V IDENTIFICATION, DESCRIPTION AND ANALYSIS OF EXISTING FARMING SYSTEM UNDER EACH AES

Agro-Ecological Situation

The planning commission, Govt. of India, has divided the whole Country into 15 agro climatic zones. Jharkhand state falls under VIIth Agro climatic zone. This state is also divided into three agro climatic regions i.e. IVth , Vth and VIth. Among the three Chatra district comes under the north-eastern plateau zone (Agro-climatic Zone V) Agro climatic region. Based on the variation in topography, soil types and its problem, source of irrigation, cropping pattern, forest area (district has been divided into four 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 Forest Covered upland undulated gravelly soil type rainfed

AES - II Rainfed – Gravelly soil type

AES - III Cannel irrigated plains

AES - IV Rainfed – Sandy loam (No. cannel, tube well) plains

Table: AES and village selected for participatory data collection

AES number	Name of AES	Name of Block	Name of representative village
AES – I	Forest Covered undulated gravelly soil type rainfed	Kunda	Kunda
AES – II	Rainfed – Gravelly soil type	Tandwa	Utrathi
AES – III	Cannel irrigated plains	Itkhori	Manahari
AES – IV	Rainfed – Sandy loam (No. cannel, tube well) plains	Hunterganj	Bhagawar

Table - 1

Detail about number of families under each kind of resource situation in different AES

Sl. No.	Categories	AES – I		AES – II		AES – III		AES - IV	
			%		%		%		%
1.	Resource Rich	11	2.41	16	14.5	30	33.33	21	12
2.	Resource Poor	444	97.6	94	85.5	60	44.47	154	88

TABLE -2
Major enterprises associated with each Existing Farming System

Resource Rich

TYPE OF ENTERPRISES / COMMODITIES	% of families associated with dominant enterprises																							
	AES-1				AES-2						AES-3						AES-4							
	EFS-1		EFS-2		EFS-1		EFS-2		EFS-3		EFS-1		EFS-2		EFS-3		EFS-1		EFS-2		EFS-3		EFS-4	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
- Agricultural crops																								
Irrigated											10	33	16	53	4	13								
Wheat																								
Maize																								
Oilseed																								
Rainfed	8	73	3	27	4	25	10	61	2	13							8	38	1	5	4	19		
Paddy																								
Maize																								
Pigenpea																								
Niger																								
- Horticulture																								
Orchard																					4	19		
Vegetables			3	27			10	61	2	13			16	53	4	13			1	5				
Tomato																								
Brinjal																								
Cucurbits																								
Animal Husbandry	8	73	3	27	4	25	10	61	2	13	10	33	16	53	4	13	8	38	1	5			8	38
Fisheries									2	13					4	13								

Note:

AES 1	AES 2	AES 3	AES 4
EFS1 Agriculture +Animal Husbandry EFS 2 Agriculture + Vegetable + Animal Husbandry	EFS1 Agriculture +Animal Husbandry EFS 2 Agriculture + Vegetable + Animal Husbandry EFS 3 Agriculture + Vegetable + Animal Husbandry +Fish	EFS1 Agriculture + Animal Husbandry EFS 2 Agriculture + Vegetable +Animal Husbandry EFS 3 Agriculture + Vegetable + Animal Husbandry + Fisheries	EFS1 Agriculture +Animal Husbandry EFS 2 Agriculture + Vegetable + Animal Husbandry EFS 3 Agriculture + Horticulture EFS 4 Animal husbandry

TABLE -2

Major enterprises associated with each Existing Farming System

Resource Poor

TYPE OF ENTERPRISES / COMMODITIES	% of families associated with dominant enterprises																					
	AES-1						AES-2								AES-3				AES-4			
	EFS-1		EFS-2		EFS-3		EFS-1		EFS-2		EFS-3		EFS-4		EFS-1		EFS-2		EFS-1		EFS-2	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
- Agricultural crops																						
Irrigated															22	37	38	63				
Wheat																						
Maize																						
Oilseed																						
Rainfed	26	6	403	91	15	4	20	22	63	68	5	5	6	7					22	14	132	86
Paddy																						
Maize																						
Pigenpea																						
Niger																						
- Horticulture																						
Orchard																						
Vegetables					15	4					5	5	6	7								
Tomato																						
Brinjal																						
Cucurbits																						
Potato																						
Animal Husbandry			403	91	15	4			63	68	5	5	6	7			38	63			132	86
Fisheries													6	7								

Note:

AES 1	AES 2	AES 3	AES 4
EFS1 Agriculture EFS 2 Agriculture +Animal Husbandry EFS 3 Agriculture + Vegetable + Animal Husbandry	EFS1 Agriculture EFS 2 Agriculture +Animal Husbandry EFS 3 Agriculture + Vegetable + Animal Husbandry EFS 4 Agriculture + Vegetable + Animal Husbandry +Fish	EFS1 Agriculture EFS 2 Agriculture +Animal Husbandry	EFS1 Agriculture EFS 2 Agriculture +Animal Husbandry

TABLE -3

Contribution of different enterprises towards annual income under each farming system

Resource Rich

TYPE OF ENTERPRISES / COMMODITIES	Units	Contribution of different enterprises in terms of P/S/T/Q and net income in Rs.																									
		AES-1				AES-2						AES-3						AES-4									
		EFS-1		EFS-2		EFS-1		EFS-2		EFS-3		EFS-1		EFS-2		EFS-3		EFS-1		EFS-2		EFS-3		EFS-4			
Agricultural crops	ha																										
Irrigated	ha																										
Paddy		-		-		-		-		-		6500		7000		7200		-		-		-					
Wheat		-		-		-		-		-		5500	P	6000	S	6000	S	-		-		-					
Oilseed		-		-		-		-		-		5000		5500		5200		-		-		-					
Rainfed																				-		-					
Paddy	ha	3200		3000		3400		3500		3400		-		-		-		2200		2150		2630					
Maize	ha	3000	P	3200	P	3000	P	3100	P	3200	P	-		-		-		2600	S	2650	S	2100	P				
Arhar	ha	3200		3000		2800		2700		2200		-		-		-		1600		1500		1700					
Nizer	ha	1900		1700		1700		1850		1680		-		-		-		1200		1356		1600					
Horticulture																											
Orchard	ha	-		-		-		-		-		-		-		-		-		-		-					
Vegetables	ha	-		-	T	-		-	S	-	T	-		-	P	-	P	-		-	T	-	S				
Tomato	ha	-		5000		-		5500		4800		-		9200		9000		-		3500		5500					
Brinjal	ha	-		-		-		-		-		-		7500		7000		-		-		-					
Potato														6000		6500		-		-		-					
Animal Husbandry																											
Cow/animal		1000		900		800		720		760		5500		5500		5200		600		560		-		5000			
Buffaloes/animal		-		600		650		-		700		650		850		650		520		600		-		1600			
Sheep/animal		-	S	-	S	-	S	-	T	-	S	600	S	850	T	900	T	890	P	580	P	-		800	P		
Goat/animal		600		700		650		800		700		800		900		800		720		700		-		1100			
Pig/animal		1200		1100		1300		1400		1380		1620		1600		1400		900		850		-		2600			
Poultry 10 birds		400		350		420		380		350		460		400		410		300		400		-		450			
Fisheries	ha	-		-		-		-		2500	T	-		-		4000	T	-		-		-		-			
Total		14500		19550		14720		19950		21670		26630		51300		54260		11530		14846		13530		11550			

TABLE -3

Contribution of different enterprises towards annual income under each farming system

Resource Poor

TYPE OF ENTERPRISES / COMMODITIES	Units	Contribution of different enterprises in terms of P/S/T/Q and net income in Rs.																			
		AES-1						AES-2								AES-3				AES-4			
		EFS-1		EFS-2		EFS-3		EFS-1		EFS-2		EFS-3		EFS-4		EFS-1		EFS-2		EFS-1		EFS-2	
Agricultural crops																							
Irrigated																							
Paddy	ha	-		-		-		-		-		-		-		5500		5300		-		-	
Wheat	ha	-		-		-		-		-		-		-		5000	P	5100	P	-		-	
Oilseed	ha	-		-		-		-		-		-		-		4500		4400		-		-	
Rainfed																							
Paddy	ha	2200		2100		2500		2400		2600		2500		2300		-		-		2100		2500	
Maize	ha	1800	P	1700	P	1900	P	2800	P	2300	P	2200	P	2150	P	-		-		2000	P	2100	S
Arhar		1700		1800		1600		2000		1900		2000		1950		-		-		1200		1300	
Niger	ha	1420		1520		1620		1500		1600		1300		1450		-		-		1100		1050	
Horticulture																							
Orchard	ha	-		-		-		-		-		-		-		-		-		-		-	
Vegetables	ha	-		-		-		-		-		-		-		-		-		-		-	
Tomato	ha	-		-		3500		-		-		4000		4200		-		-		-		-	
Brinjal	ha	-		-		-	T	-		-		-	T	-	T	-		-		-		-	
Potato	ha	-		-		-		-		-		-		-		-		-		-		-	
Animal Husbandry																							
Cow/animal		-		700		800		-		680		700		600		-		4500		-		4000	
Buffaloes/animal		-		550		500		-		-		650		750		-		700		-		1500	
Sheep/animal		-		1000	S	-	S	-		-	S	-	S	-	S	-		700	S	-		600	P
Goat/animal		-		500		650		-		700		690		700		-		650		-		1000	
Pig/animal		-		600		950		-		1350		1200		1100		-		1320		-		2200	
Poultry 10 birds		-		350		400		-		400		350		400		-		310		-		400	
Fisheries	ha	-		-		-		-		-		-		2500		-		-		-		-	
Total		7120		10820		14420		8700		11530		15590		18100		15000		22980		6400		16650	

TABLE 4

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

Resource Rich 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 Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##
Agricultural crops										
Rainfed										
Paddy	1,3,4,5,8,9 ,10,13,16, 17,20,22	12	3,4,5,7,8,10,11,12, 15,16,17	1,2,3,4,5,6,8,9,11, 12	1,2,3,4,5,7,10,1 3	1,3,4,5,8,9,10 ,13,16,17,20, 22	30	3,4,5,7,8,10,11,12 ,15,16,17	1,2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,7,10,13
Horticulture										
Vegetables										
Tomato	-	-	-	-	-	2,6,7,8,9,10,1 1,13,14,16,18 ,20,21	25	2,3,5,6,7,8,10,11, 12,15,16,17,18	2,3,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6,7,8,10,13,14
Animal Husbandry										
Cows	11,12,13,1 5,16,23	20	8,9,12,13,14,15,16 ,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	11,12,13,15,1 6,23	15	8,9,12,13,14,15,1 6,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Buffaloes	11,12,13,1 5,16,23	35	8,9,12,13,14,15,16 ,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	11,12,13,15,1 6,23	30	8,9,12,13,14,15,1 6,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Sheep	11,12,13,1 5,16,23	40	8,9,12,13,14,15,16 ,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	11,12,13,15,1 6,23	30	8,9,12,13,14,15,1 6,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Goat	11,12,13,1 5,16,23	50	8,9,12,13,14,15,16 ,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	11,12,13,15,1 6,23	55	8,9,12,13,14,15,1 6,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Pig	11,12,13,1 5,16,23	15	8,9,12,13,14,15,16 ,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	11,12,13,15,1 6,23	20	8,9,12,13,14,15,1 6,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Poultry	11,12,13,1 5,16,23	80	8,9,12,13,14,15,16 ,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	11,12,13,15,1 6,23	75	8,9,12,13,14,15,1 6,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14

Specific Problem*

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

Proposed solution**

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

Reasons for non adoption #

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

Proposed 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
13. Farmer scientist interaction
14. Linkage to financial institution

TABLE 4

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

Resource Poor farmers

Agro-ecological situationa-1

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-2					EFS -3				
	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##
Agricultural crops															
Rainfed															
Paddy	1,3,4,5,8,9,10,13,16, 17,20,22	60	3,4,5,7,8,10,11, 12,15,16,17	1,2,3,4,5,6,8, 9,11,12	1,2,3,4,5,7 ,10,13	1,3,4,5,8,9,10,13,16, 17,20,22	60	3,4,5,7,8,10,11,12,15 ,16,17	1,2,3,4,5,6, 8,9,11,12	1,2,3,4,5,7,10,1 3	1,3,4,5,8,9,10,13,16, 17,20,22	60	3,4,5,7,8,10,11,12,1 5,16,17	1,2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,7,10,1 3
Maize	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	70	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11, 12	1,2,3,4,5,6 ,7,8,9,13,1 4	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	70	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6,7,8,9 ,13,14	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	70	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9 ,13,14
Arhar	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	40	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11, 12	1,2,3,4,5,6 ,7,8,9,13,1 4	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	40	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6,7,8,9 ,13,14	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	40	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9 ,13,14
Niger	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	40	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11, 12	1,2,3,4,5,6 ,7,8,9,13,1 4	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	40	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6,7,8,9 ,13,14	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	40	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9 ,13,14
Horticulture															
Vegetables															
Tomato	-	-	-	-	-	-	-	-	-	-	2,6,7,8,9,10,11,13,14 ,16,18,20,21	60	2,3,5,6,7,8,10,11,12, 15,16,17,18	2,3,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6,7,8,1 0,13,14
Animal Husbandry															
Cows	-	-	-	-	-	11,12,13,15,16,23	20	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11,14	11,12,13,15,16,23	20	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Buffaloes	-	-	-	-	-	11,12,13,15,16,23	30	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11,14	11,12,13,15,16,23	30	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Sheep	-	-	-	-	-	11,12,13,15,16,23	20	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11,14	11,12,13,15,16,23	20	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Goat	-	-	-	-	-	11,12,13,15,16,23	60	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11,14	11,12,13,15,16,23	60	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Pig	-	-	-	-	-	11,12,13,15,16,23	15	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11,14	11,12,13,15,16,23	15	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Poultry	-	-	-	-	-	11,12,13,15,16,23	80	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11,14	11,12,13,15,16,23	80	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14

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

TABLE 4

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

Resource Rich farmers

Agro-ecological situationa-2

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-2					EFS -3				
	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##
Agricultural crops															
Rainfed															
Paddy	1,3,4,5,8,9,10,13,16, 17,20,22	62	3,4,5,7,8,10,11,1 2,15,16,17	1,2,3,4,5,6,8 ,9,11,12	1,2,3,4,5,7, 10,13	1,3,4,5,8,9,10,13,16, 17,20,22	53	3,4,5,7,8,10,11,12,15 ,16,17	1,2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,7,10,13	1,3,4,5,8,9,10,13,16, 17,20,22	60	3,4,5,7,8,10,11,1 2,15,16,17	1,2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,7,10,13
Maize	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	42	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6, 7,8,9,13,14	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	62	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,1 4	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	50	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9, 13,14
Arhar	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	31	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6, 7,8,9,13,14	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	32	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,1 4	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	49	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9, 13,14
Niger	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	33	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6, 7,8,9,13,14	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	47	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,1 4	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	55	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9, 13,14
Horticulture															
Vegetables															
Tomato	-	-	-	-	-	2,6,7,8,9,10,11,13,14 ,16,18,20,21	65	2,3,5,6,7,8,10,11,12, 15,16,17,18	2,3,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6,7,8,10,13, 14	2,6,7,8,9,10,11,13,14 ,16,18,20,21	70	2,3,5,6,7,8,10,11 ,12,15,16,17,18	2,3,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6,7,8,1 0,13,14
Animal Husbandry															
Cows	11,12,13,15,16,23	42	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9 ,11,12	1,2,3,4,5,11 ,14	11,12,13,15,16,23	45	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	55	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Buffaloes	11,12,13,15,16,23	23	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9 ,11,12	1,2,3,4,5,11 ,14	11,12,13,15,16,23	30	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	15	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Sheep	11,12,13,15,16,23	21	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9 ,11,12	1,2,3,4,5,11 ,14	11,12,13,15,16,23	19	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	10	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Goat	11,12,13,15,16,23	37	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9 ,11,12	1,2,3,4,5,11 ,14	11,12,13,15,16,23	45	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	45	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Pig	11,12,13,15,16,23	21	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9 ,11,12	1,2,3,4,5,11 ,14	11,12,13,15,16,23	24	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	30	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Poultry	11,12,13,15,16,23	72	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9 ,11,12	1,2,3,4,5,11 ,14	11,12,13,15,16,23	65	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	65	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14
Fisheries											2,4,5,6,8,9,11,12	16	8,9,12,13,14,15, 16,17,19	8,11,13,14,16	8,11,15,16,17,19

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

TABLE 4

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

Resource Poor farmers

Agro-ecological situationa-2

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-2					EFS -3					EFS-4				
	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	Families affected	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##
Agricultural crops																				
Rainfed																				
Paddy	1,3,4,5,8,9,10,13,16, 17,20,22	58	3,4,5,7,8,10,11,1 2,15,16,17	1,2,3,4,5, 6,8,9,11,1 2	1,2,3,4,5,7,1 0,13	1,3,4,5,8,9,1 0,13,16,17,2 0,22	62	3,4,5,7,8,10,11, 12,15,16,17	1,2,3,4,5,6, 8,9,11,12	1,2,3,4,5,7, 10,13	1,3,4,5,8,9,10, 13,16,17,20, 22	61	3,4,5,7,8,10,11, 12,15,16,17	1,2,3,4,5,6,8,9 ,11,12	1,2,3,4,5,7 ,10,13	1,3,4,5,8,9,10 ,13,16,17,20, 22	63	3,4,5,7,8,10,11 ,12,15,16,17	1,2,3,4,5,6, 8,9,11,12	1,2,3,4,5,7,1 0,13
Maize	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	73	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9 ,11,12	1,2,3,4,5,6,7 ,8,9,13,14	1,2,4,5,7,8,9 ,10,13,16,17 ,18,19,20,21	73	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6, 7,8,9,13,14	1,2,4,5,7,8,9,1 0,13,16,17,18, 19,20,21	68	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11, 12	1,2,3,4,5,6 ,7,8,9,13,1 4	1,2,4,5,7,8,9, 10,13,16,17,1 8,19,20,21	62	1,2,3,4,5,6,8,1 0,11,15,16,17, 20	2,4,5,6,7,8,9, 11,12	1,2,3,4,5,6,7 ,8,9,13,14
Arhar	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	41	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9 ,11,12	1,2,3,4,5,6,7 ,8,9,13,14	1,2,4,5,7,8,9 ,10,13,16,17 ,18,19,20,21	35	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6, 7,8,9,13,14	1,2,4,5,7,8,9,1 0,13,16,17,18, 19,20,21	33	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11, 12	1,2,3,4,5,6 ,7,8,9,13,1 4	1,2,4,5,7,8,9, 10,13,16,17,1 8,19,20,21	35	1,2,3,4,5,6,8,1 0,11,15,16,17, 20	2,4,5,6,7,8,9, 11,12	1,2,3,4,5,6,7 ,8,9,13,14
Niger	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	38	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9 ,11,12	1,2,3,4,5,6,7 ,8,9,13,14	1,2,4,5,7,8,9 ,10,13,16,17 ,18,19,20,21	36	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6, 7,8,9,13,14	1,2,4,5,7,8,9,1 0,13,16,17,18, 19,20,21	41	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11, 12	1,2,3,4,5,6 ,7,8,9,13,1 4	1,2,4,5,7,8,9, 10,13,16,17,1 8,19,20,21	36	1,2,3,4,5,6,8,1 0,11,15,16,17, 20	2,4,5,6,7,8,9, 11,12	1,2,3,4,5,6,7 ,8,9,13,14
Horticulture																				
Vegetables																				
Tomato	-	-	-	-	-	-	-	-	-	-	2,6,7,8,9,10,11,1 3,14,16,18,20,21	55	2,3,5,6,7,8,10,1 1,12,15,16,17,1 8	2,3,4,5,6,7,8,9 ,11,12	1,2,3,4,5,6 ,7,8,10,13, 14	2,6,7,8,9,10,11, 13,14,16,18,20, 21	58	2,3,5,6,7,8,10, 11,12,15,16,17 ,18	2,3,4,5,6,7, 8,9,11,12	1,2,3,4,5,6,7 ,8,10,13,14
Animal Husbandry																				
Cows	-	-	-	-	-	11,12,13,15,1 6,23	18	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,1 1,14	11,12,13,15,16,2 3	19	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,1 1,14	11,12,13,15,16, 23	21	8,9,12,13,14,1 5,16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11, 14
Buffaloes	-	-	-	-	-	11,12,13,15,1 6,23	29	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,1 1,14	11,12,13,15,16,2 3	28	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,1 1,14	11,12,13,15,16, 23	30	8,9,12,13,14,1 5,16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11, 14
Sheep	-	-	-	-	-	11,12,13,15,1 6,23	63	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,1 1,14	11,12,13,15,16,2 3	21	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,1 1,14	11,12,13,15,16, 23	22	8,9,12,13,14,1 5,16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11, 14
Goat	-	-	-	-	-	11,12,13,15,1 6,23	60	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,1 1,14	11,12,13,15,16,2 3	62	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,1 1,14	11,12,13,15,16, 23	66	8,9,12,13,14,1 5,16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11, 14
Pig	-	-	-	-	-	11,12,13,15,1 6,23	18	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,1 1,14	11,12,13,15,16,2 3	16	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,1 1,14	11,12,13,15,16, 23	15	8,9,12,13,14,1 5,16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11, 14
Poultry	-	-	-	-	-	11,12,13,15,1 6,23	74	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,1 1,14	11,12,13,15,16,2 3	78	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,1 1,14	11,12,13,15,16, 23	35	8,9,12,13,14,1 5,16,17,19	2,3,4,5,6,8, 9,11,12	1,2,3,4,5,11, 14
Fisheries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,4,5,6,8,9,11,1 2	19	8,9,12,13,14,1 5,16,17,19	8,11,13,14, 16	8,11,15,16,1 7,19

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. emonstrations, 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

TABLE 4

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

Resource Rich farmers

Agro-ecological situationa-3

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-2					EFS -3				
	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##
Agricultural crops															
Irrigated															
Paddy	2,4,6,7,8,10,13,16, 17,18,20,22	42	3,4,5,7,8,10,11, 12,15,16,17	1,2,3,4,5,6,8,9 ,11,12	1,2,3,4,5,7,10,13	2,4,6,7,8,10,13,16,1 7,18,20,22	63	3,4,5,7,8,10,11,12,1 5,16,17	1,2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,7,10,1 3	2,4,6,7,8,10,13,16,17, 18,20,22	60	3,4,5,7,8,10,11,12,15 ,16,17	1,2,3,4,5,6,8, 9,11,12	1,2,3,4,5,7,10,1 3
Wheat	1,2,4,5,7,8,9,10,13 ,16,17,18,19,20,21	32	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11, 12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13, 16,17,18,19,20,21	52	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9 ,13,14	1,2,4,5,7,8,9,10,13,16, 17,18,19,20,21	50	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,11 ,12	1,2,3,4,5,6,7,8, 9,13,14
Oilseed	1,2,4,5,7,8,9,10,13 ,16,17,18,19,20,21	13	1,2,3,4,5,6,8,10, 11,15,16,17,20	2,4,5,6,7,8,9,11, 12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13, 16,17,18,19,20,21	34	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9 ,13,14	1,2,4,5,7,8,9,10,13,16, 17,18,19,20,21	49	1,2,3,4,5,6,8,10,11,1 5,16,17,20	2,4,5,6,7,8,9,11 ,12	1,2,3,4,5,6,7,8, 9,13,14
Horticulture															
Vegetables															
Tomato	-	-	-	-	-	2,6,7,8,9,10,11,13,14, 16,18,20,21	65	2,3,5,6,7,8,10,11,12, 15,16,17,18	2,3,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6,7,8,1 0,13,14	2,6,7,8,9,10,11,13,14,16, 18,20,21	69	2,3,5,6,7,8,10,11,12, 15,16,17,18	2,3,4,5,6,7,8, 9,11,12	1,2,3,4,5,6,7,8, 10,13,14
Brinjal	-	-	-	-	-	2,6,7,8,9,10,11,13,14, 16,18,20,21	44	2,3,5,6,7,8,10,11,12, 15,16,17,18	2,3,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6,7,8,1 0,13,14	2,6,7,8,9,10,11,13,14,16, 18,20,21	43	2,3,5,6,7,8,10,11,12, 15,16,17,18	2,3,4,5,6,7,8, 9,11,12	1,2,3,4,5,6,7,8, 10,13,14
Potato	-	-	-	-	-	2,6,7,8,9,10,11,13,14, 16,18,20,21	33	2,3,5,6,7,8,10,11,12, 15,16,17,18	2,3,4,5,6,7,8,9,1 1,12	1,2,3,4,5,6,7,8,1 0,13,14	2,6,7,8,9,10,11,13,14,16, 18,20,21	32	2,3,5,6,7,8,10,11,12, 15,16,17,18	2,3,4,5,6,7,8, 9,11,12	1,2,3,4,5,6,7,8, 10,13,14
Animal Husbandry															
Cows	11,12,13,15,16,23	43	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,11,14	11,12,13,15,16,23	45	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	53	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9, 11,12	1,2,3,4,5,11,14
Buffaloes	11,12,13,15,16,23	33	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,11,14	11,12,13,15,16,23	29	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	18	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9, 11,12	1,2,3,4,5,11,14
Sheep	11,12,13,15,16,23	22	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,11,14	11,12,13,15,16,23	16	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	9	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9, 11,12	1,2,3,4,5,11,14
Goat	11,12,13,15,16,23	35	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,11,14	11,12,13,15,16,23	55	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	48	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9, 11,12	1,2,3,4,5,11,14
Pig	11,12,13,15,16,23	19	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,11,14	11,12,13,15,16,23	23	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	26	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9, 11,12	1,2,3,4,5,11,14
Poultry	11,12,13,15,16,23	68	8,9,12,13,14,15, 16,17,19	2,3,4,5,6,8,9,1 1,12	1,2,3,4,5,11,14	11,12,13,15,16,23	64	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9,11, 12	1,2,3,4,5,11,14	11,12,13,15,16,23	67	8,9,12,13,14,15,16,1 7,19	2,3,4,5,6,8,9, 11,12	1,2,3,4,5,11,14
Fisheries	-	-	-	-	-	-	-	-	-	-	2,4,5,6,8,9,11,12	14	8,9,12,13,14,15,16,1 7,19	8,11,13,14,1 6	8,11,15,16,17,1 9

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. emonstrations, 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

TABLE 4

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

Resource Poor farmers

Agro-ecological situationa-3

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-2				
	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##
Agricultural crops										
Irrigated										
Paddy	2,4,6,7,8,10,13,16,17,18,20,22	57	3,4,5,7,8,10,11,12,15,16,17	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13	2,4,6,7,8,10,13,16,17,18,20,22	58	3,4,5,7,8,10,11,12,15,16,17	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13
Wheat	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	41	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	36	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Oilseed	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	38	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	29	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Horticulture										
Vegetables										
Animal Husbandry										
Cows	-	-	-	-	-	8,9,12,13,14,15,16,17,19	28	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	-	-	-	-	-	8,9,12,13,14,15,16,17,19	22	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Sheep	-	-	-	-	-	8,9,12,13,14,15,16,17,19	31	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Goat	-	-	-	-	-	8,9,12,13,14,15,16,17,19	52	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	-	-	-	-	-	8,9,12,13,14,15,16,17,19	16	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	-	-	-	-	-	8,9,12,13,14,15,16,17,19	75	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14

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. emonstrations, 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

TABLE 4

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

Resource Rich farmers

Agro-ecological situationa-4

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-2					EFS -3					EFS-4				
	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	Families affected	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##
Agricultural crops																				
Rainfed																				
Paddy	1,3,4,5,8,9,10,13,16,17,20,22	44	3,4,5,7,8,10,11,12,15,16,17	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13	1,3,4,5,8,9,10,13,16,17,20,22	67	3,4,5,7,8,10,11,12,15,16,17	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13	1,3,4,5,8,9,10,13,16,17,20,22	63	3,4,5,7,8,10,11,12,15,16,17	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13	-	-	-	-	-
Maize	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	31	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	50	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	51	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	-	-	-	-	-
Arhar	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	15	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	24	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	38	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	-	-	-	-	-
Niger	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	11	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	21	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17,18,19,20,21	39	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	-	-	-	-	-
Horticulture																				
Vegetables																				
Tomato	-	-	-	-	-	2,6,7,8,9,10,11,13,14,16,18,20,21	64	2,3,5,6,7,8,10,11,12,15,16,17,18	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	2,6,7,8,9,10,11,13,14,16,18,20,21	67	2,3,5,6,7,8,10,11,12,15,16,17,18	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	-	-	-	-	-
Animal Husbandry																				
Cows	8,9,12,13,14,15,16,17,19	45	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	8,9,12,13,14,15,16,17,19	47	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	-	-	-	-	8,9,12,13,14,15,16,17,19	56	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	8,9,12,13,14,15,16,17,19	32	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	8,9,12,13,14,15,16,17,19	30	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	-	-	-	-	8,9,12,13,14,15,16,17,19	15	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Sheep	8,9,12,13,14,15,16,17,19	21	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	8,9,12,13,14,15,16,17,19	17	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	-	-	-	-	8,9,12,13,14,15,16,17,19	8	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Goat	8,9,12,13,14,15,16,17,19	28	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	8,9,12,13,14,15,16,17,19	58	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	-	-	-	-	8,9,12,13,14,15,16,17,19	44	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	8,9,12,13,14,15,16,17,19	13	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	8,9,12,13,14,15,16,17,19	23	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	-	-	-	-	8,9,12,13,14,15,16,17,19	16	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	8,9,12,13,14,15,16,17,19	70	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	8,9,12,13,14,15,16,17,19	69	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	-	-	-	-	8,9,12,13,14,15,16,17,19	65	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14

Specific Problem*

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

Proposed solution**

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. emonstrations, 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

Reasons for non adoption #

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

Proposed 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

TABLE 4

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

Resource Poor farmers

Agro-ecological situationa-4

TYPE OF ENTERPRISES / COMMODITIES	EFS-1					EFS-2				
	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##	Specific Problem *	No of Families affected (%)	Solution as proposed by farmer **	Reasons for non adoption #	Proposed Strategies ##
Agricultural crops										
Rainfed										
Paddy	1,3,4,5,8,9,10,13,16, 17,20,22	59	3,4,5,7,8,10,11,12,15,16,17	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13	1,3,4,5,8,9,10,13,16,17,20 ,22	56	3,4,5,7,8,10,11,12,15,16,17	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13
Maize	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	51	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17, 18,19,20,21	37	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Arhar	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	28	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17, 18,19,20,21	28	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Niger	1,2,4,5,7,8,9,10,13,1 6,17,18,19,20,21	18	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1,2,4,5,7,8,9,10,13,16,17, 18,19,20,21	31	1,2,3,4,5,6,8,10,11,15,16,17,20	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Horticulture										
Vegetables										
Animal Husbandry										
Cows	-	-	-	-	-	8,9,12,13,14,15,16,17,19	38	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	-	-	-	-	-	8,9,12,13,14,15,16,17,19	15	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Sheep	-	-	-	-	-	8,9,12,13,14,15,16,17,19	8	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Goat	-	-	-	-	-	8,9,12,13,14,15,16,17,19	62	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	-	-	-	-	-	8,9,12,13,14,15,16,17,19	11	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	-	-	-	-	-	8,9,12,13,14,15,16,17,19	76	8,9,12,13,14,15,16,17,19	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14

Specific Problem*

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

Proposed solution**

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. emonstrations, 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

Reasons for non adoption #

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

Proposed 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

Chapter V Table 5

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-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										
Rainfed										
Paddy	3200	4000	5000	4000	1	3000	4000	4500	4500	1
Maize	3000	4000	5000	5000	1, 2	3200	4500	5000	4500	1, 2
Arhar	3200	3900	4800	4800	1, 2	3000	4200	4800	4800	1, 2
Niger	3000	2900	3500	2900	2	1700	2500	3000	2500	2
Horticulture										
Vegetable										
Tomato	-	-	-	-	-	5000	6000	7000	7000	2
Brinjal	-	-	-			-	7500	7700	7500	2
Animal Husbandry										
Cows/animal	1000	1500	2000	1500	2	900	1600	2200	1600	2
Buffaloes	-	-	-	-	-	600	1000	1550	1000	2
Sheep/animal	-	-	-	-	-	-	-	-	-	-
Goat/animal	600	1200	1800	1200	2	700	1100	1600	1100	2
Pig/animal	1200	1800	2200	2200	2	1100	1600	2300	2300	2
Poultry	400	600	800	800	2	350	500	600	500	2
Total	**15600**	**25500**	**31100**	**22400**	-	**19550**	**34500**	**40250**	**37300**	-

Note: Intervention* = 1. Diversification, 2 Intensification

CH V TABLE 5

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-3				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interven tions*	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interven tion s	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interven tion s
Agricultural crops															
Rainfed															
Paddy	2200	2600	3000	2600	1, 2	2100	2500	2800	2500	1 & 2	2500	2900	3300	3300	1 & 2
Maize	1800	2200	2800	2800	1, 2	1700	2100	2400	2100	1 & 2	1900	2200	2600	2200	1 & 2
Arhar	1700	2300	2900	2300	1, 2	1800	2200	2600	2600	1 & 2	1600	1900	2100	2100	1 & 2
Niger	1400	1820	2220	1820	2	1520	1720	1920	1720	2	1620	1920	2220	1920	1 & 2
Horticulture															
Orchard	-	-	-	-	-	-	-	-	-	-	-	-	4000	4000	1
Vegetable															
Tomato	-	5600	7000	5600	1	0	6200	6100	6100	1	3500	4000	4300	4300	2
Animal Husbandry															
Cows/animal	-	-	-	-	-	700	900	1100	900	2	800	1000	1300	1000	2
Buffaloes	-	-	-	-	-	550	750	950	950	2	500	700	900	700	2
Sheep/animal	-	-	-	-	-	1000	1300	1500	1300	2	-	-	-	-	-
Goat/animal	-	2500	2700	2500	1	500	700	850	850	2	650	750	850	850	2
Pig/animal	-	4200	4500	4200	1	600	800	950	800	2	950	1200	1400	1200	2
Poultry	-	-	-	-	-	350	450	500	450	2	400	500	620	620	2
Total	**7100**	**21220**	**25120**	**21820**	**-**	**10820**	**19620**	**21670**	**20270**	**-**	**14420**	**17070**	**23590**	**22190**	**-**

Note: Intervention* = 1. Diversification, 2 Intensification

CH V TABLE 5

Proposed farming systems and Mutually Agreed Upon Farming System In terms of Net income (in rupees) and the Interventions** (Diversification & Intensification) In AES-2

Resource Rich farmers

Type of enterprises / commodities	Agro-ecological situationa-2														
	EFS-1					EFS-2					EFS-3				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interven tions*	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interven tion s	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventi on s
Agricultural crops															
Rainfed															
Paddy	3400	3800	4200	4200	1 & 2	3500	3700	4000	4000	1 & 2	3400	3600	4000	4000	1 & 2
Maize	3000	3400	3600	3600	1 & 2	3100	3400	3800	3800	1 & 2	3200	3400	3800	3800	1 & 2
Arhar	2800	3000	3400	3400	1 & 2	2700	2950	3150	2950	1 & 2	2200	2400	2800	2800	1 & 2
Niger	1700	1900	2100	1900	2	1850	2550	2850	2550	1 & 2	1680	1880	2000	1880	2
Horticulture															
Vegetable															
Tomato	-	5100	5600	5600	1 & 2	5500	6100	6500	6100	1 & 2	4800	5500	5800	5500	2
Brinjal	-	-	-	-	-	-	6200	7100	6200	1 & 2	-	4200	5500	5500	1
Animal Husbandry															
Cows/animal	800	1000	1200	1000	2	720	800	900	900	1 & 2	760	900	1100	900	2
Buffaloes	650	750	850	850	2	-	-	-	-	-	700	925	1150	925	2
Goat/animal	650	750	850	850	2	800	850	925	925	1 & 2	700	900	1100	900	2
Pig/animal	1300	1500	1700	1700	2	1400	1600	1700	1600	1 & 2	1380	1500	1450	1450	2
Poultry	420	500	550	500	2	380	450	500	500	1 & 2	350	400	425	425	2
Fisheries	-	-	-	-	-	-	-	-	-	-	2500	3000	3300	3300	2
Total	**14720**	**21700**	**24050**	**23600**	-	**19950**	**28600**	**31425**	**29525**	-	**21670**	**28605**	**32425**	**31380**	-

Note: Intervention* = 1. Diversification, 2 Intensification

CH V TABLE 5
Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions (Diversification & Intensification)**
In AES-2

Resource Poor farmers

Type of enterprises / commodities	Agro-ecological situationa-2																			
	EFS-1					EFS-2					EFS-3					EFS-4				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions*	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventions
Agricultural crops																				
Rainfed																				
Paddy	2400	2600	3100	3100	1 & 2	2100	2500	2900	2500	1 & 2	2500	2800	3200	3200	1 & 2	2300	2500	3000	3000	1 & 2
Maize	1800	2200	2600	2200	1 & 2	1700	1950	2150	2150	1 & 2	1900	2100	2400	2400	1 & 2	2150	2450	2850	2450	1 & 2
Arhar	2000	2200	2300	2300	1 & 2	1800	2000	2200	2200	1 & 2	1600	1800	2200	1800	1 & 2	1950	2150	2450	2450	1 & 2
Niger	1500	1620	1820	1620	2	1520	1720	1920	1720	2	1620	1820	2020	1820	2	1450	1650	1850	1650	2
Horticulture																				
Vegetable																				
Tomato	-	4500	5600	4500	1	0	5500	6000	5500	1 & 2	3500	3800	4000	4000	2	4200	4600	5100	5100	2
Brinjal	-	-	-	-	-	-	-	-	-	-	-	4800	5800	4800	1	0	6200	7100	7100i	1
Animal Husbandry																				
Cows/animal	-	-	-	-	-	700	850	900	850	2	800	900	1000	900	2	600	800	850	800	2
Buffaloes	-	-	-	-	-	550	650	700	700	2	500	550	650	650	2	750	950	1000	950	2
Sheep/animal	-	1200	1400	1200	1	1000	1200	1400	1200	2	-	-	-	-	-	-	-	-	-	-
Goat/animal	-	1100	1200	1100	1	500	700	900	700	2	650	750	800	800	2	700	900	950	950	2
Pig/animal	-	-	-	-	-	600	800	950	800	2	950	1000	1330	1330	2	1100	1400	1500	1400	2
Poultry	-	300	300	300	1	350	400	450	450	2	400	450	480	480	2	400	500	550	550	2
Fisheries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2500	3000	3800	3800	2
Total	**7700**	**15720**	**18320**	**16320**		**10820**	**18270**	**20470**	**18770**		**14420**	**20770**	**23880**	**22180**		**18100**	**27100**	**31000**	**23100**	

Note: Intervention* = 1. Diversification, 2 Intensification

CH V TABLE 5
Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions* (Diversification & Intensification)
In AES-3

Resource Rich farmers

Type of enterprises / commodities	Agro-ecological situationa-3														
	EFS-1					EFS-2					EFS-3				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventi ons*	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Intervent ion s	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interventio n s
Agricultural crops															
Irrigated															
Paddy	6500	7500	8000	7500	1 & 2	7000	8000	8800	8800	1 & 2	7200	8000	8800	8800	1 & 2
Wheat	5500	6500	7000	7000	1 & 2	6000	6800	7100	6800	1 & 2	6000	6500	6900	6900	1 & 2
Oilseed	5000	6000	6500	6500	1 & 2	5500	6000	6600	6600	1 & 2	5200	6000	6600	6000	1 & 2
Horticulture															
Orchard	-	7000	7500	7000	1	-	8000	8200	8000	1	-	7500	7000	7000	1
Vegetable															
Tomato	-	6500	7200	6500	1	9200	11000	12000	12000	1 & 2	9000	10000	10800	10000	2
Brinjal	-	7100	7800	7100	1	7500	8000	8800	8800	1 & 2	7000	7800	8200	8200	2
Potato	-	-	-	-	-	6000	6900	7000	7000	1 & 2	6500	6800	7100	7100	1 & 2
Animal Husbandry															
Cows/animal	5500	6000	6300	6300	2	5500	6100	7000	7000	2	5200	5800	6000	6000	2
Buffaloes	650	750	850	850	2	850	900	1000	900	2	650	750	800	750	2
Sheep/animal	600	700	800	700	2	850	900	1000	1000	2	900	980	1100	1100	2
Goat/animal	800	850	950	950	2	900	1000	1200	1200	2	800	900	950	950	2
Pig/animal	1620	1820	2020	1820	2	1600	1800	1850	1800	2	1400	1600	1800	1600	2
Poultry	460	560	600	600	2	400	500	600	500	2	410	500	550	550	2
Fisheries	-	-	-	-	-	-	-	-	-	-	4000	5000	5800	5800	2
Total	**26630**	**51280**	**55520**	**52820**		**51300**	**65900**	**71150**	**70400**		**54260**	**68130**	**72400**	**70750**	

Note: Intervention* = 1. Diversification, 2 Intensification

CH V TABLE 5
Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions* (Diversification & Intensification)
In AES-3

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	Intervention s
Agricultural crops										
Irrigated										
Paddy	5500	6500	7500	6500	1 & 2	5300	6000	6500	6000	1 & 2
Wheat	5000	6000	6800	6000	1 & 2	5100	6100	6600	6100	1 & 2
Oilseed	4500	5200	6000	6000	1 & 2	4400	5000	5500	5500	1 & 2
Horticulture										
Orchard	-	3000	3000	3000	1	-	4000	4500	4000	1
Vegetable										
Tomato	-	-	-	-	-	-	4500	5500	4500	1
Brinjal	-	-	-	-	-	-	6500	6500	6500	1
Animal Husbandry										
Cows/animal	-	3500	4000	3500	1	4500	5000	5500	5000	2
Buffaloes	-	-	-	-	-	700	900	990	900	2
Sheep/animal	-	1400	1700	1400	1	700	900	980	900	2
Goat/animal	-	1100	1300	1300	1	650	770	810	810	2
Pig/animal	-	1600	1600	1600	1	1320	1480	1580	1580	2
Poultry	-	300	300	300	1	310	390	420	420	2
Total	**15000**	**28600**	**32200**	29600	-	**22980**	**41540**	**45380**	**42210**	-

Note: Intervention* = 1. Diversification, 2 Intensification

CH V TABLE 5

Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions* (Diversification & Intensification)
In AES-4

Resource Rich farmers

Type of enterprises / commodities	Agro-ecological situationa-4																			
	EFS-1					EFS-2					EFS-3					EFS-4				
	EFS-I Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interve ntions**	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Intervent ion s	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interv ention s	Op-i	Op-ii	Op-iii	Mut. Ag. Upon	Interven tion s
Agricultural crops																				
Rainfed																				
Paddy	2200	2600	2800	2800	1 & 2	2150	2450	2750	2750	1 & 2	2630	2830	3300	3300	1 & 2	-	2200	2400	2200	1
Maize	2600	2800	3000	3000	1 & 2	2650	2850	3050	3050	1 & 2	2100	2300	2500	2500	1 & 2	-	2600	2400	2400	1
Arhar	1600	1900	2200	2200	1 & 2	1500	1800	2000	2000	1 & 2	1700	1900	2000	2000	1 & 2	-	2100	2600	2100	1
Niger	1200	1800	2300	1800	2	1356	1256	1456	1256	2	1600	1800	1800	1800	2	-	1600	1900	1900	1
Horticulture																				
Orchard	-	7000	8200	7000	1	-	7100	9000	7100	1	-	7000	8000	8000	1	-	7000	9000	7000	1
Vegetable																				
Tomato	-	-	-	-	-	3500	4000	4400	4400	1 & 2	5500	5600	6000	6000	1 & 2	-	4400	4100	4100	1
Animal Husbandry																				
Cows/animal	600	700	800	700	2	560	660	760	760	2	-	-	-	-	-	5000	6000	6800	6800	2
Buffaloes	520	620	720	620	2	600	700	790	700	2	-	-	-	-	-	1600	1900	2200	1900	2
Sheep/animal	890	1000	1150	1150	2	580	680	780	680	2	-	1200	1200	1200	1	800	900	1000	1000	2
Goat/animal	720	820	920	920	2	700	800	900	900	2	-	1400	1400	1400	1	1100	1500	1800	1500	2
Pig/animal	900	1000	1200	1200	2	850	930	1000	930	2	-	2100	2100	2100	1	2600	2900	3000	3000	2
Poultry	300	350	400	400	2	400	490	590	590	2	-	400	450	400	1	450	500	590	590	2
Total	**11530**	**20590**	**23690**	**21790**	**-**	**14846**	**23716**	**27476**	**25116**	**-**	**13530**	**26530**	**28750**	**28700**	**-**	**11550**	**33600**	**37790**	**34490**	**-**

Note: Intervention* = 1. Diversification, 2 Intensification

CH V TABLE 5

Proposed farming systems and Mutually Agreed Upon Farming System
In terms of Net income (in rupees) and the Interventions* (Diversification & Intensification)
In AES-4

Resource Poor farmers

Type of enterprises / commodities	Agro-ecological situationa-4									
	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										
Rainfed										
Paddy	2100	2800	3500	2800	1 & 2	2500	3500	4200	3500	1 & 2
Maize	2000	3800	4500	3800	1 & 2	2100	3100	4000	4000	1 & 2
Arhar	1200	2000	2600	2600	1 & 2	1300	2300	3000	3000	1 & 2
Niger	1100	1900	2400	2400	2	1050	2050	2750	2050	2
Horticulture										
Vegetable										
Animal Husbandry										
Cows/animal	-	-	-	-	-	4000	5000	5900	5000	2
Buffaloes	-	-	-	-	-	1500	2000	2800	2000	2
Sheep/animal	-	-	-	-	-	600	1000	1700	1000	2
Goat/animal	-	-	-	-	-	1000	1500	1900	1900	2
Pig/animal	-	-	-	-	-	2200	2600	3000	3000	2
Poultry	-	-	-	-	-	400	500	600	600	2
Total	**6400**	**10500**	**13000**	**11600**		**16650**	**23550**	**29850**	**26050**	

Note: Intervention* = 1. Diversification, 2 Intensification

CH V TABLE - 6

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

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	Reasons for gap F/P/N	Pro. Strategies
	Op-i	MAU					Op-i	MAU				
Agricultural crops												
Rainfed												
Paddy	3200	4000	1	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13	3000	4500	1	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13
Maize	3000	5000	1, 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	3200	4500	1, 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Arhar	3200	4800	1, 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	3000	4800	1, 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Niger	3000	2900	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1700	2500	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Horticulture												
Vegetable												
Tomato	-	-	-	F			5000	7000	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Brinjal	-			-	-	-	-	7500	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Animal Husbandry												
Cows	1000	1500	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	900	1600	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	-	-	-	-	-	-	600	1000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Goat	600	1200	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	700	1100	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	1200	2200	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	1100	2300	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	400	800	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	350	350	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Total	**15600**	**24400**		-	-	-	**19550**	**37300**		-	-	-

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 and 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

CH V TABLE - 6
Gap in adoption and proposed strategies for promoting the Modified Farming System

Resource Poor

Type of enterprises / commodities	Agro-ecological situationa-1																	
	EFS-1						EFS-2						EFS-3					
	Contribution in terms of net income		Intervention s 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	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					Op-i	MAU				
Agricultural crops																		
Rainfed																		
Paddy	2200	2600	1, 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13	2100	2500	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13	2500	3300	1 & 2		1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13
Maize	1800	2800	1, 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1700	2100	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1900	2200	1 & 2		2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Arhar	1700	2300	1, 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1800	2600	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1600	2100	1 & 2		2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Niger	1400	1820	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1520	1720	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1620	1920	1 & 2		2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Horticulture																		
Orchard	-	-	-	-	-	-	-	-	-	-	-	-	-	4000	1	F	1,2&3	1,2,4&5
Vegetable																		
Tomato	-	5600	1	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	-	6100	1	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	3500	4300	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Animal Husbandry																		
Cows	-	-	-	-	-	-	700	900	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	800	1000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	-	-	-	-	-	-	550	950	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	500	700	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Sheep	-	-	-	-	-	-	1000	1300	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	0	-	-	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Goat	-	2500	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	500	850	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	650	850	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	-	4200	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	600	800	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	950	1200	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	-	-	-	-	-	-	350	450	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	400	620	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Total	**7100**	**21820**	-	-	-	-	**10820**	**20270**	-	-	-	-	14420	**22190**	-	-	-	-

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 and 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

CH V TABLE - 6
Gap in adoption and proposed strategies for promoting the Modified Farming System

Resource Rich

Type of enterprises / commodities	Agro-ecological situationa-2																	
	EFS-1						EFS-2						EFS-3					
	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	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					Op-i	MAU				
Agricultural crops																		
Rainfed																		
Paddy	3400	4200	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13	3500	4000	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13	3400	4000	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13
Maize	3000	3600	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	3100	3800	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	3200	3800	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Arhar	2800	3400	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	2700	2950	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	2200	2800	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Niger	1700	1900	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1850	2550	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1680	1880	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Horticulture																		
Vegetable																		
Tomato	-	5600	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	5500	6100	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	4800	5500	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Brinjal	-	-	-	-	-	-	-	6200	1 & 2	P	1,2&3	1,2,4&5	0	5500	1	F	1,2&3	1,2,4&5
Animal Husbandry																		
Cows	800	1000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	720	900	1 & 2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	760	900	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	650	850	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	-	-	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	700	925	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Goat	650	850	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	800	925	1 & 2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	700	900	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	1300	1700	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	1400	1600	1 & 2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	1380	1450	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	420	500	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	380	500	1 & 2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	350	425	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Fisheries	-	-	-	-	-	-	-	-	-	-	-	-	2500	3300	2	P	8,11,13,14,16	8,11,15,16,17,19
Total	14720	**23600**	-	-	-	-	19950	**29525**	-	-	-	-	21670	**31380**	-	-	-	-

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 and 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

CH V TABLE - 6

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

Resource Poor

Type of enterprises / commodities	**Agro-ecological situationa-2**																							
	EFS-1						EFS-2						EFS-3						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	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					Op-i	MAU					Op-i	MAU				
Agricultural crops																								
Rainfed																								
Paddy	2400	3100	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13	2100	2500	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13	2500	3200	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13	2300	3000	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13
Maize	1800	2200	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1700	2150	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1900	2400	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	2150	2450	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Arhar	2000	2300	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1800	2200	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1600	1800	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1950	2450	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Niger	1500	1620	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1520	1720	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1620	1820	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	1450	1650	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Horticulture																								
Vegetable																								
Tomato	-	4500	1	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	0	5500	1 & 2	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	3500	4000	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	4200	5100	2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Brinjal	-	-	-	-	-	-	-	-	-	-	-	-	-	4800	1	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	-	7100	1	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Animal Husbandry																								
Cows	-	-	-	-	-	-	700	850	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	800	900	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	600	800	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	-	-	-	-	-	-	550	700	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	500	650	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	750	950	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Sheep	-	1200	1	-	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	1000	1200	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	0	-	-	-	-	-	-	-	-	-	-	-
Goat	-	1100	1	-	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	500	700	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	650	800	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	700	950	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	-	-	-	-	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	600	800	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	950	1330	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	1100	1400	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	-	300	1	-	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	350	450	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	400	480	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	400	550	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Fisheries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2500	3800	2	P	8,11,13,14,16	8,11,15,16,17,19
Total	7700	**16320**		-	-	-	10820	**18770**		-	-	-	14420	**22180**		-	-	-	18100	**23100**		-	-	-

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 and 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

CH V TABLE - 6

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

Resource Rich

Type of enterprises / commodities	Agro-ecological situationa-3																	
	EFS-1						EFS-2						EFS-3					
	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	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					Op-i	MAU				
Agricultural crops																		
Irrigated																		
Paddy	6500	7500	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13	7000	8800	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13	7200	8800	1 & 2	P	1,2,3,4,5,6,7,8,10,12	1,2,3,4,7,8,10,13
Wheat	5500	7000	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	6000	6800	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	6000	6900	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Maize	5000	6500	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	5500	6600	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	5200	6000	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Horticulture																		
Orchard	-	7000	1	F	1,2&3	1,2,4&5	0	8000	1	F	1,2&3	1,2,4&5	0	7000	1	F	1,2&3	1,2,4&5
Vegetable																		
Tomato	-	6500	1	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	9200	12000	1 & 2	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	9000	10000	2	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Brinjal	-	7100	1	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	7500	8800	1 & 2	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	7000	8200	2	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Potato	-	-	-	-	-	-	6000	7000	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	6500	7100	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Animal Husbandry																		
Cows	5500	6300	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	5500	7000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	5200	6000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	650	850	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	850	900	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	650	750	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Sheep	600	700	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	850	1000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	900	1100	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Goat	800	950	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	900	1200	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	800	950	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	1620	1820	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	1600	1800	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	1400	1600	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	460	600	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	400	500	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	410	550	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Fisheries	-	-	-	-	-	-	-	-	-	-	-	-	4000	5800	2	P	8,11,13,14,16	8,11,15,16,17,19
Total	26630	**52820**		-	-	-	51300	70400		-	-	-	54260	**70750**		-	-	-

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 and 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

CH V TABLE - 6

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

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												
Paddy	5500	6500	1 & 2	P	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13	5300	6000	1 & 2	P	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13
Wheat	5000	6000	1 & 2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	5100	6100	1 & 2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Maize	4500	6000	1 & 2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	4400	5500	1 & 2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Horticulture												
Orchard	-	3000	1	F	1,2&3	1,2,4&5	-	4000	1	F	1,2&3	1,2,4&5
Vegetable												
Tomato	-	-	-	-	-	-	-	4500	1	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Brinjal	-	-	-	-	-	-	-	6500	1	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Animal Husbandry												
Cows	-	3500	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	5000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	-	-	-	-	-	-	-	900	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Sheep	-	1400	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	900	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Goat	-	1300	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	810	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	-	1600	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	1580	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	-	300	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	420	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Total	**15000**	**29600**	**-**	**-**	**-**	**-**	**14800**	**42210**	**-**	**-**	**-**	**-**

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 and 12. Low excess to improved technologies

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11. Using improved breeds of cattle, 12. Training on Lac/sericulture, 13. Farmer scientist interaction, 14. Linkage to financial institution

CH V TABLE - 6

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

Resource Rich

Type of enterprises / commodities	Agro-ecological situationa-4																					
	EFS-1						EFS-2						EFS-3						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	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					Op-i	MAU					Op-i	MAU				
Agricultural crops																								
Rainfed																								
Paddy	2200	2800	1 & 2	P	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13	2150	2750	1 & 2	P	1,2&3	1,2,4&5	2630	3300	1 & 2	P	1,2&3	1,2,4&5	-	2200	1	F	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13
Maize	2600	3000	1 & 2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	2650	3050	1 & 2	P	1,2&3	1,2,4&5	2100	2500	1 & 2	P	1,2&3	1,2,4&5	-	2400	1	F	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Arhar	1600	2200	1 & 2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1500	2000	1 & 2	P	1,2&3	1,2,4&5	1700	2000	1 & 2	P	1,2&3	1,2,4&5	-	2100	1	F	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Niger	1200	1800	2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1356	1256	2	P	1,2&3	1,2,4&5	1600	1800	2	P	1,2&3	1,2,4&5	-	1900	1	F	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Horticulture																								
Orchard	-	7000	1	F	1,2&3	1,2,4&5	-	7100	1	F	1,2&3	1,2,4&5	-	8000	1	F	1,2&3	1,2,4&5	-	7000	1	F	1,2&3	1,2,4&5
Vegetable																								
Tomato	-	-	-	-	-	-	3500	4400	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	5500	6000	1 & 2	P	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14	-	4100	1	F	2,3,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,10,13,14
Animal Husbandry																								
Cows	600	700	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	560	760	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	-	-	-	-	-	5000	6800	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	520	620	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	600	700	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	-	-	-	-	-	1600	1900	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Sheep	890	1150	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	580	680	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	1200	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	800	1000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Goat	720	920	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	700	900	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	1400	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	1100	1500	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	900	1200	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	850	930	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	2100	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	2600	3000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	300	400	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	400	590	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	-	400	1	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14	450	590	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Total	11530	**21790**	-	-	-	-	14846	**25116**	-	-	-	-	13530	**28700**	-	-	-	-	11550	**34490**	-	-	-	-

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 and 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

CH V TABLE - 6

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

Resource Poor

Type of enterprises / commodities	Agro-ecological situationa-5											
	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												
Rainfed												
Paddy	2100	2800	1 & 2	P	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13	2500	3500	1 & 2	P	1,2,3,4,5,6,8,9,11,12	1,2,3,4,5,7,10,13
Maize	2000	3800	1 & 2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	2100	4000	1 & 2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Arhar	1200	2600	1 & 2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1300	3000	1 & 2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Niger	1100	2400	2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14	1050	2050	2	P	2,4,5,6,7,8,9,11,12	1,2,3,4,5,6,7,8,9,13,14
Horticulture												
Vegetable												
Animal Husbandry												
Cows	-	-	-	-	-	-	4000	5000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Buffaloes	-	-	-	-	-	-	1500	2000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Sheep	-	-	-	-	-	-	600	1000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Goat	-	-	-	-	-	-	1000	1900	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Poultry	-	-	-	-	-	-	2200	3000	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Pig	-	-	-	-	-	-	400	600	2	P	2,3,4,5,6,8,9,11,12	1,2,3,4,5,11,14
Total	6400	**11600**		-	-	-	16650	**26050**		-	-	-

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 and 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, 13. Farmer scientist interaction, 14. Linkage to financial institution

PRODUCTION AND PRODUCTIVITY OF IMPORTANT COMMODITIES UNDER DIFFERENT ENTERPRISES

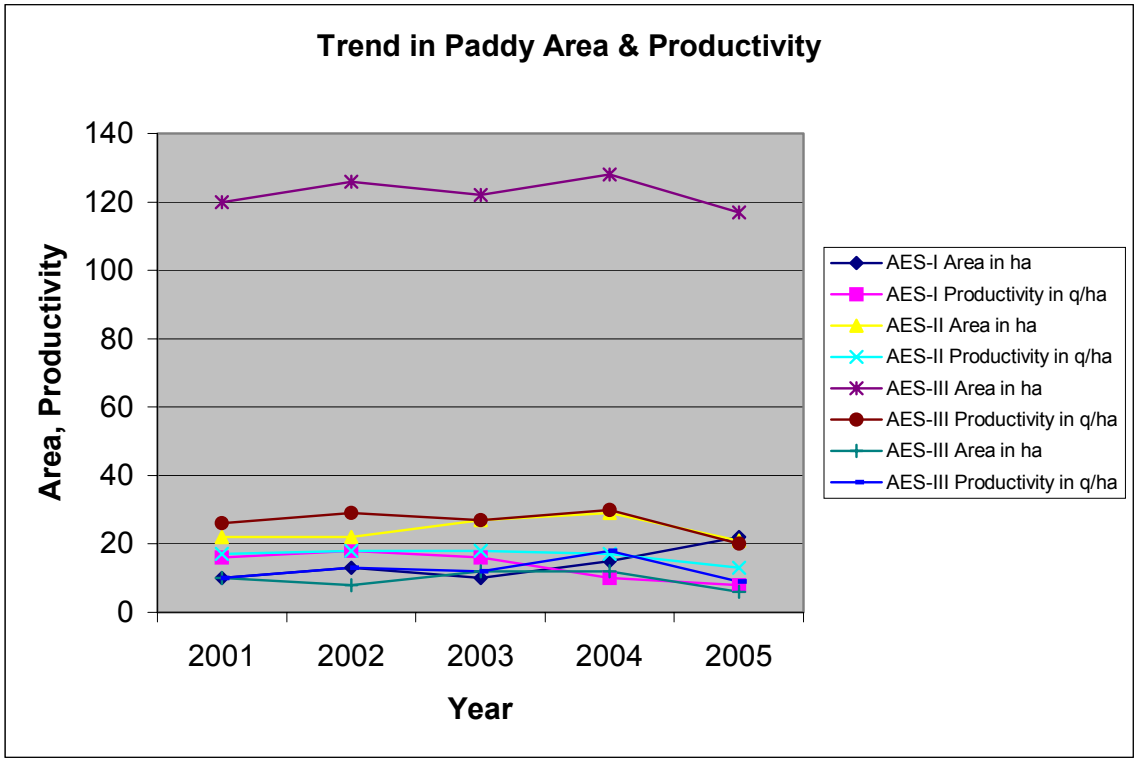
A. Agriculture

Rainfed paddy and maize is dominates in the entire district. The main crops grown by the farmers are paddy, maize, arhar, nigar, seasumum and recently wheat crop has become popular, especially in the irrigated area. The detail trend of area and productivity of different crops in representative village are given in Table.

Trend is Area, Production and Productivity of Rice in Different AES of major commodities

Name of enterprise: Paddy Name of commodity: Agriculture
Name of District: Chatra

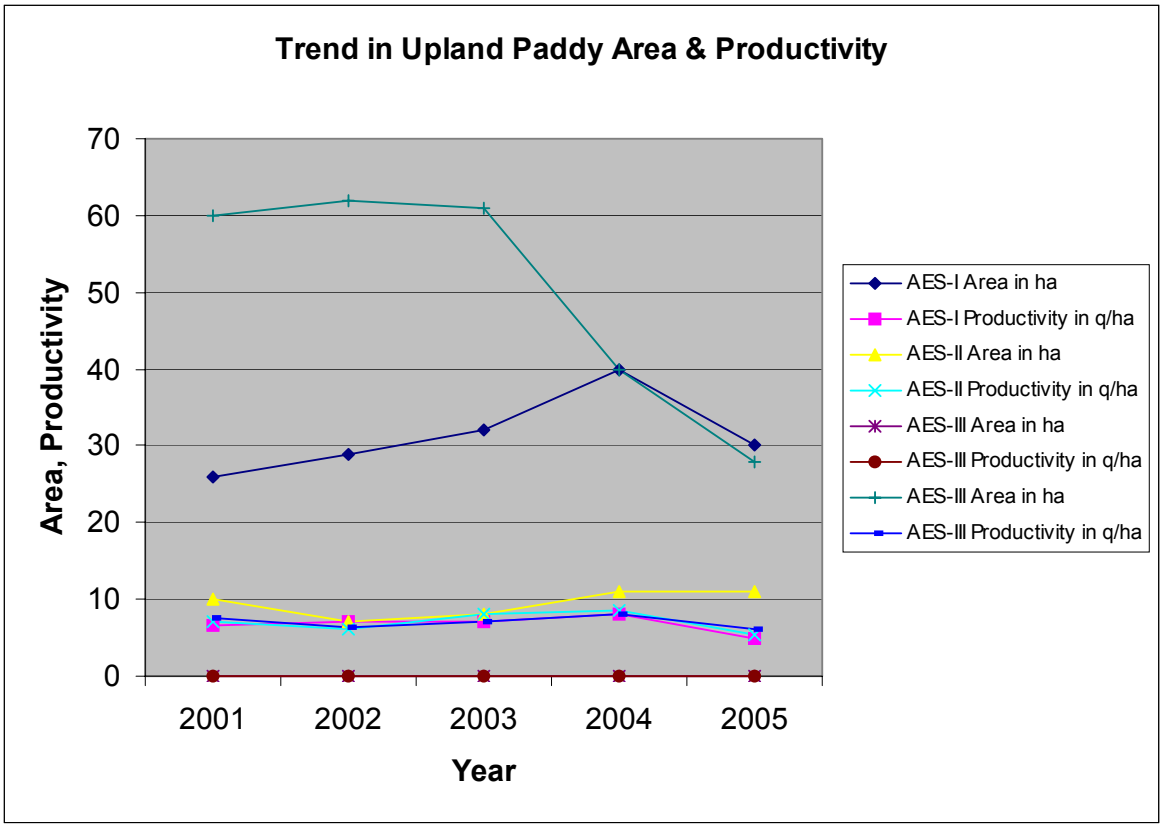
Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	10	16	22	17	120	26	10	10
2002	13	18	22	18	126	29	8	13
2003	10	16	27	18	122	27	12	12
2004	15	10	29	17	128	30	12	18
2005	22	8	21	13	117	20	6	9



Trend is Area, and Productivity of Upland paddy in Different AES of major commodities

Name of enterprise: Upland Paddy Name of commodity: Agriculture
Name of District: Chatra

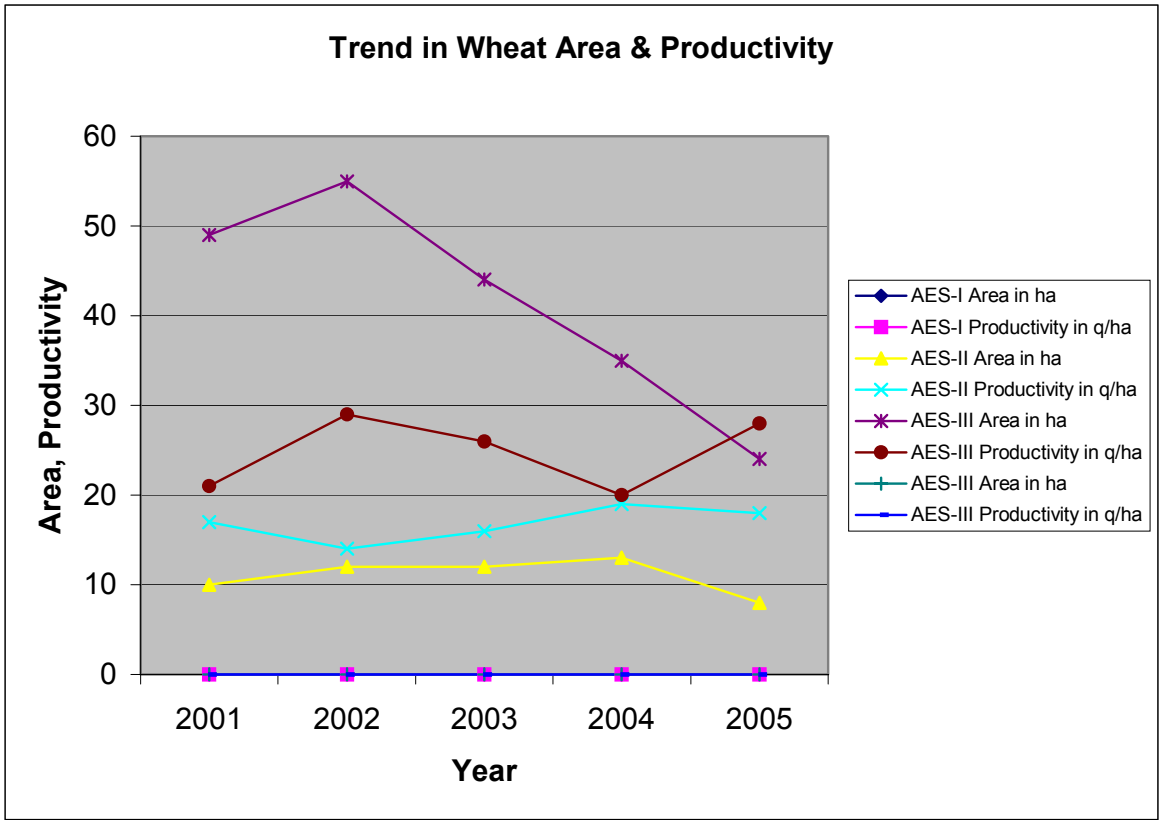
Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	26	6.5	10	7	-	-	60	7.5
2002	29	7	7	6	-	-	62	6.4
2003	32	7	8	8	-	-	61	7.0
2004	40	8	11	8.5	-	-	40	8.0
2005	30	5	11	5.5	-	-	28	6.0



Trend is Area and Productivity of Wheat in Different AES of major commodities

Name of enterprise: Wheat Name of commodity: Agriculture
Name of District: Chatra

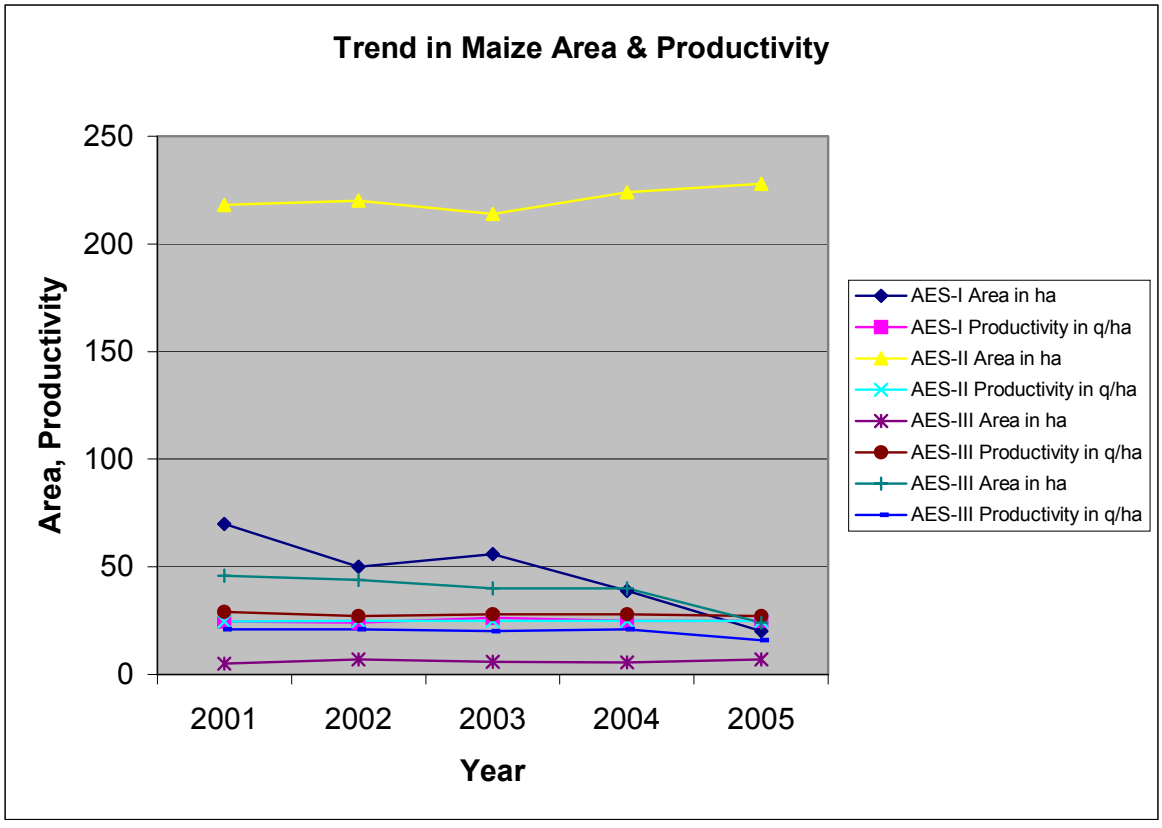
Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	-	-	10	17.00	49.00	21.00	-	-
2002	-	-	12	14.00	55.00	29.00	-	-
2003	-	-	12	16.00	44.00	26.00	-	-
2004	-	-	13	19.00	35.00	20.00	-	-
2005	-	-	8	18.00	24.00	28.00	-	-



Trend is Area and Productivity of Maize in Different AES of major commodities

Name of enterprise: Maize Name of commodity: Agriculture
Name of District: Chatra

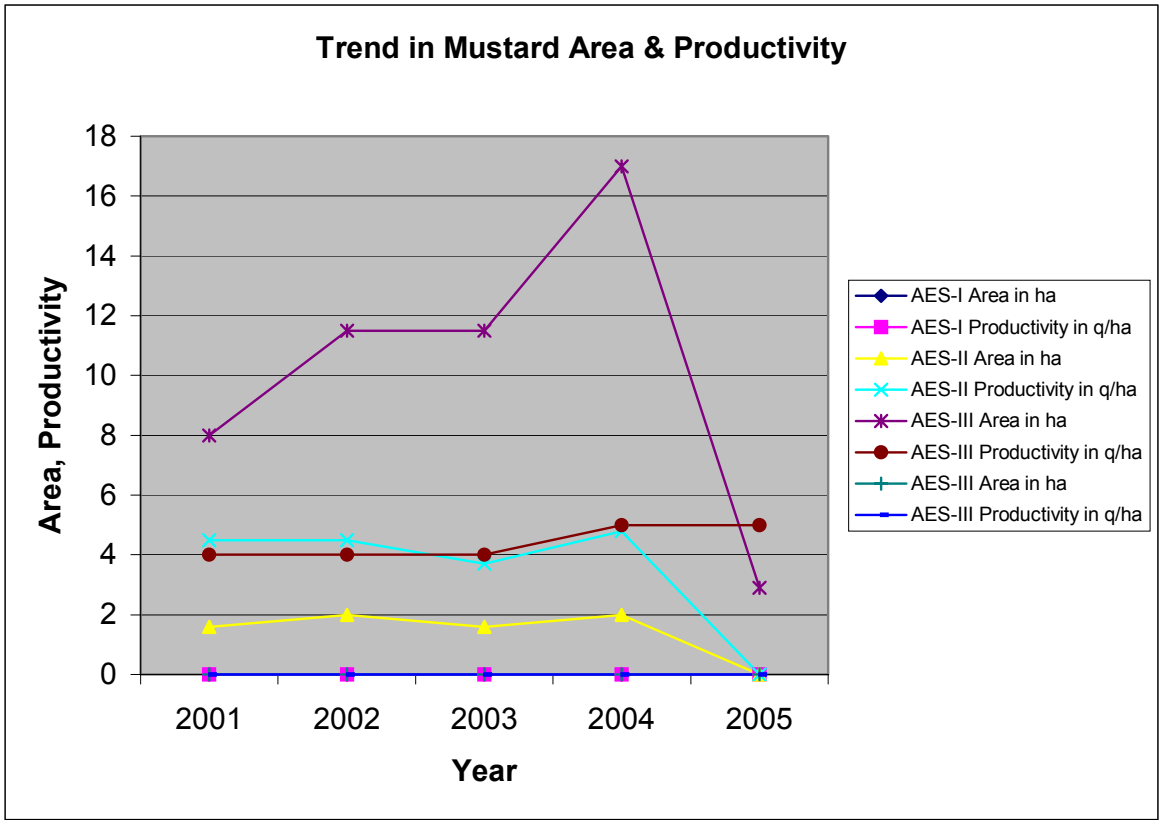
Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	70.00	24.50	218.00	24.50	5.00	29.00	46.00	21.00
2002	50.00	24.00	220.00	25.00	7.00	27.00	44.00	21.00
2003	56.00	26.40	214.00	25.00	6.00	28.00	40.00	20.00
2004	39.00	25.00	224.00	25.00	5.50	28.00	40.00	21.00
2005	20.00	25.00	228.00	25.00	7.00	27.00	24.00	16.00



Trend is Area and Productivity of Mustard in Different AES of major commodities

Name of enterprise: Mustard Name of commodity: Agriculture
Name of District: Chatra

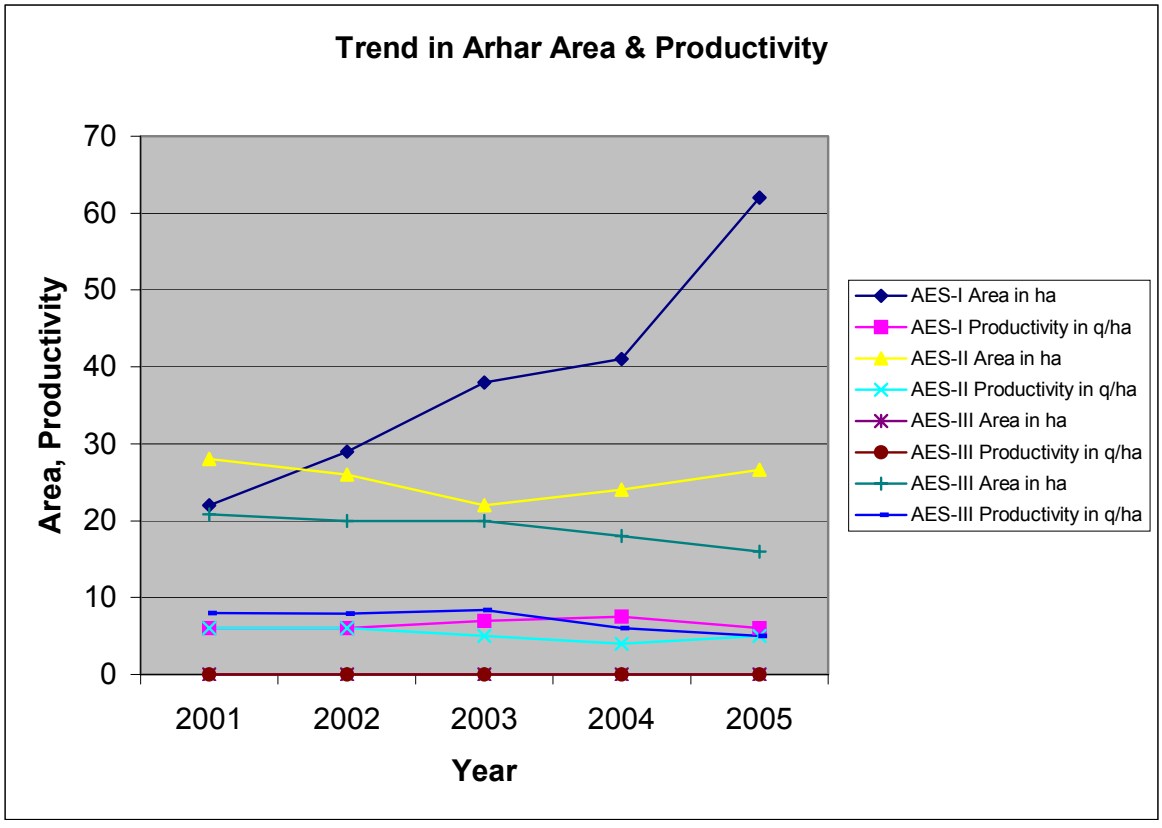
Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	-	-	1.60	4.5	8.00	4.00	-	-
2002	-	-	2.00	4.5	11.50	4.00	-	-
2003	-	-	1.60	3.7	11.50	4.00	-	-
2004	-	-	2.00	4.8	17.00	5.00	-	-
2005	-	-	-	-	2.90	5.00	-	-



Trend is Area and Productivity of Arhar in Different AES of major commodities

Name of enterprise: Arhar Name of commodity: Agriculture
Name of District: Chatra

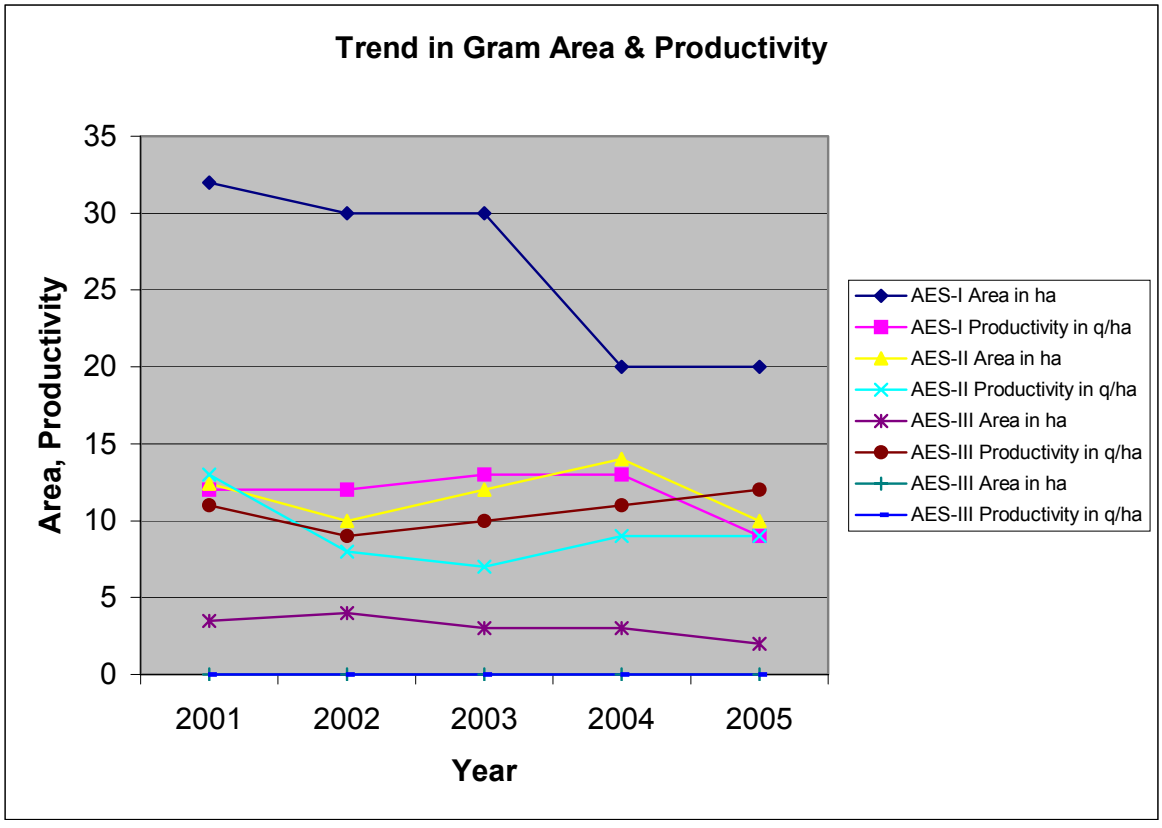
Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	22	6.00	28.00	6.00	-	-	20.80	8.00
2002	29	6.00	26.00	6.00	-	-	20.00	7.90
2003	38	7.00	22.00	5.00	-	-	20.00	8.40
2004	41	7.50	24.00	4.00	-	-	18.00	6.00
2005	62	6.00	26.60	5.00	-	-	16.00	5.00



Trend is Area and Productivity of Gram in Different AES of major commodities

Name of enterprise: Gram Name of commodity: Agriculture
Name of District: Chatra

Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	32.00	12.00	12.40	13.00	3.50	11.00	-	-
2002	30.00	12.00	10.00	8.00	4.00	9.00	-	-
2003	30.00	13.00	12.00	7.00	3.00	10.00	-	-
2004	20.00	13.00	14.00	9.00	3.00	11.00	-	-
2005	20.00	9.00	10.00	9.00	2.00	12.00	-	-

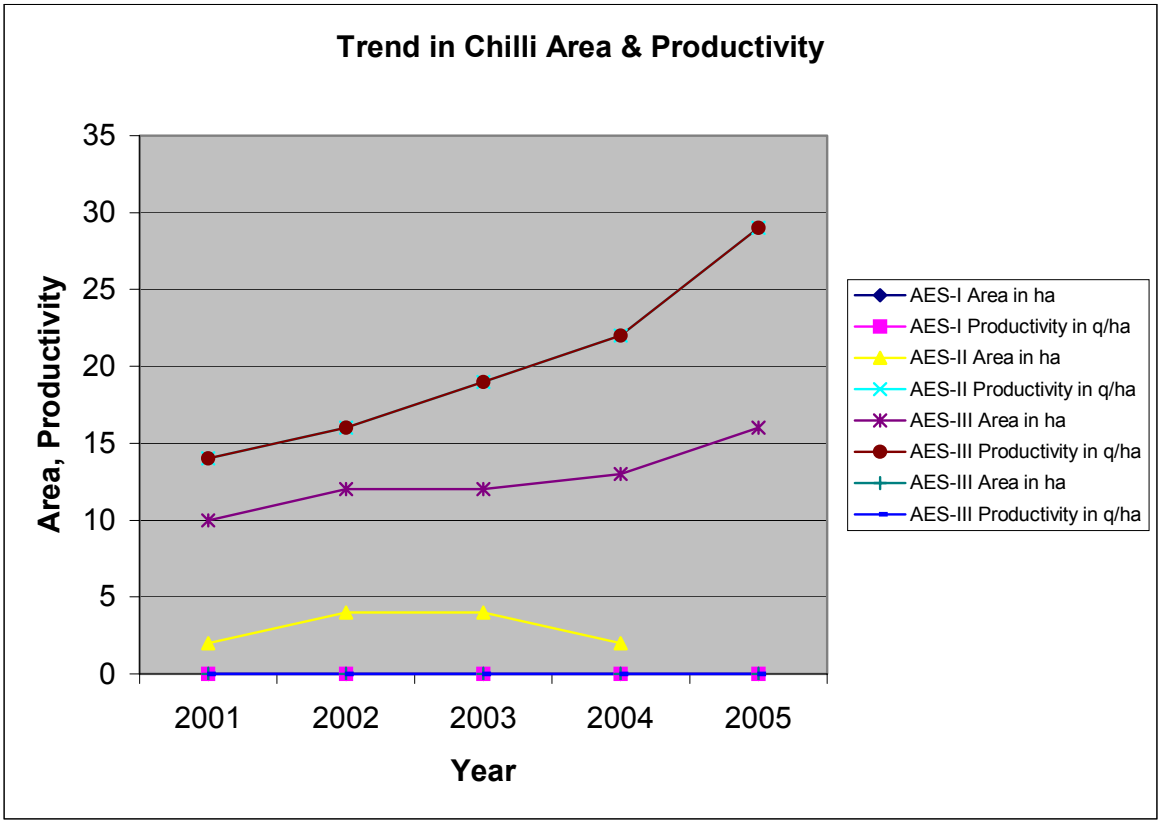


Trend is Area and Productivity of Green Chilli in Different AES of major commodities

Name of enterprise: Green Chilli Name of commodity: Horticulture

Name of District: Chatra

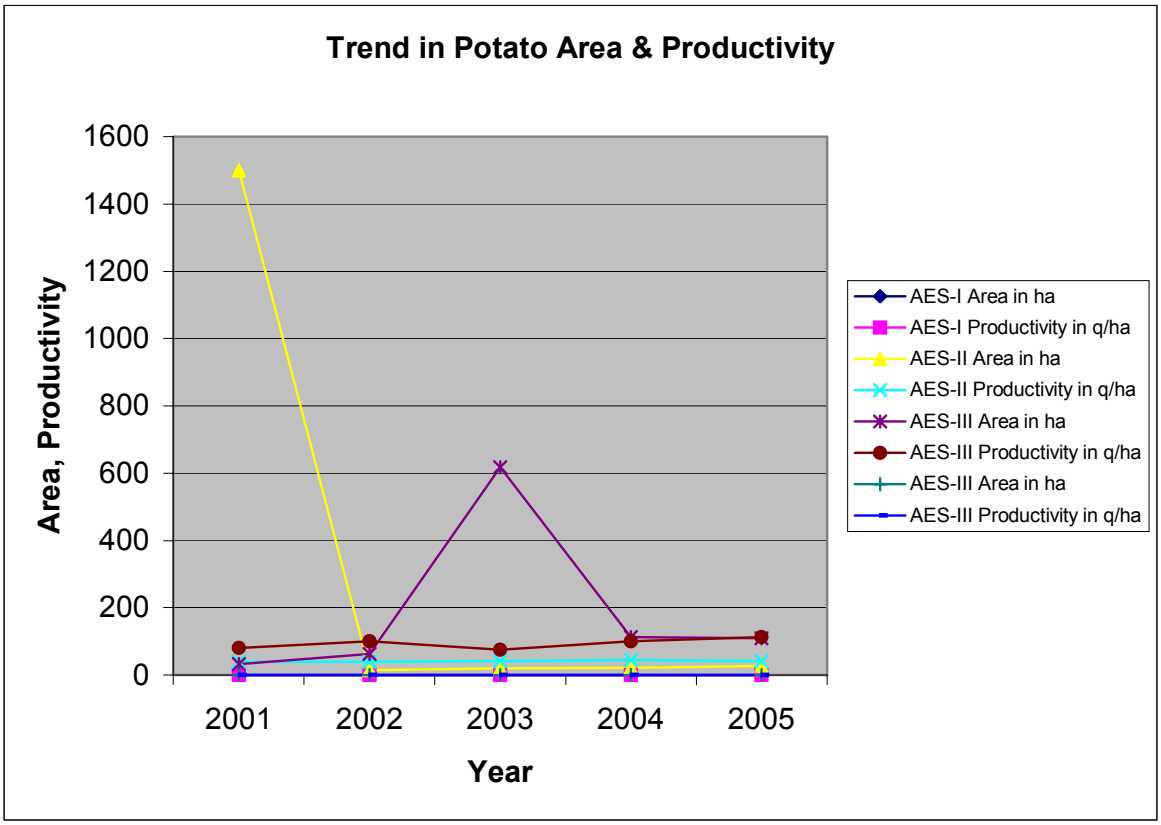
Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	-	-	2.00	14.00	10.00	14.00	-	-
2002	-	-	4.00	16.00	12.00	16.00	-	-
2003	-	-	4.00	19.00	12.00	19.00	-	-
2004	-	-	2.00	22.00	13.00	22.00	-	-
2005	-	-		29.00	16.00	29.00	-	-



Trend is Area and Productivity of Potato in Different AES of major commodities

Name of enterprise: Potato Name of commodity: Horticulture
Name of District: Chatra

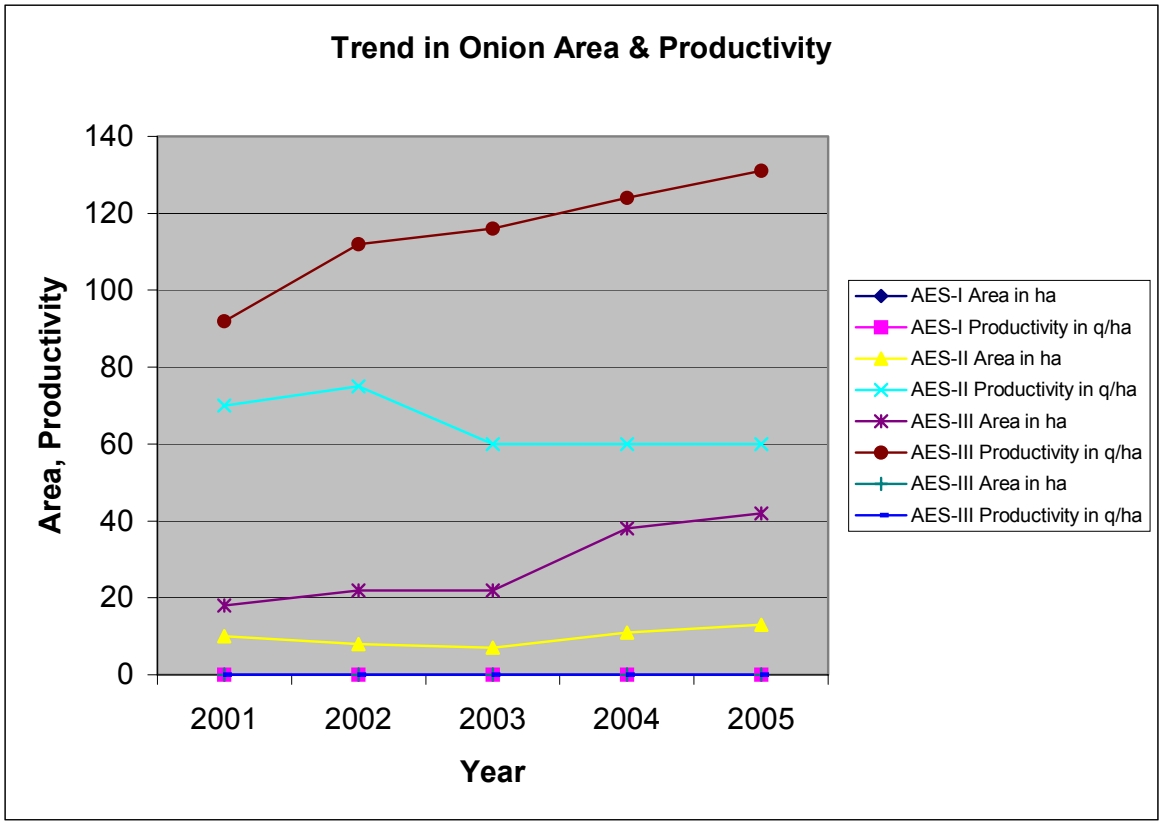
Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	-	-	1500	40.00	32.00	80.00	-	-
2002	-	-	15.00	40.00	62.00	100.00	-	-
2003	-	-	19.00	41.00	618	75.00	-	-
2004	-	-	22.00	44.00	112.00	100.00	-	-
2005	-	-	26.00	41.00	110.00	112.00	-	-



Trend is Area and Productivity of Onion in Different AES of major commodities

Name of enterprise: Onion Name of commodity: Horticulture
Name of District: Chatra

Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	-	-	10.00	70.00	18.00	92.00	-	-
2002	-	-	8.00	75.00	22.00	112.00	-	-
2003	-	-	7.00	60.00	22.00	116.00	-	-
2004	-	-	11.00	60.00	38.00	124.00	-	-
2005	-	-	13.00	60.00	42.00	131	-	-

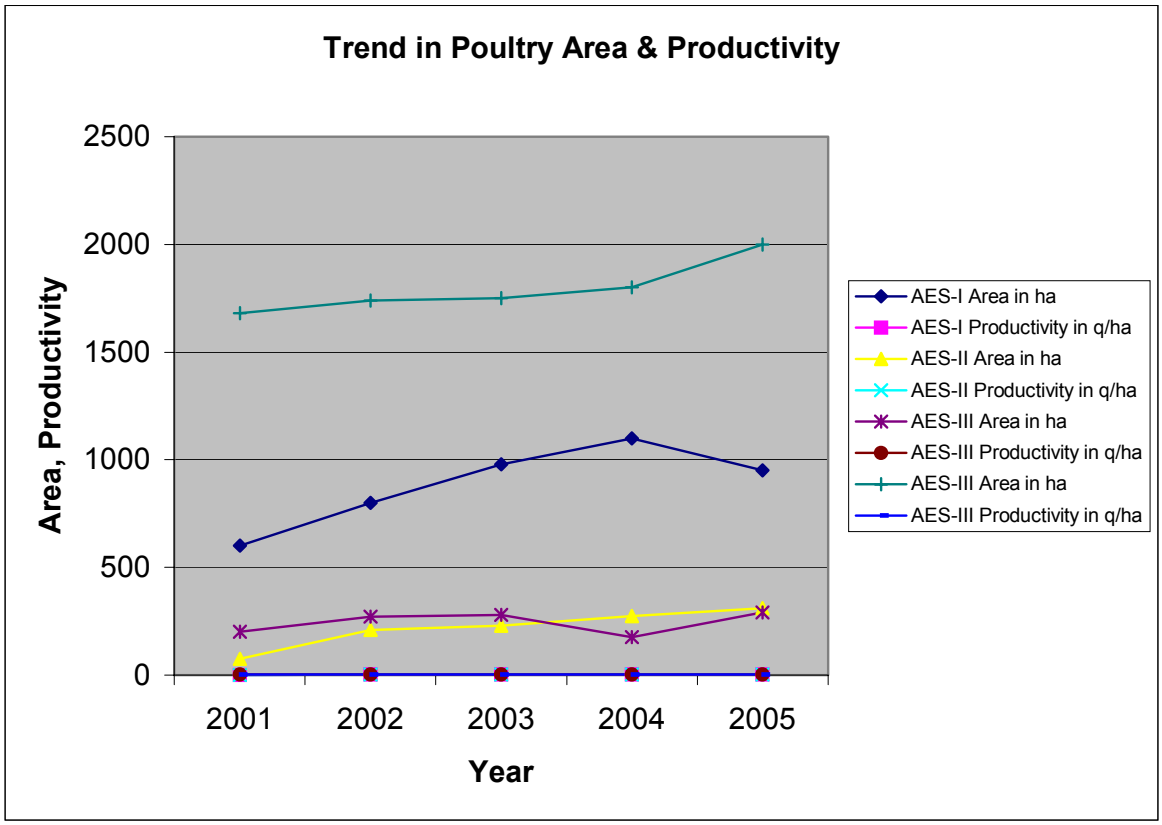


Trend in Number Production and Productivity of Poultry in Different AES of major commodities

Name of enterprise: Poultry Name of commodity: Animal Husbandry

Name of District: Chatra

Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	600	1.00	75	-	200	2.00	1680.00	2.00
2002	800	1.5	210	1.5	270	2.40	1740.00	2.10
2003	980	1.5	228	1.5	280	2.40	1750.00	2.30
2004	1100	2.5	275	2.00	175.00	2.20	1800.00	2.40
2005	950	2.50	310	2.50	290	2.50	2000.00	2.50

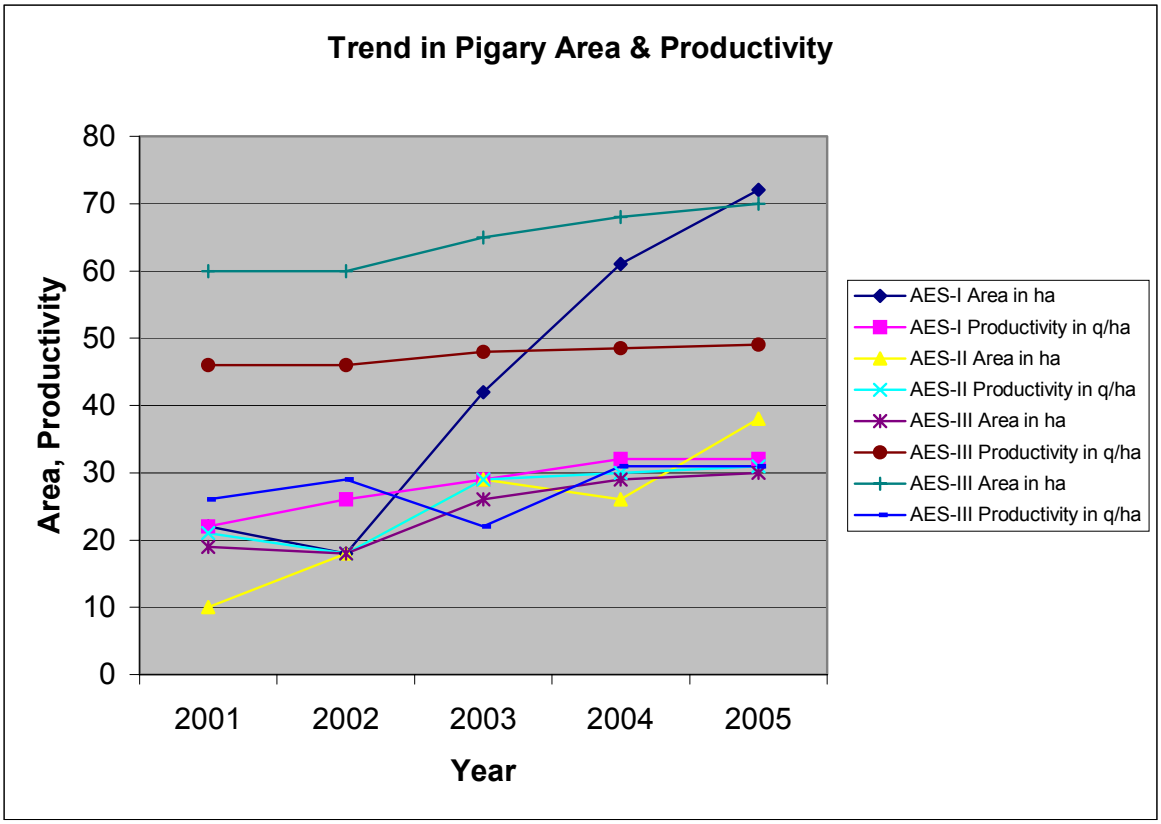


Trend in Number Production and Productivity of Pigary in Different AES of major commodities

Name of enterprise: Poultry Name of commodity: Animal Husbandry

Name of District: Chatra

Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	22	22	10	21	19.00	46.00	60.00	26.00
2002	18	26	18	18	18.00	46.00	60.00	29.00
2003	42	29	29	29	26.00	48.00	65.00	22.00
2004	61	32	26	30	29.00	48.50	68.00	31.00
2005	72	32	38	31	30.00	49.00	70.00	31.00

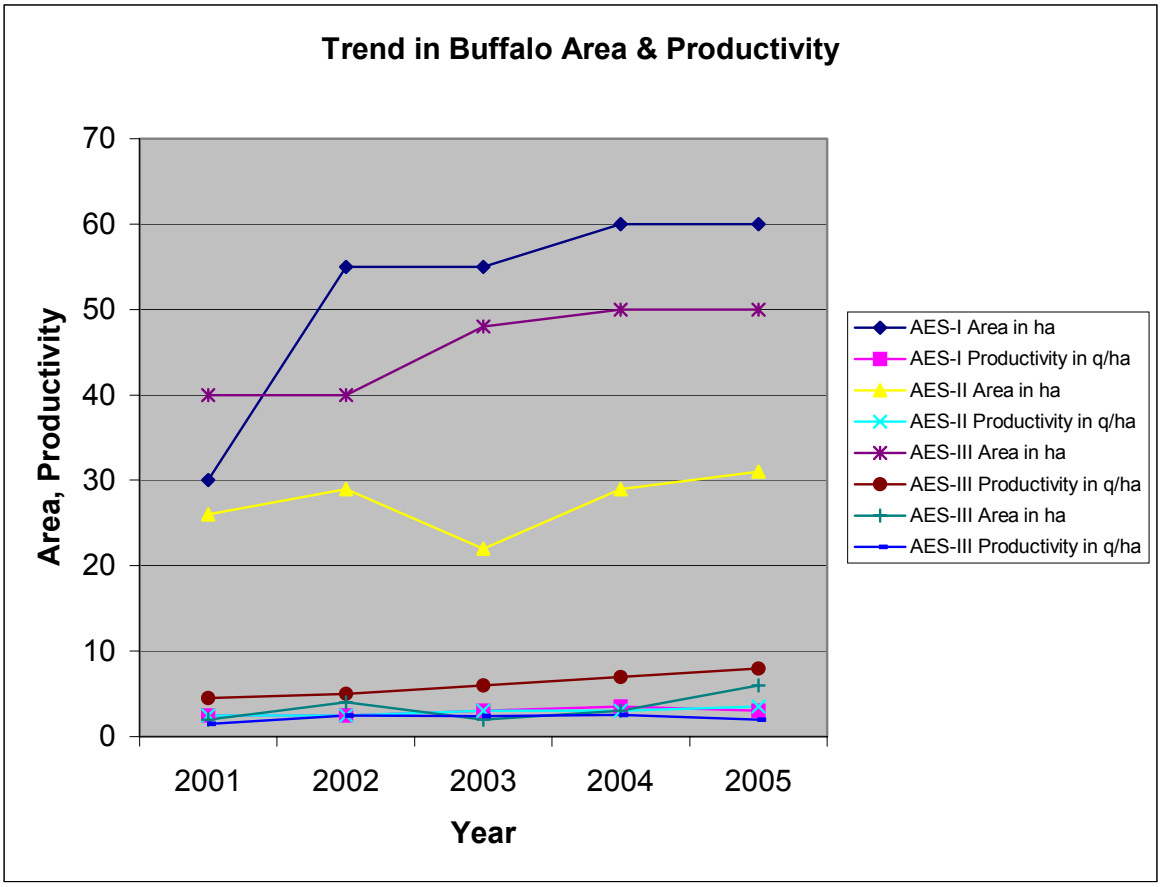


Trend in Number Production and Productivity of Buffalo in Different AES of major commodities

Name of enterprise: Buffalo Name of commodity: Animal Husbandry

Name of District: Chatra

Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	30.00	2.5	26	2.5	40.00	4.5	2.00	1.5
2002	55.00	2.5	29	2.5	40.00	5.00	4	2.5
2003	55.00	3.00	22	3.00	48.00	6.00	2	2.40
2004	60.00	3.5	29	3.00	50.00	7.00	3	2.55
2005	60.00	3	31	3.5	50.00	8.00	6	2.00

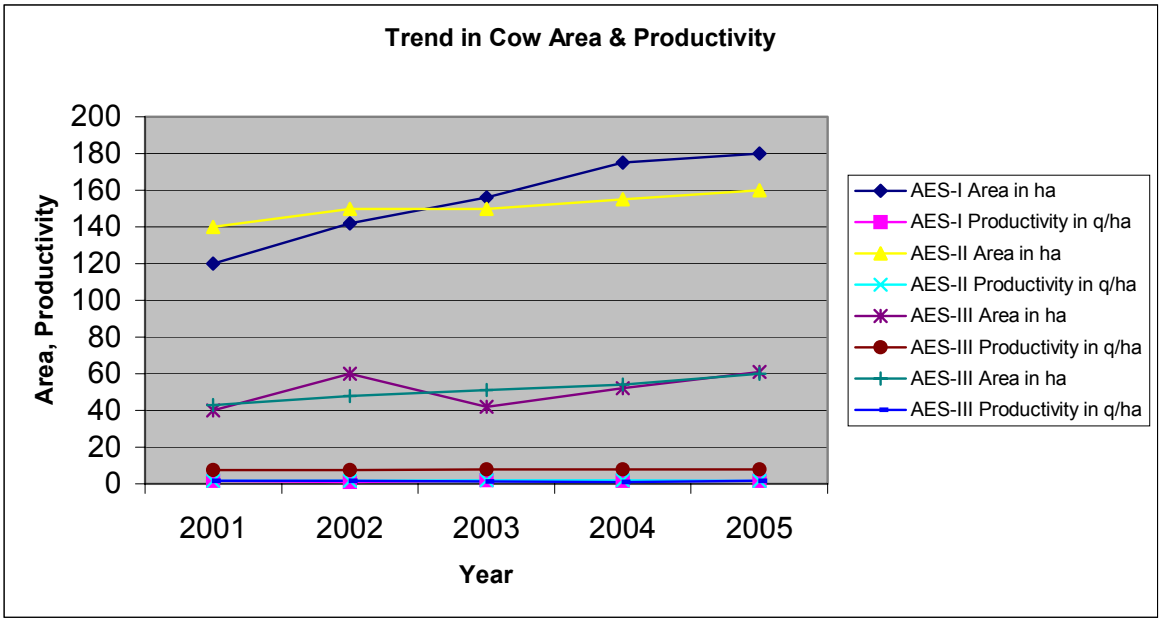


Trend in Number Production and Productivity of Cow in Different AES of major commodities

Name of enterprise: Cow Name of commodity: Animal Husbandry

Name of District: Chatra

Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	120	1.5	140.00	1.5	40	7.50	43.00	1.65
2002	142	1.00	150.00	1.5	60	7.57	48.00	1.75
2003	156	2.00	150.00	2.00	42	8.00	51.00	1.25
2004	175	1.50	155.00	2.00	52	8.00	54.00	1.00
2005	180	1.50	160.00	1.50	61	8.00	60.00	1.50

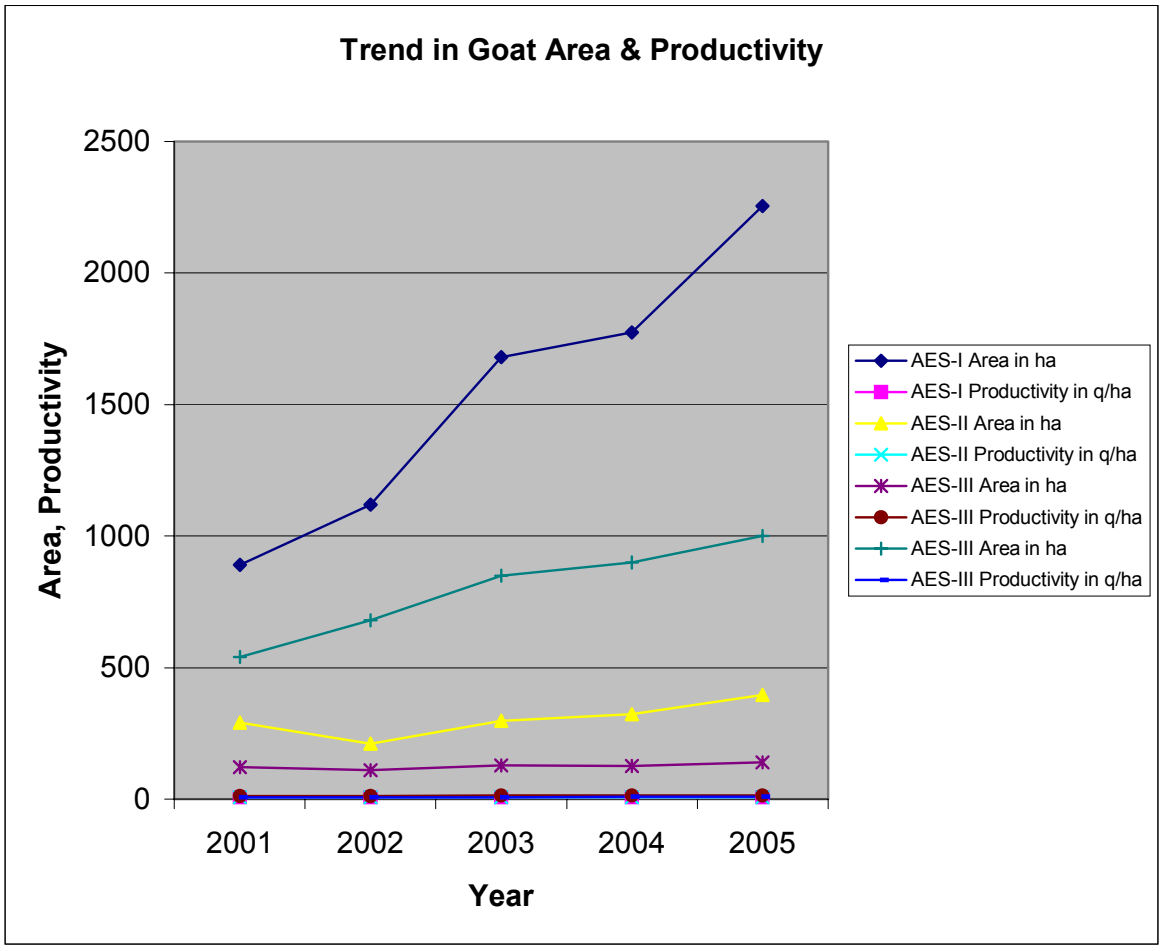


Trend in Number Production and Productivity of Goat in Different AES of major commodities

Name of enterprise: Goat Name of commodity: Animal Husbandry

Name of District: Chatra

Year	AES-I		AES-II		AES-III		AES-IV	
	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha	Area in ha	Productivity in q/ha
2001	890	6.00	290	6.5	122	12.00	540.00	8.00
2002	1120	7.00	210	6.5	110	12.50	680.00	7.00
2003	1680	7.00	298	6.0	129	13.00	850.00	7.00
2004	1775	6.50	322	6.0	126	13.50	900.00	9.00
2005	2256	7.00	395	6.50	139	14.00	1000.00	9.00



Trend about area/number productivity of major commodities

Name of District: **Chatra** AES: I, II, III, IV

Sl. No.	Type of new market opportunities	Effect of each opportunity on farming system (H/M/L)		
		AES-I	AES- II	AES- III
1.	Vegetables	H	M	H
2.	Fruits	M	L	L
3.	Mulberry silk	L	M	M
4.	Oilseeds	M	L	M
5.	Pulses	H	M	M
6.	Mushroom	L	L	M
7.	Flowers	H	L	L
8.	Meat (goat/sheep)	M	H	H
9.	Sale of seeds to outside	L	L	L
10.	Sale of organic products to outside	L	M	L
11.	Basmati rice	M	L	L
12.	Honey	L	M	M
13.	Handicraft	L	L	L
14.	Others	L	L	L

SOWT Analysis of EFS

SWOT Analysis of the EFS I (Agriculture)		SWOT analysis of the MAFS	
Strength	**Weakness**	**Strength**	**Weakness**
➢ Introduction of improved breed of animal ➢ Agriculture produce utilized as feed for animal ➢ Animal dung utilized as compost in agriculture field ➢ Less risk ➢ Cost of production reduce	➢ Diversification introduction of improved varieties and breed	➢ Diversification introduction of improved varieties and breed ➢ Animal dung utilized as compost in field	➢ Animal enterprises become primary source of income ➢ Farmers not taken proper care on crops enterprises.
Opportunities	**Threats**	**Opportunities**	**Threats**
➢ Agriculture produce batter utilized as animal feed ➢ Farmers make more profitable through animal enterprises. ➢ Scope for diversification/intensification ➢ Scope vermi compost production	➢ Small animal create problem for field crop ➢ Agriculture become tracery enterprises	➢ Introduction of small animal for resource poor farmers ➢ Interaction of improved varieties of crops and improved breed of animal become more profitable	➢ Agriculture become secondary after introduction of improved breed of animal ➢ Due to introduction of improved breed of animal disease attack will be more

SOWT Analysis of EFS

SWOT Analysis of the EFS II (Agriculutre + Animal Husbandry)		SWOT analysis of the MAFS	
Strength	**Weakness**	**Strength**	**Weakness**
➢ Increasing cropping intensity ➢ More profitable for both categories of farmers i.e. resource rich and resource poor ➢ Assured irrigated crops perform batter ➢ Adequate availability of fodder ➢ More employment created ➢ Organic manure available for crops	➢ Poor quality of vegetable seed sown by the farmers	➢ Diversification of traditional vegetable to cash crop vegetable ➢ Off season vegetable production. ➢ Improved breed of milch animal introduce for response rich farmers	➢ Very difficult to 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**
➢ Scope for diversification ➢ Introduction of cash crop. ➢ Scope for introduction of off season vegetable. ➢ Introduction of flowericulture ➢ Improved breed of milch animal introduce ➢ Introduction of biological control of insect pest	➢ Judicious use of insecticides and pesticides in vegetable ➢ Judicious use of chemical fertilizer ➢ Insect pest become resistant to insectisides	➢ Off season vegetable ➢ Inorganic vegetable production ➢ Introduction of improved breed of milch animal for resource rich farmers and small animal for resource poor farmers ➢ Scop for organic farming	➢ Improved breed of pig become problem of society. ➢ Small animal damage field crops. ➢ Judicious use of insect pest effect Bio-physical and soil health.

SOWT Analysis of EFS

SWOT Analysis of the EFS II (Agriculutre + Animal Husbandry + Horticulture + Fishery)		SWOT analysis of the MAFS	
Strength	**Weakness**	**Strength**	**Weakness**
➢ Farming system approach minimize risk ➢ More profitable for both categories of farmers i.e. resource rich and resource poor ➢ Assured irrigated crops perform batter ➢ Adequate availability of fodder ➢ More employment created ➢ Organic manure available for crops	➢ Poor quality of vegetable seed sown by the farmers ➢ All enterprises do not manage properly by the farmers ➢ Cost benefit ratio of all enterprise is very poor	➢ Diversification of traditional vegetable to cash crop vegetable ➢ Off season vegetable production. ➢ Improved breed of milch animal introduce for response rich farmers	➢ Very difficult to manage four 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**
➢ Scope for diversification ➢ Introduction of cash crop. ➢ Scope for introduction of off season vegetable. ➢ Introduction of flowericulture ➢ Improved breed of milch animal introduce ➢ Introduction of biological control of insect pest	➢ Judicious use of insecticides and pesticides in vegetable ➢ Judicious use of chemical fertilizer ➢ Insect pest become resistant to insectisides	➢ Off season vegetable ➢ Inorganic vegetable production ➢ Introduction of improved breed of milch animal for resource rich farmers and small animal for resource poor farmers ➢ Duck-cum-fish-cum-pig farming is introduced for employment	➢ Improved breed of pig become problem of society. ➢ Small animal damage field crops. ➢ Judicious use of insect pest effect Bio-physical and soil health.