VI

ANALYSIS OF THE FARMING SITUATION OF MAJOR CROPS OR COMMODITIES IN EACH AES THE RESEARCH AND EXTENSION GAPS EMERGED AND THE STRATEGIES TO BRIDGE THE GAPS

Table No :-6.1

The following farming situations are identified in the district for different crops and animals :

Sl No.	Crop/ANIMAL	Situation	
		FS-1	FS-2
1	Paddy	Medium land transplanting	Low land transplanting
2	Wheat	Normal sown irrigated	Late sown irrigated
3	Maize	Early sown rainfed	Normal sown rainfed
4	Arhar	Upland rainfed	-
5	Gram	Early sown rainfed	Normal sown irrigated
6	Mustard	Early sown rainfed	Normal sown irrigated
7	Potato	Upland Irrigated normal sown	Medium land irrigated late sown
8	Seasonal Vegetable	Early sown irrigated	Normal sown irrigated
9	Pig	Rainfed local breed	Rainfed local breed land less
10	Poultry	Local backyard poultry	-
11	Cow	Irregated+rainfed local breed	Rain local breed
12	Goat	Rainfed local breed	-
13	Fishery	Rainfed seasonal pond	Rainfed perinial pond

Table No :-6.2

Number and percentage of different farming situation of a crop in district

Agriculture
District :- Bokaro.

Crop	*AESI- I* *8415 ha (No. & percentage)*				*AESI- II* *11485 ha. (No. & percentage)*				*AESI- III* *10376 ha. (No. & percentage)*			
	FS 1		*FS 2*		*FS 1*		*FS 2*		*FS 1*		*FS 2*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Paddy	**5049**	**60**	**3366**	**40**	**6317**	**55**	**5168**	**45**	**6433**	**62**	**3943**	**38**

Crop	*AESI- I (1887 ha.)*				*AESI- II (2773 ha.)*				*AESI- III (2205 ha.)*			
	FS 1		*FS 2*		*FS 1*		*FS 2*		*FS 1*		*FS 2*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Maize	**377**	**20**	**1510**	**80**	**693**	**25**	**2080**	**75**	**441**	**20**	**1764**	**80**

Crop	*AESI- I (521 ha.)*				*AESI- II (742 ha.)*				*AESI- III (620 ha.)*			
	FS 1		*FS 2*		*FS 1*		*FS 2*		*FS 1*		*FS 2*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Wheat	**208.4**	**40**	**312.6**	**60**	**311.6**	**42**	**430.4**	**38**	**248**	**40**	**372**	**60**

Crop	*AESI- I (880 ha.)*				*AESI- II (1350 ha.)*				*AESI- III (947 ha.)*			
	FS 1		*FS 2*		*FS 1*		*FS 2*		*FS 1*		*FS 2*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Arhar	**880**	**107**	**-**	**-**	**135**	**100**	**-**	**-**	**647**	**100**	**-**	**-**

Crop	*AESI- I (775 ha.)*				*AESI- II (1150 ha.)*				*AESI- III (935 ha.)*			
	FS 1		*FS 2*		*FS 1*		*FS 2*		*FS 1*		*FS 2*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Gram	**310**	**40**	**465**	**60**	**575**	**50**	**575**	**50**	**374**	**40**	**561**	**60**

Crop	*AESI- I (390 ha.)*				*AESI- II (656 ha.)*				*AESI- III (495 ha.)*			
	FS 1		*FS 2*		*FS 1*		*FS 2*		*FS 1*		*FS 2*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
	176	**45**	**214**	**55**	**328**	**50**	**328**	**50**	**198**	**40**	**297**	**60**

Table-6.3: Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Agriculture

AES – I Crop : Paddy Resource Rich/Poor

ITEMS		FS – I					FS - II				
		Existing practices	Recommended	Gap in adop	Specific Reasons	Farmer Strategy	Existing practices	Recommended	Gap in adop	Specific Reasons for gap	Farmer Strategy
Sowing											
Varity	H.Y.V	Lalat-1001 I.R-64, MTU-1001 Anjali, Bandana	Lalat-1001 I.R-64, MTU-1001 Anjali, Bandana	N	-	-	MTU-7029	MTU-7029 BPT-5204 Rajsri	N	-	-
	Hybrid	Pro-Agro 6444, PHB-71, Advanta-832, Advanta-807, Myhico-6145, KRH-2, NK sahydri,	Pro-Agro 6444, PHB-71, Advanta-832,Advanta-807, Myhico-6145, Push RH-10, Myhico-6145	N	-	-	Pro-Agro 6444, PHB-71,	Pro-Agro 6444, PHB-71,	N	-	-
Method		Haphazard Transplanting	Line Transplanting	F	1,4,5, 9	1,2,6	Haphazard Transplanting	Line Transplanting	F	1,4,5,9	1,2,6
Time	Seeding	10th June to 25th June	10th June to 25th June	N	-	-	10th June to 25th June	10th June to 25th June	N	-	1,2,3
	Transplanting	15th July to 30th July	15th July to 30th July	N	-	-	15th July to 30th July	15th July to 30th July	N	-	1,2,3
Seed Rate		65-70Kg/ha	50kg/ha	P	1,6,7	1,2,8	65-70Kg/ha	50kg/ha	P	1,6,7	1,2,8
Organic Manure & Fertilizer											
Organic Manure		1 qt.	100 Qt	P	2,5,6	2,3,4,7	0.75qt.	100 Qt	P	2,5,6	2,3,4,7

Fertilizer (Nutrient in Kg/ha.														
	H.Y.V	Hybrid	H.Y.V	Hybrid				H.Y.V	Hybrid	H.Y.V	Hybrid			
Basal (N+P+K) KG/ H	25: 20:	25 : 30 :05	40 : 40 :20	50 : 50 : 30	P	1,2,5,7	1,2,4,5	25 : 30 : 0	30 : 20 : 10	50 : 60 :30	50 : 60 : 30	P	1,2,5,7	1,2,4,5
Top Dressing (N) KG/H	25	25	40	50 : 00 : 20	P	1,2,5,7	1,2,4,5	25	30	50	50	P	1,2,5,7	1,2,4,5
Total KG/ H	50 : 20 : 0	50 : 30 : 05	80 : 40 : 20	100 : 50 : 30		-	-	50 : 30 : 0	60 : 20 : 10	100 : 60 : 30	100 : 60 : 30			-
Method of fertilizer use														
Basal (N+P+K)	Broad Casting		Broad Casting		N	-		Broad Casting		Broad Casting		N	-	-
Top Dressing (N)	Broad Casting		Broad Casting		N	-		Broad Casting		Broad Casting		N	-	-
Disease & Pest Management														
Pest Management								-		-		-	-	-
Soil Treatment	-		Carbofuran 3-G 25kg/ha		F	1,3,5,6, 7	2,3,4,5	-		Carbofuran 3-G 25kg/ha		F	1,3,5,6,7	2,3,4,5
Gall Midge	Indosuphan		Carbofuran 3-G 25kg/ha		P	1,3,5,6, 7	2,3,4,5	Chloprpyriphos		Chloprpyriphos		P	1,3,5,6,7	2,3,4,5
Stem Borer	-		Chloprpyriphos		F	1,3,5,6, 7	2,3,4,5	-		Monocrhrotfhos 1.5 lit/ha		F	1,3,5,6,7	2,3,4,5
Gundhi Bug	-		Monocrhrotfhos 1.5 lit/ha		F	1,3,5,6, 7	2,3,4,5	-		Quinalphos 2lit/ha		F	1,3,5,6,7	2,3,4,5
Leaf Roller	-		Quinalphos 2lit/ha		F	1,3,5,6, 7	2,3,4,5	-		Carbofuran 3-G 25kg/ha		F	1,3,5,6,7	2,3,4,5
Disease Management														
Seed Treatment	-		Carbendazin 2gm/kg seed		F	1,3,5,6, 7	2,3,4,5	-		-		F	1,3,5,6,7	2,3,4,5
Leaf Blast	-		Carbendazin 1kg/500 lit seed		F	1,3,5,6, 7	2,3,4,5	-		-		F	1,3,5,6,7	2,3,4,5
Leaf Spot	-		Mencageb 2kg/ha		F	1,3,5,6, 7	2,3,4,5	-		-		F	1,3,5,6,7	2,3,4,5
Bacterial Leaf Blight	-		Streptocyclin		F	1,3,5,6, 7	2,3,4,5	-		-		F	1,3,5,6,7	2,3,4,5
False Smut	-		Cuopper oxichloride 0.3% sol.		F	1,3,5,6, 7	2,3,4,5	-		-		F	1,3,5,6,7	2,3,4,5
Case Worm	Practiced by a few farmers		Monocrhrotfhos 1.5 lit/ha		P	1,3,5,6, 7	2,3,4,5	some farmers practiced others do not		Monocrhrotfhos 1.5 lit/ha		P	1,3,5,6,7	2,3,4,5

Weed Management										
Mechanical	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,4,5,7, 9	2,5,6,7	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,4,5,7,9	2,5,6,7
Chemical	-	Butachlore @ 3 lit/ha.	F	1,4,5,7, 9	2,5,6,7	-	Butachlore @ 3 lit/ha.	F	1,4,5,7,9	2,5,6,7
Water Management										
No. of Irrigation	Rainfed	When required	P	5,8,9	5,7,2	Rainfed	When required	P	5,8,9	5,7,2
Method	Flooding	Flooding	N	-	-	Flooding	Flooding	N	-	-
Soil Management										
Acidity	-	-	-	-	-	-	-	-	-	-
Water Logging	-	2" - 3" water to be maintained	F	1,5,6,8	2,5,7	-	2" - 3" water to be maintained	F	1,5,6,8	2,5,7
Harvesting & Threshing										
Method of Harvesting	Local sickle	Sickle , Harvester	P	5,6,2	5,6	Local sickle	Sickle , Harvester	P	5,6,2	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5,6,2	5,6	Bullock	Tractor , Thresser	P	5,6,2	5,6
Average Yield										
Grain	25 qut/ha	40 qut/ha	P	1,2,3,4 ,6,8,9	1,2,3,4,5, 6,7	30 qut/ha	60 qut/ha	P	1,2,3,4,6,8 ,9	1,2,3,4,5,6, 7
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,5,9	2,4,7	-	Aluminium phosphide 1 tablet/matric ton	P	1,5,9	2,4,7

Reasons for gap-

1.Lack of awareness/knowledge.
2.Non availablity of required quantity of quality input.
3.Plant protection is not economical under rainfed conditions.
4.Non- availblity & high cost of labour.
5.Lack of resource.
6.Lack of effective extension system.
7. Risk of crop failure.
8. Lack of assured irrigation.
9. Lack of convication.

Prop. Strategies :-

1. Demonstration/OFT
2. Training and awareness campaign.
3 Exposer visit.
4. Use of locally available for nutrient and pest cantrol.
5. Linkage to Financial Instution.
6. Availablity of improved implement.
7. Farmers scientist intercation
8. Availablity of quality seed in local market.

Table-6.4: Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Agriculture

AES – II Crop : Paddy **Resource Rich/Poor**

(Existing practices of RR & RP farmers is almost same)

ITEMS		FS – I					FS - II				
		Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing											
Varity	H.Y.V	Lalat I.R-64, MTU-1001 Anjali, Bandana	Lalat I.R-64, MTU-1001 Anjali, Bandana	N	-	-	MTU-7029	MTU-7029 BPT-5204 Rajsri	N	-	-
	Hybrid	Pro-Agro 6444, PHB-71, Advanta-832, Advanta-807, Myhico-6145, KRH-2, NK sahydri,	Pro-Agro 6444, PHB-71, Advanta-832,Advanta-807, Myhico-6145, Push RH-10, Myhico-6145	N	-	-	Pro-Agro 6444, PHB-71,	Pro-Agro 6444, PHB-71,	N	-	-
Method		Haphazard Transplanting	Line Transplanting	F	1,4,5,9	1,2,6	Haphazard Transplanting	Line Transplanting	F	1,4,5,9	1,2,6
Time	Seeding	10^{th} June to 25^{th} June	10^{th} June to 25^{th} June	N	-	-	10^{th} June to 25^{th} June	10^{th} June to 25^{th} June	N	-	1,2,3
	Transplanting	15^{th} July to 30^{th} July	15^{th} July to 30^{th} July	N	-	-	15^{th} July to 30^{th} July	15^{th} July to 30^{th} July	N	-	1,2,3
Seed Rate		65-70Kg/ha	50kg/ha	P	1,6,7	1,2,8	65-70Kg/ha	50kg/ha	P	1,6,7	1,2,8
Organic Manure & Fertilizer											
Organic Manure		1.5qt.	100 Qt	P	2,5,6	2,3,4,7	1 qt.	100 Qt	P	2,5,6	2,3,4,7

Fertilizer (Nutrient in Kg/ha.														
	H.Y.V	Hybrid	H.Y.V	Hybrid				H.Y.V	Hybrid	H.Y.V	Hybrid			
Basal (N+P+K) KG/ H	20: 20:	20 : 20 :05	40 : 40 :20	50 : 50 : 30	P	1,2,5,7	1,2,4,5	20: 20:	20 : 20 :05	50 : 60 :30	50 : 60 : 30	P	1,2,5,7	1,2,4,5
Top Dressing (N) KG/H	20	20	40	50 : 00 : 20	P	1,2,5,7	1,2,4,5	20	20	50	50	P	1,2,5,7	1,2,4,5
Total KG/ H	40 : 20	40 : 20 : 05	80 : 40 : 20	100 : 50 : 30		-	-	40 : 20	40 : 20 : 05	100 : 60 : 30	100 : 60 : 30			-
Method of fertilizer use														
Basal (N+P+K)	Broad Casting		Broad Casting		N	-		Broad Casting		Broad Casting		N	-	-
Top Dressing (N)	Broad Casting		Broad Casting		N	-		Broad Casting		Broad Casting		N	-	-
Disease & Pest Management														
Pest Management								-		-		-	-	-
Soil Treatment	-		Carbofuran 3-G 25kg/ha		F	1,3,5,6 ,7	2,3,4, 5	-		Carbofuran 3-G 25kg/ha		F	1,3,5,6,7	2,3,4,5
Gall Midge	Indosuphan		Carbofuran 3-G 25kg/ha		P	1,3,5,6 ,7	2,3,4, 5	Chloprpyriphos		Chloprpyriphos		P	1,3,5,6,7	2,3,4,5
Stem Borer	-		Chloprpyriphos		F	1,3,5,6 ,7	2,3,4, 5	-		Monocrhrotfhos 1.5 lit/ha		F	1,3,5,6,7	2,3,4,5
Gundhi Bug	-		Monocrhrotfhos 1.5 lit/ha		F	1,3,5,6 ,7	2,3,4, 5	-		Quinalphos 2lit/ha		F	1,3,5,6,7	2,3,4,5
Leaf Roller	-		Quinalphos 2lit/ha		F	1,3,5,6 ,7	2,3,4, 5	-		Carbofuran 3-G 25kg/ha		F	1,3,5,6,7	2,3,4,5
Disease Management														
Seed Treatment	-		Carbendazin 2gm/kg seed		F	1,3,5,6 ,7	2,3,4, 5	-		-		F	1,3,5,6,7	2,3,4,5
Leaf Blast	-		Carbendazin 1kg/500 lit seed		F	1,3,5,6 ,7	2,3,4, 5	-		-		F	1,3,5,6,7	2,3,4,5
Leaf Spot	-		Mencageb 2kg/ha		F	1,3,5,6 ,7	2,3,4, 5	-		-		F	1,3,5,6,7	2,3,4,5
Bacterial Leaf Blight	-		Streptocyclin		F	1,3,5,6 ,7	2,3,4, 5	-		-		F	1,3,5,6,7	2,3,4,5
False Smut	-		Cuopper oxichloride 0.3% sol.		F	1,3,5,6 ,7	2,3,4, 5	-		-		F	1,3,5,6,7	2,3,4,5
Case Worm	Practiced by a few farmers		Mnocrhrotfhos 1.5 lit/ha		P	1,3,5,6 ,7	2,3,4, 5	Say some farmers practiced a others do not		Mnocrhrotfhos 1.5 lit/ha		P	1,3,5,6,7	2,3,4,5

						-				
Weed Management										
Mechanical	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,4,5,7 ,9	2,5,6,7	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,4,5,7,9	2,5,6,7
Chemical	-	Butachlore @ 3 lit/ha.	F	1,4,5,7 ,9	2,5,6,7	-	Butachlore @ 3 lit/ha.	F	1,4,5,7,9	2,5,6,7
Water Management										
No. of Irrigation	Rainfed	When required	P	5,8,9	5,7,2	Rainfed	When required	P	5,8,9	5,7,2
Method	Flooding	Flooding	N	-	-	Flooding	Flooding	N	-	-
Soil Management										
Acidity	-	-	-	-	-	-	-	-	-	-
Water Logging	-	2" - 3" water to be maintained	F	1,5,6, 8	2,5,7	-	2" - 3" water to be maintained	F	1,5,6,8	2,5,7
Harvesting & Threshing										
Method of Harvesting	Local sickle	Sickle , Harvester	P	5,6,2	5,6	Local sickle	Sickle , Harvester	P	5,6,2	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5,6,2	5,6	Bullock	Tractor , Thresser	P	5,6,2	5,6
Average Yield										
Grain	20 qut/ha	40 qut/ha	P	1,2,3, 4,6,8, 9	1,2,3,4, 5,6,7	22 qut/ha	60 qut/ha	P	1,2,3,4,6, 8,9	1,2,3,4,5,6 ,7
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,5,9	2,4,7	-	Aluminium phosphide 1 tablet/matric ton	P	1,5,9	2,4,7

Reasons for gap-

1.Lack of awareness/knowledge.
2.Non availablity of required quantity of seed.
3.Plant protection is not economical under rainfed conditions.
4.Non- availblity & high cost of labour.
5.Lack of resource.
6.Lack of effective extension system.
7. Risk of crop failure.
8. Lack of assured irrigation.
9. Lack of convication.

Prop. Strategies :-

1. Demonstration/OFT
2. Training and awareness campaign.
3 Exposer visit.
4. Use of locally available for nutrient and pest cantrol.
5. Linkage to Financial Instution.
6. Availablity of improved implement.
7. Farmers scientist intercation
8. Availablity of quality seed in local market.

Table-6.5: Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III

Agriculture
Crop : Paddy

Resource Rich/Poor

ITEMS		FS – I					FS - II				
		Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing											
Varity	H.Y.V	Lalat I.R-64, I.R-36 Anjali	Lalat- I.R-64, MTU-1001 Anjali, Bandana	N	-	-	MTU-7029	MTU-7029 BPT-5204 Rajsri	N	-	-
	Hybrid	-	Pro-Agro 6444, PHB-71, Advanta-832,Advanta-807, Myhico-6145, Push RH-10, Myhico-6145	F	1,2,5,7,9	1,2,3,5,7,8	-	Pro-Agro 6444, PHB-71,	F	1,2,5,7,9	1,2,3,5,7,8
Method		Haphazard Transplanting	Line Transplanting	F	1,4,5,9	1,2,6	Haphazard Transplanting	Line Transplanting	F	1,4,5,9	1,2,6
Time	Seeding	10th June to 25th June	10th June to 25th June	N	-	-	10th June to 25th June	10th June to 25th June	N	-	1,2,3
	Transplanting	15th July to 30th July	15th July to 30th July	N	-	-	15th July to 30th July	15th July to 30th July	N	-	1,2,3
Seed Rate		65-70Kg/ha	50kg/ha	P	1,6,7	1,2,8	65-70Kg/ha	50kg/ha	P	1,6,7	1,2,8
Organic Manure & Fertilizer											
Organic Manure		Nil	100 Qt	F	2,5,6	2,3,4,7	Nil	100 Qt	F	2,5,6	2,3,4,7

Fertilizer (Nutrient in Kg/ha.														
	H.Y.V	Hybrid	H.Y.V	Hybrid				H.Y.V	Hybrid	H.Y.V	Hybrid			
Basal (N+P+K) KG/ H	10:10 :0	-	40 : 40 :20	50 : 50 : 30	P	1,2,5,7	1,2,4,5	10 : 10 : 0	-	50 : 60 :30	50 : 60 : 30	P	1,2,5,7	1,2,4,5
Top Dressing (N) KG/H	10	-	40	50 : 00 : 20	P	1,2,5,7	1,2,4,5	10	-	50	50	P	1,2,5,7	1,2,4,5
Total KG/ H	20: 10 : 0	-	80 : 40 : 20	100 : 50 : 30		-	-	20 : 10 : 0	-	100 : 60 : 30	100 : 60 : 30			-
Method of fertilizer use														
Basal (N+P+K)	Broad Casting		Broad Casting		N	-		Broad Casting		Broad Casting		N	-	-
Top Dressing (N)	Broad Casting		Broad Casting		N	-		Broad Casting		Broad Casting		N	-	-
Disease & Pest Management														
Pest Management								-		-		-	-	-
Soil Treatment	-		Carbofuran 3-G 25kg/ha		F	1,3,5,6 ,7	2,3,4,5	-		Carbofuran 3-G 25kg/ha		F	1,3,5,6,7	2,3,4,5
Gall Midge	Indosuphan		Carbofuran 3-G 25kg/ha		P	1,3,5,6 ,7	2,3,4,5	Chloprpyriphos		Chloprpyriphos		P	1,3,5,6,7	2,3,4,5
Stem Borer	-		Chloprpyriphos		F	1,3,5,6 ,7	2,3,4,5	-		Monocrhrotfhos 1.5 lit/ha		F	1,3,5,6,7	2,3,4,5
Gundhi Bug	-		Monocrhrotfhos 1.5 lit/ha		F	1,3,5,6 ,7	2,3,4,5	-		Quinalphos 2lit/ha		F	1,3,5,6,7	2,3,4,5
Leaf Roller	-		Quinalphos 2lit/ha		F	1,3,5,6 ,7	2,3,4,5	-		Carbofuran 3-G 25kg/ha		F	1,3,5,6,7	2,3,4,5
Disease Management														
Seed Treatment	-		Carbendazin 2gm/kg seed		F	1,3,5,6 ,7	2,3,4,5	-		-		F	1,3,5,6,7	2,3,4,5
Leaf Blast	-		Carbendazin 1kg/500 lit seed		F	1,3,5,6 ,7	2,3,4,5	-		-		F	1,3,5,6,7	2,3,4,5
Leaf Spot	-		Mencageb 2kg/ha		F	1,3,5,6 ,7	2,3,4,5	-		-		F	1,3,5,6,7	2,3,4,5
Bacterial Leaf Blight	-		Streptocyclin		F	1,3,5,6 ,7	2,3,4,5	-		-		F	1,3,5,6,7	2,3,4,5
False Smut	-		Cuopper oxichloride 0.3% sol.		F	1,3,5,6 ,7	2,3,4,5	-		-		F	1,3,5,6,7	2,3,4,5
Case Worm	Practiced by a few farmers		Monocrhrotfhos 1.5 lit/ha		P	1,3,5,6 ,7	2,3,4,5	-		Monocrhrotfhos 1.5 lit/ha		P	1,3,5,6,7	2,3,4,5

Weed Management										
Mechanical	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,4,5,7 ,9	2,5,6,7	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,4,5,7,9	2,5,6,7
Chemical	-	Butachlore @ 3 lit/ha.	F	1,4,5,7 ,9	2,5,6,7	-	Butachlore @ 3 lit/ha.	F	1,4,5,7,9	2,5,6,7
Water Management										
No. of Irrigation	Rainfed	When required	P	5,8,9	5,7,2	Rainfed	When required	P	5,8,9	5,7,2
Method	Flooding	Flooding	N	-	-	Flooding	Flooding	N	-	-
Soil Management										
Acidity	-	-	-	-	-	-	-	-	-	-
Water Logging	-	2" - 3" water to be maintained	F	1,5,6, 8	2,5,7	-	2" - 3" water to be maintained	F	1,5,6,8	2,5,7
Harvesting & Threshing										
Method of Harvesting	Local sickle	Sickle , Harvester	P	5,6,2	5,6	Local sickle	Sickle , Harvester	P	5,6,2	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5,6,2	5,6	Bullock	Tractor , Thresser	P	5,6,2	5,6
Average Yield										
Grain	18 qut/ha	40 qut/ha	P	1,2,3, 4,6,8, 9	1,2,3,4, 5,6,7	20 qut/ha	60 qut/ha	P	1,2,3,4,6, 8,9	1,2,3,4,5,6 ,7
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,5,9	2,4,7	-	Aluminium phosphide 1 tablet/matric ton	P	1,5,9	2,4,7

Reasons for gap-

1.Lack of awareness/knowledge.
2.Non availablity of required quantity of seed.
3.Plant protection is not economical under rainfed conditions.
4.Non- availblity & high cost of labour.
5.Lack of resource.
6.Lack of effective extension system.
7. Risk of crop failure.
8. Lack of assured irrigation.
9. Lack of convication.

Prop. Strategies :-

1. Demonstration/OFT
2. Training and awareness campaign.
3 Exposer visit.
4. Use of locally available for nutrient and pest cantrol.
5. Linkage to Financial Instution.
6. Availablity of improved implement.
7. Farmers scientist intercation
8. Availablity of quality seed in local market.

Table – 6.6 : Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/Commodity in the AES

Agriculture

AES – I,II,III | Crop : Paddy | Resource Rich & Poor

Production Practices (items)	Gap in adoption in the different situations in which the crop/commodity in grown		Reasond for gap in adoption as perceived by the farmers	Strategies proposed as perceived by the farmers	Strategies proposed to overcome the gap
	FS- I	FS-II			
Sowing Time	-	-	-	-	-
Method	✓	✓	1,4,5,9	1,2,6	1,2
Variety	✓	✓	1,2,5,7,9	1,2,3,5,7,8	1,2
Seed Rate	✓	✓	1,6,7	1,2,8	1,2,3,4
Seed Treatment	✓	✓	-	-	1,2,8,9
Organic Manure	✓	✓	2,5,6	2,3,4,7	1,2,8,9
Fertilizer(Mutrient Kg/ha					
Basal (N + P + K)	✓	✓	1,2,5,7	1,2,4,5	1,2,4,5
Top Dressing (N)	-	-	1,2,5,7	1,2,4,5	-
Total	✓	-	1,2,5,7	1,2,4,5	-
Pest Management					
Gall Midge	✓	✓	1,3,5,6,7	2,3,4,5	1,2,4,5,8,9
Stem Borer	✓	✓	1,3,5,6,7	2,3,4,5	1,2,4,5,8,9
Gandhi Bug	✓	✓	1,3,5,6,7	2,3,4,5	
Disease Management					
Blast	✓	✓	1,3,5,6,7	2,3,4,5	1,2,4,5,8,9
Bacterial Blight	✓	✓	1,3,5,6,7	2,3,4,5	1,2,4,5,8,9
Weed Management					
Mechanical	✓	✓	1,4,5,7,9	2,5,6,7	5,6
Herbicide	✓	✓	1,4,5,7,9	2,5,6,7	5,6
Water Management					
No. of Irrigation	✓	✓	5,8,9	5,7,2	5,6
Method	-	-	-	-	-
Land Management					
Acidity	-	-	-	-	1,2,4,5
Water Logging	-	-	-	-	-
Method of Harvesting					
Any Other/Thresing	✓	✓	5,6,2	5,6	5,6
Average Yield	✓	✓	1,2,3,4,6,8,9	1,2,3,4,5,6,7	-
Storage Post Control	✓	✓	1,5,9	2,4,7	1,9

Reasons for gap-

1.Lack of awareness/knowledge.
2.Non availablity of required quantity of seed.
3.Plant protection is not economical under rainfed conditions.
4.Non- availblity & high cost of labour.
5.Lack of resource.
6.Lack of effective extension system.
7. Risk of crop failure.
8. Lack of assured irrigation.
9. Lack of convication.

Prop. Strategies :- 1. Training and awareness campaign. 2. Demonstration. 3 Exposer visit. 4. On farm trail/ORF. 5. Financial support. 6. Availablity of improved implement.7Access to outside market. 8. Farmar scientist intraction.9. Farming as per IPM/INM recomedetion.10. Irrigation facility.

Table – 6.7 Consolidated Gaps in Production Practices of a Crop/Commodity and Proposed Strategies for the Bokaro District.

Agriculture Crop : Rice

Item	AES I		AES II		AES II	
	Gap in adoption N/P/P	Proposed strategy to overcome the gap	Gap in adoption N/P/P	Proposed strategy to overcome the gap	Gap in adoption N/P/P	Proposed strategy to overcome the gap
Sowing Time	N	1,2,3	N	1,2,3	N	1,2,3
Method	F	1,2,3	F	1,2,3	F	1,2,3
Variety	N	1,2,3,5	N	1,2,3,5	N	1,2,3,5
Seed Rate	P	1,2,5,8	P	1,2,5,8	P	1,2,5,8
Seed Treatment	P	1,2,4	P	1,2,4	P	1,2,4
Organic Manure	F	1,2,4,5,8	F	1,2,4,5,8	F	1,2,4,5,8
Fertilizer(Mutrient Kg/ha						
Basal (N + P + K)	P	1,2,4	P	1,2,4	P	1,2,4
Top Dressing (N)	P	1,2,4	P	1,2,4	P	1,2,4
Pest Management						
Soil Treaatment	F	1,2,5,6,8,9	F	1,2,5,6,8,9	F	1,2,5,6,8,9
Gall Mildge	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Stem Borer	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Gandhi Bug	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Leaf Roller	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Case Worm	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Disease Management						
Seed Treatment	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Blast	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Leaf Spot	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Bacterial Blight	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
False Smut	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Weed Management						
Mechanical	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Chemical	F	1,2,5,6,8,9	F	1,2,5,6,8,9	F	1,2,5,6,8,9
Water Management						
No. of Irrigation	N	10	N	10	N	10
Method	N	1,2,3	N	1,2,3	N	1,2,3
Soil Management						
Acidity	-	-	-	-	-	-
Water Logging	P	-	P	-	P	-
Harvesting & Threshing						
Method of Harvestig	P	1,2,6	P	1,2,6	P	1,2,6
Any Other/Threshig	P	1,2,6	P	1,2,6	P	1,2,6
Average Yield						
Grain	P	1,2,3,5	P	1,2,3,5	P	1,2,3,5
Storage Pest Control	F	1,2,3	F	1,2,3	F	1,2,3

Prop. Strategies :- 1. Training and awareness campaign. 2. Demonstration. 3 Exposer visit. 4. On farm trail/ORF. 5. Financial support. 6. Availablity of improved implement.7Access to outside market. 8. Farmar scientist intraction.9. Farming as per IPM/INM recomedetion.10. Irrigation facility.

Table- 6.8
Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Agriculture

AES – I,II,III **Resource Rich/Poor**

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing										
Time	November	Upto 15th Nov.	N			15th Dec. to 15th January	Upto 25th December	N		
Method	Behind plough	Line Sowing	P	1,4,5	1,2,5	Behind plough	Line Sowing	P	1,4,5	1,2,5
Variety	Sonalics C-306 HD 2402	HD-2733, HUW-468, HD 2402, PBW 343, K 8804	F	1,2,4,57,8	1,2,6	Sonalics C-306 HD 2402	HD-2733, HUW-234, HP-1744,HW-2045, HD-2643, PBW 343	F	1,2,4,57,8	1,2,6
Seed Rate	250 kg./ha	125 kg/ha	P	1, 7	1,2,5	250 Kg./ha	150 kg./ha	P	1,7,10	1,2,5
Seed Treatment	-	Bavistin 2gm/kg seed	F	1,5	1,2,3,6	-	Bavistin 2gm/kg seed	F	1,5	1,2,3,6
Organic Manure	2 ton/ha	5-10 ton/ha	F	1,5,7,8	1,2,6	2 ton/ha	5-10 ton/ha	F	1,5,7,8	1,2,6
Fertilizer (Nutrient kg/ha	40:40:00	100:50:25		1,5,7,8	1,2,3,5,6	30:30:0	80:40:20		1,5,7,8	1,2,3,5,6
Basal (N+P+K)	20:40:00	50+50+25	P	1,5,7,8	1,2,3,5,6	15:30:0	40+40+20	P	1,5,7,8	1,2,3,5,6
Top Dressing (N)	20	25+25	P	1,5,7,8	1,2,3,5,6	15	20+20	P	1,5,7,8	1,2,3,5,6
Total	40:40:00	100+50+25				30:30:0	80:40:20			
Micro Nutrient	-		-	-	-	-		-	-	-
Pest Management										
Termite	-	Lindane dust @ 25 kg/ha	F	1,3,5,7	1,2,4,5	-	Lindane dust @ 25 kg/ha	F	1,3,5,7	1,2,4,5
Disease Management										
Rust	-	Dithane M-45	F	1,4	1,2	-	Dithane M-45	F	1,4	1,2
Alternation Blight	-	Vitavax 2.5 g/kg seed	F	1,4	1,2	-	Vitavax 2.5 g/kg seed	F	1,4	1,2

Weed Management										
Mechanical	Hand weeding	Hand weeding	N	-	-	Hand weeding	Hand weeding	N	-	-
Herbicide & Earthing	-	Isopruton 75EC @ 1.5, Kg/ha	F	1,4	1,2	-	Isopruton 75EC @ 1.5, Kg/ha	F	1,4	1,2
Water Management										
No. of Irrigation	6 times	7 times	P	1,4	1,2	6times	7 times	P	1,4	1,2
Method	Flooding	Flooding	N	-	-	Flooding	Flooding	N	-	-
Land Management										
Acidity/Salinity	-	Liming, Fallow Practiced	F	1,5	1,5	-		F	1,5	1,5
Method of Harvesting	sickle	Mechanical Manual	P	1,4	1,2	sickle	Mechanical Manual	P	1,4	1,2
Marketing	-	Organised	F	1,4	1,2	-	Organised	F	1,4	1,2
Farm Level Processing										
Grading	-	Grading-grain size	F		-	-	Grading-grain size	F		-
Packing	Gunny Bags	Gunny Bags	N	-	-	Gunny Bags	Gunny Bags	N	-	-
Processing	-	Floor mill	F	1,4	1,2	-	Floor mill	F	1,4	1,2
Storage Pest Control	-	Steel Bean, Godown	F	1,4	1,3,5	-	Steel Bean, Godown	F	1,4	1,3,5
Average Yield	20-25 q/ha	40-50 q/ha	P	1,2,3,4,5	1,3,5	18-20 q/ha	35-40 q/ha	P	1,2,3,4,5	1,3,5

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Table No. 6.9

CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop :- Wheat

Production Practices (items)	AES-I		AES-II		AES-III	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Sowing						
Time	P	2	P	2	P	2
Method	P	2,3,5	P	2,3,5	P	2,3,5
Variety	F	2,3,5,9	F	2,3,5,9	F	2,3,5,9
Seed Rate	F	2	F	2	F	2
Seed Treatment	F	2,9	F	2,9	F	2,9
Organic Manure	F	2,3,8,10	F	2,3,8,10	F	2,3,8,10
Fertilizer (Nutrient kg/ha						
Basal (N+P+K)	P	1,2,3,6,10	P	1,2,3,6,10	P	1,2,3,6,10
Top Dressing (N)	P	1,2,3,6,10	P	1,2,3,6,10	P	1,2,3,6,10
Pest Management						
Termite	F	1,2,6,7	F	1,2,6,7	F	1,2,6,7
Disease Management	F	1,2,6,7	F	1,2,6,7	F	1,2,6,7
Rust	F	1,2,6,7	F	1,2,6,7	F	1,2,6,7
Alternation Blight	F	1,2,6,7	F	1,2,6,7	F	1,2,6,7
Weed Management						
Mechanical	N	-	N	-	N	-
Herbicide & Earthing	F	2,9	F	2,9	F	2,9
Water Management						
No. of Irrigation	P	2, 10	P	2, 10	P	2, 10
Method	N	-	N	-	N	-

Land Management						
Acidity/Salinity	-	-	-	-	-	-
Method of Harvesting	P	1,2,3	P	1,2,3	P	1,2,3
Marketing	F	1, 4	F	1, 4	F	1, 4
Farm Level Processing		1, 4		1, 4		1, 4
Grading	F	1,3,4	F	1,3,4	F	1,3,4
Packing	N	1, 3,4,9	N	1, 3,4,9	N	1, 3,4,9
Processing	F	1,6,7	F	1,6,7	F	1,6,7
Storage Pest Control	F	1,2,5,6,7	F	1,2,5,6,7	F	1,2,5,6,7
Average Yield	P	1,2,5,6,7,8	P	1,2,5,6,7,8	P	1,2,5,6,7,8

***** Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Linkage with financial institution/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Use of locally available materials for nutrient management & plant protection, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Farmers scientist intraction, 10. More emphasis on judicious use of soil and water

Table- 6.10

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Agriculture **Crop: Maize**

AES - I **Resource : Rich/Poor**

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing Time	May	Last week of May to June	P	1,5,8	1,6	June - July	June	P	1,5,8	1,6
Method	Behind plough	Line: 75 x 25 cm	F	1,4,5	1,4	Behind plough	Line: 75 x 25 cm	F	1,4,5	1,4
Variety	Local	Swan Composite-1, Birsa Vikas Makka-2, Kanchan, Hybrid	F	1,2,5	1,5,7	Local, Kanchan	Swan Composite-1, Birsa Vikas Makka-2, Kanchan, Hybrid	F	1,2,5	1,5,7
Seed Rate	25-30 Kg./ha	18 kg/ha	P	1,7	1,5	20-25 kg.	18 kg/ha	P	1,7	1,5
Seed Treatment		Captan 2 gram/kg	F	1,5	1,2		Captan 2 gram/kg	F	1,5	1,2
Organic Manure	2 ton/ha	10-15 ton/ha	P	1,5,7	1,6	2 ton/ha	10-15 ton/ha	P	1,5,7	1,6
Fertilizer (Nutrient kg/ha	40:20:00	100:60:40	P	1,3,6	1,2,3,4	30:10:00	100:60:40	P	1,3,6	1,2,3,4
Basal (N+P+K)	20:20:00	30:60:40	P	1,3,6	1,2,3,4	20:10	30:60:40	P	1,3,6	1,2,3,4
Top Dressing (N)	20	40+30	P	1,3,5	1,2,3,4	10	40+30	P	1,3,5	1,2,3,4
Total	40:20:00	100:60:40				30:10:00	100:60:40			
Pest Management										
Stem Borer	-	Thimet 10 G 15 kg/ha	F	1,5,9	1,5	-	Thimet 10 G 15 kg/ha	F	1,5,9	1,5
Disease Management										
Bacterial Stalk rot	1	Bleaching powder @ 20-25 kg/ha	F	1,3,5	1,5	1	Bleaching powder @ 20-25 kg/ha	F	1,3,5	1,5

Weed Management			-					-		
Mechanical	HOe	Khurpi/Hoe	N	-	-	HOe	Khurpi/Hoe	N	-	-
Herbicide	-	Simazine and Atrazine 1.0-1.25 kg/ha	F	1,3,5	1,2,5	-	Simazine and Atrazine 1.0-1.25 kg/ha	F	1,3,5	1,2,5
Water Management			-					-		
No. of Irrigation	Rain fed	As per need	F	1,5,8	1,6	Rain fed	As per need	F	1,5,8	1,6
Method	Furrow	Furrow	N	-	-	Furrow	Furrow	N	-	-
Land Management			-	-	-			-	-	-
Acidity	Nil	Line 2-5-4 Q/ha	F	1,5,7	1,5	Nil	Line 2-5-4 Q/ha	F	1,5,7	1,5
Method of Harvesting	Plucking	Plucking	N	-	-	Plucking	Plucking	N	-	-
Any Other/Threshing	-	Maize Seller machine	F	1,5	1,4	-	Maize Seller machine	F	1,5	1,4
Average Yield	Green cob is harvested	40-50 q/h	P	1,2,5,8	1,2,4,7	15-20 q/ha.	40-50 q/h	P	1,2,5,8	1,2,4,7
Storage Pest Control		Steel Bean Aluminum Phosphide	F	1,5	1,5		Steel Bean Aluminum Phosphide	F	1,5	1,5

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Table- 6.11

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Agriculture **Crop: Maize**

AES - II **Resource : Rich/Poor**

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing Time	May	Last week of May to June	P	1,5,8	1,6	June - July	June	P	1,5,8	1,6
Method	Behind plough	Line: 75 x 25 cm	F	1,4,5	1,4	Behind plough	Line: 75 x 25 cm	F	1,4,5	1,4
Variety	Local	Swan Composite-1, Birsa Vikas Makka-2, Kanchan, Hybrid	F	1,2,5	1,5,7	Local, Kanchan	Swan Composite-1, Birsa Vikas Makka-2, Kanchan, Hybrid	F	1,2,5	1,5,7
Seed Rate	25-30 Kg./ha	18 kg/ha	P	1,7	1,5	20-25 kg.	18 kg/ha	P	1,7	1,5
Seed Treatment		Captan 2 gram/kg	F	1,5	1,2		Captan 2 gram/kg	F	1,5	1,2
Organic Manure	2 ton/ha	10-15 ton/ha	P	1,5,7	1,6	2 ton/ha	10-15 ton/ha	P	1,5,7	1,6
Fertilizer (Nutrient kg/ha	30:20:00	100:60:40	P	1,3,6	1,2,3,4	30:10:00	100:60:40	P	1,3,6	1,2,3,4
Basal (N+P+K)	10:20:00	30:60:40	P	1,3,6	1,2,3,4	20:10	30:60:40	P	1,3,6	1,2,3,4
Top Dressing (N)	20	40+30	P	1,3,5	1,2,3,4	10	40+30	P	1,3,5	1,2,3,4
Total	30:20:00	100:60:40	P			30:10:00	100:60:40	P		
Pest Management										
Stem Borer	-	Thimet 10 G 15 kg/ha	F	1,5,9	1,5	-	Thimet 10 G 15 kg/ha	F	1,5,9	1,5

Disease Management			-					-		
Bacterial Stalk rot	1	Bleaching powder @ 20-25 kg/ha	F	1,3,5	1,5	1	Bleaching powder @ 20-25 kg/ha	F	1,3,5	1,5
Weed Management			-					-		
Mechanical	HOe	Khurpi/Hoe	N	-	-	HOe	Khurpi/Hoe	N	-	-
Herbicide	-	Simazine and Atrazine 1.0-1.25 kg/ha	F	1,3,5	1,25	-	Simazine and Atrazine 1.0-1.25 kg/ha	F	1,3,5	1,25
Water Management			-					-		
No. of Irrigation	Rain fed	As per need	F	1,5,8	1,6	Rain fed	As per need	F	1,5,8	1,6
Method	Furrow	Furrow	N	-	-	Furrow	Furrow	N	-	-
Land Management										
Acidity	Nil	Line 2-5-4 Q/ha	F	1,5,7	1,5	Nil	Line 2-5-4 Q/ha	F	1,5,7	1,5
Method of Harvesting	Plucking	Plucking	N	-	-	Plucking	Plucking	N	-	-
Any Other/Threshing	-	Maize Seller machine	F	1,5	1,4	-	Maize Seller machine	F	1,5	1,4
Average Yield	Green cob is harvested	40-50 q/h	P	1,2,5,8	1,2,4,7	15-20 q/ha.	40-50 q/h	P	1,2,5,8	1,2,4,7
Storage Pest Control		Steel Bean Aluminum Phosphide	F	1,5	1,5		Steel Bean Aluminum Phosphide	F	1,5	1,5

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Table- 6.12

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Agriculture **Crop: Maize**

AES - III **Resource : Rich/Poor**

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing Time	May	Last week of May to June	P	1,5,8	1,6	June - July	June	P	1,5,8	1,6
Method	Behind plough	Line: 75 x 25 cm	F	1,4,5	1,4	Behind plough	Line: 75 x 25 cm	F	1,4,5	1,4
Variety	Local	Swan Composite-1, Birsa Vikas Makka-2, Kanchan, Hybrid	F	1,2,5	1,5,7	Local, Kanchan	Swan Composite-1, Birsa Vikas Makka-2, Kanchan, Hybrid	F	1,2,5	1,5,7
Seed Rate	25-30 Kg./ha	18 kg/ha	P	1,7	1,5	20-25 kg.	18 kg/ha	P	1,7	1,5
Seed Treatment		Captan 2 gram/kg	F	1,5	1,2		Captan 2 gram/kg	F	1,5	1,2
Organic Manure	2 ton/ha	10-15 ton/ha	P	1,5,7	1,6	2 ton/ha	10-15 ton/ha	P	1,5,7	1,6
Fertilizer (Nutrient kg/ha	30:10:00	100:60:40	P	1,3,6	1,2,3,4	30:10:00	100:60:40	P	1,3,6	1,2,3,4
Basal (N+P+K)	20:10	30:60:40	P	1,3,6	1,2,3,4	20:10	30:60:40	P	1,3,6	1,2,3,4
Top Dressing (N)	10	40+30	P	1,3,5	1,2,3,4	10	40+30	P	1,3,5	1,2,3,4
Total	30:10:00	100:60:40	P			30:10:00	100:60:40	P		
Pest Management										
Stem Borer	-	Thimet 10 G 15 kg/ha	F	1,5,9	1,5	-	Thimet 10 G 15 kg/ha	F	1,5,9	1,5
Disease Management			-					-		
Bacterial Stalk rot	1	Bleaching powder @ 20-25 kg/ha	F	1,3,5	1,5	1	Bleaching powder @ 20-25 kg/ha	F	1,3,5	1,5

Weed Management			-					-		
Mechanical	HOe	Khurpi/Hoe	N	-	-	HOe	Khurpi/Hoe	N	-	-
Herbicide	-	Simazine and Atrazine 1.0-1.25 kg/ha	F	1,3,5	1,2,5	-	Simazine and Atrazine 1.0-1.25 kg/ha	F	1,3,5	1,2,5
Water Management			-					-		
No. of Irrigation	Rain fed	As per need	F	1,5,8	1,6	Rain fed	As per need	F	1,5,8	1,6
Method	Furrow	Furrow	N	-	-	Furrow	Furrow	N	-	-
Land Management			-					-		
Acidity	Nil	Line 2-5-4 Q/ha	F	1,5,7	1,5	Nil	Line 2-5-4 Q/ha	F	1,5,7	1,5
Method of Harvesting	Plucking	Plucking	N	-	-	Plucking	Plucking	N	-	-
Any Other/Threshing	-	Maize Seller machine	F	1,5	1,4	-	Maize Seller machine	F	1,5	1,4
Average Yield	Green cob is harvested	40-50 q/h	P	1,2,5,8	1,2,4,7	15-20 q/ha.	40-50 q/h	P	1,2,5,8	1,2,4,7
Storage Pest Control		Steel Bean Aluminum Phosphide	F	1,5	1,5		Steel Bean Aluminum Phosphide	F	1,5	1,5

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/ Commodity in different AES

Crop:- Maize **Resource Rich & Poor**

AES – I, II, III

Production Practices (items)	Gap in adoption in the different situations in which the crop/ commodity is grown		Reasons for gap in adoption as perceived by the farmers	Strategies as perceived by the farmers	Strategies proposed to overcome the gap
	Fs-1	Fs-2			
Sowing Time	√	√	1,5,8	1,6	2,3,9
Method	√	√	1,4,5,7	1,5	2,3,9
Variety	√	√	1,2,7	1,6,7	2,3,5
Seed Rate	√	√	1,7	1, 5	2,5
Seed Treatment	√	√	1,5,7	1,5	2,9
Organic Manure	√	√	1,5,8	1,3,6	2,6,8
Fertilizer (Nutrient kg/ha					
Basal (N+P+K)	√	√	1,5,7	1,3,6	2,3,5
Top Dressing (N)	√	√	1,5,7	1,3,6	2,3,5
Pest Management					
Stem Borer	√	√	1,5,8	1,3,5	2,3,5,6,7
Disease Management	-	-			
Bacterial Stalk rot	√	√	1,5	1,3,4,6	2,3,5,6,7,9
Weed Management					
Mechanical	–	–	-	-	-
Herbicide	√	√	1, 5	1,5,6	2,3,5
Water Management					
No. of Irrigation	√	√	1,5,8	1,4,6	2,3,10
Method	-	-	-	-	-
Land Management					
Acidity	√	√	1,5	1, 6	2,3,11
Method of Harvesting	-	-	-	-	-
Any Other/Threshing	√	√	1,5,9	1,4,6	2,3,4
Average Yield	√	√	1,2,5,8,9	1,2,4,7	1,2,5,6,7,8
Storage Pest Control	√	√	1,4,5	2,5	1, 6,7

(*) F=Full P=Partial N=Nil

Reasons for gap in adoption as perceived by the farmers

1. Lack of awareness/knowledge
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Non-avaibility of laour
5. Lack of resource
6. Non-profitability and Non availability
7. Risk of crop failure
8. Lack of assured irrigation
9. Lack of conviction

Strategies as perceived by the farmers

1. On farm trails / Demonstration
2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection
4. Improved farm implements
5. Farmers scientist intraction
6. Link to financial institutions
7. Improved variety of crops

Strategies proposed to overcome the gap

1. Training and exposure visit
2. Demonstrations/on farm trails
3. Linkage with financial institution/crop insurance
4. Providing market opportunities
5. Gearing quality input supply in rural areas
6. Use of locally available materials for nutrient management & plant protection
7. Control of pests and diseases in crops
8. Greater use of vermicompost and other organics to build up soil fertility
9. Farmers scientist intraction
10. More emphasis on judicious use of soil and water
11. Popularisation of lime application

Table No. 6.13

CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop :- Maize

Production Practices (items)	AES-1		AES-2		AES-3	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Sowing Time	P	2,3,9	P	2,3,9	P	2,3,9
Method	F	2,3,9	F	2,3,9	F	2,3,9
Variety	F	2,3,5	F	2,3,5	F	2,3,5
Seed Rate	P	2,5	P	2,5	P	2,5
Seed Treatment	F	2,9	F	2,9	F	2,9
Organic Manure	P	2,6,8	P	2,6,8	P	2,6,8
Fertilizer (Nutrient kg/ha						
Basal (N+P+K)	P	2,3,5	P	2,3,5	P	2,3,5
Top Dressing (N)	P	2,3,5	P	2,3,5	P	2,3,5
Pest Management						
Stem Borer	F	2,3,5,6,7	F	2,3,5,6,7	F	2,3,5,6,7
Disease Management						
Bacterial Stalk rot	F	2,3,5,6,7,9	F	2,3,5,6,7,9	F	2,3,5,6,7,9
Weed Management						
Mechanical	N		N		N	
Herbicide	F	2,3,5	F	2,3,5	F	2,3,5
Water Management	-		-		-	
No. of Irrigation	F	2,3,10	F	2,3,10	F	2,3,10
Method	N	-	N	-	N	-
Land Management	-		-		-	
Acidity	F	2,3,11	F	2,3,11	F	2,3,11
Method of Harvesting		-		-		-
Any Other/Threshing	N	-	N	-	N	-
Average Yield	F	1,2,5,6,7,8	F	1,2,5,6,7,8	F	1,2,5,6,7,8
Storage Pest Control	P	1,6,7	P	1,6,7	P	1,6,7

***** Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Linkage with financial institution/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Use of locally available materials for nutrient management & plant protection, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Farmers scientist intraction, 10. More emphasis on judicious use of soil and water

Table- 6.14

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Agriculture **Crop: Arhar**

Resource Rich/Poor

ITEMS	AES - 1 FS-1					AES - II FS-1					AES - III FS-1				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing															
Time	June-July	15th June – 15th July	N	-	-	June-July	15th June – 15th July	N	-	-	June-July	15th June – 15th July	N	-	-
Method	Broad casting	Line sowing	P	1,4	1,4	Broad casting	Line sowing	P	1,4	1,4	Broad casting	Line sowing	P	1,4	1,4
Variety	Local, Bahar	BR-65, Birsa Arhar-1, Laxmi T-21, Bahar	P	1,2	1,7	Local, Bahar	BR-65, Birsa Arhar-1, Laxmi T-21, Bahar	P	1,2	1,7	Local, Bahar	BR-65, Birsa Arhar-1, Laxmi T-21, Bahar	P	1,2	1,7
Seed Rate	30 kg/ha	20 kg/ha	P	1,5	1,5	30 kg/ha	20 kg/ha	P	1,5	1,5	30 kg/ha	20 kg/ha	P	1,5	1,5
Seed Treatment	-	Bavistin 2g/kg seed	F	1,3	1,5	-	Bavistin 2g/kg seed	F	1,3	1,5	-	Bavistin 2g/kg seed	F	1,3	1,5
Organic Manure	Nil	5 ton/ha	F	1,5,7	1,2,4	Nil	5 ton/ha	F	1,5,7	1,2,4	Nil	5 ton/ha	F	1,5,7	1,2,4
Fertilizer (Nutrient kg/ha	7:10:0	20+40+20	-	1,5,6	1,2,3,4	7:10:0	20+40+20	-	1,5,6	1,2,3,4	7:10:0	20+40+20	-	1,5,6	1,2,3,4
Basal (N+P+K) 10+40+20	4:10:00	10:40:20	P	1,5,6	1,2,3,4	4:10:00	10:40:20	P	1,5,6	1,2,3,4	4:10:00	10:40:20	P	1,5,6	1,2,3,4
Top Dressing (N)	3 kg.	10	P	1,5,9	1,2	3 kg.	10	P	1,5,9	1,2	3 kg.	10	P	1,5,9	1,2
Total	7:10:0	20:40:20				7:10:0	20:40:20				7:10:0	20:40:20			
Pest Management															
Pod Borer		Endosulphan 35 EC @ 1.5-2 ml/liter water	F	1,3,5	1,2,5		Endosulphan 35 EC @ 1.5-2 ml/liter water	F	1,3,5	1,2,5		Endosulphan 35 EC @ 1.5-2 ml/liter water	F	1,3,5	1,2,5
Disease Management			F	1,3,5	1,5			F	1,3,5	1,5			F	1,3,5	1,5
Wilt		Crop rotation/Resistant variety/seed treatment	F	1,3,5	1,2,5		Crop rotation/Resistant variety/seed treatment	F	1,3,5	1,2,5		Crop rotation/Resistant variety/seed treatment	F	1,3,5	1,2,5
	-	Bavision @ 2 gm /kg seed	F	1,3,5	1,2,5	-	Bavision @ 2 gm /kg seed	F	1,3,5	1,2,5	-	Bavision @ 2 gm /kg seed	F	1,3,5	1,2,5

Weed Management															
Mechanical	Hand weeding	Hand weeding within 1 month of sowing	N	-	-	Hand weeding	Hand weeding within 1 month of sowing	N	-	-	Hand weeding	Hand weeding within 1 month of sowing	N	-	-
Herbicide	-	Fluchlorine 45 Ec @ 2 liter/ha	F	1,3,5	1,2,5	-	Fluchlorine 45 Ec @ 2 liter/ha	F	1,3,5	1,2,5	-	Fluchlorine 45 Ec @ 2 liter/ha	F	1,3,5	1,2,5
Water Management															
No. of Irrigation	-	Avoid water logging	N	-	-	-	Avoid water logging	N	-	-	-	Avoid water logging	N	-	-
Method	-	Irrigate in case of dry spell	-	-	-	-	Irrigate in case of dry spell	-	-	-	-	Irrigate in case of dry spell	-	-	-
Land Management															
Acidity	-	Lime @ 3 q/ha in furrow at the time of sowing	F	1,5	1,5	-	Lime @ 3 q/ha in furrow at the time of sowing	F	1,5	1,5	-	Lime @ 3 q/ha in furrow at the time of sowing	F	1,5	1,5
Water Logging		Drainage	N	-	-		Drainage	N	-	-		Drainage	N	-	-
Method of Harvesting	hand picking	Hand picking or steam cutting	N	-	-	hand picking	Hand picking or steam cutting	N	-	-	hand picking	Hand picking or steam cutting	N	-	-
Any Other/Threshing	Beating	Beating	N	-	-	Beating	Beating	N	-	-	Beating	Beating	N	-	-
Average Yield	7 q/ha	18-20 q/ha	P	1,2,5,8	1,2,4,7	7 q/ha	18-20 q/ha	P	1,2,5,8	1,2,4,7	7 q/ha	18-20 q/ha	P	1,2,5,8	1,2,4,7
Storage Pest Control	-	Steel bean aluminum phosphate	F	1,5	1,5	-	Steel bean aluminum phosphate	F	1,5	1,5	-	Steel bean aluminum phosphate	F	1,5	1,5

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/ Commodity in different AES

Crop:- Arhar **Resource Rich & Poor**

AES - I, II, III

Production Practices (items)	Gap in adoption in the different situations in which the crop/ commodity is grown	Reasons for gap in adoption as perceived by the farmers	Strategies as perceived by the farmers	Strategies proposed to overcome the gap
	Fs-1			
Sowing				
Time	-	-	-	-
Method	√	1,6,7	1,4,5	2, 9
Variety	√	1,2,5	1,5,6,7	2, 5
Seed Rate	√	1,9	1,5,7	2,9
Seed Treatment	√	1,5	1,5	2,5
Organic Manure	√	1,5,9	1,3,6	2,6,8
Fertilizer (Nutrient kg/ha				
Basal (N+P+K) 10+40+20	√	1,5,7,8	1,3,6	2,3,5,10
Top Dressing (N)	√	1,5,8	1,3,6	2,3,5
Pest Management				
Pod Borer	√	1,5,9	1,4,5,7	2,7,9
Disease Management				
Wilt	√	1,3,5	1,5,7	2,6,7,9
Weed Management				
Mechanical	-	-	-	-
Herbicide	√	1,5	1,5,7	2,5
Water Management				
No. of Irrigation	-	-	-	-
Method	-	-	-	-
Land Management				
Acidity	√	1,5,9	1,5,	1,2,5,11
Water Logging	-	-	-	
Method of Harvesting				
Any Other/Threshing	-	-	-	-
Average Yield	√	1,2,5,8,9	1,2,3,4,5,6,7	1,2,3,5,6,7,11
Storage Pest Control	√	1,5	1,5	2,6,9

(*) F=Full P=Partial N=Nil

Reasons for gap in adoption as perceived by the farmers

1. Lack of awareness/knowledge
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Non-avaibility of laour
5. Lack of resource
6. Non-profitability and Non availability
7. Risk of crop failure
8. Lack of assured irrigation
9. Lack of conviction

Strategies as perceived by the farmers

1. On farm trails / Demonstration
2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection
4. Improved farm implements
5. Farmers scientist intraction
6. Link to financial institutions
7. Improved variety of crops

Strategies proposed to overcome the gap

1. Training and exposure visit
2. Demonstrations/on farm trails
3. Linkage with financial institution/crop insurance
4. Providing market opportunities
5. Gearing quality input supply in rural areas
6. Use of locally available materials for nutrient management & plant protection
7. Control of pests and diseases in crops
8. Greater use of vermicompost and other organics to build up soil fertility
9. Farmers scientist intraction
10. More emphasis on judicious use of soil and water
11. Popularisation of lime application

Table No. 6.15

CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop :- Arhar

Production Practices (items)	AES-1		AES-2		AES-3	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Sowing						
Time	N	-	N	-	N	-
Method	P	2, 9	P	2, 9	P	2, 9
Variety	P	2, 5	P	2, 5	P	2, 5
Seed Rate	P	2,9	P	2,9	P	2,9
Seed Treatment	F	2,5	F	2,5	F	2,5
Organic Manure	F	2,6,8	F	2,6,8	F	2,6,8
Fertilizer (Nutrient kg/ha						
Basal (N+P+K) 10+40+20	P	2,3,5,10	P	2,3,5,10	P	2,3,5,10
Top Dressing (N)	P	2,3,5	P	2,3,5	P	2,3,5
Pest Management						
Stem Borer	F	2,7,9	F	2,7,9	F	2,7,9
Gandhi Bug						
Disease Management						
Wilt	F	2,6,7,9	F	2,6,7,9	F	2,6,7,9
Weed Management		-		-		-
Mechanical	N		N		N	
Herbicide	F	2,5	F	2,5	F	2,5
Water Management						
No. of Irrigation	N	-	N	-	N	-
Method	-	-	-	-	-	-
Land Management						
Acidity	F	1,2,5,11	F	1,2,5,11	F	1,2,5,11
Water Logging	N	-	N	-	N	-
Method of Harvesting						
Any Other/Threshing	N	-	N	-	N	-
Average Yield	P	1,2,3,5,6,7,11	P	1,2,3,5,6,7,11	P	1,2,3,5,6,7,11
Storage Pest Control	F	2,6,9	F	2,6,9	F	2,6,9

***** Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Linkage with financial institution/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Use of locally available materials for nutrient management & plant protection, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Farmers scientist intraction, 10. More emphasis on judicious use of soil and water, 11. Popularisation of lime application.

Table- 6.16
Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Agriculture

Crop: Mustard

AES - I **Resource Rich/Poor**

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing										
Time	Sept. to October	1st Oct to 15 Oct	N	-	-	OCT	1st Oct to 15 Oct	N	-	-
Method	Behind plough	Line sowing 30 x 10 cm	P	1,9	1,5	Behind plough	Line sowing 30 x 10 cm	P	1,9	1,5
Variety	Yellow serso black serso, Local variety	Varuna, Shiwani BR-40, Pusa Bold Karanti	F	1,2,5	1,7	Yellow serso black serso, Local variety	Varuna, Shiwani BR-40, Pusa Bold Karanti	F	1,2,5	1,7
Seed Rate	10-12 kg/ha	6- 8 kg/ha	P	1,7	1,5,7	10-12 kg/ha	6- 8 kg/ha	P	1,7	1,5,7
Seed Treatment	-	Thiram 2g/kg seed	F	1,5	1,5	-	Thiram 2g/kg seed	F	1,5	1,5
Organic Manure	2 ton/ ha	5-10 ton/ha	P	1,5,7	1,5,6	2 ton/ ha	5-10 ton/ha	P	1,5,7	1,5,6
Fertilizer (Nutrient kg/ha	10:05:00	25:25:20				15:05	25:25:20			
Basal (N+P+K)	5:5	15:25:20	P	1,3,5	1,3,5	5:5	15:25:20	P	1,3,5	1,3,5
Top Dressing (N)	5:00:00	10	P	1,5	1,3,5	10:00	10	P	1,5	1,3,5
Sulphur	Nil	20 Kg/ha	F	1,7	1,5	Nil	20 Kg/ha	F	1,7	1,5
Pest Management				1,6	1,5				1,6	1,5
Mustard Aphid	Roger	Monocrotophos @ 1.2 ml/liter	P	1,6	1,5	Roger	Monocrotophos @ 1.2 ml/liter	P	1,6	1,5
Disease Management										
Alternaria Blight	-	Dithane N-45 45 @ 8 kg/liter	F	1,5,7	1,5	-	Dithane N-45 45 @ 8 kg/liter	F	1,5,7	1,5
Downy mildew	-	Karathane 0.1 %	F	1,5,7	1,5	-	Karathane 0.1 %	F	1,5,7	1,5

Weed Management										
Mechanical	Hand weeding	Hand weeding	N	-	-	Hand weeding	Hand weeding	N	-	-
Herbicide	-	Isopsutron 75% 10kg/ha	F	1,5,7	1,5	-	Isopsutron 75% 10kg/ha	F	1,5,7	1,5
Water Management										
No. of Irrigation	1	3	P	1,5,8	1,6	1	3	P	1,5,8	1,6
Method	flooding	Furrow	P	1,4	1,5	flooding	Furrow	P	1,4	1,5
Land Management										
Acidity	-	Liming 2-3 q/ha	F	1,5	1,5	-	Liming 2-3 q/ha	F	1,5	1,5
Method of Harvesting	Sickle	Sickle	N	-	-	Sickle	Sickle	N	-	-
Marketing		Organised	F	1,5	2,6		Organised	F	1,5	2,6
Farm Level Processing	Beating	Bullock/Tractor	F	1,6	1,6	Beating	Bullock/Tractor	F	1,6	1,6
Grading	-	Seed Size	F	1,9	1,4	-	Seed Size	F	1,9	1,4
Packing	Gunny Bag	Gunny Bag	F	-	-	Gunny Bag	Gunny Bag	F	-	-
Processing	-	Milling	F	1,5	1,6	-	Milling	F	1,5	1,6
Storage Pest Control			F	1,5,6	1,5			F	1,5,6	1,5
Average Yield	3-4 q/ha	8-9 q/ha	P	1,2,5,8	1,4,6,7	4-5 q/ha	8-9 q/ha	P	1,2,5,8	1,4,6,7

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Table- 6.17
Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Agriculture **Crop: Mustard**

AES - II **Resource Rich/Poor**

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing										
Time	Sept. to October	1st Oct to 15 Oct	N	-	-	OCT	1st Oct to 15 Oct	N	-	-
Method	Behind plough	Line sowing 30 x 10 cm	P	1,9	1,5	Behind plough	Line sowing 30 x 10 cm	P	1,9	1,5
Variety	Yellow serso black serso, Local variety	Varuna, Shiwani BR-40, Pusa Bold Karanti	F	1,2,5	1,7	Yellow serso black serso, Local variety	Varuna, Shiwani BR-40, Pusa Bold Karanti	F	1,2,5	1,7
Seed Rate	10-12 kg/ha	6- 8 kg/ha	P	1,7	1,5,7	10-12 kg/ha	6- 8 kg/ha	P	1,7	1,5,7
Seed Treatment	-	Thiram 2g/kg seed	F	1,5	1,5	-	Thiram 2g/kg seed	F	1,5	1,5
Organic Manure	2 ton/ ha	5-10 ton/ha	P	1,5,7	1,5,6	2 ton/ ha	5-10 ton/ha	P	1,5,7	1,5,6
Fertilizer (Nutrient kg/ha	5:05:00	25:25:20				15:05	25:25:20			
Basal (N+P+K)	5:5	15:25:20	P	1,3,5	1,3,5	5:5	15:25:20	P	1,3,5	1,3,5
Top Dressing (N)		10	P	1,5	1,3,5	10:00	10	P	1,5	1,3,5
Sulphur	Nil	20 Kg/ha	F	1,7	1,5	Nil	20 Kg/ha	F	1,7	1,5
Pest Management				1,6	1,5				1,6	1,5
Mustard Aphid	Roger	Monocrotophos @ 1.2 ml/liter	P	1,6	1,5	Roger	Monocrotophos @ 1.2 ml/liter	P	1,6	1,5

Disease Management										
Alternaria Blight	-	Dithane N-45 45 @ 8 kg/liter	F	1,5,7	1,5	-	Dithane N-45 45 @ 8 kg/liter	F	1,5,7	1,5
Downy mildew	-	Karathane 0.1 %	F	1,5,7	1,5	-	Karathane 0.1 %	F	1,5,7	1,5
Weed Management										
Mechanical	Hand weeding	Hand weeding	N	-	-	Hand weeding	Hand weeding	N	-	-
Herbicide	-	Isopsutron 75% 10kg/ha	F	1,5,7	1,5	-	Isopsutron 75% 10kg/ha	F	1,5,7	1,5
Water Management										
No. of Irrigation	1	3	P	1,5,8	1,6	1	3	P	1,5,8	1,6
Method	flooding	Furrow	P	1,4	1,5	flooding	Furrow	P	1,4	1,5
Land Management										
Acidity	-	Liming 2-3 q/ha	F	1,5	1,5	-	Liming 2-3 q/ha	F	1,5	1,5
Method of Harvesting	Sickle	Sickle	N	-	-	Sickle	Sickle	N	-	-
Marketing		Organised	F	1,5	2,6		Organised	F	1,5	2,6
Farm Level Processing	Beating	Bullock/Tractor	F	1,6	1,6	Beating	Bullock/Tractor	F	1,6	1,6
Grading	-	Seed Size	F	1,9	1,4	-	Seed Size	F	1,9	1,4
Packing	Gunny Bag	Gunny Bag	F	-	-	Gunny Bag	Gunny Bag	F	-	-
Processing	-	Milling	F	1,5	1,6	-	Milling	F	1,5	1,6
Storage Pest Control			F	1,5,6	1,5			F	1,5,6	1,5
Average Yield	3-4 q/ha	8-9 q/ha	P	1,2,5,8	1,4,6,7	4-5 q/ha	8-9 q/ha	P	1,2,5,8	1,4,6,7

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Table- 6.18
Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Agriculture

Crop: Mustard

AES - III **Resource Rich/Poor**

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing										
Time	OCT	1st Oct to 15 Oct	N	-	-	OCT	1st Oct to 15 Oct	N	-	-
Method	Behind plough	Line sowing 30 x 10 cm	P	1,3	1,2	Behind plough	Line sowing 30 x 10 cm	P	1,3	1,2
Variety	Yellow serso black serso, Local variety	Varuna, Shiwani BR-40, Pusa Bold Karanti	F	1,2,3	1,2	Yellow serso black serso, Local variety	Varuna, Shiwani BR-40, Pusa Bold Karanti	F	1,2,3	1,2
Seed Rate	10-12 kg/ha	6- 8 kg/ha	P	1,3	1,2	10-12 kg/ha	6- 8 kg/ha	P	1,3	1,2
Seed Treatment	-	Thiram 2g/kg seed	F	1,3	1,2	-	Thiram 2g/kg seed	F	1,3	1,2
Organic Manure	2 ton/ ha	5-10 ton/ha	P	1,3,4	1,2,4	2 ton/ ha	5-10 ton/ha	P	1,3,4	1,2,4
Fertilizer (Nutrient kg/ha	5:5	25:25:20				10:05	25:25:20			
Basal (N+P+K)	5:5	15:25:20	P	1,3,4	1,2,3,4	5:5	15:25:20	P	1,3,4	1,2,3,4
Top Dressing (N)	Nil	10	P	1,3	1,2,3,4	5	10	P	1,3	1,2,3,4
Sulphur	Nil	20 Kg/ha	F	1,3,4	1,2,3,4	Nil	20 Kg/ha	F	1,3,4	1,2,3,4
Pest Management				1,3	1,2,4				1,3	1,2,4
Mustard Aphid	Roger	Monocrotophos @ 1.2 ml/liter	P	1,3	1,2,4	Roger	Monocrotophos @ 1.2 ml/liter	P	1,3	1,2,4
Disease Management					1,2,4					1,2,4
Alternaria Blight	-	Dithane N-45 45 @ 8 kg/liter	F	1,3	1,2,4	-	Dithane N-45 45 @ 8 kg/liter	F	1,3	1,2,4
Downy mildew	-	Karathane 0.1 %	F	1,3	1,2	-	Karathane 0.1 %	F	1,3	1,2
Weed Management										
Mechanical	Hand weeding	Hand weeding	N	-	-	Hand weeding	Hand weeding	N	-	-
Herbicide	-	Isopsutron	F	1,5,7	1,5	-	Isopsutron 75%	F	1,5,7	1,5

		75% 10kg/ha					10kg/ha			
Water Management										
No. of Irrigation	1	3	P	1,5,8	1,6	1	3	P	1,5,8	1,6
Method	flooding	Furrow	P	1,4	1,5	flooding	Furrow	P	1,4	1,5
Land Management										
Acidity	-	Liming 2-3 q/ha	F	1,5	1,5	-	Liming 2-3 q/ha	F	1,5	1,5
Method of Harvesting	Sickle	Sickle	N	-	-	Sickle	Sickle	N	-	-
Marketing		Organised	F	1,5	2,6		Organised	F	1,5	2,6
Farm Level Processing	Beating	Bullock/Tractor	F	1,6	1,6	Beating	Bullock/Tractor	F	1,6	1,6
Grading	-	Seed Size	F	1,9	1,4	-	Seed Size	F	1,9	1,4
Packing	Gunny Bag	Gunny Bag	F	-	-	Gunny Bag	Gunny Bag	F	-	-
Processing	-	Milling	F	1,5	1,6	-	Milling	F	1,5	1,6
Storage Pest Control			F	1,5,6	1,5			F	1,5,6	1,5
Average Yield	4 q/ha	8-9 q/ha	P	1,2,5,8	1,4,6.7	4 q/ha	8-9 q/ha	P	1,2,5,8	1,4,6.7

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/ Commodity in different AES

Crop:- Mustard **Resource Rich & Poor**

AES – I, II, III

Production Practices (items)	Gap in adoption in the different situations in which the crop/ commodity is grown		Reasons for gap in adoption as perceived by the farmers	Strategies as perceived by the farmers	Strategies proposed to overcome the gap
	Fs-1	Fs-2			
Sowing					
Time	-	-	-	-	-
Method	√	√	1,8	1,5,6	2, 9,10
Variety	√	√	1,5,7	1,6,7	2, 3, 5
Seed Rate	√	√	1,7,9	1,5,7	1,5,9
Seed Treatment	√	√	1,5,9	1,5,7	2, 5
Organic Manure	√	√	1,5, 9	1, 3,6	1,2,3, 6
Fertilizer (Nutrient kg/ha					
Basal (N+P+K)	√	√	1,5,8,9	1, 3,6	2,3,5,10
Top Dressing (N)	√	√	1,5,8,9	1, 3,6	2,3,5
Sulphur	√	√	1,5, 9	1, 6	2,5
Pest Management					
Mustard Aphid	√	√	1,3,5	1, 3,4	2, 6,7,9
Disease Management				1	
Alternaria Blight	√	√	1,3,5	1, 3,5	2, 6,7,9
Downy mildew	√	√	1,3,5,6	1, 3,5	2,3,7,9
Weed Management					
Mechanical	-	-	-	-	-
Herbicide	√	√	1,5	1,5	2, 5,9
Water Management					
No. of Irrigation	√	√	1,5,8	1, 4,6	2,9,10
Method	√	√	1,5	2,4,6	1,10
Land Management					
Acidity	√	√	1,5,9	1,5	2, 5, 11
Method of Harvesting					
Marketing	√	√	1,5	2,4,6	1, 3, 4
Farm Level Processing	√	√	1,9	1,2,4,6	1,3,4
Grading	√	√	1,9	1, 4,6	1,4,9
Packing	√	√	1,5	2,4,6	2,4,9
Processing	√	√	1,5,9	2,4,6	1,9
Storage Pest Control	√	√	1,9	1,5,,6	2, 7,9
Average Yield	√	√	1,2, 5, 8,9	1,2,3,4,5,6,7	1, 2, 3, 4,5

(*) F=Full P=Partial N=Nil

Reasons for gap in adoption as perceived by the farmers

1. Lack of awareness/knowledge
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Non-avaibility of laour
5. Lack of resource
6. Non-profitability and Non availability
7. Risk of crop failure
8. Lack of assured irrigation
9. Lack of conviction

Strategies as perceived by the farmers

1. On farm trails / Demonstration
2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection
4. Improved farm implements
5. Farmers scientist intraction
6. Link to financial institutions
7. Improved variety of crops

Strategies proposed to overcome the gap

1. Training and exposure visit
2. Demonstrations/on farm trails
3. Linkage with financial institution/crop insurance
4. Providing market opportunities
5. Gearing quality input supply in rural areas
6. Use of locally available materials for nutrient management & plant protection
7. Control of pests and diseases in crops
8. Greater use of vermicompost and other organics to build up soil fertility
9. Farmers scientist intraction
10. More emphasis on judicious use of soil and water
11. Popularisation of lime application

Table No. 6.19
CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop :- Mustard

Production Practices (items)	AES-1		AES-2		AES-3	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Sowing						
Time	N	-	N	-	N	-
Method	P	2, 9,10	P	2, 9,10	P	2, 9,10
Variety	F	2, 3, 5	F	2, 3, 5	F	2, 3, 5
Seed Rate	P	1,5,9	P	1,5,9	P	1,5,9
Seed Treatment	F	2, 5	F	2, 5	F	2, 5
Organic Manure	P	1,2,3, 6	P	1,2,3, 6	P	1,2,3, 6
Fertilizer (Nutrient kg/ha						
Basal (N+P+K)	P	2,3,5,10	P	2,3,5,10	P	2,3,5,10
Top Dressing (N)	P	2,3,5	P	2,3,5	P	2,3,5
Sulphur	F	2,5	F	2,5	F	2,5
Pest Management						
Mustard Aphid	F	2, 6,7,9	F	2, 6,7,9	F	2, 6,7,9
Disease Management						
Alternaria Blight	F	2, 6,7,9	F	2, 6,7,9	F	2, 6,7,9
Downy mildew	F	2,3,7,9	F	2,3,7,9	F	2,3,7,9
Weed Management						
Mechanical	N	-	N	-	N	-
Herbicide	F	2, 5,9	F	2, 5,9	F	2, 5,9
Water Management						
No. of Irrigation	P	2,9,10	P	2,9,10	P	2,9,10
Method	P	1,10	P	1,10	P	1,10
Land Management						
Acidity	F	2, 5, 11	F	2, 5, 11	F	2, 5, 11
Method of Harvesting	N		N		N	
Marketing	F	1, 3, 4	F	1, 3, 4	F	1, 3, 4
Farm Level Processing	F	1,3,4	F	1,3,4	F	1,3,4
Grading	F	1,4,9	F	1,4,9	F	1,4,9
Packing	F	2,4,9	F	2,4,9	F	2,4,9
Processing	F	1,9	F	1,9	F	1,9
Storage Pest Control	F	2, 7,9	F	2, 7,9	F	2, 7,9
Average Yield	P	1, 2, 3, 4,5	P	1, 2, 3, 4,5	P	1, 2, 3, 4,5

***** Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Linkage with financial institution/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Use of locally available materials for nutrient management & plant protection, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Farmers scientist intraction, 10. More emphasis on judicious use of soil and water, 11. Popularisation of lime application

Table- 6.20

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Vegetable/Horticulture **Crop: Potato**

AES - I **Resource Rich/Poor**

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing										
Time	August-September	August-September	N	-		Nov. to Dec.	10 Oct. to 10 Nov.	-		
Method		Furrow dibbling	N				Furrow dibbling			
Variety	Local, Lal Gulab, C 40, Altimus	K. Ashoka, K. Arun, Upari Kanchan, Pokhraj	P	1,2	1,7	Local, K. Jyoti, K. Lalima, K. Sinduri, Lal Gulab	K. Lalima, K. Badsah, K. Kuber, K. Chandra mukhi, K. Jyoti, K. Sinduri	1,2	1,7	1,2,5
Seed Rate	30-35 q/ha	25-30 q/ha	P	1,7	1,5	30-35 q/ha	20-30 q/ha	1,7	1,5	1,2
Seed Treatment	-	Mancozed 4 gm	F	1,6	1	-	Mancozed 4 gm	1,6	1	1,2
Organic Manure	10 ton/ha	200-250 q/ha	P	1,5	1,6	10 ton/ha	200-250 q/ha	1,5	1,6	1,2,4
Fertilizer (Nutrient kg/ha)	40:30:10	100:100:90	P	1,5	1,6	60:30:10	100:100:90	1,5	1,6	1,2,3,4,5
Basal (N+P+K)	20:30:10	50:100:90	P	1,5	6	30:30:10	50:100:90	1,5	6	1,2
Top Dressing (N)	20	50	P	1	5	30	50	1	5	1,2

Pest Management										
Aphid	-	Linden dust 25 kg/ha	F	1,5	5	-	Linden dust 25 kg/ha	1,5	5	1,2
Disease Management										
Early Blight	Indofil M-45	Indofil M-45, 2 kg/ha	P	1,5	1,2,5	Indofil M-45	Indofil M-45, 2 kg/ha	1,5	1,2,5	1,2,5
Late blight		Ridomil MZ (0.1-0.15%)	F	1,5	1, 5		Ridomil MZ (0.1-0.15%)	1,5	1, 5	1,2,5
Weed Management										
Mechanical	Kudal	Kudal, Khurpi	N	-	-	Kudal	Kudal, Khurpi	-	-	-
Herbicide	-	Atrazine, 50 % 1 kg/ha	F	1,5	1,6	-	Atrazine, 50 % 1 kg/ha	1,5	1,6	1,2
Water Management										
No. of Irrigation	7	9	P	1,5,8	1,6	7	9	1,5,8	1,6	1,2
Method	Furrow	Furrow	N	-	-	Furrow	Furrow	-	-	-
Land Management										
Acidity	-	-	-	-	-	-	-	-	-	-
Method of Harvesting	Digging	Digging	N	-	-	Digging	Digging	-	-	-
Any Other/Threshing	-		-	-	-	-		-	-	-
Average Yield	100-110 q/ha	250-300 q/ha	P	1,5,8	1,4,5,7	130-140	250-300 q/ha	1,5,8	1,4,5,7	1,2
Storage Pest Control	-	malathion	F	1,5	5	-	malathion	1,5	5	1,2

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Table- 6.21
Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Vegetable/Horticulture **Crop: Potato**

AES - II **Resource Rich/Poor**

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing										
Time	October	10 Oct. to 10 Nov.	N	-		Nov. to Dec.	10 Oct. to 10 Nov.	N	-	
Method		Furrow dibbling	N				Furrow dibbling	N		
Variety	Local, Lal Gulab, C 40, Altimus	K. Ashoka, K. Arun, Upari Kanchan, Pokhraj	P	1,2	1,7	Local, K. Jyoti, K. Lalima, K. Sinduri, Lal Gulab	K. Lalima, K. Badsah, K. Kuber, K. Chandra mukhi, K. Jyoti, K. Sinduri	P	1,2	1,7
Seed Rate	30-35 q/ha	25-30 q/ha	P	1,7	1,5	30-35 q/ha	20-30 q/ha	P	1,7	1,5
Seed Treatment	-	Mancozed 4 gm	F	1,6	1	-	Mancozed 4 gm	F	1,6	1
Organic Manure	10 ton/ha	200-250 q/ha	P	1,5	1,6	10 ton/ha	200-250 q/ha	P	1,5	1,6
Fertilizer (Nutrient kg/ha)	40:30:10	100:100:90	P	1,5	1,6	60:30:10	100:100:90	P	1,5	1,6
Basal (N+P+K)	20:30:10	50:100:90	P	1,5	6	30:30:10	50:100:90	P	1,5	6
Top Dressing (N)	20	50	P	1	5	30	50	P	1	5
Pest Management										
Aphid	-	Linden dust 25 kg/ha	F	1,5	5	-	Linden dust 25 kg/ha	F	1,5	5

Disease Management										
Early Blight	Indofil M-45	Indofil M-45, 2 kg/ha	P	1,5	1,2,5	Indofil M-45	Indofil M-45, 2 kg/ha	P	1,5	1,2,5
Late blight		Ridomil MZ (0.1-0.15%)	F	1,5	1, 5		Ridomil MZ (0.1-0.15%)	F	1,5	1, 5
Weed Management										
Mechanical	Kudal	Kudal, Khurpi	N	-	-	Kudal	Kudal, Khurpi	N	-	-
Herbicide	-	Atrazine, 50 % 1 kg/ha	F	1,5	1,6	-	Atrazine, 50 % 1 kg/ha	F	1,5	1,6
Water Management										
No. of Irrigation	7	9	P	1,5,8	1,6	7	9	P	1,5,8	1,6
Method	Furrow	Furrow	N	-	-	Furrow	Furrow	N	-	-
Land Management										
Acidity	Rainfed	Gypsum/Lime	-	-	-	Rainfed	Gypsum/Lime	-	-	-
Method of Harvesting	Digging	Digging	N	-	-	Digging	Digging	N	-	-
Any Other/Threshing	-		-	-	-	-		-	-	-
Average Yield	100-110 q/ha	250-300 q/ha	P	1,5,8	1,4,5,7	130-140	250-300 q/ha	P	1,5,8	1,4,5,7
Storage Pest Control	-	malathion	F	1,5	5	-	malathion	F	1,5	5

(*) F=Full **P=Partial** **N=Nil**

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Table- 6.22
Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Vegetable/Horticulture

Crop: Potato

AES - III

Resource Rich/Poor

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing										
Time	October	10 Oct. to 10 Nov.	N	-		Nov. to Dec.	10 Oct. to 10 Nov.	N	-	
Method		Furrow dibbling	N				Furrow dibbling	N		
Variety	Local, K. Jyoti, K. Lalima	K. Lalima, K. Badsah, K. Kuber, K. Chandra mukhi, K. Jyoti	P	1,2	1,7	Local, K. Jyoti, K. Lalima, K. Sinduri	K. Lalima, K. Badsah, K. Kuber, K. Chandra mukhi, K. Jyoti, K. Sinduri	P	1,2	1,7
Seed Rate	30-35 q/ha	20-30 q/ha	P	1,7	1,5	30-35 q/ha	20-30 q/ha	P	1,7	1,5
Seed Treatment	-	Mancozed 4 gm	F	1,6	1	-	Mancozed 4 gm	F	1,6	1
Organic Manure	10 ton/ha	200-250 q/ha	P	1,5	1,6	10 ton/ha	200-250 q/ha	P	1,5	1,6
Fertilizer (Nutrient kg/ha)	40:30:10	100:100:90	P	1,5	1,6	60:30:10	100:100:90	P	1,5	1,6
Basal (N+P+K)	20:30:10	50:100:90	P	1,5	6	30:30:10	50:100:90	P	1,5	6
Top Dressing (N)	20	50	P	1	5	30	50	P	1	5
Pest Management										
Aphid	-	Linden dust 25 kg/ha	F	1,5	5	-	Linden dust 25 kg/ha	F	1,5	5

Disease Management										
Early Blight	Indofil M-45	Indofil M-45, 2 kg/ha	P	1,5	1,2,5	Indofil M-45	Indofil M-45, 2 kg/ha	P	1,5	1,2,5
Late blight		Ridomil MZ (0.1-0.15%)	F	1,5	1, 5		Ridomil MZ (0.1-0.15%)	F	1,5	1, 5
Weed Management										
Mechanical	Kudal	Kudal, Khurpi	N	-	-	Kudal	Kudal, Khurpi	N	-	-
Herbicide	-	Atrazine, 50 % 1 kg/ha	F	1,5	1,6	-	Atrazine, 50 % 1 kg/ha	F	1,5	1,6
Water Management										
No. of Irrigation	7	9	P	1,5,8	1,6	7	9	P	1,5,8	1,6
Method	Furrow	Furrow	N	-	-	Furrow	Furrow	N	-	-
Land Management										
Acidity	Rainfed	Gypsum/Lime	-	-	-	Rainfed	Gypsum/Lime	-	-	-
Method of Harvesting	Digging	Digging	N	-	-	Digging	Digging	N	-	-
Any Other/Threshing	-		-	-	-	-		-	-	-
Average Yield	130-140	250-300 q/ha	P	1,5,8	1,4,5,7	130-140	250-300 q/ha	P	1,5,8	1,4,5,7
Storage Pest Control	-	malathion	F	1,5	5	-	malathion	F	1,5	5

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/ Commodity in different AES

Crop:- Potato **Resource Rich & Poor**

AES - I, II, III

Production Practices (items)	Gap in adoption in the different situations in which the crop/ commodity is grown		Reasons for gap in adoption as perceived by the farmers	Strategies as perceived by the farmers	Strategies proposed to overcome the gap
	Fs-1	Fs-2			
Sowing					
Time	-	-	-		-
Method	-	-	-	-	-
Variety	√	√	1,2,5,9	1,6,7	2, 5, 9
Seed Rate	√	√	1,7,8	1,5	2,9
Seed Treatment	√	√	1, 5	1, 5	2, 5,9
Organic Manure	√	√	1, 5,8,9	1,3,6	2,3,6,8
Fertilizer (Nutrient kg/ha)					
Basal (N+P+K)	√	√	1,5,8,9	1,3,6	2,3,5,10
Top Dressing (N)	√	√	1,5,8,9	1,3,6	2,3,5,10
Pest Management					
Aphid	√	√	1,5, 9	1,3,5	2,5,6,7
Disease Management					
Early Blight	√	√	1,5,9	1,3,5,6	2,5,6,7,9
Late blight	√	√	1,5,9	1,3,5,6	2,5,6,7,9
Weed Management					
Mechanical	-	-	-	-	-
Herbicide	√	√	1,5,9	1,5	2, 5,9
Water Management					
No. of Irrigation	√	√	5,8	1,5,6	2,3,10
Method	-	-	-	-	-
Land Management					
Acidity			-	-	-
Method of Harvesting					
Any Other/Threshing	-	-	-	-	-
Average Yield	√	√	1,2,5,8	1,2,6,7	1,2,5,6,7,8
Storage Pest Control	√	√	1,5,9	2,3	2,5,7,9

If the gap is present in that farming situation then (√) and no gap (-)

(*) F=Full P=Partial N=Nil

Reasons for gap in adoption as perceived by the farmers

1. Lack of awareness/knowledge
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Non-avaibility of laour
5. Lack of resource
6. Non-profitability and Non availability
7. Risk of crop failure
8. Lack of assured irrigation
9. Lack of conviction

Strategies as perceived by the farmers

1. On farm trails / Demonstration
2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection
4. Improved farm implements
5. Farmers scientist intraction
6. Link to financial institutions
7. Improved variety of crops

Strategies proposed to overcome the gap

1. Training and exposure visit
2. Demonstrations/on farm trails
3. Linkage with financial institution/crop insurance
4. Providing market opportunities
5. Gearing quality input supply in rural areas
6. Use of locally available materials for nutrient management & plant protection
7. Control of pests and diseases in crops
8. Greater use of vermicompost and other organics to build up soil fertility
9. Farmers scientist intraction
10. More emphasis on judicious use of soil and water

Table No. 6.23

CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop :- Potato

Production Practices (items)	AES-1		AES-2		AES-3	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Sowing						
Time	N	-	N	-	N	-
Method	N	-	N	-	N	-
Variety	P	2, 5, 9	P	2, 5, 9	P	2, 5, 9
Seed Rate	P	2,9	P	2,9	P	2,9
Seed Treatment	F	2, 5,9	F	2, 5,9	F	2, 5,9
Organic Manure	P	2,3,6,8	P	2,3,6,8	P	2,3,6,8
Fertilizer (Nutrient kg/ha)						
Basal (N+P+K)	P	2,3,5,10	P	2,3,5,10	P	2,3,5,10
Top Dressing (N)	P	2,3,5,10	P	2,3,5,10	P	2,3,5,10
Pest Management						
Aphid	F	2,5,6,7		2,5,6,7		2,5,6,7
Disease Management						
Early Blight	P	2,5,6,7,9		2,5,6,7,9		2,5,6,7,9
Late blight	F	2,5,6,7,9		2,5,6,7,9		2,5,6,7,9
Weed Management						
Mechanical	N	-	N	-	N	-
Herbicide	F	2, 5,9	F	2, 5,9	F	2, 5,9
Water Management						
No. of Irrigation	P	2,3,10	F	2,3,10	F	2,3,10
Method	N	-	N	-	N	-
Land Management						
Acidity	N	-	N	-	N	-
Method of Harvesting						
Any Other/Threshing	-	-	-	-	-	-
Average Yield	P	1,2,5,6,7,8	P	1,2,5,6,7,8	P	1,2,5,6,7,8
Storage Pest Control	F	2,5,7,9	F	2,5,7,9	F	2,5,7,9

*** **Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Linkage with financial institution/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Use of locally available materials for nutrient management & plant protection, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Farmers scientist intraction, 10. More emphasis on judicious use of soil and water, 11. Popularisation of lime application

Table- 6.24

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Vegetable/Horticulture

Crop: Tomato

AES - I **Resource Rich/Poor**

ITEMS	FS-1					FS-2				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing										
Time	July	July, August	N	-	-	Through out the year transplanting	July, August, September	N	-	-
Method	Transplanting	Transplanting 60x45 cm	N	-	-	Transplanting	Transplanting 60x45 cm	N	-	-
Variety	Pusa Ruby, Suraksha, Hybrid	Pusa Ruby, Pusa Swarna Navin, Swarna Lalima, Abha, hybrid	N	-	-	Pusa Ruby, Suraksha, Hybrid	Pusa Ruby, Swarna Navin, Swarna Lalima, Abha, hybrid, Swarna Baibhaw	N	-	-
Seed Rate	800 gram/ha	500-600 gram/ha	P	1,7	1	800 gram/ha	500-600 gram/ha	P	1,7	1
Seed Treatment	-	Bavistin @ 2 g/ha	P	1,5	1	-	Bavistin @ 2 g/ha	P	1,5	1
Organic Manure	150-200 q/ha	200-250 q/ha	P	1, 5	1,6	150-200 q/ha	200-250 q/ha	P	1, 5	1,6
Fertilizer (Nutrient kg/ha	40:20:00	120:60:60				40:20:5	120:60:60			
Basal (N+P+K)	20:20:00	60:60:60	F	1,5,7	1,6	20:20:5	60:60:60	F	1,5,7	1,6
Top Dressing (N)	20:00:00	60	N	-	-	20"00:00	60	N	-	-
Micro Nutrient kg/ha		Borax @ 20-25 kg/ha	F	1,5	1	_	Borax @ 20-25 kg/ha	F	1,5	1
Pest Management										
Fruit, Borer	Endosulpha	Endosulphan (10.07%)	N	-	-	Endosulpha	Endosulphan (10.07%)	N	-	-
		Monocrosophos/Monocil (0.05%)					Monocrosophos/Monocil (0.05%)			
Disease Management										
Leaf curl of tomato	-	Dimethoate (0.05%) 1 monocrolophos (0.05%)	F	1,5	1	-	Dimethoate (0.05%) 1 monocrolophos (0.05%)	F	1,5	1
Tomato mosaic		- do -	F	1,5	1		- do -	F	1,5	1

Weed Management										
Mechanical	2	2-3 weeding	N	-	-	2	2-3 weeding	N	-	-
Herbicide	-	Pendi metholin @ 1 kg ai/ha	F	1,5,8	1,4,6	-	Pendi metholin @ 1 kg ai/ha	N	1,5,8	1,4,6
Water Management	As per required	7-10 days interval				As per required	7-10 days interval	P		
No. of Irrigation	6-8	15-18 irrigations	P	1,5,8	1,4,6	6-8	15-18 irrigations	P	1,5,8	1,4,6
Method	Flooding	Flood/drip	N	-	-	Flooding	Flood/drip	N	-	-
Land Management										
Acidity	-	Lime application @ 20-25 g/ha	F	1,5	1	-	Lime application @ 20-25 g/ha	F	1,5	1
Method of Harvesting	Picking	Picking		-	-	Picking	Picking	N	-	-
Marketing	un Organized	Organized	F	1	2	un Organized	Organized	F	1	2
Farm Level Processing	-	Ketup, souce, Quary, chatni powder	F	1,5	1,6	-	Ketup, souce, Quary, chatni powder	F	1,5	1,6
Grading	-	Grade wise	F	1	2	-	Grade wise	F	1	2
Packing	Basket	Basket (Bamboo)	N	-	-	Basket	Basket (Bamboo)	N	-	-
Processing	-	Souce, ketchup, puric, Pickle	F	1,5	1,2,6	-	Souce, ketchup, puric, Pickle	F	1,5	1,2,6
Storage	-	Zero energy cold storage	F	1,5	1	-	Zero energy cold storage	F	1,5	1
Average Yield	75-80 Q/ha	150-200 q/ha	P	1,2,5,8	1,2,4,7	120-150 Q/ha	200-250 q/ha	P	1,2,5,8	1,2,4,7

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Table- 6.24

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Vegetable/Horticulture

Crop: Tomato

AES - II **Resource Rich/Poor**

ITEMS	FS-1					FS-2				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing										
Time	July	July, August	N	-	-	Through out the year transplanting	July, August, September	N	-	-
Method	Transplanting	Transplanting 60x45 cm	N	-	-	Transplanting	Transplanting 60x45 cm	N	-	-
Variety	Pusa Ruby, Suraksha, Hybrid	Pusa Ruby, Pusa Swarna Navin, Swarna Lalima, Abha, hybrid	N	-	-	Pusa Ruby, Suraksha, Hybrid	Pusa Ruby, Swarna Navin, Swarna Lalima, Abha, hybrid, Swarna Baibhaw	N	-	-
Seed Rate	800 gram/ha	500-600 gram/ha	P	1,7	1	800 gram/ha	500-600 gram/ha	P	1,7	1
Seed Treatment	-	Bavistin @ 2 g/ha	P	1,5	1	-	Bavistin @ 2 g/ha	P	1,5	1
Organic Manure	150-200 q/ha	200-250 q/ha	P	1, 5	1,6	150-200 q/ha	200-250 q/ha	P	1, 5	1,6
Fertilizer (Nutrient kg/ha	40:20:00	120:60:60				40:20:5	120:60:60			
Basal (N+P+K)	20:20:00	60:60:60	F	1,5,7	1,6	20:20:5	60:60:60	F	1,5,7	1,6
Top Dressing (N)	20:00:00	60	N	-	-	20"00:00	60	N	-	-
Micro Nutrient kg/ha		Borax @ 20-25 kg/ha	F	1,5	1	_	Borax @ 20-25 kg/ha	F	1,5	1
Pest Management										
Fruit, Borer	Endosulpha	Endosulphan (10.07%)	N	-	-	Endosulpha	Endosulphan (10.07%)	N	-	-
		Monocrosophos/Monocil (0.05%)					Monocrosophos/Monocil (0.05%)			

Disease Management										
Leaf curl of tomato	-	Dimethoate (0.05%) 1 monocrolophos (0.05%)	F	1,5	1	-	Dimethoate (0.05%) 1 monocrolophos (0.05%)	F	1,5	1
Tomato mosaic		- do -	F	1,5	1		- do -	F	1,5	1
Weed Management										
Mechanical	2	2-3 weeding	N	-	-	2	2-3 weeding	N	-	-
Herbicide	-	Pendi metholin @ 1 kg ai/ha	N	1,5,8	1,4,6	-	Pendi metholin @ 1 kg ai/ha	N	1,5,8	1,4,6
Water Management	As per required	7-10 days interval	P			As per required	7-10 days interval	P		
No. of Irrigation	6-8	15-18 irrigations	P	1,5,8	1,4,6	6-8	15-18 irrigations	P	1,5,8	1,4,6
Method	Flooding	Flood/drip	N	-	-	Flooding	Flood/drip	N	-	-
Land Management										
Acidity	-	Lime application @ 20-25 g/ha	F	1,5	1	-	Lime application @ 20-25 g/ha	F	1,5	1
Method of Harvesting	Picking	Picking	N	-	-	Picking	Picking	N	-	-
Marketing	un Organized	Organized	F	1	2	un Organized	Organized	F	1	2
Farm Level Processing	-	Ketup, souce, Quary, chatni powder	F	1,5	1,6	-	Ketup, souce, Quary, chatni powder	F	1,5	1,6
Grading	-	Grade wise	F	1	2	-	Grade wise	F	1	2
Packing	Basket	Basket (Bamboo)	N	-	-	Basket	Basket (Bamboo)	N	-	-
Processing	-	Souce, ketchup, puric, Pickle	F	1,5	1,2,6	-	Souce, ketchup, puric, Pickle	F	1,5	1,2,6
Storage	-	Zero energy cold storage	F	1,5	1	-	Zero energy cold storage	F	1,5	1
Average Yield	75-80 Q/ha	150-200 q/ha	P	1,2,5,8	1,2,4,7	120-150 Q/ha	200-250 q/ha	P	1,2,5,8	1,2,4,7

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Table- 6.25

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Vegetable/Horticulture

AES - III **Crop: Tomato**

ITEMS	FS-1				
	Existing practices	**Recommended**	**Gap in adoption**	**Specific Reasons for gap**	**Farmer Strategy**
Sowing					
Time	Through out the year transplanting	July, August, September	N	-	-
Method	Transplanting	Transplanting 60x45 cm	N	-	-
Variety	Pusa Ruby, Suraksha, Hybrid	Pusa Ruby, Pusa Sudabahar kka, Abha, hybrid	N	-	-
Seed Rate	800 gram/ha	500-600 gram/ha	P	1,7	1
Seed Treatment	-	Bavistin @ 2 g/ha	P	1,5	1
Organic Manure	150-200 q/ha	200-250 q/ha	P	1, 5	1,6
Fertilizer (Nutrient kg/ha	40:20:10	60:60:60			
Basal (N+P+K)	20:20:10	30:60:60	F	1,5,7	1,6
Top Dressing (N)	20	30 kg/h	N	-	-
Micro Nutrient kg/ha	_	Borax @ 20-25 kg/ha	F	1,5	1
Pest Management					
Fruit, Borer	Endosulpha	Endosulphan (10.07%)	N	-	-
		Monocrosophos/Monocil (0.05%)			
Disease Management					
Leaf curl of tomato	-	Dimethoate (0.05%) 1 monocrolophos (0.05%)	F	1,5	1
Tomato mosaic		- do -	F	1,5	1
Weed Management					
Mechanical	2	2-3 weeding	N	-	-
Herbicide	-	Pendi metholin @ 1 kg ai/ha	N	1,5,8	1,4,6
Water Management	As per required	7-10 days interval	P		
No. of Irrigation	6-8	15-18 irrigations	P	1,5,8	1,4,6
Method	Flooding	Flood/drip	N	-	-
Land Management					
Acidity	-	Lime application @ 20-25 g/ha	F	1,5	1
Method of Harvesting	Picking	Picking	N	-	-
Marketing	un Organized	Organized	F	1	2
Farm Level Processing	-	Ketup, souce, Quary, chatni powder	F	1,5	1,6
Grading	-	Grade wise	F	1	2
Packing	Basket	Basket (Bamboo)	N	-	-
Processing	-	Souce, ketchup, puric, Pickle	F	1,5	1,2,6
Storage	-	Zero energy cold storage	F	1,5	1
Average Yield	120-150 Q/ha	200-250 q/ha	P	1,2,5,8	1,2,4,7

(*) F=Full P=Partial N=Nil

**** Code for specific reasons for gap in adoption**

1. Lack of awareness/knowledge, 2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions, 4. Non-avaibility of laour
5. Lack of resource, 6. Non-profitability and Non availability, 7. Risk of crop failure
8. Lack of assured irrigation, 9. Lack of conviction

***** Code for farmer proposed extension**

1. On farm trails / Demonstration, 2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection, 4. Improved farm implements, 5. Farmers scientist intraction
6. Link to financial institutions, 7. Improved variety of crops

Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/ Commodity in different AES

Crop:- Tomato **Resource Rich & Poor**

AES - I, II, III

Production Practices (items)	Gap in adoption in the different situations in which the crop/ commodity is grown			Reasons for gap in adoption as perceived by the farmers	Strategies as perceived by the farmers	Strategies proposed to overcome the gap
	Fs-1					
Sowing						
Time	-	-	-	-	-	-
Method	-	-	-	-	-	-
Variety	-	-	-	-	-	-
Seed Rate	√	√	√	1,7,8	1,5,6	2,9
Seed Treatment	√	√	√	1,9	1,5	2, 5
Organic Manure	√	√	√	1,5,7	1,3,6	2, 6,8
Fertilizer (Nutrient kg/ha						
Basal (N+P+K)	√	√	√	1,5,7	1,3,6	2,3,5,10
Top Dressing (N)	-	-	-	-	-	-
Micro Nutrient kg/ha	√	√	√	1,5,7	1,2,6	2, 5,10
Pest Management						
Fruit, Borer	-	-	-	-	-	-
Disease Management						
Leaf curl of tomato	√	√	√	1, 5,6	1,5	2,3, 7,9
Tomato mosaic	√	√	√	1, 5,6	1,5	2,3, 7,9
Weed Management						
Mechanical	-	-	-	-	-	-
Herbicide	–	–	–	1, 5,6	1,5	2,9
Water Management						
No. of Irrigation	√	√	√	1,5,8	1,5	2,10
Method	–	–	–	1, 5,8	1	2,5,10
Land Management						
Acidity	√	√	√	1,5,9	1, 6	2,9,11
Method of Harvesting						
Marketing	√	√	√	1,5	2,6,7	1,3,4
Farm Level Processing	√	√	√	1,5,9	1,2,5,6	1,2,9
Grading	√	√	√	1,5,6	1,5,6	2,3,4
Packing	–	–	–	1,5,6	1, 6	2,3,4
Processing	√	√	√	1,4,5,6	1,2,6	1,2,3,4
Storage	√	√	√	1,5,6	1,2,6	1,2,3,4
Average Yield	√	√	√	1,2,5,8	1,5,6,7	2, 3, 4, 5, 9

If the gap is present in that farming situation then (√) and no gap (-)

(*) F=Full P=Partial N=Nil

Reasons for gap in adoption as perceived by the farmers

1. Lack of awareness/knowledge
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Non-avaibility of laour
5. Lack of resource
6. Non-profitability and Non availability
7. Risk of crop failure
8. Lack of assured irrigation
9. Lack of conviction

Strategies as perceived by the farmers

1. On farm trails / Demonstration
2. Training and exposure visits
3. Use of locally available materials for nutrient management & plant protection
4. Improved farm implements
5. Farmers scientist intraction
6. Link to financial institutions
7. Improved variety of crops

Strategies proposed to overcome the gap

1. Training and exposure visit
2. Demonstrations/on farm trails
3. Linkage with financial institution/crop insurance
4. Providing market opportunities
5. Gearing quality input supply in rural areas
6. Use of locally available materials for nutrient management & plant protection
7. Control of pests and diseases in crops
8. Greater use of vermicompost and other organics to build up soil fertility
9. Farmers scientist intraction
10. More emphasis on judicious use of soil and water
11. Popularisation of line application

Table No. 6.26

CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop :- Tomato

Production Practices (items)	AES-1		AES-2		AES-3	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Sowing	-		-		-	
Time	N	-	N	-	N	-
Method	N	-	N	-	N	-
Variety	N	-	N	-	N	-
Seed Rate	P	2,9	P	2,9	P	2,9
Seed Treatment	P	2, 5	P	2, 5	P	2, 5
Organic Manure	P	2, 6,8	P	2, 6,8	P	2, 6,8
Fertilizer (Nutrient kg/ha						
Basal (N+P+K)	F	2,3,5,10	F	2,3,5,10	F	2,3,5,10
Top Dressing (N)	N	-	N	-	N	-
Micro Nutrient kg/ha	F	2, 5,10	F	2, 5,10	F	2, 5,10
Pest Management						
Fruit, Borer	N	-	N	-	N	-
Disease Management		2,3, 7,9		2,3, 7,9		2,3, 7,9
Leaf curl of tomato	F	2,3, 7,9	F	2,3, 7,9	F	2,3, 7,9
Tomato mosaic	F		F		F	
Weed Management		-		-		-
Mechanical	N	2,9	N	2,9	N	2,9
Herbicide	F		F		F	
Water Management		2,10		2,10		2,10
No. of Irrigation	P	2,5,10	P	2,5,10	P	2,5,10
Method	N		N		N	
Land Management						
Acidity	F	2,9,11	F	2,9,11	F	2,9,11
Method of Harvesting						
Marketing	F	1,2,9	F	1,2,9	F	1,2,9
Farm Level Processing	F	2,3,4	F	2,3,4	F	2,3,4
Grading	F	2,3,4	F	2,3,4	F	2,3,4
Packing	N	1,2,3,4	N	1,2,3,4	N	1,2,3,4
Processing	F	1,2,3,4	F	1,2,3,4	F	1,2,3,4
Storage	F	2, 3, 4, 5, 9	F	2, 3, 4, 5, 9	F	2, 3, 4, 5, 9
Average Yield	P	1, 2, 3 & 4	P	1, 2, 3 & 4	P	1, 2, 3 & 4

***** Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Linkage with financial institution/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Use of locally available materials for nutrient management & plant protection, 7. Control of pests and diseases in crops, 8. Greater use of vermicompost and other organics to build up soil fertility, 9. Farmers scientist intraction, 10. More emphasis on judicious use of soil and water, 11. Popularisation of lime application

Table-6.27
Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Livestock

AES - I **Resource Rich/Poor**

Animal: Cow ***Farming Situation: Irrigated + Rainfed Local Breed***

ITEMS	FS-I					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Breed Up gradation										
*Artificial Insemination	Facility not available		F	1,4	1,2,3	Facility not available		F	1,4	1,2,3
*Breed	Local	Jercy, C.B.	P	1,4	1,2,3	Local	Jercy, C.B.	P	1,4	1,2,3
*Location	-	A.I. Centre	F	1,4	1,2,3	-	A.I. Centre	F	1,4	1,2,3
*Natural Insemination	Followed		F	1,4	1,2,3	Followed		F	1,4	1,2,3
*Breed	Local	Jercy, C.B.	F	1,4	1,2,3	Local	Jercy, C.B.	F	1,4	1,2,3
*Location	-	Bull Centre	P	1,2,5	1,2,3	-	Bull Centre	P	1,2,5	1,2,3
Feed Management (per animal)										
*Green Fodder (kg/day)	Free grazing	25-30 kg	P	1,3,5	1,3,4,5	Free grazing	25-30 kg	P	1,3,5	1,3,4,5
*Dry Fodder (kg/day)	0-5 kg.	5-8 kg	P	1,3,5	1,3,4,5	2-3 kg	5-8 kg	P	1,3,5	1,3,4,5
*Concentrates (cow/day)	500-700 gram	2-2.5 kg for per kg of milk product	P	1,3,5	1,3,4,5	200-300 gm.	2-2.5 kg for per kg of milk product	P	1,3,5	1,3,4,5
*Minerals (g/days)	-	25-30 gm	F	1,3,5	1,3,4,5	-	25-30 gm	F	1,3,5	1,3,4,5
*Vitamins (ml/day)	-	10 ml/day	F	1,3,5	1,3,4,5	-	10 ml/day	F	1,3,5	1,3,4,5

Intercalving Care (per annum)	18-24	12-14 Month	P	1,3,5	1,3,4,5	18-24	12-14 Month	P	1,3,5	1,3,4,5
Vaccinations Schedule										
*HSBQ	One per year	Twice	P	1,3,5	1,2	One	Twice	P	1,3,5	1,2
*FMD	-	Once/ year	F	1,3,4	1,2	-	Once/ year	F	1,3,4	1,2
*Rinder Pest	-	1/lifetime	F	1,3,4	1,2	-	1/lifetime	F	1,3,4	1,2
*Mastitis	-	Daily	F	1,3,4	1,2	-	Daily	F	1,3,4	1,2
*Thilarisis	-	On demand	F	1,3,4	1,2	-	On demand	F	1,3,4	1,2
*Deworming	-	2/ years	F	1,3,4	1,2	-	2/ years	F	1,3,4	1,2
General Management										
Washing (times/day)	weekly	Once	F	1,3,5	1,2,5	weekly	Once	F	1,3,5	1,2,5
Cleaning (times/day)	Once	Once	N	1,3,5	1,2,5	Once	Once	N	1,3,5	1,2,5
Housing (Pucca/Kaccha)	Kaccha	pacca	P	1,3,5	1,2,5	Kaccha	pacca	P	1,3,5	1,2,5
Drinking Water (Lit per day) per animal	30-40-	50-100	P	1,3,5	1,2,5	30-8-	50-100	P	1,3,5	1,2,5
Average Yield (Milk)				1,2,3,4,5	1,2,3,4,5				1,2,3,4,5	1,2,3,4,5
Exotic		10-15 lit/day	P	1,3,5			10-15 lit/day	P	1,3,5	
Deshi	1 lit/day	2-3 lit/day	P	1,3,5		1 lit/day	2-3 lit/day	P	1,3,5	

(*) F=Full **P = Partial** **N = Nil**

**** Code for specific reasons for gap in adoption**

1. Lack of awareness, 2. Lack of finance
3. Non availability of improve breed, 4. Lack of technical persons, 5. High cost of concentrate, 6. Lack of management practice, 7. Lack of avaibility of fodder

***** Code for farmer proposed extension**

1. On farm trails/Demonstration and exposure visits, 2. Providing technical person, 3. Availability of concentrates at cheaper rates, 4. Management practices, 5. Finance availability, 6. Providing technical awarencess, 7. Avaibalitity of fodder

Table-6.28
Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Livestock

AES - II **Resource Rich/Poor**

Animal: Cow ***Farming Situation: Irrigated + Rainfed Local Breed***

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Breed Up gradation										
Artificial Insemination	Facility not available		F	1,4	1,2,3	Facility not available		F	1,4	1,2,3
Breed	Local	Jercy, C.B.	P	1,4	1,2,3	Local	Jercy, C.B.	P	1,4	1,2,3
Location	-	A.I. Centre	F	1,4	1,2,3	-	A.I. Centre	F	1,4	1,2,3
Natural Insemination	Followed		F	1,4	1,2,3	Followed		F	1,4	1,2,3
Breed	Local	Jercy, C.B.	F	1,4	1,2,3	Local	Jercy, C.B.	F	1,4	1,2,3
Location	-	Bull Centre	P	1,2,5	1,2,3	-	Bull Centre	P	1,2,5	1,2,3
Feed Management (per animal)										
Green Fodder (kg/day)	Free grazing	25-30 kg	P	1,3,5	1,3,4,5	Free grazing	25-30 kg	P	1,3,5	1,3,4,5
Dry Fodder (kg/day)	0-5 kg.	5-8 kg	P	1,3,5	1,3,4,5	2-3 kg	5-8 kg	P	1,3,5	1,3,4,5
Concentrates (cow/day)	500-700 gram	2-2.5 kg for per kg of milk product	P	1,3,5	1,3,4,5	200-300 gm.	2-2.5 kg for per kg of milk product	P	1,3,5	1,3,4,5
Minerals (g/days)	-	25-30 gm	F	1,3,5	1,3,4,5	-	25-30 gm	F	1,3,5	1,3,4,5
Vitamins (ml/day)	-	10 ml/day	F	1,3,5	1,3,4,5	-	10 ml/day	F	1,3,5	1,3,4,5

Intercalving Care (per annum)	18-24	12-14 Month	P	1,3,5	1,3,4,5	18-24	12-14 Month	P	1,3,5	1,3,4,5
Vaccinations Schedule										
*HSBQ	One	Twice	P	1,3,5	1,2	One	Twice	P	1,3,5	1,2
FMD	-	Once/ year	F	1,3,4	1,2	-	Once/ year	F	1,3,4	1,2
Rinder Pest	-	1/lifetime	F	1,3,4	1,2	-	1/lifetime	F	1,3,4	1,2
Mastitis	-	Daily	F	1,3,4	1,2	-	Daily	F	1,3,4	1,2
Thilarisis	-	On demand	F	1,3,4	1,2	-	On demand	F	1,3,4	1,2
Deworming	-	2/ years	F	1,3,4	1,2	-	2/ years	F	1,3,4	1,2
General Management										
Washing (times/day)	weekly	Once	F	1,3,5	1,2,5	weekly	Once	F	1,3,5	1,2,5
Cleaning (times/day)	Once	Once	N	1,3,5	1,2,5	Once	Once	N	1,3,5	1,2,5
Housing (Pucca/Kaccha)	Kaccha	pacca	P	1,3,5	1,2,5	Kaccha	pacca	P	1,3,5	1,2,5
Drinking Water	30-8-	50-100	P	1,3,5	1,2,5	30-8-	50-100	P	1,3,5	1,2,5
Average Yield (Milk)				1,2,3,4,5	1,2,3,4,5				1,2,3,4,5	1,2,3,4,5
Exotic		10-15 lit/day	P	1,3,5			10-15 lit/day	P	1,3,5	
Deshi	1 lit/day	2-3 lit/day	P	1,3,5		1 lit/day	2-3 lit/day	P	1,3,5	

(*) F=Full **P = Partial** **N = Nil**

**** Code for specific reasons for gap in adoption**

1. Lack of awareness, 2. Lack of finance
3. Non availability of improve breed, 4. Lack of technical persons, 5. High cost of concentrate, 6. Lack of management practice, 7. Lack of avaibility of fodder

***** Code for farmer proposed extension**

1. On farm trails/Demonstration and exposure visits, 2. Providing technical person, 3. Availability of concentrates at cheaper rates, 4. Management practices, 5. Finance availability, 6. Providing technical awarencess, 7. Avaibalitity of fodder

Table-6.29
Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Livestock

AES - III **Resource Rich/Poor**

Animal: Cow ***Farming Situation: Irrigated + Rainfed Local Breed***

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Breed Up gradation										
Artificial Insemination	Facility not available		F	1,4	1,2,3	Facility not available		F	1,4	1,2,3
Breed	Local	Jercy, C.B.	P	1,4	1,2,3	Local	Jercy, C.B.	P	1,4	1,2,3
Location	-	A.I. Centre	F	1,4	1,2,3	-	A.I. Centre	F	1,4	1,2,3
Natural Insemination	Followed		F	1,4	1,2,3	Followed		F	1,4	1,2,3
Breed	Local	Jercy, C.B.	F	1,4	1,2,3	Local	Jercy, C.B.	F	1,4	1,2,3
Location	-	Bull Centre	P	1,2,5	1,2,3	-	Bull Centre	P	1,2,5	1,2,3
Feed Management (per animal)										
Green Fodder (kg/day)	Free grazing	25-30 kg	P	1,3,5	1,3,4,5	Free grazing	25-30 kg	P	1,3,5	1,3,4,5
Dry Fodder (kg/day)	0-5 kg.	5-8 kg	P	1,3,5	1,3,4,5	2-3 kg	5-8 kg	P	1,3,5	1,3,4,5
Concentrates (cow/day)	500-700 gram	2-2.5 kg for per kg of milk product	P	1,3,5	1,3,4,5	200-300 gm.	2-2.5 kg for per kg of milk product	P	1,3,5	1,3,4,5
Minerals (g/days)	-	25-30 gm	F	1,3,5	1,3,4,5	-	25-30 gm	F	1,3,5	1,3,4,5
Vitamins (ml/day)	-	10 ml/day	F	1,3,5	1,3,4,5	-	10 ml/day	F	1,3,5	1,3,4,5
Intercalving Care (per annum)	18-24	12-14 Month	P	1,3,5	1,3,4,5	18-24	12-14 Month	P	1,3,5	1,3,4,5
HSBQ (No. of Vaccinations)	One	Twice	P	1,3,5	1,2	One	Twice	P	1,3,5	1,2

FMD	-	Once/ year	F	1,3,4	1,2	-	Once/ year	F	1,3,4	1,2
Rinder Pest	-	1/lifetime	F	1,3,4	1,2	-	1/lifetime	F	1,3,4	1,2
Mastitis	-	Daily	F	1,3,4	1,2	-	Daily	F	1,3,4	1,2
Thilarisis	-	On demand	F	1,3,4	1,2	-	On demand	F	1,3,4	1,2
Deworming	-	2/ years	F	1,3,4	1,2	-	2/ years	F	1,3,4	1,2
General Management										
Washing (times/day)	weekly	Once	F	1,3,5	1,2,5	weekly	Once	F	1,3,5	1,2,5
Cleaning (times/day)	Once	Once	N	1,3,5	1,2,5	Once	Once	N	1,3,5	1,2,5
Housing (Pucca/Kaccha)	Kaccha	pacca	P	1,3,5	1,2,5	Kaccha	pacca	P	1,3,5	1,2,5
Drinking Water	30-8-	50-100	P	1,3,5	1,2,5	30-8-	50-100	P	1,3,5	1,2,5
Average Yield (Milk)				1,2,3,4,5	1,2,3,4,5				1,2,3,4,5	1,2,3,4,5
Exotic		10-15 lit/day	P	1,3,5			10-15 lit/day	P	1,3,5	
Deshi	1 lit/day	2-3 lit/day	P	1,3,5		1 lit/day	2-3 lit/day	P	1,3,5	

(*) F=Full **P = Partial** **N = Nil**

**** Code for specific reasons for gap in adoption**

1. Lack of awareness, 2. Lack of finance
3. Non availability of improve breed, 4. Lack of technical persons, 5. High cost of concentrate, 6. Lack of management practice, 7. Lack of avaibility of fodder

***** Code for farmer proposed extension**

1. On farm trails/Demonstration and exposure visits, 2. Providing technical person, 3. Availability of concentrates at cheaper rates, 4. Management practices, 5. Finance availability, 6. Providing technical awarencess, 7. Avaibalitity of fodder

Table No. 6.30
Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/ Commodity in different AES

Crop:- Cow **Resource Rich & Poor**
AES – I, II, III

Production Practices (items)	Gap in adoption in the different situations in which the crop/ commodity is grown			Reasons for gap in adoption as perceived by the farmers	Strategies as perceived by the farmers	Strategies proposed to overcome the gap
	Fs-1	Fs-2	Fs-3			
Breed Up gradation	-	–	–	-	-	-
Artificial Insemination	–	–	–	-	-	-
Breed	√	√	√	1,4	1,2,4	2, 3, 6
Location	√	√	√	1,5	1,2,5	2, 3
Natural Insemination	–	–	–	-	-	-
Breed	√	√	√	1,4	1,5	2, 5, 6
Location	√	√	√	1,2,5	1,2,5	1, 2, 3, 5
Feed Management (per animal)						
Green Fodder (kg/day)	√	√	√	1,2,5	5,6	3, 5
Dry Fodder (kg/day)	√	√	√	1,2,5	5,6	5
Concentrates (cow/day)	√	√	√	1,3	1,2	2, 5
Minerals (g/days)	√	√	√	1,3	1,2	2, 5
Vitamins (ml/day)	√	√	√	1,3	1,2,4	2, 5
Intercalving Care (per annum)	**√**	**√**	**√**	**1,4,5**	**1,2,5**	**2, 6, 7, 8**
Vaccinations schedule						
HSBQ	**√**	**√**	**√**	**1,3,5**	**1,2**	**1, 2, 7**
FMD	√	√	√	1,3,4	1,2	1, 5, 7, 8
Rinder Pest	√	√	√	1,3,4	1,2	1, 5, 7, 8
Mastitis	√	√	√	1,3,4	1,2	1, 5, 8
Thilarisis	√	√	√	1,3,4	1,2	1, 5,7, 8
Deworming	√	√	√	1,3,4	1,2	1, 5, 8
General Management						
Washing (times/day)	√	√	√	1,3	1, 5	1
Cleaning (times/day)	–	–	–	-	-	-
Housing (Pucca/Kaccha)	√	√	√	1,3,5	1, 4,5	1, 2, 3
Drinking Water	√	√	√	1,3,5	1,2,5	1, 2, 5
Average Yield (Milk)						
Exotic	√	√	√	1,2,3,4,5	1,2, 4,5,6	1, 3,4,5,6, 7, 8
Deshi	√	√	√	1,3,5	1,2,5	2, 4, 6, 7, 8

If the gap is present in that farming situation then (√) and no gap (-)

**** Code for specific reasons for gap in adoption**
1. Lack of awareness
2. Lack of availability of fooder
3. Cost Factor
4. Lack of technical persons.
5. Unaware of management practices

***** code for farmer proposed extension**
1. Awareness programme through training & field visit.
2. Health Camp
3. Exposure Visit
4. Credit facilities
5. Management practices
6. Fooder availability

***** Strategies proposed to overcome the gap**
1. Training and exposure visit
2. Demonstrations/on farm trails
3. Linkage with financial institution/crop insurance
4. Providing market opportunities
5. Gearing quality input supply in rural areas
6. Breed improvement through AI/Improved bull
7. Preventive vaccination
8.Control of disease and pest

Table No. 6.31

CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop :- Cow

Production Practices (items)	AES-1		AES-2		AES-3	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Breed Up gradation	-	-	-	-	-	-
***Artificial Insemination**	-	-	-	-	-	-
*Breed	P	2, 3, 6	P	2, 3, 6	P	2, 3, 6
*Location	F	2, 3	F	2, 3	F	2, 3
*Natural Insemination	-	-	-	-	-	-
*Breed	F	2, 5, 6	F	2, 5, 6	F	2, 5, 6
*Location	P	1, 2, 3, 5	P	1, 2, 3, 5	P	1, 2, 3, 5
Feed Management (per animal)						
Green Fodder (kg/day)	P	3, 5	P	3, 5	P	3, 5
Dry Fodder (kg/day)	P	5	P	5	P	5
Concentrates (cow/day)	P	2, 5	P	2, 5	P	2, 5
Minerals (g/days)	F	2, 5	F	2, 5	F	2, 5
Vitamins (ml/day)	F	2, 5	F	2, 5	F	2, 5
Intercalving Care (per annum)	P	2, 6, 7, 8	P	2, 6, 7, 8	P	2, 6, 7, 8
HSBQ (No. of Vaccinations)	P	1, 2, 7	P	1, 2, 7	P	1, 2, 7
FMD	F	1, 5, 7, 8	F	1, 5, 7, 8	F	1, 5, 7, 8
Rinder Pest	F	1, 5, 7, 8	F	1, 5, 7, 8	F	1, 5, 7, 8
Mastitis	F	1, 5, 8	F	1, 5, 8	F	1, 5, 8
Thilarisis	F	1, 5,7, 8	F	1, 5,7, 8	F	1, 5,7, 8
Deworming	F	1, 5, 8	F	1, 5, 8	F	1, 5, 8
General Management						
Washing (times/day)	F	1	F	1	F	1
Cleaning (times/day)	N	-	N	-	N	-
Housing (Pucca/Kaccha)	P	1, 2, 3	P	1, 2, 3	P	1, 2, 3
Drinking Water	P	1, 2, 5	P	1, 2, 5	P	1, 2, 5
Average Yield (Milk)						
Exotic	P	1, 3,4,5,6, 7, 8	P	1, 3,4,5,6, 7, 8	P	1, 3,4,5,6, 7, 8
Deshi	P	2, 4, 6, 7, 8	P	2, 4, 6, 7, 8	P	2, 4, 6, 7, 8

***** Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Linkage with financial institution/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Breed improvement through AI/Improved bull, 7. Preventive vaccination, 8. Control of disease and pest

Table No. 6.32

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Livestock

Animal: Goat *Farming Situation: Landless-Rainfed* **Resource Rich/Poor**

ITEMS	AES - I FS-1					AES - II FS-1					AES - III FS - I				
	Existing practice	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Breed Up gradation															
Artificial Insemination															
Breed	Local	Black Bengal, Improved	P	1,2,3	1,2,3	Local	Black Bengal, Improved	P	1,2,3	1,2,3	Local	Black Bengal, Improved	P	1,2,3	1,2,3
Location		A.I. Centre	F	1,2,3	1,2,3		A.I. Centre	F	1,2,3	1,2,3		A.I. Centre	F	1,2,3	1,2,3
Natural Insemination															
Breed	Local	Black Bengal, Improved jamanapuri	P	1,2,3	1,2,4	Local	Black Bengal, Improved jamanapuri	P	1,2,3	1,2,4	Local	Black Bengal, Improved jamanapuri	P	1,2,3	1,2,4
Location		Buck Centre	F	1,2,3	1,2,4		Buck Centre	F	1,2,3	1,2,4		Buck Centre	F	1,2,3	1,2,4
Feed Management (per animal)					1,2					1,2					1,2
Green Fodder (kg/day)	3 kg	4-6 kg	P	1,4	1,2	3 kg	4-6 kg	P	1,4	1,2	3 kg	4-6 kg	P	1,4	1,2
Dry Fodder (kg/day)	-	0.5	F	1,4	1,2	-	0.5	F	1,4	1,2	-	0.5	F	1,4	1,2
Concentrates (/day)	30-40	150-250 gm	P	1,2,4	1,2	30-40	150-250 gm	P	1,2,4	1,2	30-40	150-250 gm	P	1,2,4	1,2
Minerals (mix)	-	10-15gm /day	F	1,2,4	1,2	-	10-15gm /day	F	1,2,4	1,2	-	10-15gm /day	F	1,2,4	1,2
Vitamins	-	10-15	F	1,2,4	1,2	-	10-15	F	1,2,4	1,2	-	10-15	F	1,2,4	1,2

(mix)		g/day					g/day					g/day			
Health Care (per annum)				1,2,4	1,2				1,2,4	1,2				1,2,4	1,2
HSBQ (No. of Vaccinations)	-	Twice	F	1,2,5	1,2	-	Twice	F	1,2,5	1,2	-	Twice	F	1,2,5	1,2
FMD	-	Once	F	1,2,5	1,2	-	Once	F	1,2,5	1,2	-	Once	F	1,2,5	1,2
ENT	-	On need	F	1,2,5	1,2	-	On need	F	1,2,5	1,2	-	On need	F	1,2,5	1,2
Mastitis	-	On need	F	1,2,5	1,2	-	On need	F	1,2,5	1,2	-	On need	F	1,2,5	1,2
Thilarisis	-	On need	F	1,2,5	1,2	-	On need	F	1,2,5	1,2	-	On need	F	1,2,5	1,2
Deworming	1	Quarterly once	F	125	1,2	1	Quarterly once	F	125	1,2	1	Quarterly once	F	125	1,2
General Management															
Washing (times/day)	Nil	Nil	N		1,2,3	Nil	Nil	N		1,2,3	Nil	Nil	N		1,2,3
Cleaning (times/day)	1	Once	F	1,2,6	1,2,3	1	Once	F	1,2,6	1,2,3	1	Once	F	1,2,6	1,2,3
Housing (Pucca/Kaccha)	katcha	Pucca/ katcha	p	1,2,6	1,2,3	katcha	Pucca/ katcha	p	1,2,6	1,2,3	katcha	Pucca/ katcha	p	1,2,6	1,2,3
Drinking Water	4	5 liter	P	1,2,6	1,2,3	4	5 liter	P	1,2,6	1,2,3	4	5 liter	P	1,2,6	1,2,3
Average milk Yield/ days	-	3-Feb	F	1,2,3,4, 5,6	1,2,3,4	-	3-Feb	F	1,2,3,4,5,6	1,2,3,4	-	3-Feb	F	1,2,3,4,5,6	1,2,3,4
Exotic/Graded		15-20 kg/Animal	P				15-20 kg/Animal	P				15-20 kg/Animal	P		
Deshi Meat	8	10-15 kg/Animal	P			8	10-15 kg/Animal	P			8	10-15 kg/Animal	P		

(*) F=Full **P = Partial** **N = Nil**

**** Code for specific reasons for gap in adoption**

1. Lack of awareness, 2. Lack of finance
3. Non availability of improve breed, 4. Lack of technical persons, 5. High cost of concentrate, 6. Lack of management practice, 7. Lack of avaibility of fodder

***** Code for farmer proposed extension**

1. On farm trails/Demonstration and exposure visits, 2. Providing technical person, 3. Availability of concentrates at cheaper rates, 4. Management practices, 5. Finance availability, 6. Providing technical awarencess, 7. Avaibalitity of fodder

Table No :- 6.33

Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/ Commodity in different AES

Crop:- Goat **Resource Rich & Poor**

AES - I, II, III

Production Practices (items)	Gap in adoption in the different situations in which the crop/ commodity is grown			Reasons for gap in adoption as perceived by the farmers	Strategies as perceived by the farmers	Strategies proposed to overcome the gap
	Fs-1	Fs-2	Fs-3			
Breed Up gradation	-	-	-	-	-	-
Artificial Insemination	-	-	-	-	-	-
Breed	√	√	√	1,2,3	1,4	2, 3, 6
Location	√	√	√	1,2,4	1,2	2, 3, 6
Natural Insemination	-	-	-	-	-	-
Breed	√	√	√	1,2,3	1	2, 6
Location	√	√	√	1,2,4	1	2, 6
Feed Management (per animal)						
Green Fodder (kg/day)	√	√	√	1,4	1,2	2, 3, 5
Dry Fodder (kg/day)	√	√	√	1,4	1,2	2, 3, 5
Concentrates (/day)	√	√	√	1,2,4	1,4	4, 5
Minerals (mix)	√	√	√	1,2,4	1	4, 5
Vitamins (mix)	√	√	√	1,2,4	1	4, 5
Health Care (per annum)				1,2,4	1, 4	1, 2, 7, 8
HSBQ (No. of Vaccinations)						
FMD	√	√	√	1,2,5	1,4	2, 7, 8
ENT	√	√	√	1,2,5	1,2	2, 7, 8
Mastitis	√	√	√	1,2,5	1,2	2, 8
Thilarisis	√	√	√	1,2,5	1,2	2, 7, 8
Deworming	√	√	√	1,2,5	1,2	2, 7, 8
General Management						
Washing (times/day)	-	-	-	-	-	-
Cleaning (times/day)	√	√	√	1,2,6	1	2
Housing (Pucca/Kaccha)	√	√	√	1,2,6	1,4	2, 3
Drinking Water	√	√	√	1, 6	1	2, 5
Average milk Yield/ days						
Exotic/Graded	√	√	√	1,2,3,4,5,6	1,2,3,4	1,2,3,4,5,6, 7, 8
Deshi Meat	√	√	√	1,2,3,4,5,6	1,2,3,4	2,3,4, 6, 7, 8

If the gap is present in that farming situation then (√) and no gap (-)

**** Code for specific reasons for gap in adoption**

1. Lack of awareness about breeding plan
2. Lack of Finance
3. Non availability of improve Breed
4. Lack of availability of fodder concentrates minerals & vitamins
5. Lack of disease awareness
6. Lack of housing and clearing awareness

***** code for farmer proposed extension**

1. Awareness program
2. Training & Demostration
3. Exposure visit
4. Linkage with financial institution & market.

***** Strategies proposed to overcome the gap**

1. Training and exposure visit
2. Demonstrations/on farm trails
3. Linkage with financial institution/crop insurance
4. Providing market opportunities
5. Gearing quality input supply in rural areas
6. Breed improvement through AI/Improved bull
7. Preventive vaccination
8. Control of disease and pest

Table No. 6.34

CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop :- Goat

Production Practices (items)	AES-1		AES-2		AES-3	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Breed Up gradation		-		-		-
Artificial Insemination		-		-		-
Breed	P	2, 3, 6	P	2, 3, 6	P	2, 3, 6
Location	F	2, 3, 6	F	2, 3, 6	F	2, 3, 6
Natural Insemination		-		-		-
Breed	P	2, 6	P	2, 6	P	2, 6
Location	F	2, 6	F	2, 6	F	2, 6
Feed Management (per animal)						
Green Fodder (kg/day)	P	2, 3, 5	P	2, 3, 5	P	2, 3, 5
Dry Fodder (kg/day)	F	2, 3, 5	F	2, 3, 5	F	2, 3, 5
Concentrates (/day)	P	4, 5	P	4, 5	P	4, 5
Minerals (mix)	F	4, 5	F	4, 5	F	4, 5
Vitamins (mix)	F	4, 5	F	4, 5	F	4, 5
Health Care (per annum)						
HSBQ (No. of Vaccinations)	F	2, 7, 8	F	2, 7, 8	F	2, 7, 8
FMD	F	2, 7, 8	F	2, 7, 8	F	2, 7, 8
ENT	F	2, 7, 8	F	2, 7, 8	F	2, 7, 8
Mastitis	F	2, 8	F	2, 8	F	2, 8
Thilarisis	F	2, 7, 8	F	2, 7, 8	F	2, 7, 8
Deworming	F	2, 7, 8	F	2, 7, 8	F	2, 7, 8
General Management						
Washing (times/day)	N	-	N	-	N	-
Cleaning (times/day)	F	2	F	2	F	2
Housing (Pucca/Kaccha)	P	2, 3	P	2, 3	P	2, 3
Drinking Water	P	2, 5	P	2, 5	P	2, 5
Average milk Yield/ days						
Exotic/Graded	P	1,2,3,4,5,6, 7, 8	P	1,2,3,4,5,6, 7, 8	P	1,2,3,4,5,6, 7, 8
Deshi Meat	P	2,3,4, 6, 7, 8	P	2,3,4, 6, 7, 8	P	2,3,4, 6, 7, 8

***** Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Linkage with financial institution/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Breed improvement through AI/Improved bull, 7. Preventive vaccination, 8. Control of disease and pest

Table No. 6.35

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Livestock **Resource Rich/Poor**

Animal: Pig **Farming Situation: Rainfed local breed**

ITEMS	AES - I FS-1					AES - II FS-1					AES - III FS-1				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Breed Up gradation															
Artificial Insemination															
Breed	Local	Improved, T&D Pig	F	1, 3 & 4	2 & 6	Local	Improved, T&D Pig	F	1, 3 & 4	2 & 6	Local	Improved, T&D Pig	F	1, 3 & 4	2 & 6
Location	-	A.I. Centre	P	2	5	-	A.I. Centre	P	2	5	-	A.I. Centre	P	2	5
Natural Insemination															
Breed	Local	Improved, T&D Pig	F	1 & 2	2	Local	Improved, T&D Pig	F	1 & 2	2	Local	Improved, T&D Pig	F	1 & 2	2
Feed Management (per bird)															
Green Fodder (kg/day)	Open Grassing	2-3 kg	F	1 & 7	5	Open Grassing	2-3 kg	F	1 & 7	5	Open Grassing	2-3 kg	F	1 & 7	5
Dry Fodder (kg/day)	300 g	1-2 kg	P	7	5	300 g	1-2 kg	P	7	5	300 g	1-2 kg	P	7	5
Concentrates (g/day)	-	200-250 gm	F	1 & 5	3 & 6	-	200-250 gm	F	1 & 5	3 & 6	-	200-250 gm	F	1 & 5	3 & 6
Minerals (mix)	-	10 gm /day	F	1 & 2	1 & 5	-	10 gm /day	F	1 & 2	1 & 5	-	10 gm /day	F	1 & 2	1 & 5
Vitamins (mix)	-	5 ml/day	F	1 & 2	1 & 5	-	5 ml/day	F	1 & 2	1 & 5	-	5 ml/day	F	1 & 2	1 & 5
Health Care	-	6-7				-	6-7				-	6-7 months			

(per annum)		months					months								
HSBQ (No. of Vaccinations)	-	Twice	F	1 & 6	4 & 6	-	Twice	F	1 & 6	4 & 6	-	Twice	F	1 & 6	4 & 6
FMD		Twice	F	1 & 6	4 & 6		Twice	F	1 & 6	4 & 6		Twice	F	1 & 6	4 & 6
swine fever	-	On need	F	1 & 6	4 & 6	-	On need	F	1 & 6	4 & 6	-	On need	F	1 & 6	4 & 6
Mastitis	-	On need	F	1 & 6	4 & 6	-	On need	F	1 & 6	4 & 6	-	On need	F	1 & 6	4 & 6
Thilarisis			F					F					F		
General Management															
Washing (times/day)	-	On Need	F	1	6	-	On Need	F	1	6	-	On Need	F	1	6
Cleaning (times/day)	-	Once	F	1	6	-	Once	F	1	6	-	Once	F	1	6
Housing (Pucca/Kaccha)	-	Pucca/ Kantch	N	-	-	-	Pucca/Kantch	N	-	-	-	Pucca/Kantch	N	-	-
Drinking Water	6-May	5 liter	N	-	-	6-May	5 liter	N	-	-	6-May	5 liter	N	-	-
Average Yield (Meat)															
Exotic Meat	-	75-90 kg/Animal (Age 9 Month)	-	-	-	-	75-90 kg/Animal (Age 9 Month)	-	-	-	-	75-90 kg/Animal (Age 9 Month)	-	-	-
Deshi Meat	25-30 kg	35-40 kg/Animal	P	1 & 3	6	25-30 kg	35-40 kg/Animal	P	1 & 3	6	25-30 kg	35-40 kg/Animal	P	1 & 3	6

(*) F=Full **P = Partial** **N = Nil**

**** Code for specific reasons for gap in adoption**

1. Lack of awareness, 2. Lack of finance
3. Non availability of improve breed, 4. Lack of technical persons, 5. High cost of concentrate, 6. Lack of management practice, 7. Lack of avaibility of fodder

***** Code for farmer proposed extension**

1. On farm trails/Demonstration and exposure visits, 2. Providing technical person, 3. Availability of concentrates at cheaper rates, 4. Management practices, 5. Finance availability, 6. Providing technical awarencess, 7. Avaibalitity of fodder

Table NO :-6.36

Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/ Commodity in different AES

Crop:- Pig **Resource Rich & Poor**

AES – I, II, III

Production Practices (items)	Gap in adoption in the different situations in which the crop/ commodity is grown			Reasons for gap in adoption as perceived by the farmers	Strategies as perceived by the farmers	Strategies proposed to overcome the gap
	Fs-1	Fs-2	Fs-3			
Breed Up gradation	-	-	-	-	-	-
Artificial Insemination	-	-	-	-	-	-
Breed	√	√	√	1, 2, 3	1, 2, 3	1, 2, 3,6
Location	√	√	√	1, 2, 3	1, 2, 3	1, 2, 3
Natural Insemination	-	-	-			-
Breed	√	√	√	1, 3	1, 2, 3	2, 6
Location	-	-	-	-	-	-
Feed Management (per bird)						
Green Fodder (kg/day)	√	√	√	1, 2, 4	1, 2, 4	2, 3
Dry Fodder (kg/day)	√	√	√	1,4	1, 2, 4	2, 4
Concentrates (g/day)	√	√	√	2, 4	1, 2, 4	2, 4, 5
Minerals (mix)	√	√	√	2, 4	1, 2, 4	2, 4
Vitamins (mix)	√	√	√	2, 4	1, 2, 4	2, 4
Health Care (per annum)						
HSBQ (No. of Vaccinations)	√	√	√	1, 2, 5	1, 2, 3	1, 2, 7, 8
FMD	√	√	√	1, 2, 5	1, 2, 3	1, 2, 7, 8
swine fever	√	√	√	2, 5	1, 2, 3	2, 7, 8
Mastitis	√	√	√	2, 5	1, 2, 3	2, 8
Thilarisis	√	√	√	2, 5	1, 2, 3	2, 7, 8
General Management						
Washing (times/day)	√	√	√	1, 6	1, 2, 4	2
Cleaning (times/day)	√	√	√	1, 6	1, 2, 4	2
Housing (Pucca/Kaccha)	-	-	-	-	-	-
Drinking Water	-	-	-	-	-	-
Average Yield (Meat)						1, 2, 5
Deshi Meat	√	√	√	3,4,5,6	1, 2, 4	1,2,3,4,5,6, 7, 8

If the gap is present in that farming situation then (√) and no gap (-)

**** Code for specific reasons for gap in adoption**

1. Lack of awareness about breeding plan
2. Lack of Finance
3. Non availability of improve Breed
4. Lack of availability of fodder concentrates minerals & vitamins
5. Lack of disease awareness
6. Lack of housing and clearing awareness

***** code for farmer proposed extension**

1. Awareness program
2. Training & Demostration
3. Exposure visit
4. Linkage with financial institution & market.

***** Strategies proposed to overcome the gap**

1. Training and exposure visit
2. Demonstrations/on farm trails
3. Linkage with financial institution/crop insurance
4. Providing market opportunities
5. Gearing quality input supply in rural areas
6. Breed improvement through AI/Improved bull
7. Preventive vaccination
8.Control of disease and pest

Table No. 6.37

CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop : Pig

Production Practices (items)	AES-1		AES-2		AES-3	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Breed Up gradation		-		-		-
Artificial Insemination	-	-	-	-	-	-
Breed	F	1, 2, 3,6	F	1, 2, 3,6	F	1, 2, 3,6
Location	P	1, 2, 3	P	1, 2, 3	P	1, 2, 3
Natural Insemination	-	-	-	-	-	-
Breed	F	2, 6	F	2, 6	F	2, 6
Location	-	-	-	-	-	-
Feed Management (per bird)						
Green Fodder (kg/day)	F	2, 3	F	2, 3	F	2, 3
Dry Fodder (kg/day)	P	2, 4	P	2, 4	P	2, 4
Concentrates (g/day)	F	2, 4, 5	F	2, 4, 5	F	2, 4, 5
Minerals (mix)	F	2, 4	F	2, 4	F	2, 4
Vitamins (mix)	F	2, 4	F	2, 4	F	2, 4
Health Care (per annum)						
HSBQ (No. of Vaccinations)	F	1, 2, 7, 8	F	1, 2, 7, 8	F	1, 2, 7, 8
FMD	F	1, 2, 7, 8	F	1, 2, 7, 8	F	1, 2, 7, 8
Swine fever	F	2, 7, 8	F	2, 7, 8	F	2, 7, 8
Mastitis	F	2, 8	F	2, 8	F	2, 8
Thilarisis	F	2, 7, 8	F	2, 7, 8	F	2, 7, 8
General Management						
Washing (times/day)	F	2	F	2	F	2
Cleaning (times/day)	F	2	F	2	F	2
Housing (Pucca/Kaccha)	N	-	N	-	N	-
Drinking Water	N	-	N	-	N	-
Average Yield (Meat)	F	1, 2, 5	F	1, 2, 5	F	1, 2, 5
Deshi Meat	P	1,2,3,4,5,6, 7, 8	P	1,2,3,4,5,6, 7, 8	P	1,2,3,4,5,6, 7, 8

*** **Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Linkage with financial institution/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Breed improvement through AI/Improved bull, 7. Preventive vaccination, 8. Control of disease and pest

Table-6.38

Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Livestock **Resource Rich/Poor**

Animal: Poultry ***Farming Situation: Rainfed Local Backyard Poultry***

ITEMS	AES - I FS-1					AES - II FS-I					AES - III FS-1				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Breed Up gradation															
Artificial Insemination															
Breed	Deshi	Red Divyayan	F	1,2,3	1,2,3	Deshi	Red Divyayan	F	1,2,3	1,2,3	Deshi	Red Divyayan	F	1,2,3	1,2,3
Location			F	1,2,3	1,2,3			F	1,2,3	1,2,3			F	1,2,3	1,2,3
Natural Insemination				1,2,3	1,2,3				1,2,3	1,2,3				1,2,3	1,2,3
Breed			F	1,2,3	1,2,3			F	1,2,3	1,2,3			F	1,2,3	1,2,3
Location					1,2,3					1,2,3					1,2,3
Feed Management (per bird)	Free grazing		F	2	1,2,3	Free grazing		F	2	1,2,3	Free grazing		F	2	1,2,3
Green Fodder (kg/day)		2-3 kg	F	2	1,2,3		2-3 kg	F	2	1,2,3		2-3 kg	F	2	1,2,3
Dry Fodder (kg/day)			P	2	1,2,3			P	2	1,2,3			P	2	1,2,3
Concentrates (g/day)	60-80	80-100 gm	P	2	1,2,3	65-85	80-100 gm	P	2	1,2,3	70-85	80-100 gm	P	2	1,2,3
Minerals (mix)		1 gm/bird/day	F	2,4	1,2,3		1 gm/bird/day	F	2,4	1,2,3		1 gm/bird/day	F	2,4	1,2,3
Vitamins (mix)		0.1 ml/bird/day	F	2,4	1,2,3		0.1 ml/bird/day	F	2,4	1,2,3		0.1 ml/bird/day	F	2,4	1,2,3
Health Care (per annum)				2,4	1,2				2,4	1,2				2,4	1,2
Marks disease		Once in lifetime	F	2,4	1,2		Once in lifetime	F	2,4	1,2		Once in lifetime	F	2,4	1,2

RD (No. of vaccination)		Twice	F	2,4	1,2		Twice	F	2,4	1,2		Twice	F	2,4	1,2
Fowl Pox		Once	F	2,4	1,2		Once	F	2,4	1,2		Once	F	2,4	1,2
Mastitis		On need	F	2,4	1,2		On need	F	2,4	1,2		On need	F	2,4	1,2
Thilarisis			F	2,4	1,2			F	2,4	1,2			F	2,4	1,2
Deworming		Quarterly once	F	2,4	1,2		Quarterly once	F	2,4	1,2		Quarterly once	F	2,4	1,2
General Management															
Washing (times/day)	Once	Once	N	-	1,2,3		Once	N	-	1,2,3		Once	N	-	1,2,3
Cleaning (times/day)		Once	N	-	1,2,3		Once	N	-	1,2,3		Once	N	-	1,2,3
Housing (Pucca/Kaccha)	Kaccha	Pucca	N		1,2,3	Kaccha	Pucca	N		1,2,3	Kaccha	Pucca	N		1,2,3
Drinking Water	Adequate	Adequate	N		1,2,3	Adequate	Adequate	N		1,2,3	Adequate	Adequate	N		1,2,3
Average Yield (egg)	70-75 eggs/year	150-200 eggs/year	P	2,5	1,2,3,4	70-75 eggs/year	150-200 eggs/year	P	2,5	1,2,3,4	70-75 eggs/year	150-200 eggs/year	P	2,5	1,2,3,4
Chicken Meat	1 kg/bird	2-2.5 kg / bird	P	2,5	1,2,3,4	1 kg/bird	2-2.5 kg / bird	P	2,5	1,2,3,4	1 kg/bird	2-2.5 kg / bird	P	2,5	1,2,3,4
Broiler Meat		1.2 – 2.0 kg/bird	N		1,2,3,4		1.2 – 2.0 kg/bird	N		1,2,3,4		1.2 – 2.0 kg/bird	N		1,2,3,4

(*) F=Full **P = Partial** **N = Nil**

**** Code for specific reasons for gap in adoption**

1. Lack of awareness about breeding plan, 2. Lack of knowledge, 3. Non availability of improve breed, 4. Lack of disease awareness, 5. Lack of housing and clearing awareness

***** Code for farmer proposed extension**

1. Awareness program, 2. Training and Demonstration, 3. Exposure visit, 4. Linkage with financial institution and market.

Table No:-6.39

Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/ Commodity in different AES

Crop:- Backyard Poultry **Resource Rich & Poor**

AES - I, II, III

Production Practices (items)	Gap in adoption in the different situations in which the crop/ commodity is grown			Reasons for gap in adoption as perceived by the farmers	Strategies as perceived by the farmers	Strategies proposed to overcome the gap
	Fs-1	Fs-2	Fs-3			
Breed Up gradation						
Artificial Insemination	–	–	–	-	-	-
Breed	√	√	√	1,3,4,5	1,5	1, 6
Location	√	√	√	1,3,5	1,2,6	2, 3, 5
Natural Insemination	-	-	-	-	-	-
Breed	√	√	√	1,3,4	1,5,6	2, 3, 5
Location	–	–	–	-	-	-
Feed Management (per bird)						
Green Fodder (kg/day)	√	√	√	2	1,2,6	2, 5
Dry Fodder (kg/day)	√	√	√	2	1,2,6	2, 5
Concentrates (g/day)	√	√	√	2	1,2,5	2, 5
Minerals (mix)	√	√	√	2,3	1,2,5	2, 5
Vitamins (mix)	√	√	√	2,3	1,2,5	2, 5
Health Care (per annum)				2,4,5	1,2,3,5	1, 3, 7, 8
Marks disease	√	√	√	2,4	1,2,5	5, 7, 8
RD (No. of vaccination)	√	√	√	2,4,5	1,2,5	5, 7, 8
Fowl Pox	√	√	√	2,4,5	1,2,5	5, 7, 8
Mastitis	√	√	√	2,4,5	1,2,5	5, 7, 8
Thilarisis	√	√	√	2,4	1,2,5	5, 7, 8
Deworming	√	√	√	2,4,5	2,5	5, 7, 8
General Management						
Washing (times/day)	√	√	√	2,5	2,5	2
Cleaning (times/day)	√	√	√	2,5	2,5	2
Housing (Pucca/Kaccha)	-	-	-	-	-	-
Drinking Water	√	√	√	2,5	2,5	2
Average Yield (egg)						
Chicken Meat	√	√	√	2,5	1,2,4,5	1, 3, 4, 6, 7, 8
Broiler Meat	√	√	√	2,5	1,2,5,6	1, 2, 3, 4, 6, 7,8

If the gap is present in that farming situation then (√) and no gap (-)

**** Code for specific reasons for gap in adoption**

1. Lack of awareness
2. Lack of availability of fooder
3. Cost Factor
4. Lack of technical persons.
5. Unaware of management practices

***** code for farmer proposed extension**

1. Awareness programme through training & field visit.
2. Health Camp
3. Exposure Visit
4. Credit facilities
5. Management practices
6. Fooder availability

***** Strategies proposed to overcome the gap**

1. Training and exposure visit
2. Demonstrations/on farm trails
3. Linkage with financial institution/crop insurance
4. Providing market opportunities
5. Gearing quality input supply in rural areas
6. Breed improvement through AI/Improved bull
7. Preventive vaccination
8. Control of disease and pest

Table No. 6.40

CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop : Poultry

Production Practices (items)	AES-1		AES-2		AES-3	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Breed Up gradation						
Artificial Insemination	-	-	-	-	-	-
Breed	P	1, 6	P	1, 6	P	1, 6
Location	F	2, 3, 5	F	2, 3, 5	F	2, 3, 5
Natural Insemination		-		-		-
Breed	P	2, 3, 5	P	2, 3, 5	P	2, 3, 5
Location	F	-	F	-	F	-
Feed Management (per bird)						
Green Fodder (kg/day)	P	2, 5	P	2, 5	P	2, 5
Dry Fodder (kg/day)	F	2, 5	F	2, 5	F	2, 5
Concentrates (g/day)	P	2, 5	P	2, 5	P	2, 5
Minerals (mix)	F	2, 5	F	2, 5	F	2, 5
Vitamins (mix)	F	2, 5	F	2, 5	F	2, 5
Health Care (per annum)		1, 3, 7, 8		1, 3, 7, 8		1, 3, 7, 8
Marks disease	F	5, 7, 8	F	5, 7, 8	F	5, 7, 8
RD (No. of vaccination)	F	5, 7, 8	F	5, 7, 8	F	5, 7, 8
Fowl Pox	F	5, 7, 8	F	5, 7, 8	F	5, 7, 8
Mastitis	F	5, 7, 8	F	5, 7, 8	F	5, 7, 8
Thilarisis	F	5, 7, 8	F	5, 7, 8	F	5, 7, 8
Deworming	F	5, 7, 8	F	5, 7, 8	F	5, 7, 8
General Management						
Washing (times/day)	N		N		N	
Cleaning (times/day)	F	2	F	2	F	2
Housing (Pucca/Kaccha)	-	-	-	-	-	-
Drinking Water	P	2	P	2	P	2
Average Yield (egg)						
Chicken Meat	P	1, 3, 4, 6, 7, 8	P	1, 3, 4, 6, 7, 8	P	1, 3, 4, 6, 7, 8
Broiler Meat	P	1, 2, 3, 4, 6, 7,8	P	1, 2, 3, 4, 6, 7,8	P	1, 2, 3, 4, 6, 7,8

*** **Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Linkage with financial institution/crop insurance, 4. Providing market opportunities, 5. Gearing quality input supply in rural areas, 6. Breed improvement through AI/Improved bull, 7. Preventive vaccination, 8. Control of disease and pest

Table-6.41
Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Livestock **AES I, II, III** **Resource Rich**

Animal: Fishery ***Farming Situation: RainfedSeasonal Pond*** ***Farming Situation: Rainfed Perinial Pond***

ITEMS	FS-1					FS-II				
	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Culture Component										
Indian Carp	Catla, Rohu, Mrigal	Catla, Rohu, Mrigal	N	-	-	Catla, Rohu, Mrigal	Catla, Rohu, Mrigal	N	-	-
Exotic Carp	-	IMC with EC	F	2,4,6	2,3,4	-	IMC with EC	F	2,4,6	2,3,4
Prawn	Small size prawn	Larger size prawn	F	4,5, 6	2,3,4	Small size prawn	Larger size prawn	F	4,5, 6	2,3,4
Cat fish	Deshi catfish	Exotic catfish	F	5,6	2, 4	Deshi catfish	Exotic catfish	F	5,6	2, 4
Pond preparation	-	PVC, MPCS	F	1, 4,5,7	1,3,4,5	-	PVC, MPCS	F	1, 4,5,7	1,3,4,5
Organic Manure	200 kg/ha	10000 kg/ha	P	3,5	3,4	200 kg/ha	10000 kg/ha	P	3,5	3,4
Inorganic manure	Nil	200 kg/ha	F	3,4,5,7	3,4,5	Nil	200 kg/ha	F	3,4,5,7	3,4,5
Bio fertilizer	Nil	40000 kg/ha	F	3,4,7	3,4,5	Nil	40000 kg/ha	F	3,4,7	3,4,5
Lime	-	200 kg/ha	F	5,7	4,5	-	200 kg/ha	F	5,7	4,5
Water depth	1-0.2m	1.5m	F	4,5	3,4,5	1-0.2m	1.5m	F	4,5	3,4,5
Weed control	Manual	Manual/ mechanical	P	4,5	1,4	Manual	Manual/ mechanical	P	4,5	1,4
Stocking Zone										

Spawn	3000/ha	10000-20000/ha	P	1,5,6	1,2, 4	3000/ha	10000-20000/ha	P	1,5,6	1,2, 4
Fry	700/ha	10000/ha	P	1,5,6	1,2, 4	700/ha	10000/ha	P	1,5,6	1,2, 4
Fingerling	2000/ha	5000/ha	P	1, 4,5,6	1,2,3,4	2000/ha	5000/ha	P	1, 4,5,6	1,2,3,4
Feeding schedule	-		F	1, 4,5	1, 3,4	-		F	1, 4,5	1, 3,4
Rice bran: oil cake	-	1:1	F	1, 4,5	1, 3,4	-	1:1	F	1, 4,5	1, 3,4
Green leaf	-		F	1,5	4	-		F	1,5	4
Disease	-	CIFAX	F	1, 4,5	1, 4	-	CIFAX	F	1, 4,5	1, 4
Sample netting	-		F	1, 4,5	1, 3,4	-		F	1, 4,5	1, 3,4
Aeration	-		F	1, 4,5	1, 3,4	-		F	1, 4,5	1, 3,4
Harvesting Method	Net	Cycle	P	1, 4,5,7	1,4,5	Net	Cycle	P	1, 4,5,7	1,4,5
Culture Method	Indigenous	Composite pisciculture	F	1, 4,5,6,7	1,2,3,4,5	Indigenous	Composite pisciculture	F	1, 4,5,6,7	1,2,3,4,5
Average yield	2 q/ha	2-3 t/ha	P	1,3,4,5,6,7	1,2,3,4,5	2 q/ha	2-3 t/ha	P	1,3,4,5,6,7	1,2,3,4,5

(*) F=Full P = Partial N = Nil

**** Code for specific reasons for gap in adoption**

1. Lack of technical personal
2. Lack of awareness & availability of seed
3. Lack of availability of organic matter
4. Lack of finance
5. Lack of Knowledge and skill
6. Lack of availability of improved breed
7. Lack of availability of water in pond

***** code for farmer proposed extension**

1. Providing qualified technical personal
2. Providing improved quality of composite culture seed
3. Linkage with finance agency and market
4. Training and awareness campaign
5. Water management in pond

Table No:-6.42
Gap in adoption and Proposed strategies for improving the production and productivity of the Crop/ Commodity in different AES

Crop:- Fishery **Resource Rich & Poor**

AES - I, II, III

Production Practices (items)	Gap in adoption in the different situations in which the crop/ commodity is grown		Reasons for gap in adoption as perceived by the farmers	Strategies as perceived by the farmers	Strategies proposed to overcome the gap
	Fs-1	Fs-2			
Breed Up gradation					
Improved Breed	√	√	4,5,6	2,3,4	1,2,3,5
Indigenous breed	√	√	4,5,6	2,3,4	2,3,5,6
Pond Mangement					
Organic manure	√	√	3,4,5	3,4	1,6,7
In organic manure	√	√	4,5,7	3,4	1,4,6
Bio-fertilizer	√	√	3,4,5	3,4	1,2,6,7
Lime	√	√	4,5	4	2,5
Water Depth	√	√	4,5,7	4,5	1,7
Weed control	√	√	4,5	4	2,5
Feed management					
Rice bran: oilcake	√	√	4,5	3,4	2,4,5
Green leaf	√	√	5	4	5
Health care					
Disease					
CIFAX	√	√	1,5	1,4,5	1,5,7,8
Aerasion	√	√	1,4,5	1,4,5	2,4,5
Harvesting method	√	√	4,5	1,4,5	2,7
Culture method	√	√	1,4,5	1,2,3,4,5	1,2,3,6,7
Average yield	√	√	1,3,4,5,6,7	1,2,3,4,5	1,2,3,4,5,7,8

If the gap is present in that farming situation then (√) and no gap (-)

**** Code for specific reasons for gap in adoption**
1. Lack of technical personal
2. Lack of awareness & availability of seed
3. Lack of availability of organic matter
4. Lack of finance
5. Lack of Knowledge and skill
6. Lack of availability of improved breed
7. Lack of availability of water in pond

***** code for farmer proposed extension**
1. Providing qualified technical personal
2. Providing improved quality of composite culture seed
3. Linkage with finance agency and market
4. Training and awareness campaign
5. Water management in pond

***** Strategies proposed to overcome the gap**
1. Training and exposure visit
2. Demonstrations/on farm trails
3. Providing improved breed
4. Linkage with finanace agency and market
5. Farmer scientist interaction
6. Gearing quality supply in rural areas

Table No. 6.43

CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A CROP/ COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Crop : Fishery

Production Practices (items)	AES-1		AES-2		AES-3		AES-4	
	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap	Gap in adoption N/P/F	Proposed Strategy to overcome the gap
Breed Up gradation								
Improved Breed	F	1,2,3,5	F	1,2,3,5	F	1,2,3,5	F	1,2,3,5
Indigenous breed	P	2,3,5,6	P	2,3,5,6	P	2,3,5,6	P	2,3,5,6
Pond Mangement								
Organic manure	P	1,6,7	P	1,6,7	P	1,6,7	P	1,6,7
In organic manure	F	1,4,6	F	1,4,6	F	1,4,6	F	1,4,6
Bio-fertilizer	F	1,2,6,7	F	1,2,6,7	F	1,2,6,7	F	1,2,6,7
Lime	F	2,5	F	2,5	F	2,5	F	2,5
Water Depth	P	1,7	P	1,7	P	1,7	P	1,7
Weed control	P	2,5	P	2,5	P	2,5	P	2,5
Feed management								
Rice bran: oilcake	F	2,4,5	F	2,4,5	F	2,4,5	F	2,4,5
Green leaf	F	5	F	5	F	5	F	5
Health care								
Disease								
CIFAX	F	1,5,7,8	F	1,5,7,8	F	1,5,7,8	F	1,5,7,8
Aerasion	F	2,4,5	F	2,4,5	F	2,4,5	F	2,4,5
Harvesting method	P	2,7	P	2,7	P	2,7	P	2,7
Culture method	F	1,2,3,6,7	F	1,2,3,6,7	F	1,2,3,6,7	F	1,2,3,6,7
Average yield	P	1,2,3,4,5,7,8	P	1,2,3,4,5,7,8	P	1,2,3,4,5,7,8	P	1,2,3,4,5,7,8

*** **Strategies proposed to overcome the gap :** 1. Training and exposure visit, 2. Demonstrations/on farm trails, 3. Providing improved breed, 4. Linkage with finanace agency and market, 5. Farmer scientist interaction, 6. Gearing quality supply in rural areas