	5,6	1,5,7,8,9						
Ladyfinger	acre	2,6,7,10,16,20,21	03	1,3,6,7,11,16,17	4,5,6	2,7,8,9	3,6,7,10,11,17,21	10	5,6,7,11,12,15	5,6	1,5,7,8,9						
Cucarbts	acre	2,6,7,10,16,20,21	05	1,3,6,7,11,16,17	4,5,6	2,7,8,9	3,6,7,10,11,17,21	10	5,6,7,11,12,15	5,6	1,5,7,8,9						
Animal Husbandry																	
Cows per 4 animal		11,12,13,15,16,23	05	9,13,14,17	2,5,8,12	2,3,4,11	3,6,7,10,11,17,21	12	9,13,14,17	2,5,8,12	2,3,4,11						
Buffalo per 4 animal		-	-	-	-	-	-	-	-	-	-						
Goat per 5 animal		11,12,13,15,16,23	05	9,14,17,19	4,5,9	1,11	3,6,7,10,11,17,21	15	9,14,17,19	4,5,9	1,11						
Pig per 5 animal		-	-	-	-	-	-	-	-	-	-						
Duckry per 10 birds		-	-	-	-	-	-	10	9,14,17,19	4,5,9	1,11						
Poultry per 10 birds		11,12,13,15,16,23	05	9,14,17,19	4,5,9	1,11	3,6,7,10,11,17,21	15	9,14,17,19	4,5,9	1,11						
Fisheries	acre	-	-	-	-	-	-	-	-	-	-						
Specific Problem*		Proposed solution**				Reasons for non adoption #			Proposed Strategies ##								
1. Erratic distribution of rainfall 2. Non adoption of recommended varieties 3. Use of traditional low yielding crop varieties 4. Broadcast method of sowing 5. Low input use 6. Excess use of N & low use of P&K 7. Non adoption of seed treatment 8. Low use of organics 9. Low availability of water 10. Lack of pest & disease management 11. Marketing problems 12. Lack of improved breeds 13. Lack of awareness 14. Non availability of perennial water sources		15. Inadequate availability of fodder 16. Lack of finance 17. Small land holding 18. Non adoption of crop rotation 19. Non-adoption of inter cropping in uplands 20. Lack of knowledge on secondary (Ca,S) and micronutrient use (B, Zn, Mo) 21. No knowledge of benefits of liming in acid soils. 22. More care of vegetable crops compared to rice because of cast income 23. Poor management of animal				1. Application of lime in acid soils 2. Managing rain water for use in agricultural crops 3. Improved crop production technologies 4. Line sowing/transplanting of crops 5. Use of high yielding crop varieties 6. Promotion of INM in vegetables/pulses/oilseeds 7. Balanced use of plant nutrients 8. Market information 9. Use of improved breeds of animals 10. Crop rotation 11. Control of diseases and pests in crops			12. Developing improved post harvest techniques 13. Controlling animal diseases 14. Better nutrition of animals 15. Training and exposure visits 16. Demonstrations 17. Dissemination of knowledge through mass media 18. Use of phosphate, calcium and lime with biofertilisers for crops 19. Preventive vaccination 20. Using low water requiring crops such as coarse cereals			1. Small holdings 2. Lack of capitals 3. Lack of labour 4. Lack of awareness 5. Poor transfer of technology to farmers 6. Non-availability of inputs 7. Inability to take risks under rainfed conditions 8. Lack of knowledge/motivation 9. Poor market information's 10. Non-profitable agriculture 11. Poor transport 12. Low excess to improved technologies			1. Training and exposure visit 2. Demonstrations 3. Providing financial assistance/crop insurance 4. Providing market opportunities 5. Gearing quality input supply in rural areas 6. Inter cropping in uplands 7. Control of pests and diseases in crops 8. Greater use of vermicompost and other organics to build up soil fertility 9. Using lime to neutralise soil acidity especially in uplands 10. More emphasis on judicious use of soil and water 11. Using improved breeds of cattle 12. Training on Lac/sericulture		

Table No. – 5.12

Analysis of Specific Problems associated with each Existing Farming System and its Solutions and Strategies as perceived by the Farmers

AES-I

Resource Poor farmers

Agro-ecological situationa-1

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-2									
	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy##	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy##					
Agricultural crops															
Irrigated															
Wheat	3,6,7,8,10,11,13,17,18	10	3,7,11,15	4,6,9	1,5,7,8	-	-	-	-	-					
Gram	3,5,6,7,8,10,13,18	70	1,3,5,6,7,11,16	4,6,9,12	2,5,7,9	-	-	-	-	-					
Mustard	3,6,8,10,13,17,20,21	20	1,3,5,6,11,15	1,2,4,8	1,5,7,9	3,7,8,10,11,13,16,18,21	20	1,3,5,6,10,16,17	2,4,6,9	1,3,9					
Rainfed															
Paddy	2,4,6,7,8,10,11,13,18,20,21	120	1,4,5,7,10,15	2,3,6,10	1,3,7,8	2,4,6,7,8,10,11,13,17,18,19,21	20	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Maize	3,6,7,8,10,13,16,18,20,21	80	1,2,3,5,7,10,16,17	2,3,4,6	2,3,5,9	2,6,7,8,10,13,14,16,18,21	20	1,2,3,7,10,15	2,3,5,7	1,3,5,9					
Arhar	2,4,6,7,8,13,17,21	80	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	20	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Kulti	-	-	-	-	-	-	-	-	-	-					
Black gram	2,4,6,7,8,13,17,21	100	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	20	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Niger	-	-	-	-	-	-	-	-	-	-					
Groundnut	2,4,6,7,8,13,17,21	25	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	10	1,2,3,7,10,15	2,3,5,7	1,3,5,9					
Sweet potato															
Horticulture															
Vegetable															
Tomato	2,6,7,10,17,20,21	80	1,3,5,6,7,11,15	5,6	1,7,8,9	2,6,7,10,16,20,21	18	1,5,6,7,11,12,15	4,5,6	2,7,8,9					
Potato	2,6,7,8,10,11,13	100	2,5,6,11,16	2,4,6	2,3,7,13	3,6,8,9,10,16	20	2,5,6,11,15	2,4,6,9	1,3,5,7					
Brinjal	3,6,7,10,11,21	100	1,6,10,11	5,6,7,11	4,5,7,8	3,6,7,10,11,13,21	15	1,6,11,16	4,6,7,9	1,4,7,8					
Cauliflower	2,6,7,10,17,20,21	30	1,3,5,6,7,11,15	5,6	1,7,8,9	2,6,7,10,16,20,21	10	5,6,7,11,12,15	4,5,6	2,7,8,9					
Ladyfinger	2,6,7,10,17,20,21	70	1,3,5,6,7,11,15	5,6	1,7,8,9	2,6,7,10,16,20,21	15	1,5,6,7,11,12,15	4,5,6	2,7,8,9					
Cucarbits	2,6,7,10,17,20,21	100	1,3,5,6,7,11,15	5,6	1,7,8,9	2,6,7,10,16,20,21	20	2,5,6,11,15	2,4,6,9	1,3,5,7					
Animal Husbandry															
Cows per 4 animal	12,13,16,17	60	9,13,14,15	2,5,8	1,3,4,11	-	-	-	-	-					
Buffalo per 4 animal	-	-	-	-	-	-	-	-	-	-					
Goat per 5 animal	12,13,23	120	9,14,17,19	4,5,11	1,11	-	-	-	-	-					
Pig per 5 animal	-	-	-	-	-	-	-	-	-	-					
Duckry per 10 birds	12,13,23	10	9,13,14,15	2,5,8	1,3,4,11	-	-	-	-	-					
Poultry per 10 birds	12,13,23	40	9,13,14,15	2,5,8	1,3,4,11	-	-	-	-	-					
Fisheries	-	-	-	-	-	-	-	-	-	-					
Specific Problem*			Proposed solution**			Reasons for non adoption #			Proposed Strategies #						
1. Erratic distribution of rainfall 2. Non adoption of recommended varieties 3. Use of traditional low yielding crop varieties 4. Broadcast method of sowing 5. Low input use 6. Excess use of N & low use of P&K 7. Non adoption of seed treatment 8. Low use of organics 9. Low availability of water 10. Lack of pest & disease management 11. Marketing problems 12. Lack of improved breeds 13. Lack of awareness 14. Non availability of perennial water sources			15. Inadequate availability of fodder 16. Lack of finance 17. Small land holding 18. Non adoption of crop rotation 19. Non-adoption of inter cropping in uplands 20. Lack of knowledge on secondary (Ca,s) and micronutrient use (B, Zn, Mo) 21. No knowledge of benefits of liming in acid soils. 22. More care of vegetable crops compared to rice because of cast income 23. Poor management of animal			1. Application of lime in acid soils 2. Managing rain water for use in agricultural crops 3. Improved crop production technologies 4. Line sowing/transplanting of crops 5. Use of high yielding crop varieties 6. Promotion of INM in vegetables/pulses/oilseeds 7. Balanced use of plant nutrients 8. Market information 9. Use of improved breeds of animals 10. Crop rotation 11. Control of diseases and pests in crops			12. Developing improved post harvest techniques 13. Controlling animal diseases 14. Better nutrition of animals 15. Training and exposure visits 16. Demonstrations 17. Dissemination of knowledge through mass media 18. Use of phosphate, calcium and lime with biofertilisers for crops 19. Preventive vaccination 20. Using low water requiring crops such as coarse cereals			1. Small holdings 2. Lack of capitals 3. Lack of labour 4. Lack of awareness 5. Poor transfer of technology to farmers 6. Non-availability of inputs 7. Inability to take risks under rainfed conditions 8. Lack of knowledge/motivation 9. Poor market information's 10. Non-profitable agriculture 11. Poor transport 12. Low excess to improved technologies		1. Training and exposure visit 2. Demonstrations 3. Providing financial assistance/crop insurance 4. Providing market opportunities 5. Gearing quality input supply in rural areas 6. Inter cropping in uplands 7. Control of pests and diseases in crops 8. Greater use of vermicompost and other organics to build up soil fertility 9. Using lime to neutralise soil acidity especially in uplands 10. More emphasis on judicious use of soil and water 11. Using improved breeds of cattle 12. Training on Lac/sericulture	

Table No. – 5.13

Analysis of Specific Problems associated with each Existing Farming System and its Solutions and Strategies as perceived by the Farmers

AES-II

Resource Rich farmers

Agro-ecological situationa-1

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-4				
	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy###	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy###
Agricultural crops										
Irrigated										
Paddy	-	-	-	-	-	-	-	-	-	-
Wheat	2,5,6,7,8,10,13,17,18	20	2,4,7,11,16	1,4,6,10	2,5,7,8	-	-	-	-	-
Gram	3,4,6,7,8,10,13,21	80	1,3,5,6,8,11,16	4,6,9	2,4,7,9	-	-	-	-	-
Mustard	3,7,8,10,11,13,16,18,21	50	1,3,5,6,10,15	2,4,6,9	1,3,9	-	-	-	-	-
Rainfed										
Paddy	2,4,6,7,8,10,11,13,17,18,19,21	80	1,4,5,7,10,15	1,3,6,10	1,3,5	-	-	-	-	-
Maize	2,6,7,8,10,13,14,16,18,21	80	1,2,3,5,7,10,15	2,3,5,7	1,3,5,9	-	-	-	-	-
Arhar	2,4,6,7,8,10,13,17,19,21	20	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9	-	-	-	-	-
Kulti	2,4,6,7,8,10,13,17,19,21	20	-	-	-	-	-	-	-	-
Black gram	2,4,6,7,8,10,13,17,19,21	15	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9	-	-	-	-	-
Niger	2,4,6,7,8,10,13,17,19,21	15	-	-	-	-	-	-	-	-
Groundnut	2,4,6,7,8,10,13,17,19,21	20	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9	-	-	-	-	-
Sweet potato	2,4,6,7,8,10,13,17,19,21	50	-	-	-	-	-	-	-	-
Horticulture										
Vegetable										
Tomato	2,6,7,10,16,20,21	60	1,3,6,7,11,16,17	4,5,6	2,7,8,9	-	-	-	-	-
Potato	3,6,8,9,10,16	70	2,5,6,11,12,15	2,4,6,9	1,3,5,7	-	-	-	-	-
Brinjal	3,6,7,10,11,13,21	30	1,6,10,11,15	4,6,7,9	1,4,7,8	-	-	-	-	-
Cauliflower	2,6,7,10,16,20,21	25	1,3,6,7,11,16,17	4,5,6	2,7,8,9	-	-	-	-	-
Ladyfinger	2,6,7,10,16,20,21	40	1,3,6,7,11,16,17	4,5,6	2,7,8,9	-	-	-	-	-
Cucarbites	2,6,7,10,16,20,21	30	1,3,6,7,11,16,17	4,5,6	2,7,8,9	-	-	-	-	-
Animal Husbandry										
Cows per 4 animal	11,12,13,15,16,23	80	9,13,14,17	2,5,8,12	2,3,4,11	-	-	-	-	-
Buffalo per 4 animal	11,12,13,15,16,23	01	-	-	-	-	-	-	-	-
Goat per 5 animal	11,12,13,15,16,23	80	9,14,17,19	4,5,9	1,11	-	-	-	-	-
Pig per 5 animal	-	-	-	-	-	-	-	-	-	-
Duckry per 10 birds	-	-	-	-	-	-	-	-	-	-
Poultry per 10 birds	11,12,13,15,16,23	80	9,14,17,19	4,5,9	1,11	-	-	-	-	-
Fisheries	-	-	-	-	-	-	-	-	-	-
Specific Problem*		Proposed solution**			Reasons for non adoption #		Proposed Strategies #			
1. Erratic distribution of rainfall 2. Non adoption of recommended varieties 3. Use of traditional low yielding crop varieties 4. Broadcast method of sowing 5. Low input use 6. Excess use of N & low use of P&K 7. Non adoption of seed treatment 8. Low use of organics 9. Low availability of water 10. Lack of pest & disease management 11. Marketing problems 12. Lack of improved breeds 13. Lack of awareness 14. Non availability of perennial water sources 15. Inadequate availability of fodder 16. Lack of finance 17. Small land holding 18. Non adoption of crop rotation 19. Non-adoption of inter cropping in uplands 20. Lack of knowledge on secondary (Ca,s) and micronutrient use (B, Zn, Mo) 21. No knowledge of benefits of liming in acid soils. 22. More care of vegetable crops compared to rice because of cast income 23. Poor management of animal		1. Application of lime in acid soils 2. Managing rain water for use in agricultural crops 3. Improved crop production technologies 4. Line sowing/transplanting of crops 5. Use of high yielding crop varieties 6. Promotion of INM in vegetables/pulses/oilseeds 7. Balanced use of plant nutrients 8. Market information 9. Use of improved breeds of animals 10. Crop rotation 11. Control of diseases and pests in crops			12. Developing improved post harvest techniques 13. Controlling animal diseases 14. Better nutrition of animals 15. Training and exposure visits 16. Demonstrations 17. Dissemination of knowledge through mass media 18. Use of phosphate, calcium and lime with biofertilisers for crops 19. Preventive vaccination 20. Using low water requiring crops such as coarse cereals		1. Small holdings 2. Lack of capitals 3. Lack of labour 4. Lack of awareness 5. Poor transfer of technology to farmers 6. Non-availability of inputs 7. Inability to take risks under rainfed conditions 8. Lack of knowledge/motivation 9. Poor market information's 10. Non-profitable agriculture 11. Poor transport 12. Low excess to improved technologies 1. Training and exposure visit 2. Demonstrations 3. Providing financial assistance/crop insurance 4. Providing market opportunities 5. Gearing quality input supply in rural areas 6. Inter cropping in uplands 7. Control of pests and diseases in crops 8. Greater use of vermicompost and other organics to build up soil fertility 9. Using lime to neutralise soil acidity especially in uplands 10. More emphasis on judicious use of soil and water 11. Using improved breeds of cattle 12. Training on Lac/sericulture			

Table No. – 5.14

Analysis of Specific Problems associated with each Existing Farming System and its Solutions and Strategies as perceived by the Farmers

AES-II

Resource Poor farmers

Agro-ecological situationa-1

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-2									
	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy##	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy##					
Agricultural crops															
Irrigated															
Wheat	3,6,7,8,10,11,13,17,18	20	3,7,11,15	4,6,9	1,5,7,8	-	-	-	-	-					
Gram	3,5,6,7,8,10,13,18	20	1,3,5,6,7,11,16	4,6,9,12	2,5,7,9	-	-	-	-	-					
Mustard	3,6,8,10,13,17,20,21	80	1,3,5,6,11,15	1,2,4,8	1,5,7,9	-	-	-	-	-					
Rainfed															
Paddy	2,4,6,7,8,10,11,13,18,20,21	150	1,4,5,7,10,15	2,3,6,10	1,3,7,8	2,4,6,7,8,10,11,13,17,18,19,21	05	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Maize	3,6,7,8,10,13,16,18,20,21	140	1,2,3,5,7,10,16,17	2,3,4,6	2,3,5,9	2,6,7,8,10,13,14,16,18,21	05	1,2,3,7,10,15	2,3,5,7	1,3,5,9					
Arhar	2,4,6,7,8,13,17,21	70	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	04	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Kulti	2,4,6,7,8,13,17,21	70	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	03	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Black gram	2,4,6,7,8,13,17,21	60	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	03	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Niger	2,4,6,7,8,13,17,21	70	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	03	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Groundnut	2,4,6,7,8,13,17,21	25	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	02	1,2,3,7,10,15	2,3,5,7	1,3,5,9					
Sweet potato		100					04								
Horticulture															
Vegetable															
Tomato	2,6,7,10,17,20,21	100	1,3,5,6,7,11,15	5,6	1,7,8,9	2,6,7,10,16,20,21	03	1,5,6,7,11,12,15	4,5,6	2,7,8,9					
Potato	2,6,7,8,10,11,13	120	2,5,6,11,16	2,4,6	2,3,7,13	3,6,8,9,10,16	04	2,5,6,11,15	2,4,6,9	1,3,5,7					
Brinjal	3,6,7,10,11,21	50	1,6,10,11	5,6,7,11	4,5,7,8	3,6,7,10,11,13,21	04	1,6,11,16	4,6,7,9	1,4,7,8					
Cauliflower	2,6,7,10,17,20,21	40	1,3,5,6,7,11,15	5,6	1,7,8,9	2,6,7,10,16,20,21	03	1,5,6,7,11,12,15	4,5,6	2,7,8,9					
Ladyfinger	2,6,7,10,17,20,21	50	1,3,5,6,7,11,15	5,6	1,7,8,9	2,6,7,10,16,20,21	04	1,5,6,7,11,12,15	4,5,6	2,7,8,9					
Cucarbts	2,6,7,10,17,20,21	60	1,3,5,6,7,11,15	5,6	1,7,8,9	2,6,7,10,16,20,21	04	2,5,6,11,15	2,4,6,9	1,3,5,7					
Animal Husbandry															
Cows per 4 animal	12,13,16,17	70	9,13,14,15	2,5,8	1,3,4,11	-	-	-	-	-					
Buffalo per 4 animal	-					-	-	-	-	-					
Goat per 5 animal	12,13,23	80	9,14,17,19	4,5,11	1,11	-	-	-	-	-					
Pig per 5 animal	12,13,23					-	-	-	-	-					
Duckry per 10 birds	12,13,23	60	9,13,14,15	2,5,8	1,3,4,11	-	-	-	-	-					
Poultry per 10 birds	12,13,23	50	9,13,14,15	2,5,8	1,3,4,11	-	-	-	-	-					
Fisheries	12,13,23	80	9,13,14,15	2,5,8	1,3,4,11	-	-	-	-	-					
Specific Problem*		Proposed solution**		Reasons for non adoption #		Proposed Strategies #									
1. Erratic distribution of rainfall 2. Non adoption of recommended varieties 3. Use of traditional low yielding crop varieties 4. Broadcast method of sowing 5. Low input use 6. Excess use of N & low use of P&K 7. Non adoption of seed treatment 8. Low use of organics 9. Low availability of water 10. Lack of pest & disease management 11. Marketing problems 12. Lack of improved breeds 13. Lack of awareness 14. Non availability of perennial water sources		15. Inadequate availability of fodder 16. Lack of finance 17. Small land holding 18. Non adoption of crop rotation 19. Non-adoption of inter cropping in uplands 20. Lack of knowledge on secondary (Ca,s) and micronutrient use (B, Zn, Mo) 21. No knowledge of benefits of liming in acid soils. 22. More care of vegetable crops compared to rice because of cast income 23. Poor management of animal		1. Application of lime in acid soils 2. Managing rain water for use in agricultural crops 3. Improved crop production technologies 4. Line sowing/transplanting of crops 5. Use of high yielding crop varieties 6. Promotion of INM in vegetables/pulses/oilseeds 7. Balanced use of plant nutrients 8. Market information 9. Use of improved breeds of animals 10. Crop rotation 11. Control of diseases and pests in crops		12. Developing improved post harvest techniques 13. Controlling animal diseases 14. Better nutrition of animals 15. Training and exposure visits 16. Demonstrations 17. Dissemination of knowledge through mass media 18. Use of phosphate, calcium and lime with biofertilisers for crops 19. Preventive vaccination 20. Using low water requiring crops such as coarse cereals		1. Small holdings 2. Lack of capitals 3. Lack of labour 4. Lack of awareness 5. Poor transfer of technology to farmers 6. Non-availability of inputs 7. Inability to take risks under rainfed conditions 8. Lack of knowledge/motivation 9. Poor market information's 10. Non-profitable agriculture 11. Poor transport 12. Low excess to improved technologies				1. Training and exposure visit 2. Demonstrations 3. Providing financial assistance/crop insurance 4. Providing market opportunities 5. Gearing quality input supply in rural areas 6. Inter cropping in uplands 7. Control of pests and diseases in crops 8. Greater use of vermicompost and other organics to build up soil fertility 9. Using lime to neutralise soil acidity especially in uplands 10. More emphasis on judicious use of soil and water 11. Using improved breeds of cattle 12. Training on Lac/sericulture			

Table No. – 5.15

Analysis of Specific Problems associated with each Existing Farming System and its Solutions and Strategies as perceived by the Farmers

AES-III

Resource Rich farmers

Agro-ecological situationa-1

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-4										
	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy###	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy###						
Agricultural crops																
Irrigated																
Paddy	-	-	-	-	-	-	-	-	-	-						
Wheat	-	-	-	-	-	3,4,6,7,8,10,13,21	04	1,3,5,6,8,11,16	4,6,9	2,4,7,9						
Gram	3,4,6,7,8,10,13,21	10	1,3,5,6,8,11,16	4,6,9	2,4,7,9	-	-	-	-	-						
Mustard	3,7,8,10,11,13,16,18,21	25	1,3,5,6,10,15	2,4,6,9	1,3,9	3,7,8,10,11,13,16,18,21	08	1,3,5,6,10,15	2,4,6,9	1,3,9						
Rainfed																
Paddy	2,4,6,7,8,10,11,13,17,18,19,21	50	1,4,5,7,10,15	1,3,6,10	1,3,5	2,4,6,7,8,10,11,13,17,18,19,21	08	1,4,5,7,10,15	1,3,6,10	1,3,5						
Maize	2,6,7,8,10,13,14,16,18,21	50	1,2,3,5,7,10,15	2,3,5,7	1,3,5,9	2,6,7,8,10,13,14,16,18,21	07	1,2,3,5,7,10,15	2,3,5,7	1,3,5,9						
Arhar	2,4,6,7,8,10,13,17,19,21	30	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9	2,4,6,7,8,10,13,17,19,21	06	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9						
Kulti	2,4,6,7,8,10,13,17,19,21	32	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9	2,4,6,7,8,10,13,17,19,21	05	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9						
Black gram	2,4,6,7,8,10,13,17,19,21	25	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9	2,4,6,7,8,10,13,17,19,21	05	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9						
Niger	2,4,6,7,8,10,13,17,19,21	25	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9	2,4,6,7,8,10,13,17,19,21	05	1,3,6,7,11,15	1,4,5,6	1,5,6,7,8,9						
Groundnut	-	-	-	-	-	-	-	-	-	-						
Sweet potato	-	-	-	-	-	-	-	-	-	-						
Horticulture																
Vegetable																
Tomato	2,6,7,10,16,20,21	30	1,3,6,7,11,16,17	4,5,6	2,7,8,9	2,6,7,10,16,20,21	05	1,3,6,7,11,16,17	4,5,6	2,7,8,9						
Potato	3,6,8,9,10,16	40	2,5,6,11,12,15	2,4,6,9	1,3,5,7	3,6,8,9,10,16	06	2,5,6,11,12,15	2,4,6,9	1,3,5,7						
Brinjal	3,6,7,10,11,13,21	35	1,6,10,11,15	4,6,7,9	1,4,7,8	3,6,7,10,11,13,21	04	1,6,10,11,15	4,6,7,9	1,4,7,8						
Cauliflower	-	-	-	-	-	-	-	-	-	-						
Ladyfinger	2,6,7,10,16,20,21	30	1,3,6,7,11,16,17	4,5,6	2,7,8,9	2,6,7,10,16,20,21	05	1,3,6,7,11,16,17	4,5,6	2,7,8,9						
Cucurbits	2,6,7,10,16,20,21	35	1,3,6,7,11,16,17	4,5,6	2,7,8,9	2,6,7,10,16,20,21	05	1,3,6,7,11,16,17	4,5,6	2,7,8,9						
Animal Husbandry																
Cows per 4 animal	11,12,13,15,16,23	30	9,13,14,17	2,5,8,12	2,3,4,11	11,12,13,15,16,23	07	9,13,14,17	2,5,8,12	2,3,4,11						
Buffalo per 4 animal	-	-	-	-	-	-	-	-	-	-						
Goat per 5 animal	11,12,13,15,16,23	50	9,14,17,19	4,5,9	1,11	11,12,13,15,16,23	07	9,14,17,19	4,5,9	1,11						
Pig per 5 animal	-	-	-	-	-	-	-	-	-	-						
Duckry per 10 birds	-	-	-	-	-	-	-	-	-	-						
Poultry per 10 birds	11,12,13,15,16,23	20	9,14,17,19	4,5,9	1,11	11,12,13,15,16,23	05	9,14,17,19	4,5,9	1,11						
Fisheries						11,12,13,15,16,23	07	9,13,14,17	2,5,8,12	2,3,4,11						
Specific Problem*		Proposed solution**			Reasons for non adoption #			Proposed Strategies ##								
1. Erratic distribution of rainfall 2. Non adoption of recommended varieties 3. Use of traditional low yielding crop varieties 4. Broadcast method of sowing 5. Low input use 6. Excess use of N & low use of P&K 7. Non adoption of seed treatment 8. Low use of organics 9. Low availability of water 10. Lack of pest & disease management 11. Marketing problems 12. Lack of improved breeds 13. Lack of awareness 14. Non availability of perennial water sources		15. Inadequate availability of fodder 16. Lack of finance 17. Small land holding 18. Non adoption of crop rotation 19. Non-adoption of inter cropping in uplands 20. Lack of knowledge on secondary (Ca,s) and micronutrient use (B, Zn, Mo) 21. No knowledge of benefits of liming in acid soils. 22. More care of vegetable crops compared to rice because of cast income 23. Poor management of animal			1. Application of lime in acid soils 2. Managing rain water for use in agricultural crops 3. Improved crop production technologies 4. Line sowing/transplanting of crops 5. Use of high yielding crop varieties 6. Promotion of DNM in vegetables/pulses/oilseeds 7. Balanced use of plant nutrients 8. Market information 9. Use of improved breeds of animals 10. Crop rotation 11. Control of diseases and pests in crops			12. Developing improved post harvest techniques 13. Controlling animal diseases 14. Better nutrition of animals 15. Training and exposure visits 16. Demonstrations 17. Dissemination of knowledge through mass media 18. Use of phosphate, calcium and lime with biofertilisers for crops 19. Preventive vaccination 20. Using low water requiring crops such as coarse cereals			1. Small holdings 2. Lack of capitals 3. Lack of labour 4. Lack of awareness 5. Poor transfer of technology to farmers 6. Non-availability of inputs 7. Inability to take risks under rainfed conditions 8. Lack of knowledge/motivation 9. Poor market information's 10. Non-profitable agriculture 11. Poor transport 12. Low excess to improved technologies			1. Training and exposure visit 2. Demonstrations 3. Providing financial assistance/crop insurance 4. Providing market opportunities 5. Gearing quality input supply in rural areas 6. Inter cropping in uplands 7. Control of pests and diseases in crops 8. Greater use of vermicompost and other organics to build up soil fertility 9. Using lime to neutralise soil acidity especially in uplands 10. More emphasis on judicious use of soil and water 11. Using improved breeds of cattle 12. Training on Lac/sericulture		

Table No. – 5.16

Analysis of Specific Problems associated with each Existing Farming System and its Solutions and Strategies as perceived by the Farmers

AES-III

Resource Poor farmers

Agro-ecological situationa-1

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-3									
	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy##	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy##					
Agricultural crops															
Irrigated															
Wheat	-	-	-	-	-	-	-	-	-	-					
Gram	-	-	-	-	-	-	-	-	-	-					
Mustard	3,6,8,10,13,17,20,21	20	1,3,5,6,11,15	1,2,4,8	1,5,7,9	-	-	-	-	-					
Rainfed															
Paddy	2,4,6,7,8,10,11,13,18,20,21	40	1,4,5,7,10,15	2,3,6,10	1,3,7,8	2,4,6,7,8,10,11,13,17,18,19,21	150	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Maize	3,6,7,8,10,13,16,18,20,21	40	1,2,3,5,7,10,16,17	2,3,4,6	2,3,5,9	2,6,7,8,10,13,14,16,18,21	160	1,2,3,7,10,15	2,3,5,7	1,3,5,9					
Arhar	2,4,6,7,8,13,17,21	25	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	120	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Kulti	2,4,6,7,8,13,17,21	25	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	150	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Black gram	2,4,6,7,8,13,17,21	25	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	100	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Niger	2,4,6,7,8,13,17,21	20	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	120	1,4,7,10,11,16,17	1,3,6,10	1,3,5					
Groundnut	2,4,6,7,8,13,17,21	25	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	-	-	-	-	-					
Sweet potato	-	-	-	-	-	-	-	-	-	-					
Horticulture															
Vegetable															
Tomato	2,6,7,10,17,20,21	30	1,3,5,6,7,11,15	5,6	1,7,8,9	-	-	-	-	-					
Potato	2,6,7,8,10,11,13	40	2,5,6,11,16	2,4,6	2,3,7,13	-	-	-	-	-					
Brinjal	3,6,7,10,11,21	30	1,6,10,11	5,6,7,11	4,5,7,8	-	-	-	-	-					
Cauliflower	-	-	-	-	-	-	-	-	-	-					
Ladyfinger	2,6,7,10,17,20,21	20	1,3,5,6,7,11,15	5,6	1,7,8,9	-	-	-	-	-					
Cucarbits	2,6,7,10,17,20,21	30	1,3,5,6,7,11,15	5,6	1,7,8,9	-	-	-	-	-					
Animal Husbandry															
Cows per 4 animal	12,13,16,17	25	9,13,14,15	2,5,8	1,3,4,11	2,6,7,10,16,20,21	150	1,5,6,7,11,12,15	4,5,6	2,7,8,9					
Buffalo per 4 animal	-	-	-	-	-	-	-	-	-	-					
Goat per 5 animal	12,13,23	50	9,14,17,19	4,5,11	1,11	2,6,7,10,16,20,21	150	5,6,7,11,12,15	4,5,6	2,7,8,9					
Pig per 5 animal	-	-	-	-	-	-	-	-	-	-					
Duckry per 10 birds	-	-	-	-	-	-	-	-	-	-					
Poultry per 10 birds	12,13,23	30	9,13,14,15	2,5,8	1,3,4,11	2,6,7,10,16,20,21	100	2,5,6,11,15	2,4,6,9	1,3,5,7					
Fisheries	-	-	-	-	-	-	-	-	-	-					
Specific Problem*		Proposed solution**		Reasons for non adoption #		Proposed Strategies #									
1. Erratic distribution of rainfall 2. Non adoption of recommended varieties 3. Use of traditional low yielding crop varieties 4. Broadcast method of sowing 5. Low input use 6. Excess use of N & low use of P&K 7. Non adoption of seed treatment 8. Low use of organics 9. Low availability of water 10. Lack of pest & disease management 11. Marketing problems 12. Lack of improved breeds 13. Lack of awareness 14. Non availability of perennial water sources		15. Inadequate availability of fodder 16. Lack of finance 17. Small land holding 18. Non adoption of crop rotation 19. Non-adoption of inter cropping in uplands 20. Lack of knowledge on secondary (Ca,s) and micronutrient use (B, Zn, Mo) 21. No knowledge of benefits of liming in acid soils. 22. More care of vegetable crops compared to rice because of cast income 23. Poor management of animal sources		1. Application of lime in acid soils 2. Managing rain water for use in agricultural crops 3. Improved crop production technologies 4. Line sowing/transplanting of crops 5. Use of high yielding crop varieties 6. Promotion of INM in vegetables/pulses/oilseeds 7. Balanced use of plant nutrients 8. Market information 9. Use of improved breeds of animals 10. Crop rotation 11. Control of diseases and pests in crops		12. Developing improved post harvest techniques 13. Controlling animal diseases 14. Better nutrition of animals 15. Training and exposure visits 16. Demonstrations 17. Dissemination of knowledge through mass media 18. Use of phosphate, calcium and lime with biofertilisers for crops 19. Preventive vaccination 20. Using low water requiring crops such as coarse cereals		1. Small holdings 2. Lack of capitals 3. Lack of labour 4. Lack of awareness 5. Poor transfer of technology to farmers 6. Non-availability of inputs 7. Inability to take risks under rainfed conditions 8. Lack of knowledge/motivation 9. Poor market information's 10. Non-profitable agriculture 11. Poor transport 12. Low excess to improved technologies				1. Training and exposure visit 2. Demonstrations 3. Providing financial assistance/crop insurance 4. Providing market opportunities 5. Gearing quality input supply in rural areas 6. Inter cropping in uplands 7. Control of pests and diseases in crops 8. Greater use of vermicompost and other organics to build up soil fertility 9. Using lime to neutralise soil acidity especially in uplands 10. More emphasis on judicious use of soil and water 11. Using improved breeds of cattle 12. Training on Lac/sericulture			

Table No. – 5.17

Analysis of Specific Problems associated with each Existing Farming System and its Solutions and Strategies as perceived by the Farmers

AES-I & III

Resource Poor farmers

TYPE OF ENTERPRISES / COMMODITIES	AES-I					AES-III				
	EFS-4					EFS-5				
	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy###	Specific Problem*	No of Families affected	Solution as proposed by farmer**	Reasons for non adoption#	Proposed Strategy###
Agricultural crops										
Irrigated										
Wheat	3,6,8,10,13,17,20,21	05	1,3,5,6,11,15	1,2,4,8	1,5,7,9	-	-	-	-	-
Gram	3,6,8,10,13,17,20,21	04	1,3,5,6,11,15	1,2,4,8	1,5,7,9	-	-	-	-	-
Mustard	3,6,8,10,13,17,20,21	10	1,3,5,6,11,15	1,2,4,8	1,5,7,9	-	-	-	-	-
Rainfed										
Paddy	2,4,6,7,8,10,11,13,18,20,21	10	1,4,5,7,10,15	2,3,6,10	1,3,7,8	2,4,6,7,8,10,11,13,17,18,19,21	50	1,4,7,10,11,16,17	1,3,6,10	1,3,5
Maize	3,6,7,8,10,13,16,18,20,21	08	1,2,3,5,7,10,16,17	2,3,4,6	2,3,5,9	2,6,7,8,10,13,14,16,18,21	50	1,2,3,7,10,15	2,3,5,7	1,3,5,9
Arhar	2,4,6,7,8,13,17,21	07	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	30	1,4,7,10,11,16,17	1,3,6,10	1,3,5
Kulti	-	-	-	-	-	2,4,6,7,8,10,13,17,19,21	40	1,4,7,10,11,16,17	1,3,6,10	1,3,5
Black gram	2,4,6,7,8,13,17,21	10	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	2,4,6,7,8,10,13,17,19,21	30	1,4,7,10,11,16,17	1,3,6,10	1,3,5
Niger	-	-	-	-	-	2,4,6,7,8,10,13,17,19,21	40	1,4,7,10,11,16,17	1,3,6,10	1,3,5
Groundnut	2,4,6,7,8,13,17,21	03	1,3,4,7,11,15,18	1,4,6,8	1,5,7,8,9	-	-	-	-	-
Sweet potato	-	-	-	-	-	-	-	-	-	-
Horticulture										
Vegetable										
Tomato	2,6,7,10,17,20,21	06	1,3,5,6,7,11,15	5,6	1,7,8,9	-	-	-	-	-
Potato	2,6,7,8,10,11,13	10	2,5,6,11,16	2,4,6	2,3,7,13	-	-	-	-	-
Brinjal	3,6,7,10,11,21	07	1,6,10,11	5,6,7,11	4,5,7,8	-	-	-	-	-
Cauliflower	3,6,8,10,13,17,20,21	04	1,6,10,11	5,6,7,11	4,5,7,8	-	-	-	-	-
Ladyfinger	2,6,7,10,17,20,21	06	1,3,5,6,7,11,15	5,6	1,7,8,9	-	-	-	-	-
Cucarbits	2,6,7,10,17,20,21	10	1,3,5,6,7,11,15	5,6	1,7,8,9	-	-	-	-	-
Animal Husbandry										
Cows per 4 animal	12,13,16,17	10	9,13,14,15	2,5,8	1,3,4,11	-	-	-	-	-
Buffalo per 4 animal	-	-	-	-	-	-	-	-	-	-
Goat per 5 animal	12,13,23	11	9,14,17,19	4,5,11	1,11	-	-	-	-	-
Pig per 5 animal	-	-	-	-	-	-	-	-	-	-
Duckry per 10 birds	12,13,23	12	9,14,17,19	4,5,11	1,11	-	-	-	-	-
Poultry per 10 birds	12,13,23	06	9,13,14,15	2,5,8	1,3,4,11	-	-	-	-	-
Fisheries	12,13,23	10	9,13,14,15	2,5,8	1,3,4,11	-	-	-	-	-

Specific Problem*	Proposed solution**	Reasons for non adoption #	Proposed Strategies ##		
1. Erratic distribution of rainfall 2. Non adoption of recommended varieties 3. Use of traditional low yielding crop varieties 4. Broadcast method of sowing 5. Low input use 6. Excess use of N & low use of P&K 7. Non adoption of seed treatment 8. Low use of organics 9. Low availability of water 10. Lack of pest & disease management 11. Marketing problems 12. Lack of improved breeds 13. Lack of awareness 14. Non availability of perennial water sources	15. Inadequate availability of fodder 16. Lack of finance 17. Small land holding 18. Non adoption of crop rotation 19. Non-adoption of inter cropping in uplands 20. Lack of knowledge on secondary (Ca,s) and micronutrient use (B, Zn, Mo) 21. No knowledge of benefits of liming in acid soils. 22. More care of vegetable crops compared to rice because of cast income 23. Poor management of animal	1. Application of lime in acid soils 2. Managing rain water for use in agricultural crops 3. Improved crop production technologies 4. Line sowing/transplanting of crops 5. Use of high yielding crop varieties 6. Promotion of INM in vegetables/pulses/oilseeds 7. Balanced use of plant nutrients 8. Market information 9. Use of improved breeds of animals 10. Crop rotation 11. Control of diseases and pests in crops	12. Developing improved post harvest techniques 13. Controlling animal diseases 14. Better nutrition of animals 15. Training and exposure visits 16. Demonstrations 17. Dissemination of knowledge through mass media 18. Use of phosphate, calcium and lime with biofertilisers for crops 19. Preventive vaccination 20. Using low water requiring crops such as coarse cereals	1. Small holdings 2. Lack of capitals 3. Lack of labour 4. Lack of awareness 5. Poor transfer of technology to farmers 6. Non-availability of inputs 7. Inability to take risks under rainfed conditions 8. Lack of knowledge/motivation 9. Poor market information's 10. Non-profitable agriculture 11. Poor transport 12. Low excess to improved technologies	1. Training and exposure visit 2. Demonstrations 3. Providing financial assistance/crop insurance 4. Providing market opportunities 5. Gearing quality input supply in rural areas 6. Inter cropping in uplands 7. Control of pests and diseases in crops 8. Greater use of vermicompost and other organics to build up soil fertility 9. Using lime to neutralise soil acidity especially in uplands 10. More emphasis on judicious use of soil and water 11. Using improved breeds of cattle 12. Training on Lac/sericulture

Table 5.18

**Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions** (Diversification & Intensification)
In AES-1**

Resource Rich farmers

Type of enterprises / commodities	Agro-ecological situationa-1									
	EFS-1					EFS-4				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*
Agricultural crops										
Irrigated										
Wheat	4500	Nil	5500	5500	A 1,2,3	-	-	-	-	-
Gram	3000	Nil	4700	4700	A 1,2,3,4	-	-	-	-	-
Mustard	3500	Nil	4400	4400	A 1,2,3,4	-	-	-	-	-
Rainfed										
Paddy	3500	Nil	4500	4500	A 1,2,3B4	4000	Nil	5500	5500	A 1,2,3B4
Maize	3000	Nil	4000	4000	A 1,2,3B1	3500	Nil	4200	4200	A 1,2,3B1
Arhar	2800	Nil	3400	3400	A 1,2,3B1	3000	Nil	3500	3500	A 1,2,3B1
Kulti	-	-	-	-	-	-	-	-	-	-
Black gram	2500	Nil	3000	3000	A 1,2,3B1	2500	Nil	3000	3000	A 1,2,3B1
Niger	-	-	-	-	-	-	-	-	-	-
Groundnut	4000	Nil	5000	5000	A 1,2,3B1	4200	Nil	4800	4800	A 1,2,3B1
Horticulture										
Vegetable										
Tomato	50000	Nil	60000	60000	A 1,2,3B3	52000	Nil	60000	60000	A 1,2,3B3
Potato	45000	Nil	60000	60000	A 1,2,3B3	50000	Nil	60000	60000	A 1,2,3B3
Brinjal	40000	Nil	48000	48000	A 1,2,3B3	45000	Nil	52000	52000	A 1,2,3B3
Cauliflower	60000	Nil	68000	68000	A 1,2,3B3	60000	Nil	65000	65000	A 1,2,3B3
Ladyfinger	35000	Nil	44000	44000	A 1,2,3B3	36000	Nil	42000	42000	A 1,2,3B3
Cucarbits	35000	Nil	42000	42000	A 1,2,3B3	36000	Nil	42000	42000	A 1,2,3B3
Animal Husbandry										
Cows per 4 animal	4000	Nil	6000	6000	A 5,6	4200	Nil	42000	42000	A 5,6
Buffalo per 4 animal						-				
Goat per 5 animal	6000	Nil	9000	9000	A 5,6,7	6000	Nil	8000	8000	A 5,6,7
Pig per 5 animal	-	-	-	-	-	-	-	-	-	-
Duckry per 10 birds	-	-	-	-	-	2600	Nil	3200	3200	A 5,6,7
Poultry per 10 birds	2500	Nil	3500	3500	A 5,7	2500	Nil	3200	3200	A 5,7
Fisheries	-	-	-	-	-	-	-	-	-	-

Intervention :**A. Intensification**

1. Improved management practices. 2. Change of variety from local to improved one. 3. Judicious use of inputs like-seed, fertilizers, water etc. 4. Adoption of low duration, fertilizer responsive crop varieties. 5. Change of breed from local to improved/up gradation of local breed. 6. Adoption of breeds with high lactation period in case of milch animals. 7. Adoption of high weight breeds having tolerance to stress, in piggery/goatry etc.

B. Diversification

1. Adoption of inter/mixed cropping system in case of monocropping.
2. Para cropping (paddy with pea/gram/lentil)
3. Adoption of multi-tier cropping system in case of horticulture crops.
4. Paddy cum fish culture.

Table 5.19
Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions (Diversification & Intensification)**
In AES-1

Resource poor farmers

Type of enterprises / commodities	Agro-ecological situationa-1									
	EFS-1					EFS-2				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*
Agricultural crops										
Irrigated										
Wheat	4000	Nil	5200	5200	A 1,2,3	-	-	-	-	-
Gram	3000	Nil	4000	4000	A 1,2,3,4	-	-	-	-	-
Mustard	-	-	-	-	-	3200	Nil	3800	3800	A 1,2,3,4
Rainfed										
Paddy	3200	Nil	4200	4200	A 1,2,3B4	3000	Nil	3600	3600	A 1,2,3B4
Maize	2800	Nil	3200	3200	A 1,2,3B1	2500	Nil	3000	3000	A 1,2,3B1
Arhar	2500	Nil	3000	3000	A 1,2,3B1	2400	Nil	3200	3200	A 1,2,3B1
Kulti	-	-	-	-	-	-	-	-	-	-
Black gram	2200	Nil	2800	2800	A 1,2,3B1	2000	Nil	2800	2800	A 1,2,3B1
Niger										
Groundnut	3500	Nil	4200	4200	A 1,2,3B1	3000	Nil	4000	4000	A 1,2,3B1
Horticulture										
Vegetable										
Tomato	30000	Nil	35000	35000	A 1,2,3B3	25000	Nil	35000	35000	A 1,2,3B3
Potato	35000	Nil	40000	40000	A 1,2,3B3	32000	Nil	38000	38000	A 1,2,3B3
Brinjal	30000	Nil	40000	40000	A 1,2,3B3	28000	Nil	32000	32000	A 1,2,3B3
Cauliflower	35000	Nil	45000	45000	A 1,2,3B3	30000	Nil	35000	35000	A 1,2,3B3
Ladyfinger	30000	Nil	35000	35000	A 1,2,3B3	25000	Nil	30000	30000	A 1,2,3B3
Cucarbites	30000	Nil	35000	35000	A 1,2,3B3	25000	Nil	30000	30000	A 1,2,3B3
Animal Husbandry										
Cows per 4 animal	3000	Nil	5000	5000	A 5,6	-	-	-	-	-
Buffalo per 4 animal	-	-	-	-		-	-	-	-	-
Goat per 5 animal	6500	Nil	8000	8000	A 5,6,7	-	-	-	-	-
Pig per 5 animal	-	-	-	-		-	-	-	-	-
Duckry per 10 birds	2000	Nil	3000	3000	A 5,6,7	-	-	-	-	-
Poultry per 10 birds	2500	Nil	3200	3200	A 5,7	-	-	-	-	-
Fisheries	-	-	-	-	-	-	-	-	-	-

Intervention :

A. Intensification

1. Improved management practices. 2. Change of variety from local to improved one. 3. Judicious use of inputs like-seed, fertilizers, water etc. 4. Adoption of low duration, fertilizer responsive crop varieties. 5. Change of breed from local to improved/up gradation of local breed. 6. Adoption of breeds with high lactation period in case of milch animals. 7. Adoption of high weight breeds having tolerance to stress, in piggery/goatry etc.

B. Diversification

1. Adoption of inter/mixed cropping system in case of monocropping.
2. Para cropping (paddy with pea/gram/lentil)
3. Adoption of multi-tier cropping system in case of horticulture crops.
4. Paddy cum fish culture.

Table 5.20
Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions (Diversification & Intensification)**
In AES-II

Resource Rich farmers

Type of enterprises / commodities	Agro-ecological situationa-2				
	EFS-1				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*
Agricultural crops					
Irrigated					
Wheat	4000	Nil	5500	5500	A 1,2,3
Gram	3000	Nil	4700	4700	A 1,2,3,4
Mustard	4000	Nil	4400	4400	A 1,2,3,4
Rainfed					
Paddy	4000	Nil	4500	4500	A 1,2,3B4
Maize	3500	Nil	4000	4000	A 1,2,3B1
Arhar	3000	Nil	3400	3400	A 1,2,3B1
Kulti	2000	Nil	2600	2600	A 1,2,3B1
Black gram	2200	Nil	3000	3000	A 1,2,3B1
Niger	2000	Nil	2600	2600	A 1,2,3B1
Groundnut	4000	Nil	5000	5000	A 1,2,3B1
Sweet potato	3500	Nil	4000	4000	A 1,2,3B1
Horticulture					
Vegetable					
Tomato	50000	Nil	60000	60000	A 1,2,3B3
Potato	46000	Nil	60000	60000	A 1,2,3B3
Brinjal	40000	Nil	48000	48000	A 1,2,3B3
Cauliflower	50000	Nil	68000	68000	A 1,2,3B3
Ladyfinger	40000	Nil	44000	44000	A 1,2,3B3
Cucarbites	30000	Nil	42000	42000	A 1,2,3B3
Animal Husbandry					
Cows per 4 animal	3500	Nil	6000	6000	A 5,6
Buffalo per 4 animal	4000	Nil	5000	5000	A 5,6
Goat per 5 animal	7000	Nil	9000	9000	A 5,6,7
Pig per 5 animal	-	-	-	-	-
Duckry per 10 birds	-	-	-	-	-
Poultry per 10 birds	5000	Nil	6000	6000	A 5,7
Fisheries	-	-	-	-	-

Intervention :

A. Intensification

1. Improved management practices. 2. Change of variety from local to improved one. 3. Judicious use of inputs like-seed, fertilizers, water etc. 4. Adoption of low duration, fertilizer responsive crop varieties. 5. Change of breed from local to improved/up gradation of local breed. 6. Adoption of breeds with high lactation period in case of milch animals. 7. Adoption of high weight breeds having tolerance to stress, in piggery/goatry etc.

B. Diversification

1. Adoption of inter/mixed cropping system in case of monocropping. 2. Para cropping (paddy with pea/gram/lentil) 3. Adoption of multi-tier cropping system in case of horticulture crops. 4. Paddy cum fish culture.

Table 5.21
Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions (Diversification & Intensification)**
In AES-II

Resource poor farmers

Type of enterprises / commodities	Agro-ecological situationa-2									
	EFS-1					EFS-2				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*
Agricultural crops										
Irrigated										
Wheat	4200	Nil	5200	5200	A 1,2,3	-	-	-	-	-
Gram	3000	Nil	4000	4000	A 1,2,3,4	-	-	-	-	-
Mustard	3800	Nil	4200	4200	A 1,2,3,4	-				
Rainfed										
Paddy	3800	Nil	4200	4200	A 1,2,3B4	3200	Nil	3800	3800	A 1,2,3B4
Maize	3000	Nil	3200	3200	A 1,2,3B1	2500	Nil	3000	3000	A 1,2,3B1
Arhar	2800	Nil	3000	3000	A 1,2,3B1	2500	Nil	3000	3000	A 1,2,3B1
Kulti	2200	Nil	2800	2800	A 1,2,3B1	2000	Nil	2800	2800	A 1,2,3B1
Black gram	2500	Nil	2800	2800	A 1,2,3B1	2200	Nil	2800	2800	A 1,2,3B1
Niger	2000	Nil	2400	2400	A 1,2,3B1	2000	Nil	2600	2600	A 1,2,3B1
Groundnut	4000	Nil	4200	4200	A 1,2,3B1	3500	Nil	4000	4000	A 1,2,3B1
Sweet potato	-	-	-	-	-	3000	Nil	4000	4000	A 1,2,3B1
Horticulture										
Vegetable										
Tomato	40000	Nil	45000	45000	A 1,2,3B3	30000	Nil	35000	35000	A 1,2,3B3
Potato	42000	Nil	48000	48000	A 1,2,3B3	35000	Nil	40000	40000	A 1,2,3B3
Brinjal	38000	Nil	42000	42000	A 1,2,3B3	30000	Nil	40000	40000	A 1,2,3B3
Cauliflower	40000	Nil	45000	45000	A 1,2,3B3	25000	Nil	30000	30000	A 1,2,3B3
Ladyfinger	30000	Nil	35000	35000	A 1,2,3B3	28000	Nil	32000	32000	A 1,2,3B3
Cucarbits	30000	Nil	35000	35000	A 1,2,3B3	28000	Nil	32000	32000	A 1,2,3B3
Animal Husbandry										
Cows per 4 animal	3500	Nil	5000	5000	A 5,6	-	-	-	-	-
Buffalo per 4 animal		-	-	-	-	-	-	-	-	-
Goat per 5 animal	7000	Nil	8000	8000	A 5,6,7	-	-	-	-	-
Pig per 5 animal	-	-	-	-	-	-	-	-	-	-
Duckry per 10 birds	-	-	-	-	-	-	-	-	-	-
Poultry per 10 birds	4000	Nil	5000	5000	A 5,7	-	-	-	-	-
Fisheries		-	-	-	-	-	-	-	-	-

Intervention :

A. Intensification

1. Improved management practices. 2. Change of variety from local to improved one. 3. Judicious use of inputs like-seed, fertilizers, water etc. 4. Adoption of low duration, fertilizer responsive crop varieties. 5. Change of breed from local to improved/up gradation of local breed. 6. Adoption of breeds with high lactation period in case of milch animals. 7. Adoption of high weight breeds having tolerance to stress, in piggery/goatry etc.

B. Diversification

1. Adoption of inter/mixed cropping system in case of monocropping.
2. Para cropping (paddy with pea/gram/lentil)
3. Adoption of multi-tier cropping system in case of horticulture crops.
4. Paddy cum fish culture.

Table 5.22
Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions (Diversification & Intensification)**
In AES-III

Resource Rich farmers

Type of enterprises / commodities	Agro-ecological situations-3									
	EFS-1					EFS-4				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*
Agricultural crops										
Irrigated										
Wheat	-	-	-	-	-	3500	Nil	4000	4000	A 1,2,3,4
Gram	2500	Nil	3000	3000	A 1,2,3,4	-	-	-	-	-
Mustard	3000	Nil	3500	3500	A 1,2,3,4	3000	Nil	3500	3500	A 1,2,3,4
Rainfed										
Paddy	3500	Nil	4200	4200	A 1,2,3B4	3500	Nil	4000	4000	A 1,2,3B4
Maize	2500	Nil	3000	3000	A 1,2,3B1	2500	Nil	3000	3000	A 1,2,3B1
Arhar	2500	Nil	3000	3000	A 1,2,3B1	2000	Nil	2500	2500	A 1,2,3B1
Kulti	1500	Nil	2200	2200	A 1,2,3B1	1500	Nil	2200	2200	A 1,2,3B1
Black gram	1500	Nil	2500	2500	A 1,2,3B1	1500	Nil	2200	2200	A 1,2,3B1
Niger	1500	Nil	2000	2000	A 1,2,3B1	1500	Nil	2200	2200	A 1,2,3B1
Groundnut	-	-	-	-	-	-	-	-	-	-
Sweet potato	-	-	-	-	-	-	-	-	-	-
Horticulture										
Vegetable										
Tomato	10000	Nil	15000	15000	A 1,2,3B3	15000	Nil	18000	18000	A 1,2,3B3
Potato	15000	Nil	18000	18000	A 1,2,3B3	18000	Nil	22000	22000	A 1,2,3B3
Brinjal	15000	Nil	18000	18000	A 1,2,3B3	18000	Nil	22000	22000	A 1,2,3B3
Cauliflower	-	-	-	-	-	-	-	-	-	-
Ladyfinger	10000	Nil	14000	14000	A 1,2,3B3	12000	Nil	16000	16000	A 1,2,3B3
Cucarbits	8000	Nil	12000	12000	A 1,2,3B3	10000	Nil	14000	14000	A 1,2,3B3
Animal Husbandry										
Cows per 4 animal	4000	Nil	7000	7000	A 5,6	5000	Nil	8000	8000	A 5,6
Buffalo per 4 animal	-	-	-	-	-	-	-	-	-	-
Goat per 5 animal	8000	Nil	12000	12000	A 5,6,7	9000	Nil	12000	12000	A 5,6,7
Pig per 5 animal	-	-	-	-	-	-	-	-	-	-
Duckry per 10 birds	-	-	-	-	-	-	-	-	-	-
Poultry per 10 birds	4000	Nil	6000	6000	A 5,7	4000	Nil	7000	7000	A 5,7
Fisheries	-	-	-	-	-	-	-	-	-	-

Intervention :

A. Intensification

1. Improved management practices. 2. Change of variety from local to improved one. 3. Judicious use of inputs like-seed, fertilizers, water etc.
4. Adoption of low duration, fertilizer responsive crop varieties. 5. Change of breed from local to improved/up gradation of local breed. 6. Adoption of breeds with high lactation period in case of milch animals. 7. Adoption of high weight breeds having tolerance to stress, in piggery/goatry etc.

B. Diversification

1. Adoption of inter/mixed cropping system in case of monocropping.
2. Para cropping (paddy with pea/gram/lentil)
3. Adoption of multi-tier cropping system in case of horticulture crops.
4. Paddy cum fish culture.

Table 5.23

**Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions** (Diversification & Intensification)
In AES-III**

Resource poor farmers

Type of enterprises / commodities	Agro-ecological situationa-3									
	EFS-1					EFS-2				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*
Agricultural crops										
Irrigated										
Wheat	-	-	-	-	-	-	-	-	-	-
Gram	-	-	-	-	-	-	-	-	-	-
Mustard	3000	Nil	4000	4000	A 1,2,3,4	-	-	-	-	-
Rainfed										
Paddy	3000	Nil	4000	4000	A 1,2,3B4	3200	Nil	3800	3800	A 1,2,3B4
Maize	2200	Nil	2800	2800	A 1,2,3B1	2500	Nil	3000	3000	A 1,2,3B1
Arhar	2200	Nil	2800	2800	A 1,2,3B1	2500	Nil	3000	3000	A 1,2,3B1
Kulti	1800	Nil	2300	2300	A 1,2,3B1	2000	Nil	2800	2800	A 1,2,3B1
Black gram	2000	Nil	2400	2400	A 1,2,3B1	2200	Nil	2800	2800	A 1,2,3B1
Niger	1800	Nil	2400	2400	A 1,2,3B1	2000	Nil	2600	2600	A 1,2,3B1
Groundnut	3000	Nil	3500	3500	A 1,2,3B1	-	-	-	-	-
Sweet potato	-	-	-	-	-	-	-	-	-	-
Horticulture										
Vegetable										
Tomato	8000	Nil	12000	12000	A 1,2,3B3	-	-	-	-	-
Potato	10000	Nil	15000	15000	A 1,2,3B3	-	-	-	-	-
Brinjal	8000	Nil	12000	12000	A 1,2,3B3	-	-	-	-	-
Cauliflower	10000	Nil	15000	15000	A 1,2,3B3	-	-	-	-	-
Ladyfinger	8000	Nil	15000	15000	A 1,2,3B3	-	-	-	-	-
Cucarbits	8000	Nil	12000	12000	A 1,2,3B3	-	-	-	-	-
Animal Husbandry										
Cows per 4 animal	4000	Nil	6000	6000	A 5,6	5000	6000	7000	7000	A 5,6
Buffalo per 4 animal		-	-	-	-	-	-	-	-	-
Goat per 5 animal	10000	Nil	15000	15000	A 5,6,7	15000	16000	18000	18000	A 5,6,7
Pig per 5 animal	-	-	-	-	-	-	-	-	-	-
Duckry per 10 birds	-	-	-	-	-	-	-	-	-	-
Poultry per 10 birds	4000	Nil	5000	5000	A 5,7	5000	7000	8000	8000	A 5,7
Fisheries	-	-	-	-	-	-	-	-	-	-

Intervention :**A. Intensification**

1. Improved management practices. 2. Change of variety from local to improved one. 3. Judicious use of inputs like-seed, fertilizers, water etc. 4. Adoption of low duration, fertilizer responsive crop varieties. 5. Change of breed from local to improved/up gradation of local breed. 6. Adoption of breeds with high lactation period in case of milch animals. 7. Adoption of high weight breeds having tolerance to stresses, in piggery/goatry etc.

B. Diversification

1. Adoption of inter/mixed cropping system in case of monocropping.
2. Para cropping (paddy with pea/gram/lentil)
3. Adoption of multi-tier cropping system in case of horticulture crops.
4. Paddy cum fish culture.

Table 5.24

Gap in adoption and proposed strategies for promoting the Modified Farming System

AES-I

Resource Rich

Type of enterprises / commodities	Agro-ecological situationa-1											
	EFS-1						EFS-2					
	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies
	Op-i	MAU					Op-i	MAU				
Agricultural crops												
Irrigated												
Wheat	4500	5200	A 1,2,3	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Gram	3000	4000	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Mustard	3500	-	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12	-	3800	-	-	-	-
Rainfed												
Paddy	3500	4200	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12	4000	3600	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12
Maize	3000	3200	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	3500	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Arhar	2800	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	3000	3200	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Kulthi	-	-	-	-	-	-	-	-	-	-	-	-
Black gram	2500	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2500	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Niger	-	-	-	-	-	-	-	-	-	-	-	-
Groundnut	4000	4200	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	4200	4000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Sweet potato	-	-	-	-	-	-	-	-	-	-	-	-
Horticulture												
Vegetable												
Tomato	50000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	52000	60000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Potato	45000	40000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	50000	55000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Brinjal	40000	40000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	45000	50000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Cauliflower	60000	45000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	60000	65000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Ledyfinger	35000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	36000	40000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Cucurbits	35000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	36000	40000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Animal Husbandry												
Cows/animal	4000	5000	A 5,6	P	1-12	1,2,3,4,11	4200	35000	A 5,6	P	1-12	1,2,3,4,11
Buffaloes	-	-	-	-	-	-	-	38000	-	-	-	-
Goat/animal	6000	8000	A 5,6,7	P	1-12	1,2,3,4,11	6000	32000	A 5,6,7	P	1-12	1,2,3,4,11
Pig	-	-	-	-	-	-	-	35000	-	-	-	-
Duckry	-	3000	-	-	-	-	2600	30000	A 5,6,7	P	1-12	1,2,3,4,11
Poultry	2500	3200	A 5,7	P	1-12	1,2,3,4,11	2500	30000	A 5,7	P	1-12	1,2,3,4,11
Fisheries	-	-	-	-	-	-	-	-	-	-	-	-

Note:	The strategies has to be finally written based of upon the benefit cost ratio of EFS and MAU, trends analysis and SWOT analysis.
Intervention =	1. Intensification, 2. Diversification
Reasons for gap =	1. Small holdings, 2. Lack of capitals, 3. Lack of labour, 4. Lack of awareness, 5. Poor transfer of technology to farmers, 6. Non-availability of inputs, 7. Inability to take risks under rainfed conditions, 8. Lack of knowledge/motivation, 9. Poor market information's, 10. Non-profitable agriculture, 11. Poor transport, 12. Low excess to improved technologies
Prop. Strategies =	1. Training and exposure visit, 2. Demonstrations, 3. Providing financial assistance/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Inter cropping in uplands, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Using lime to neutralise soil acidity especially in uplands. 10. More emphasis on judicious use of soil and water, 11. Using improved breeds of cattle, 12. Training on Lac/sericulture.

Table 5.25

Gap in adoption and proposed strategies for promoting the Modified Farming System

AES-I		Resource Poor										
Type of enterprises / commodities	Agro-ecological situationa-1											
	EFS-1						EFS-2					
	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies
	Op-i	MAU					Op-i	MAU				
Agricultural crops												
Irrigated												
Wheat	4000	5200	A 1,2,3	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Gram	3000	3500	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Mustard	-	-	-	-	-	-	3200	3800	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12
Rainfed												
Paddy	3200	4200	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12	3000	3600	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12
Maize	2800	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2500	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Arhar	2500	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2400	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Kulthi	-	-	-	-	-	-	-	-	-	-	-	-
Black gram	2200	2500	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2000	2800	A 1,2,3B1		1-12	1,2,3,4,5,6,7,8,9,12
Niger	-	-	-	-	-	-	-	-	-	-	-	-
Groundnut	3500	4000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	3000	4000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Sweet potato	-	-	-	-	-	-	-	-	-	-	-	-
Horticulture												
Vegetable												
Tomato	30000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	25000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Potato	35000	40000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	32000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Brinjal	30000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	28000	32000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Cauliflower	35000	45000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	30000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Ledyfinger	30000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	25000	30000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Cucurbits	30000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	25000	30000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Animal Husbandry												
Cows/animal	3000	5000	A 5,6	P	1-12	1,2,3,4,11	-	-	-	-	-	-
Buffaloes	-	-	-	-	-	-	-	-	-	-	-	-
Goat/animal	6500	8000	A 5,6,7	P	1-12	1,2,3,4,11	-	-	-	-	-	-
Pig	-	-	-	-	-	-	-	-	-	-	-	-
Duckry	2000	3000	A 5,6,7	P	1-12	1,2,3,4,11	-	-	-	-	-	-
Poultry	2500	3200	A 5,7	P	1-12	1,2,3,4,11	-	-	-	-	-	-
Fisheries	-	-	-	-	-	-	-	-	-	-	-	-

Note:	The strategies has to be finally written based of upon the benefit cost ratio of EFS and MAU, trends analysis and SWOT analysis.
Intervention =	1. Intensification, 2. Diversification
Reasons for gap =	1. Small holdings, 2. Lack of capitals, 3. Lack of labour, 4. Lack of awareness, 5. Poor transfer of technology to farmers, 6. Non-availability of inputs, 7. Inability to take risks under rainfed conditions, 8. Lack of knowledge/motivation, 9. Poor market information's, 10. Non-profitable agriculture, 11. Poor transport, 12. Low excess to improved technologies
Prop. Strategies =	1. Training and exposure visit, 2. Demonstrations, 3. Providing financial assistance/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Inter cropping in uplands, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Using lime to neutralise soil acidity especially in uplands, 10. More emphasis on judicious use of soil and water, 11. Using improved breeds of cattle, 12. Training on Lac/sericulture.

Table 5.26

Gap in adoption and proposed strategies for promoting the Modified Farming System

AES-II

Resource Rich

Type of enterprises / commodities	Agro-ecological situationa-2					
	EFS-1					
	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies
Op-i	MAU					
Agricultural crops						
Irrigated						
Wheat	4000	5500	A 1,2,3	P	1-12	1,2,3,4,5,6,7,8,9,12
Gram	3000	4700	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12
Mustard	4000	4400	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12
Rainfed						
Paddy	4000	4500	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12
Maize	3500	4000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Arhar	3000	3400	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Kulthi	2000	2600	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Black gram	2200	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Niger	2000	2600	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Groundnut	4000	5000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Sweet potato	3500	4000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Horticulture						
Vegetable						
Tomato	50000	60000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Potato	46000	60000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Brinjal	40000	48000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Cauliflower	50000	68000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Ledyfinger	40000	44000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Cucurbits	30000	42000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Animal Husbandry						
Cows/animal	3500	6000	A 5,6	P	1-12	1,2,3,4,11
Buffaloes	4000	5000	A 5,6	P	1-12	1,2,3,4,11
Goat/animal	7000	9000	A 5,6,7	P	1-12	1,2,3,4,11
Pig	-	-	-	-	-	-
Duckry	-	-	-	-	-	-
Poultry	5000	6000	A 5,7	P	1-12	1,2,3,4,11
Fisheries	-	-	-	-	-	-

Note: The strategies has to be finally written based of upon the benefit cost ratio of EFS and MAU, trends analysis and SWOT analysis.

Intervention = 1. Intensification, 2. Diversification

Reasons for gap = 1. Small holdings, 2. Lack of capitals, 3. Lack of labour, 4. Lack of awareness, 5. Poor transfer of technology to farmers, 6. Non-availability of inputs, 7. Inability to take risks under rainfed conditions, 8. Lack of knowledge/motivation, 9. Poor market information's, 10. Non-profitable agriculture, 11. Poor transport, 12. Low excess to improved technologies

Prop. Strategies = 1. Training and exposure visit, 2. Demonstrations, 3. Providing financial assistance/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Inter cropping in uplands, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Using lime to neutralise soil acidity especially in uplands. 10. More emphasis on judicious use of soil and water, 11. Using improved breeds of cattle, 12. Training on Lac/sericulture.

Table 5.27

Gap in adoption and proposed strategies for promoting the Modified Farming System

AES-II

Resource Poor

Type of enterprises / commodities	Agro-ecological situationa-2											
	EFS-1						EFS-2					
	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies
	Op-i	MAU					Op-i	MAU				
Agricultural crops												
Irrigated												
Wheat	4200	5200	A 1,2,3	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Gram	3000	4000	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Mustard	3800	4200	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Rainfed												
Paddy	3800	4200	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12	3200	3800	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12
Maize	3000	3200	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2500	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Arhar	2800	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2500	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Kulthi	2200	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2000	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Black gram	2500	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2200	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Niger	2000	2400	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2000	2600	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Groundnut	4000	4200	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	3500	4000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Sweet potato	-	-	-	-	-	-	3000	4000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Horticulture												
Vegetable												
Tomato	40000	45000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	30000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Potato	42000	48000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	35000	40000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Brinjal	38000	42000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	30000	40000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Cauliflower	40000	45000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	25000	30000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Ledyfinger	30000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	28000	32000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Cucurbits	30000	35000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	28000	32000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Animal Husbandry												
Cows/animal	3500	5000	A 5,6	P	1-12	1,2,3,4,11	-	-	-	-	-	-
Buffaloes	-	-	-	-	-	-	-	-	-	-	-	-
Goat/animal	7000	8000	A 5,6,7	P	1-12	1,2,3,4,11	-	-	-	-	-	-
Pig	-	-	-	-	-	-	-	-	-	-	-	-
Duckry	-	-	-	-	-	-	-	-	-	-	-	-
Poultry	4000	5000	A 5,7	P	1-12	1,2,3,4,11	-	-	-	-	-	-
Fisheries	-	-	-	-	-	-	-	-	-	-	-	-
Note:	The strategies has to be finally written based of upon the benefit cost ratio of EFS and MAU, trends analysis and SWOT analysis.											
Intervention =	1. Intensification, 2. Diversification											
Reasons for gap =	1. Small holdings, 2. Lack of capitals, 3. Lack of labour, 4. Lack of awareness, 5. Poor transfer of technology to farmers, 6. Non-availability of inputs, 7. Inability to take risks under rainfed conditions, 8. Lack of knowledge/motivation, 9. Poor market information's, 10. Non-profitable agriculture, 11. Poor transport, 12. Low excess to improved technologies											
Prop. Strategies =	1. Training and exposure visit, 2. Demonstrations, 3. Providing financial assistance/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Inter cropping in uplands, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Using lime to neutralise soil acidity especially in uplands. 10. More emphasis on judicious use of soil and water, 11. Using improved breeds of cattle, 12. Training on Lac/sericulture.											

Table 5.28

Gap in adoption and proposed strategies for promoting the Modified Farming System

AES-III

Resource Rich

Type of enterprises / commodities	Agro-ecological situationa-3											
	EFS-1						EFS-4					
	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies
	Op-i	MAU					Op-i	MAU				
Agricultural crops												
Irrigated												
Wheat	-	-	-				3500	4000	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12
Gram	2500	3000	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-			
Mustard	3000	3500	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12	3000	3500	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12
Rainfed												
Paddy	3500	4200	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12	3500	4000	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12
Maize	2500	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2500	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Arhar	2500	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2000	2500	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Kulthi	1500	2200	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	1500	2200	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Black gram	1500	2500	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	1500	2200	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Niger	1500	2000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	1500	2200	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Groundnut	-	-	-				-	-	-			
Sweet potato	-	-	-				-	-	-			
Horticulture												
Vegetable												
Tomato	10000	15000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	15000	18000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Potato	15000	18000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	18000	22000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Brinjal	15000	18000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	18000	22000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Cauliflower	-	-	-				-	-	-			
Ledyfinger	10000	14000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	12000	16000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Cucurbits	8000	12000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	10000	14000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12
Animal Husbandry												
Cows/animal	4000	7000	A 5,6	P	1-12	1,2,3,4,11	5000	8000	A 5,6	P	1-12	1,2,3,4,11
Buffaloes	-	-	-				-	-	-			
Goat/animal	8000	12000	A 5,6,7	P	1-12	1,2,3,4,11	9000	12000	A 5,6,7	P	1-12	1,2,3,4,11
Pig	-	-	-				-	-	-			
Duckry	-	-	-				-	-	-			
Poultry	4000	6000	A 5,7	P	1-12	1,2,3,4,11	4000	7000	A 5,7	P	1-12	1,2,3,4,11
Fisheries	-	-	-				-	-	-			

Note:	The strategies has to be finally written based of upon the benefit cost ratio of EFS and MAU, trends analysis and SWOT analysis.
Intervention =	1. Intensification, 2. Diversification
Reasons for gap =	1. Small holdings, 2. Lack of capitals, 3. Lack of labour, 4. Lack of awareness, 5. Poor transfer of technology to farmers, 6. Non-availability of inputs, 7. Inability to take risks under rainfed conditions, 8. Lack of knowledge/motivation, 9. Poor market information's, 10. Non-profitable agriculture, 11. Poor transport, 12. Low excess to improved technologies
Prop. Strategies =	1. Training and exposure visit, 2. Demonstrations, 3. Providing financial assistance/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Inter cropping in uplands, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Using lime to neutralise soil acidity especially in uplands, 10. More emphasis on judicious use of soil and water, 11. Using improved breeds of cattle, 12. Training on Lac/sericulture.

Table 5.29

Gap in adoption and proposed strategies for promoting the Modified Farming System

AES-III

Resource Poor

Type of enterprises / commodities	Agro-ecological situationa-3											
	EFS-1						EFS-2					
	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies	Contribution in terms of net income		Interventions to be carried out	Gaps in adoption F/P/N	Reasons for gap	Pro. Strategies
	Op-i	MAU					Op-i	MAU				
Agricultural crops												
Irrigated												
Wheat	-	-	-	-	-	-	-	-	-	-	-	-
Gram	-	-	-	-	-	-	-	-	-	-	-	-
Mustard	3000	4000	A 1,2,3,4	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Rainfed												
Paddy	3000	4000	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12	3200	3800	A 1,2,3B4	P	1-12	1,2,3,4,5,6,7,8,9,12
Maize	2200	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2500	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Arhar	2200	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2500	3000	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Kulthi	1800	2300	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2000	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Black gram	2000	2400	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2200	2800	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Niger	1800	2400	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	2000	2600	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12
Groundnut	3000	3500	A 1,2,3B1	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Sweet potato	-	-	-	-	-	-	-	-	-	-	-	-
Horticulture												
Vegetable												
Tomato	8000	12000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Potato	10000	15000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Brinjal	8000	12000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Cauliflower	10000	15000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Ledyfinger	8000	15000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Cucurbits	8000	12000	A 1,2,3B3	P	1-12	1,2,3,4,5,6,7,8,9,12	-	-	-	-	-	-
Animal Husbandry												
4000	6000	A 5,6	P	1-12	1,2,3,4,11	5000	7000	A 5,6	P	1-12	1,2,3,4,11	Goat/animal
Pig	-	-	-	-	-	-	-	-	-	-	-	-
Duckry	-	-	-	-	-	-	-	-	-	-	-	-
Poultry	4000	5000	A 5,7	P	1-12	1,2,3,4,11	5000	8000	A 5,7	P	1-12	1,2,3,4,11
Fisheries	-	-	-	-	-	-	-	-	-	-	-	-

Note:	The strategies has to be finally written based of upon the benefit cost ratio of EFS and MAU, trends analysis and SWOT analysis.
Intervention =	1. Intensification, 2. Diversification
Reasons for gap =	1. Small holdings, 2. Lack of capitals, 3. Lack of labour, 4. Lack of awareness, 5. Poor transfer of technology to farmers, 6. Non-availability of inputs, 7. Inability to take risks under rainfed conditions, 8. Lack of knowledge/motivation, 9. Poor market information's, 10. Non-profitable agriculture, 11. Poor transport, 12. Low excess to improved technologies
Prop. Strategies =	1. Training and exposure visit, 2. Demonstrations, 3. Providing financial assistance/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Inter cropping in uplands, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Using lime to neutralise soil acidity especially in uplands. 10. More emphasis on judicious use of soil and water, 11. Using improved breeds of cattle, 12. Training on Lac/sericulture.

TREND ABOUT GROWTH OF EXIS TING ENTERPRISES/COMMODITIES/LIVESTOCK IN THE REPRESENTATIVE VILLAGE.

AES- I

SI. No.	Name of enterprises/commodities/Livestock	Unit	Trend about no. of units in the village (%)					Remarks	
			2008	2003	1998	1993	1988		
1.	Agriculture - Irrigated + Rainfed Crops								
➤	Paddy	Local	In Percent (%)	10	30	60	85	100	
		H.Y.V.		70	70	40	15	100	
		Hybrid		20	Nil	Nil	Nil	Nil	
➤	Maize			25	40	50	60	80	
➤	Pigeon pea			50	55	60	80	90	
➤	Potato			80	70	60	50	40	
➤	Vegetable			60	50	40	30	20	
2.	Animal Husbandry								
➤	Local breed		80	85	90	100	100		
➤	Cross breed		20	15	10	Nil	Nil		
➤	Goat		80	85	90	95	100		
➤	Poultry	Commercial		10	10	Nil	Nil	Nil	
		Back Yard		90	90	100	100	100	
3.	Non Farm Sector								
➤	Regular Service		-	-	-	-	-		
➤	Transport	Tractor/Other Vehicle		-	-	-	-	-	
		Bullock cart		-	-	-	-	-	

TREND ABOUT GROWTH OF EXISTING ENTERPRISES/COMMODITIES/LIVESTOCK IN THE REPRESENTATIVE VILLAGE

AES- II

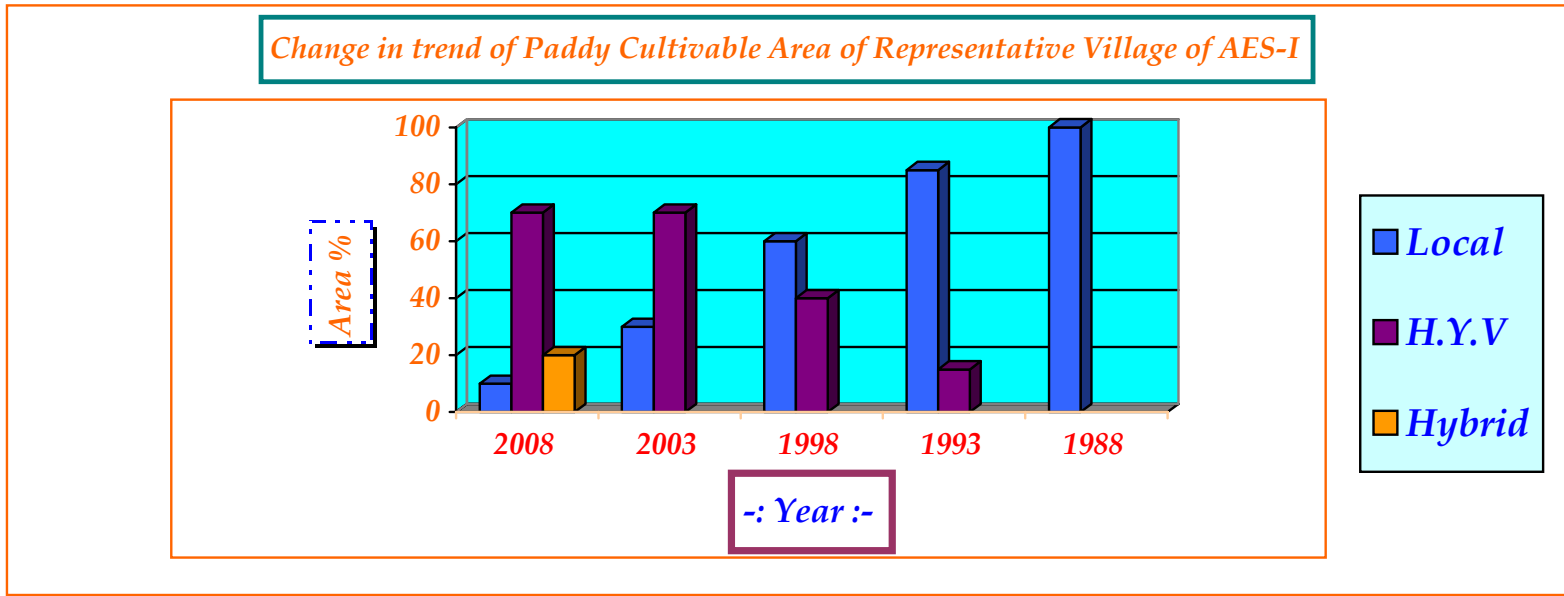
SI. No.	Name of enterprises/commodities/Livestock		Unit	Trend about no. of units in the village (%)					Remarks
				2008	2003	1998	1993	1988	
1.	Agriculture - Irrigated + Rainfed Crops								
➤	Paddy	Local	In Percent (%)	10	40	60	90	100	
		H.Y.V.		80	60	40	10	100	
		Hybrid		10	Nil	Nil	Nil	Nil	
➤	Maize			40	50	75	90	100	
➤	Sweet Potato			50	60	70	80	90	
➤	Pigeon pea			50	50	60	70	80	
➤	Niger			30	50	60	70	80	
➤	Potato			90	75	60	40	30	
➤	Vegetables			80	70	60	50	40	
2.	Animal Husbandry								
➤	Local breed		80	85	90	100	100		
➤	Cross breed		20	15	10	Nil	Nil		
➤	Goat		80	85	90	95	100		
➤	Poultry	Commercial	30	20	Nil	Nil	Nil	-	
		Back Yard	70	80	100	100	100	-	
3.	Non Farm Sector								
➤	Regular Service		-	-	-	-	-		
➤	Transport	Tractor/Other Vehicle	-	-	-	-	-		
		Bullock cart	-	-	-	-	-		

TREND ABOUT GROWTH OF EXISTING ENTERPRISES/COMMODITIES/LIVESTOCK IN THE REPRESENTATIVE VILLAGE

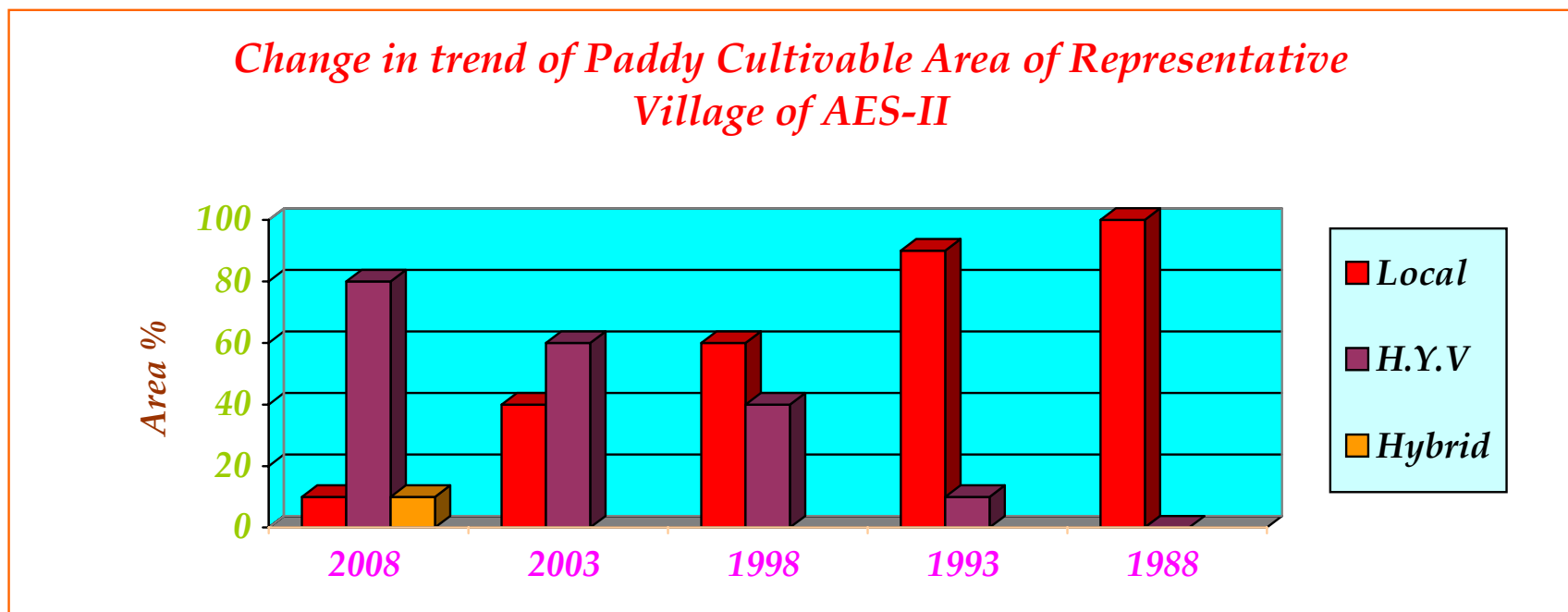
AES- III

SI. No.	Name of enterprises/commodities/Livestock		Unit	Trend about no. of units in the village					Remarks
				2008	2003	1998	1993	1988	
1.	Agriculture - Irrigated + Rainfed Crops								
➤	Paddy	Local	In Percent (%)	25	50	80	100	100	
		H.Y.V.		70	50	20	0	0	
		Hybrid		05	Nil	Nil	Nil	Nil	
➤	Maize			30	40	40	50	60	
➤	Pigeon pea			30	40	40	45	50	
➤	Potato			70	60	50	40	30	
➤	Vegetable			30	25	20	10	Nil	
2.	Animal Husbandry								
➤	Local breed			70	80	85	90	100	
➤	Cross breed			30	20	15	10	Nil	
➤	Goat			90	95	95	100	100	
➤	Poultry	Commercial		30	20	10	Nil	Nil	
		Back Yard		70	80	90	100	100	
3.	Non Farm Sector								
➤	Regular Service			-					
➤	Transport	Tractor/Other Vehicle		-	-	-	-	-	
		Bullock cart		-	-	-	-	-	

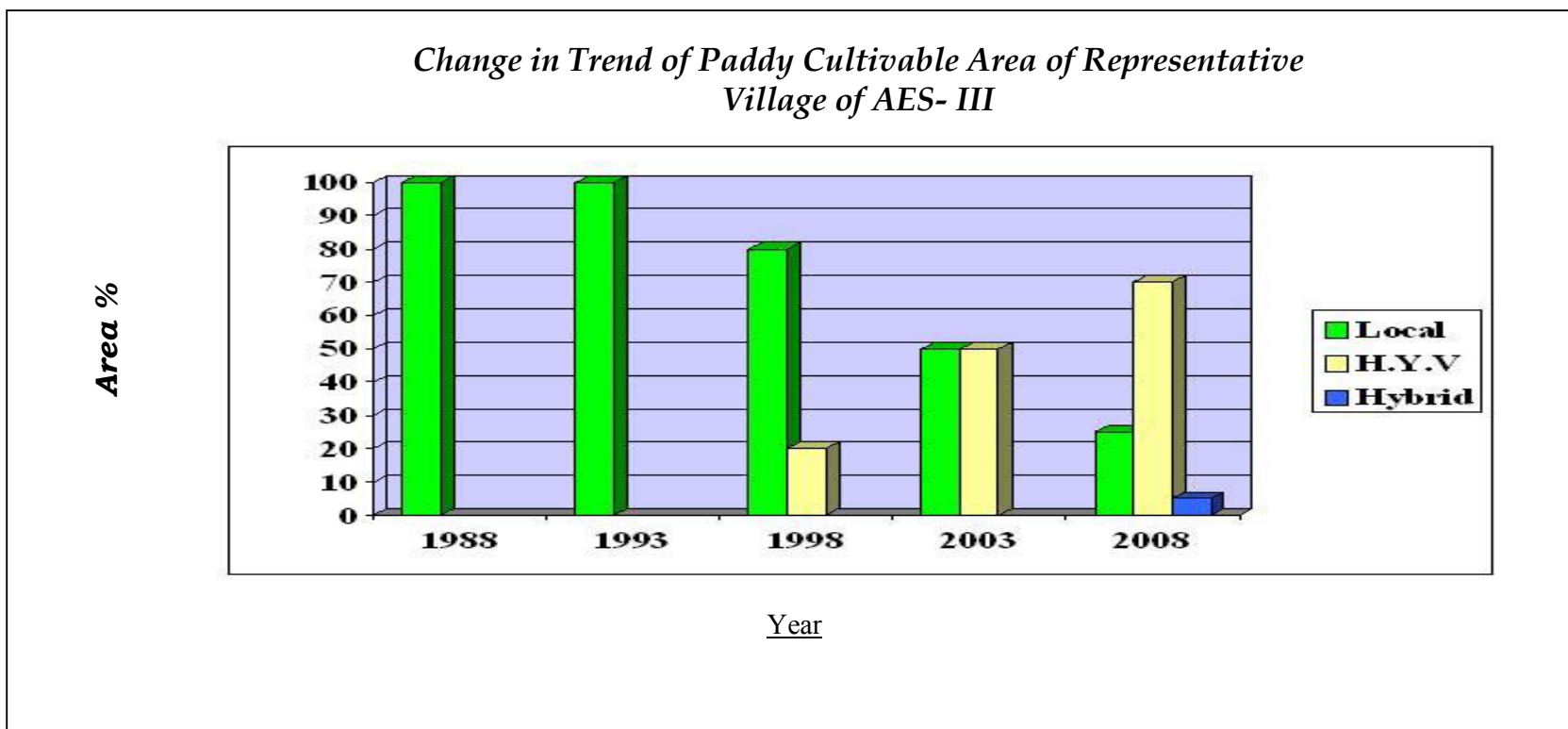
<i>Change in Trend of Paddy Cultivable Area in %</i>						
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-I						
	Local	10	30	60	85	100
	H.Y.V.	70	70	40	15	0
	Hybrid	20	Nil	Nil	Nil	Nil



<i>Change in Trend of Paddy Cultivable Area in %</i>						
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-II						
	Local	10	40	60	90	100
	H.Y.V.	80	60	40	10	0
	Hybrid	10	Nil	Nil	Nil	Nil

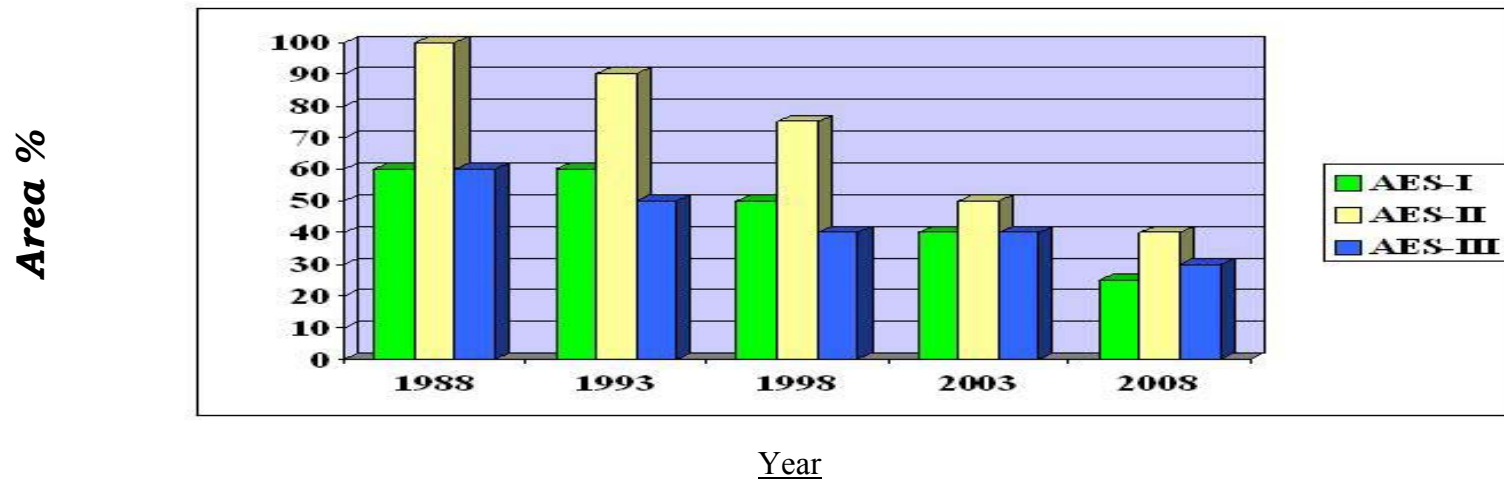


<i>Change in Trend of Paddy Cultivable Area in %</i>						
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-III						
	Local	25	50	80	100	100
	H.Y.V.	70	50	20	0	0
	Hybrid	05	Nil	Nil	Nil	Nil



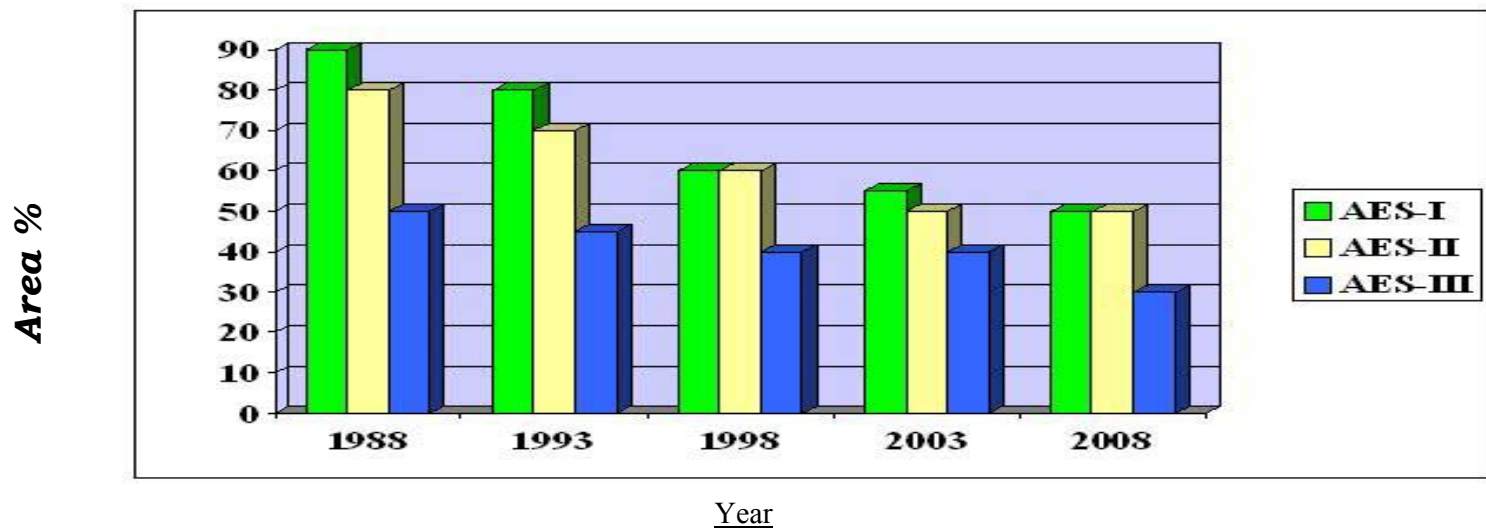
<i>Change in Trend of Maize Cultivable Area in %</i>						
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-I						
	Maize	25	40	50	60	80
AES-II						
	Maize	40	50	75	90	100
AES-III						
	Maize	30	40	40	50	60

Change in Trend of Maize Cultivable Area of Representative Village of AES-I,II & III



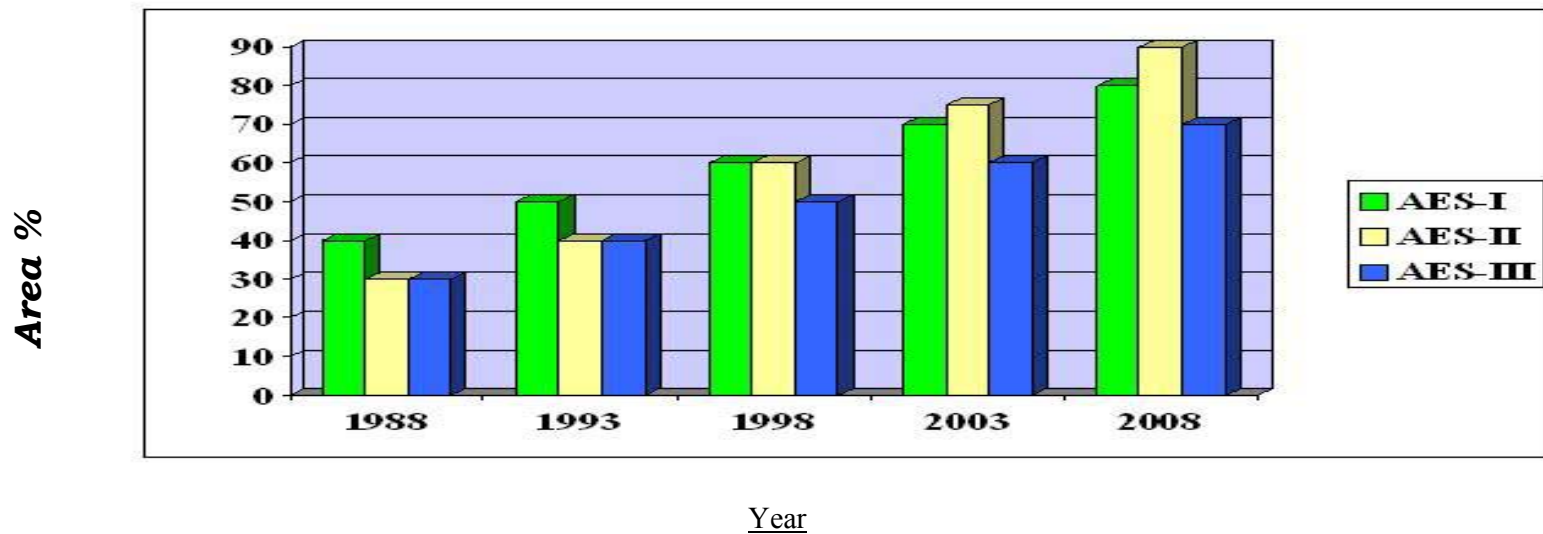
<i>Change in Trend of Pigeon pea Cultivable Area in %</i>						
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-I	Pigeon pea	50	55	60	80	90
AES-II	Pigeon pea	50	50	60	70	80
AES-III	Pigeon pea	30	40	40	45	50

Change in Trend of Pigeon Pea Cultivable Area of Representative Village of AES- I, II & III



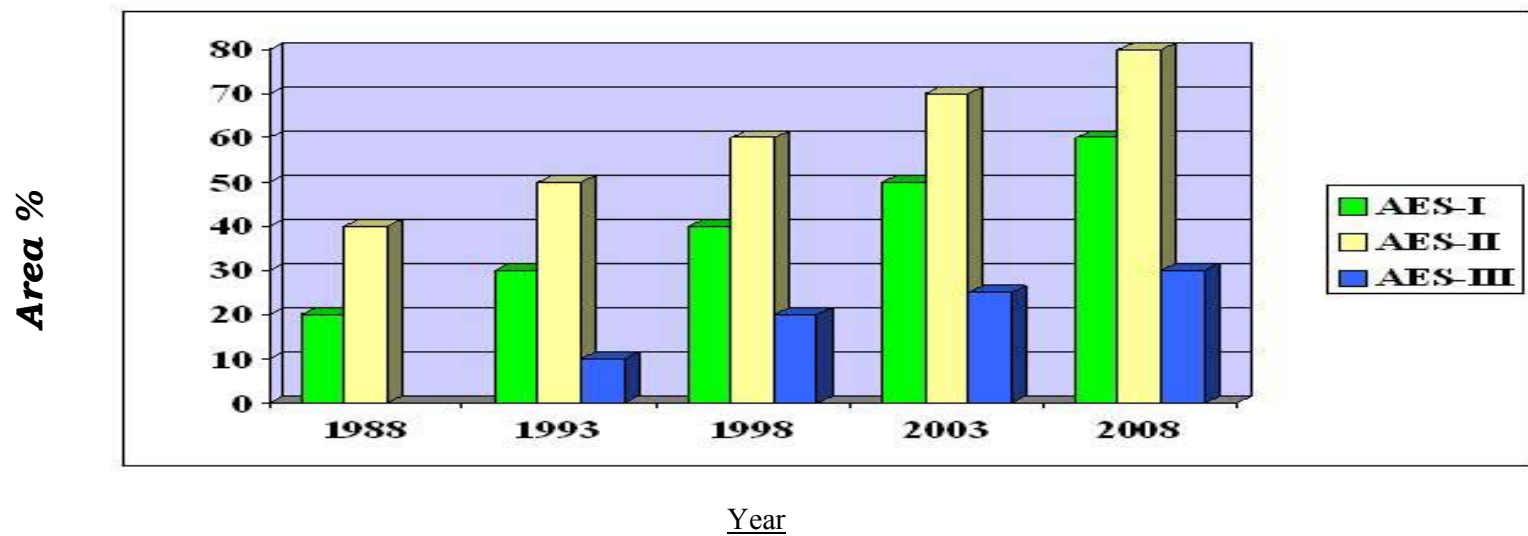
<i>Change in Trend of Potato Cultivable Area in %</i>						
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-I	Potato	80	70	60	50	40
AES-II	Potato	90	75	60	40	30
AES-III	Potato	70	60	50	40	30

Change in Trend of Potato Cultivable Area of Representative Village of AES-I, II & III



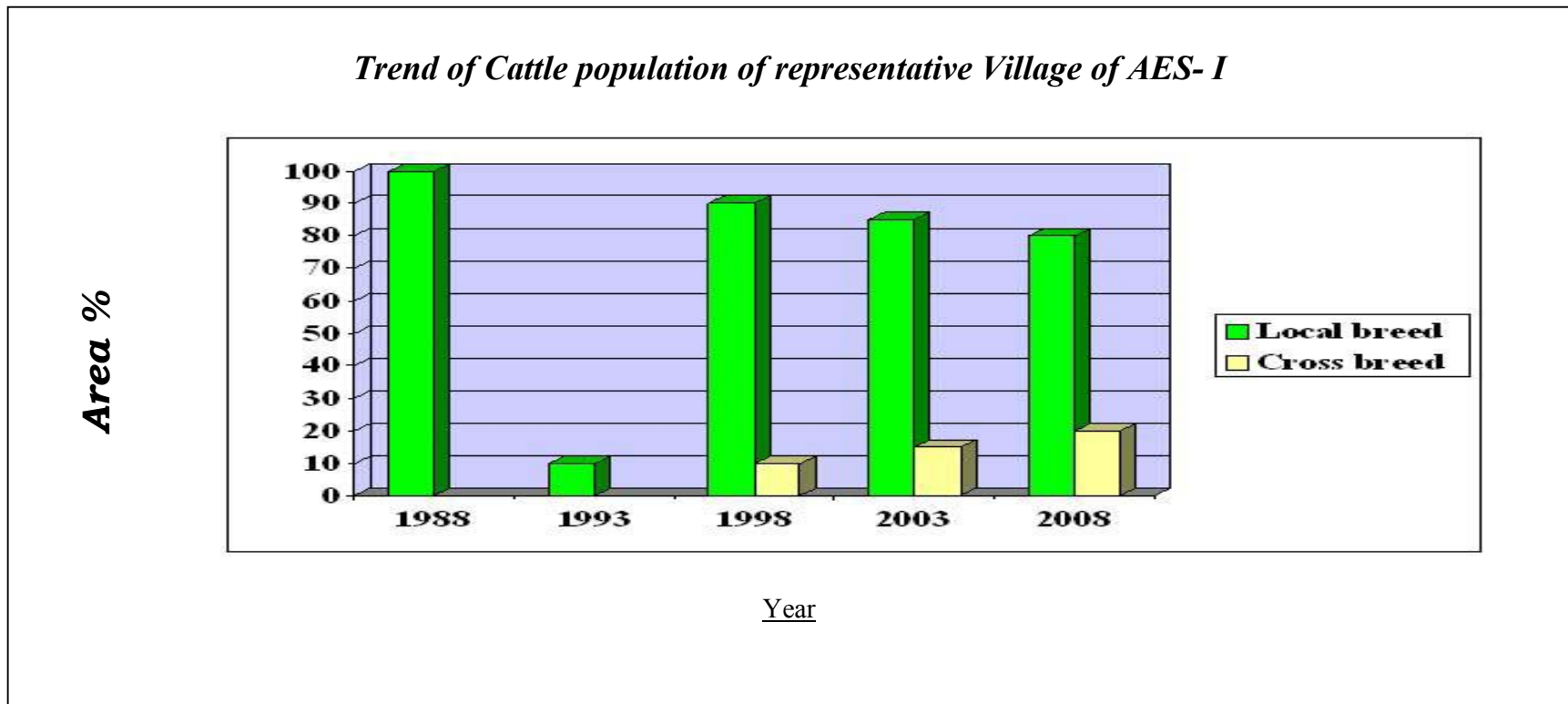
<i>Change in Trend of Vegetable Cultivable Area in %</i>						
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-I	Vegetable	60	50	40	30	20
AES-II	Vegetable	80	70	60	50	40
AES-III	Vegetable	30	25	20	10	Nil

Change in Trend of Vegetable Cultivable Area of Representative Village of AES-I, II & III

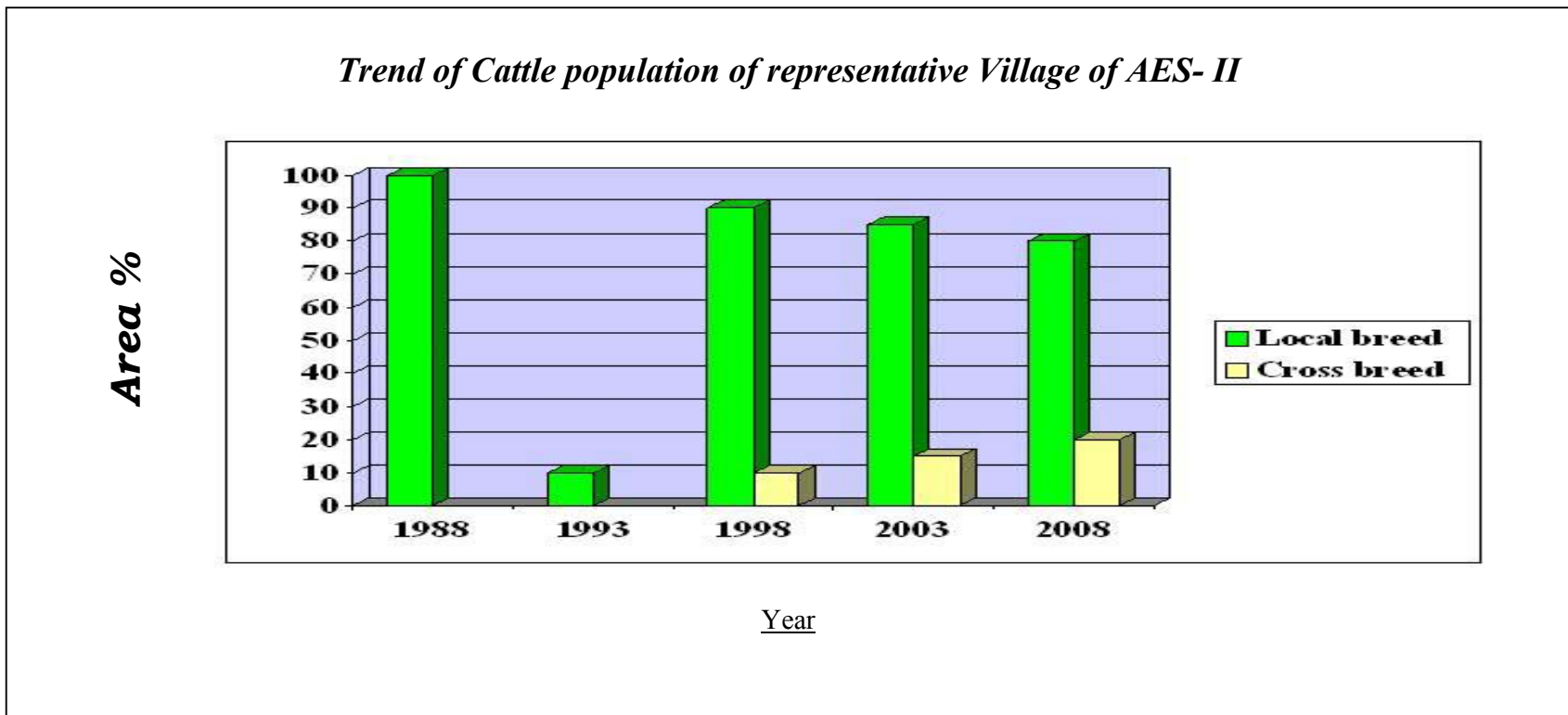


Trend of Cattle population of representative Village of AES- I

AES	Breed	Year				
		2008	2003	1998	1993	1988
AES-I						
	Local breed	80	85	90	100	100
	Cross breed	20	15	10	Nil	Nil



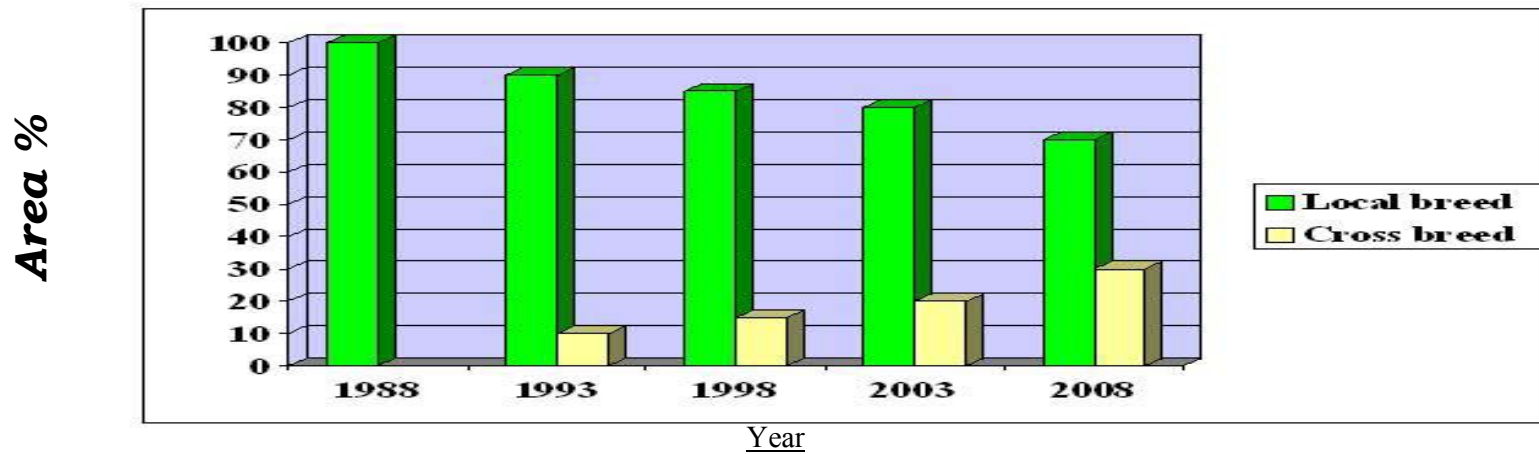
<i>Trend of Cattle population of representative Village of AES- II</i>						
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-II						
	Local breed	80	85	90	100	100
	Cross breed	20	15	10	Nil	Nil



Trend of Cattle population of representative Village of AES- III

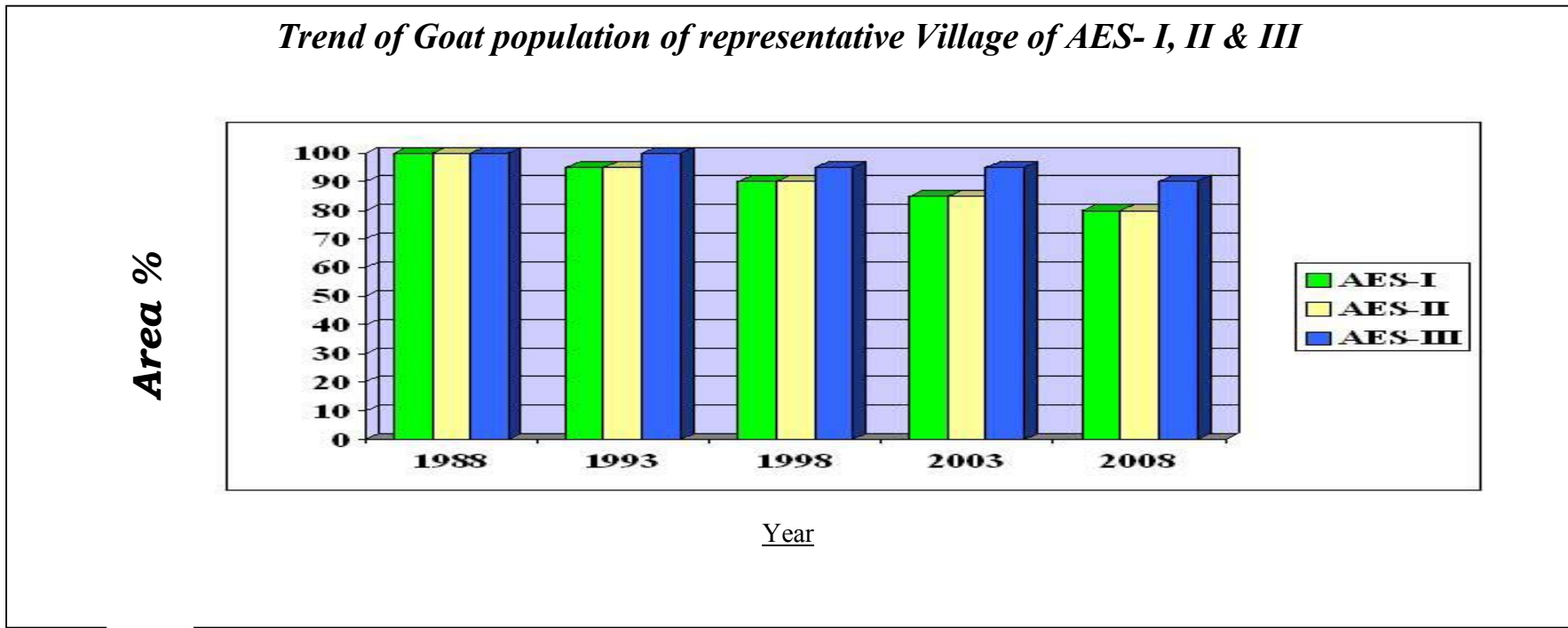
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-III						
	Local breed	70	80	85	90	100
	Cross breed	30	20	15	10	Nil

Trend of Cattle population of representative Village of AES- III



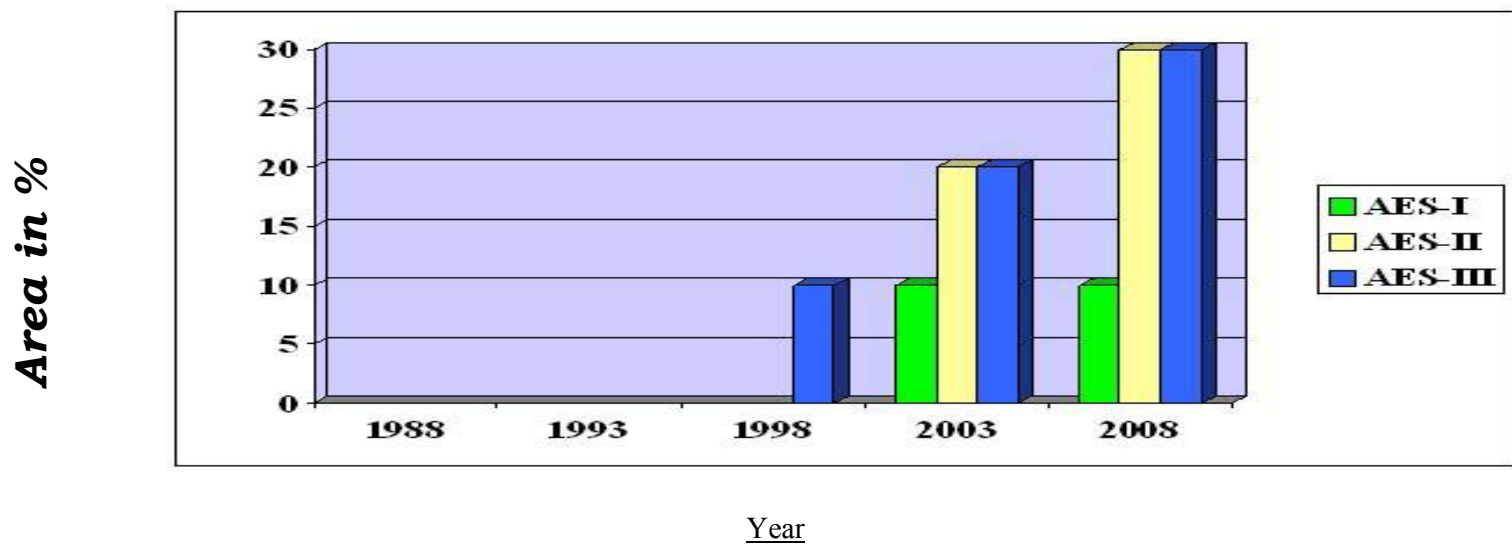
Trend of Goat population of representative Village of AES- I, II & III

AES	Population	Year				
		2008	2003	1998	1993	1988
AES-I	Goat	80	85	90	95	100
AES-II	Goat	80	85	90	95	100
AES-III	Goat	90	95	95	100	100



<i>Trend of Growth of Commercial Poultry in representative Village of AES- I, II & III</i>						
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-I	Commercial	10	10	Nil	Nil	Nil
AES-II	Commercial	30	20	Nil	Nil	Nil
AES-III	Commercial	30	20	10	Nil	Nil

Trend of Growth of Commercial Poultry in representative Village of AES- I, II & III



<i>Trend of Growth of Back Yard Poultry in representative Village of AES- I, II & III Poultry(Back Yard)</i>						
AES	Variety	Year				
		2008	2003	1998	1993	1988
AES-I	Back Yard	90	90	100	100	100
AES-II	Back Yard	70	80	100	100	100
AES-III	Back Yard	70	80	90	100	100

Trend of Growth of Back Yard Poultry in representative Village of AES- I, II & III

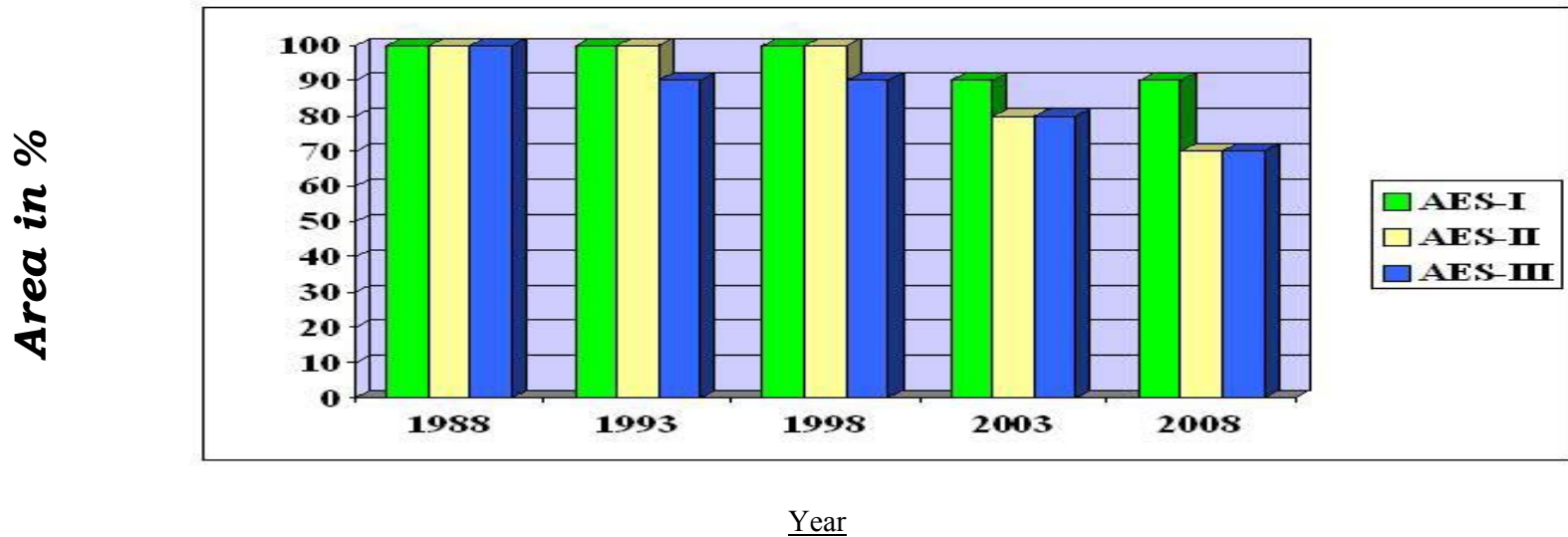


Table 5.30 SWOT Analysis of Existing Farming System (EFS)

SWOT Analysis of EFS

SWOT Analysis of the EFS I(Agriculture +Animal husbandry + Horticulture)		SWOT analysis of the MAFS Agril +vegetable + Floriculture) + A.H (Breed Improvement)	
Strength	Weakness	Strength	Weakness
<ul style="list-style-type: none"> ➤ More employment created ➤ Organic manure available for crops ➤ Cost benefit ratio of all enterprise is good ➤ One enterprises can be managed properly 	<ul style="list-style-type: none"> ➤ Improved breed of cow and buffalo not managed properly by resource poor farmers ➤ Improved breed of pig, goat is not properly manage by resource poor farmers ➤ Irrigation facility is poor 	<ul style="list-style-type: none"> ➤ Diversification of traditional vegetable to cash crop vegetable ➤ Off season vegetable production . ➤ Improved breed of milch animal introduce for response rich farmers. 	<ul style="list-style-type: none"> ➤ Very difficult to manage all enterprises properly. ➤ Irrigation facility is poor.
Opportunities	Threats	Opportunities	Threats
<ul style="list-style-type: none"> ➤ Scope for diversification ➤ Introduction of cash crop ➤ Scope for introduction of organic vegetable ➤ Introduction of floriculture ➤ Scope for breed improvement of milch meat animal. ➤ Introduction of biological control of insect pest. 	<ul style="list-style-type: none"> ➤ Non judicious use of insecticides and pesticides in vegetable. ➤ Non judicious use of chemical fertilizer ➤ Insect pest become resistant to insectisides 	<ul style="list-style-type: none"> ➤ Off season vegetable ➤ Effective use of depth and workforce ➤ Soil fertility can be improved by using O.M. and pulse crop in cropping system. 	<ul style="list-style-type: none"> ➤ Improvement breed of pig become problem of society ➤ Small animal damage field crops ➤ Risk to loose biodiversity due introduction of HYV and hybrids.

SWOT Analysis of EFS

SWOT Analysis of the EFS II(Agriculture+Horticulture)		SWOT analysis of the MAFS Agriculture+(Organic vegetable + Floriculture+ Animal husbandry Goat)	
Strength	Weakness	Strength	Weakness
<ul style="list-style-type: none"> ➤ Farming system approach minimize risk. ➤ More profitable for both categories of farmers i.e resource rich and resource poor ➤ More employment created. 	<ul style="list-style-type: none"> ➤ Poor quality of vegetable seed sown by the farmers. ➤ Low soil fertility ➤ Unstable market prices for vegetable especially Tomato. ➤ Less use of chemical fertilizer 	<ul style="list-style-type: none"> ➤ Diversification of traditional vegetable to cash crop vegetable. ➤ Off season and organic vegetable production. ➤ Diversification of traditional vegetables to floriculture. ➤ More employment created ➤ Regular income from goat. 	<ul style="list-style-type: none"> ➤ Irrigation facility is must ➤ Scarcity of Organic Manure. ➤ Scarcity of animal drought power.
Opportunities	Threats	Opportunities	Threats
<ul style="list-style-type: none"> ➤ Scope for diversification and intensification. ➤ Introduction of cash crop. ➤ Scope for introduction of off season and organic vegetable. ➤ Introduction of floriculture. 	<ul style="list-style-type: none"> ➤ Non judicious use of insecticides and pesticides and pesticides in vegetable. ➤ Non judicious use of chemical fertilizer. ➤ Insect pest become resistant to insecticides. ➤ Glut in market. 	<ul style="list-style-type: none"> ➤ Off season vegetable. ➤ Organic vegetable production. ➤ Big market is available of ----- ➤ Good transport and road network available. 	<ul style="list-style-type: none"> ➤ High capital investment. ➤ Required good knowledge, skill and management for floriculture.

SWOT Analysis of EFS

SWOT Analysis of the EFS III(Agriculture +Animal husbandry)		SWOT analysis of the MAFS (Paddy+ Pulse)+A.H (Breed improvement + Lac. culture)	
Strength	Weakness	Strength	Weakness
<ul style="list-style-type: none"> ➤ More profitable for both categories of farmers i.e. resource rich and resource poor. ➤ Adequate availability of fodder. ➤ More employment created. ➤ Organic manure available for crops 	<ul style="list-style-type: none"> ➤ Poor quality of seed sown by the farmers. ➤ Green fodder not growing. 	<ul style="list-style-type: none"> ➤ Diversification of traditional variety and practices to high yield varieties and improved practices. ➤ Green fodder production ➤ Improved breed of milch meat animal introduced ➤ Steple food and nutritional scarcity of family. 	<ul style="list-style-type: none"> ➤ Difficult to properly manage two enterprises ➤ Improved breed of pig. goat is not properly manage by resource poor farmers. ➤ Improved breed of cow and buffalo not manage properly by resource poor farmers
Opportunities	Threats	Opportunities	Threats
<ul style="list-style-type: none"> ➤ Scope for diversification ➤ Introduction of cash crop ➤ Regular income from A.H ➤ Introduction of biological control of insect pest. ➤ Scope for vermicompost by using Organic Manure and pulse crop in cropping system ➤ By product of Agil. Can be utilized as animal feed 	<ul style="list-style-type: none"> ➤ Small animal create problem for field crop ➤ Agril. Become secondary enterprise. 	<ul style="list-style-type: none"> ➤ Vermicompost production ➤ Scope for organic farming 	<ul style="list-style-type: none"> ➤ Improved breed of pig become problem for society. ➤ Small animal damage field crops. ➤ Non judicious use of insecticides effect Bio- physical and soil health. ➤ Risk to loose biodiversity due to introduction of HYV and hybrids.

SWOT Analysis of EFS

SWOT Analysis of the EFS IV(Agriculture + Animal Husbandry + Horticulture + Fishery)		SWOT analysis of the MAFS [Agril. (Technology management)+ A.H (Breed upgradation) + Horti. (Technology management)+ Fisery]	
Strength	Weakness	Strength	Weakness
<ul style="list-style-type: none"> ➤ Farming system approach minimize risk ➤ More profitable for both categories of farmers i.e. resource rich and resource poor ➤ Assured irrigated crops perform better ➤ Adequate availability of fodder ➤ More employment created ➤ Organic manure available for crops ➤ Regular income to family 	<ul style="list-style-type: none"> ➤ All enterprises do not manage properly by the farmers ➤ Unstable market price 	<ul style="list-style-type: none"> ➤ Farming system approach minimize risk ➤ More profitable for both categories of farmers i.e. resource rich and resource poor ➤ More employment created ➤ Staple food and nutritional security to family ➤ Regular income to family ➤ Organic manure is available for crops ➤ Adequate availability of fodder 	<ul style="list-style-type: none"> ➤ Unstable market price ➤ Marketing infrastructure is inadequate ➤ All enterprises are not managed properly
Opportunities	Threats	Opportunities	Threats
<ul style="list-style-type: none"> ➤ Soil fertility can be improved by use pulse crop in cropping system ➤ Scope for effective use of family labour ➤ Scope for Diversification and Intensification ➤ By product of agriculture can be utilized for animal feed ➤ Scope for organic vegetable farming 	<ul style="list-style-type: none"> ➤ Depleted soil fertility ➤ Unstable market price ➤ Small animal create problem for field crop ➤ Risk to loss bio-diversity due to introduction HYV and hybrid 	<ul style="list-style-type: none"> ➤ Scope for Off season vegetable ➤ Soil fertility can be improved by using Organic manure and pulse crop. ➤ By product of Agril. Can be utilized as animal feed ➤ Effective use of family labour 	<ul style="list-style-type: none"> ➤ Improved breed of pig become problem of society ➤ Small animal damage field crops. ➤ Risk to loss bio- diversity due to introduction HYV and hybrid

SWOT Analysis of EFS

SWOT Analysis of the EFS V(Agriculture + Labour)		SWOT analysis of the MAFS [Agril. + Lac. culture +A.H (Goatry)]	
Strength	Weakness	Strength	Weakness
<ul style="list-style-type: none"> ➤ Low cost of production ➤ Staple food ➤ Easy availability of workforce 	<ul style="list-style-type: none"> ➤ Scarcity of Organic Manure ➤ Scarcity of drough power ➤ Low risk bearing capacity ➤ Irrigation facility is needed 	<ul style="list-style-type: none"> ➤ Staple food ➤ Nutritional security ➤ Regular income ➤ Utilization of family labour 	<ul style="list-style-type: none"> ➤ Unstable market prices for vegetable cultivation ➤ Difficult to manage all enterprise
Opportunities	Threats	Opportunities	Threats
<ul style="list-style-type: none"> ➤ Scope for diversification/intensification ➤ Soil fertility can be improved by use of pulse crop in cropping system. 	<ul style="list-style-type: none"> ➤ No nutritional security to Family ➤ High risk ➤ No protection against loss of crop due to drought ➤ Depleted soil fertility. 	<ul style="list-style-type: none"> ➤ Additional and assured source of income for Goat ➤ By product of agril. Can by utilized as animal feed 	<ul style="list-style-type: none"> ➤ Small animal create problem for filed crop.