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

Type of Farming Situation under which Important Agricultural Crops/Animal Husbandry are Cultivated/Raired.

Sl. No	Crop	Farming Situation	
1	**Paddy**	1	Farming Situation(FS-I) : Rainfed Normal Sown/Up land. Transplanting Red Laterite Sandy Soil
		2	Farming Situation (FS-II): Rainfed Normal Sown/Up land. (Dricet Seeding) Red Laterite Sandy Soil
		3	Farming Situation(III) : Rainfed Early Sown (Transplanting) Low Land Loamy/Clay Soil
		4	Farming Situation(IV):Rainfed Normal Sown Transplanting, Mid/Mid Low Land Sandy Loam/Lome Soil
		5	Farming Situation(V) :Rainfed Late Sown Transplanting, Mid/Mid Low Land Sandy Loam/Loam Soil
2	**Wheat**	1	Farming Situation(FS-I) : Irrigated Early Sown Up Land Red Laterite Sandy Siol
		2	Farming Situation(FS-II) : Irrigated Normal Sown Mid/Mid Low Land, Sandy Loame Soil
		3	Farming Situation(FS-III) : Irrigated Late Sown Mid/Mid Low Land, Sandy Loame Soil
3	**Maize**	1	Farming Situation(FS-I) : Rainfed Normal Sown Up Land Red Laterite Sandy Soil
		2	Farming Situation(FS-I) : Rainfed Normal Sown Up Land Red Laterite Sandy Soil
		3	Farming Situation(FS-I) : Rainfed Normal Sown Up Land Red Laterite Sandy Soil
4	**Ground Nut**	1	Farming Situation(FS-I) : Rainfed Normal Sown Up Land Red Laterite Sandy Soil
5	**Ginger**	1	Farming Situation(FS-I) : Partialy Irrigated Early Sown Red Laterite Sandy Soil
		2	Farming Situation(FS-II) : Rainfed Normal Sown Red Laterite Sandy Soil
6	**Potato**	1	Farming Situation(FS-I) : Rainfed (Rainy Season)Early Sown/Up Land Red Laterite Sandy Soil
		2	Farming Situation(FS-II) : Irrigated Early & Normal Sown/Up Land Red Laterite Sandy Soil
7	**Pigeon Pea**	1	Farming Situation(FS-I) : Rainfed Normal Sown/Up Land Red Laterite Sandy Soil

8	**Pea**	1	Farming Situation(FS-I) Early Sown Irrigated Red Laterite Sandy Soil
		2	Farming Situation(FS-II) Normal Sown Irrigated Mid Land, Sandy lome Soil
9	**Cauliflower**	1	Farming Situation(FS-I) Early Sown (Rainy Season) Partial Irrigated/ Rainfed Up Land Red Laterite Sandy Soil
		2	Farming Situation (FS-III) Late Sown (Summer) Irrigated Yellow Sandy Loam/Loam Soil Mid Low Land
		3	Farming Situation (FS-III) Late Sown (Summer) Irrigated Yellow Sandy Loam/Loam Soil Mid Low Land
10	**Cabbage**	1	Farming Situation(FS-I) Normal Sown Up Land Red Laterite Sandy Soil
11	**Tomato**	1	Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Season) Up Land Red Laterite Sandy Soil.
		2	Farming Situation(FS-II) Normal Sown Up Land Irrigated Red Laterite Sandy Soil
		3	Farming Situation(FS-III) Late Sown Irrigated Yellowish Sandy Loam/Loam Soil.
12	**Brinjal**	1	Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Season) Up Land Red Laterite Sandy Soil.
		2	Farming Situation(FS-II) Normal Sown Up Land Irrigated Red Laterite Sandy Soil.
		3	Farming Situation(FS-III) Late Sown Irrigated Yellowish Sandy Loam/Loam Soil.
13	**Chilli**	1	Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Season) Up Land Red Laterite Sandy Soil
		2	Farming Situation(FS-II) Normal Sown Up Land Irrigated Red Laterite Sandy Soil
		3	Farming Situation(FS-III) Late Sown Irrigated Yellowish Sandy Loam/Loam Soil.
14	**Capsicum**	1	Farming Situation(FS-I) Normal Sown Up Land Irrigated Red Laterite Sandy Soil
		2	Farming Situation(FS-II) Late Sown Irrigated Yellowish Sandy Loam/Loam Soil.
15	**Cow (Animal)**	1	Farming Situation(FS-I) Own land.
16	**Buffalo (Animal)**	1	Farming Situation(FS-I) Own land.
17	**Goat (Animal)**	1	Farming Situation(FS-I) Own land.
18	**Backyard Poultry (Bird)**	1	Farming Situation(FS-I) Own land.

Paddy: - AES –I, is Charachaterised by growing of HYV & Hybrid Paddy. But in AES –II & III Still 50% area is covered by Local paddy. Hardly 10% of area is under Hybrid and 40% area is under HYV. Only Pro-agro 6444 hybrid variety had been recommended by B.A.U., Ranchi for all farming situation. Where as more than 50 popular hybrid varieties are in the field for different farming situation.

Vegetable: - A number of vegetable is grown all around the year in the distict, pre dmintinly in AES –I some of them are cauliflower, cabbage, chilli, tamoto, capsicum, franchbeen, and cucurbits, etc. Raini seasion patato is also popular in AES-I & III marketing is done through middle man. Vegetables are not grown in calester. All most each vegetable is grown by every farmer.

Wheat: - wheat is grown in small area under irrigated condation .The production & productivity is low.

Pulses: - Area under pulses in Kharif & Rabbi is very low. The production & productivity is very poor.

Pea: - Pea is grown large scale for vegetable purpose in the distict. Three crops of pea are taken, but production & productivity is rather low.

Ginger: - Ginger was very popular crop in 1990's but due to rotting deases the cultivation of ginger has come down. There is no recommended agronomy for ginger crop.

Table-:6:01 Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor **Agriculture** Farming Situation(FS-I) : Rainfed Normal

Representative Village : Karakara Crop : Paddy Sown/Up land. Transplanting

Red Laterite Sandy Soil

ITEMS		Existing practices		Recommended		Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing								
Varity	Local	-		-		-	-	-
	H.Y.V	IR-36, IR-64.		IR-36, IR-64, Lalat,		P	-	1,2,3,4,5
	Hybrid *	Advanta-807, Pro-Agro-6129		-		N	-	1,2,3,4,5
Method		Haphazard Transplanting		Line Transplanting		F	1,3,4,6	1,2,3
Time	Seeding	20th June to 30th June		20th June to 30th June		N	-	1,2,3
	Transplanting	15th July to 20th July		15th July to 20th July		N	-	1,2,3
Seed Rate		65-70 Kg/ha		50kg/ha		P	3,4,6	1,2,3,4
Organic Manure & Fertilizer								
Organic Manure		Nil		100 Qt		F	2,3,5	1,2,4,5
Fertilizer (Nutrient in Kg/ha.								
		H.Y.V	Hybrid	H.Y.V	Hybrid			
Basal (N+P+K) KG/ H		25 : 30 : 0	25 : 20 : 10	30 : 30 :20	-	P	2,4,7	1,2,4,5
Top Dressing (N) KG/H		25	25	30	-	P	2,4,7	1,2,4,5
Total KG/ H		50 : 30 : 0	50 : 20 : 10	60 : 30 : 20	-			1,2,4,5
Method of fertilizer use								
Basal (N+P+K)		50 % + 100% P_2O_5 Broad Casting		50 % + 100% P_2O_5 Broad Casting		N	-	1
Top Dressing (N)		25 % + 25% N Broad Casting		25 % + 25% N Broad Casting		N	-	1
Disease & Pest Management								
Pest Management								
Soil Treatment		-		Carbofuran 3-G 25kg/ha		F	1,2,3,4,7	1,2,4,5
Gall Midge		Indosuphan		Carbofuran 3-G 25kg/ha		P	1,2,3,4,7	1,2,4,5
Stem Borer		Chloprpyriphos		Chloprpyriphos		P	1,2,3,4,7	1,2,4,5
Gundhi Bug		Dusting of Pesticide		Monochrotophos 1.5 lit/ha		P	1,2,3,4,7	1,2,4,5
Leaf Roller		Chloprpyriphos		Quinalphos 2lit/ha		P	1,2,3,4,7	1,2,4,5
Disease Management								
Seed Treatment		Practiced by a few farmers		Carbendazim 2gm/kg seed		P	1,2,3,4,7	1,2,4,5
Leaf Blast		Practiced by a few farmers		Carbendazim 1kg/500 lit seed		P	1,2,3,4,7	1,2,4,5
Leaf Spot		Practiced by a few farmers		Mencageb 2kg/ha		P	1,2,3,4,7	1,2,4,5
Bacterial Leaf Blight		Practiced by a few farmers		Streptocyclin 0.5 gm/Lit. of water (250gm/ha)		P	1,2,3,4,7	1,2,4,5
False Smut		Practiced by a few farmers		Copper oxichloride 0.3% sol.		P	1,2,3,4,7	1,2,4,5
Case Worm		Practiced by a few farmers		Monochrotophos 1.5 lit/ha		P	1,2,3,4,7	1,2,4,5
Weed Management								
Mechanical		Hand weeding Once		Hand weeding twice Use of Cono weeder		P	1,2,3,4	1,2,4,5,6
Chemical		-		Butachlore @ 3 lit/ha.		F	1,2,3,4	1,2,4,5
Water Management								

No. of Irrigation	Rainfed	When required	F	4	5
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	2" - 3" water to be maintained	F	4	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	22 qut/ha	40 qut/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Note * :- More than 50 popular un recommended Hybrid varities are in the farmar's field.
No Hybrid varitiy has been recommended for Up land situation.

Table-:6:02 Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II & III Resource Rich & Poor Agriculture Farming Situation (FS-II): Rainfed Normal
Representative Village : Nawagrarh & Chapi Crop : Paddy Sown/Up land. (Dricet Seeding)
Red Laterite Sandy Soil

ITEMS		Existing practices		Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing							
Varity	Local	Local gora		Birsa Dhan-015,106 Anjali, B.V.D.-109,110			
Method		Brodcasting		Line seeding	F	1,3,4,6	1,2,3
Time	Seeding	20th June to 30th June		20th June to 30th June	N	-	1,2,3
Seed Rate		100 Kg/ha		75kg/ha	P	3,4,6	1,2,3,4
Organic Manure & Fertilizer							
Organic Manure		Nil		100 Qt	F	2,3,5	1,2,4,5
Fertilizer (Nutrient in Kg/ha.							
		Local	H.Y.V	H.Y.V			
Basal (N+P+K) KG/ H		20 : 10 : 00	-	2 0 : 20 :20	P	2,4,7	1,2,4,5
Top Dressing (N) KG/H		10	-	20	P	2,4,7	1,2,4,5
Total KG/ H		30 : 10 : 00	-	40 : 20 : 20			1,2,4,5
Method of fertilizer use							
Basal (N+P+K)		50 % + 100% P_2o_5 Broad Casting		50 % + 100% P_2o_5 Broad Casting	N	-	1
Top Dressing (N)		25 % + 25% N Broad Casting		50 % N Broad Casting	N	-	1
Disease & Pest Management							
Pest Management							
Soil Treatment		-		Carbofuran 3-G 25kg/ha	F	1,2,3,4,7	1,2,4,5
Gall Midge		Indosuphan		Carbofuran 3-G 25kg/ha	P	1,2,3,4,7	1,2,4,5
Stem Borer		Chloprpyriphos		Chloprpyriphos	P	1,2,3,4,7	1,2,4,5
Gundhi Bug		Dusting of Pesticide		Monocrhrotfhos 1.5 lit/ha	P	1,2,3,4,7	1,2,4,5
Leaf Roller		Chloprpyriphos		Quinalphos 2lit/ha	P	1,2,3,4,7	1,2,4,5
Disease Management							
Seed Treatment		Practiced by a few farmers		Carbendazim 2gm/kg seed	P	1,2,3,4,7	1,2,4,5
Leaf Blast		Practiced by a few farmers		Carbendazim 1kg/500 lit seed	P	1,2,3,4,7	1,2,4,5
Leaf Spot		Practiced by a few farmers		Mencageb 2kg/ha	P	1,2,3,4,7	1,2,4,5
Bacterial Leaf Blight		Practiced by a few farmers		Streptocyclin 0.5 gm/Lit. of water (250gm/ha)	P	1,2,3,4,7	1,2,4,5
False Smut		Practiced by a few farmers		Copper oxichloride 0.3% sol.	P	1,2,3,4,7	1,2,4,5
Case Worm		Practiced by a few farmers		Monochrotophos 1.5 lit/ha	P	1,2,3,4,7	1,2,4,5
Weed Management							
Mechanical		Hand weeding Once		Hand weeding twice Use of Cono weeder	P	1,2,3,4	1,2,4,5,6
Chemical		-		Butachlore @ 3 lit/ha.	F	1,2,3,4	1,2,4,5
Water Management							
No. of Irrigation		Rainfed		When required	F	4	5
Method		Flooding		Flooding	N	-	-

Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	2" - 3" water to be maintained	F	4	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	8-10 qut/ha	20-25 qut/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Table-6.03 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I, Resource Rich & Poor Agriculture Farming Situation(III) : Rainfed Early Sown

Representative Village : Karakara Crop : Paddy Transplanting, Low Land Loamy/Clay Soil

ITEMS		Existing practices		Recommended		Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing								
Varity	Local	-		-		-	-	-
	H.Y.V	Low Land –(Don – I) Lalat, MTU-7029, Sonam		Lalat, Subham, Birsha Mati, MTU-7029, Sugandha,		N	-	1,2,3,4,5
	Hybrid *	Pro-Agro 6444, PHB-71, Advanta-832, Advanta-807, Myhico-6145, Swarna-1 & 2		Pro-Agro 6444, KRH-2		N	-	1,2,3,4,5
Method		Haphazard Transplanting		Line Transplanting		F	1,3,4,6	1,2,3
Time	Seeding	10th June to 20th June		10th June to 20th June		N	-	1,2,3
	Transplanting	15th July to 20th July		15th July to 20th July		N	-	1,2,3
Seed Rate		65-70Kg/ha		50kg/ha		P	3,4,6	1,2,3,4
Organic Manure & Fertilizer								
Organic Manure		Nil		100 Qt		F	2,3,5	1,2,4,5
Fertilizer (Nutrient in Kg/ha.								
		H.Y.V	Hybrid	H.Y.V	Hybrid			
Basal (N+P+K) KG/ H		25 : 30 : 0	30 : 20 : 10	40 : 40 :20	40 : 50 : 30	P	2,4,7	1,2,4,5
Top Dressing (N) KG/H		25	30	40	60 : 00 : 20	P	2,4,7	1,2,4,5
Total KG/ H		50 : 30 : 0	60 : 20 : 10	80 : 40 : 20	100 : 50 : 50			1,2,4,5
Method of fertilizer use								
Basal (N+P+K)		50 % + 100% P_2o_5 Broad Casting		50 % + 100% P_2o_5 Broad Casting		N	-	1
Top Dressing (N)		25 % + 25% N Broad Casting		25 % + 25% N Broad Casting		N	-	1
Disease & Pest Management								
Pest Management								
Soil Treatment		-		Carbofuran 3-G 25kg/ha		F	1,2,3,4,7	1,2,4,5
Gall Midge		Indosuphan		Carbofuran 3-G 25kg/ha		P	1,2,3,4,7	1,2,4,5
Stem Borer		Chloprpyriphos		Chloprpyriphos		P	1,2,3,4,7	1,2,4,5
Gundhi Bug		Dusting of Pesticide		Monochrotophos 1.5 lit/ha		P	1,2,3,4,7	1,2,4,5
Leaf Roller		Chloprpyriphos		Quinalphos 2lit/ha		P	1,2,3,4,7	1,2,4,5
Disease Management								
Seed Treatment		Practiced by a few farmers		Carbendazim 2gm/kg seed		P	1,2,3,4,7	1,2,4,5
Leaf Blast		Practiced by a few farmers		Carbendazim 1kg/500 lit seed		P	1,2,3,4,7	1,2,4,5
Leaf Spot		Practiced by a few farmers		Mencazeb 2kg/ha		P	1,2,3,4,7	1,2,4,5
Bacterial Leaf Blight		Practiced by a few farmers		Streptocyclin 0.5 gm/Lit. of water (250gm/ha)		P	1,2,3,4,7	1,2,4,5
False Smut		Practiced by a few farmers		Copper oxichloride 0.3% sol.		P	1,2,3,4,7	1,2,4,5
Case Worm		Practiced by a few farmers		Monochrotophos 1.5 lit/ha		P	1,2,3,4,7	1,2,4,5
Weed Management								
Mechanical		Hand weeding Once		Hand weeding twice Use of Cono weeder		P	1,2,3,4	1,2,4,5,6
Chemical		-		Butachlore @ 3 lit/ha.		F	1,2,3,4	1,2,4,5
Water Management								
No. of Irrigation		Rainfed		When required		F	4	5

Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	2" - 3" water to be maintained	F	4	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	22 qut/ha	40 qut/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Note * :- More than 50 popular un recommended Hybrid varities are in the farmar's field.
Only Pro-Agro 6444 Hybrid varity has been recommended by BAU., Ranchi for all Sitution.

Table-6.04 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I, Resource Rich & Poor | Agriculture | Farming Situation(IV):Rainfed Normal Sown
Representative Village : Karakara | Crop : Paddy | Transplanting, Mid/Mid Low Land
Sandy Loam/Loam Soil

ITEMS		Existing practices		Recommended		Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing								
Varity	Local	-		-		-	-	-
	H.Y.V	Mid Low Land/Loe land – (Don – I & II) Lalat, MTU-7029, Sonam, IR-36, IR-64		Lalat, Subham, Birsha Mati, MTU-7029, Sugandha, IR-36, RI-64.		N	-	1,2,3,4,5
	Hybrid	Pro-Agro 6444, PHB-71, Advanta-832, Advanta-807, Myhico-6145, KRH-2, NK sahydri,		Pro-Agro 6444, KRH-2		N	-	1,2,3,4,5
Method		Haphazard Transplanting		Line Transplanting		F	1,3,4,6	1,2,3
Time	Seeding	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	-	1,2,3
Seed Rate		65-70Kg/ha		50kg/ha		P	3,4,6	1,2,3,4
Organic Manure & Fertilizer								
Organic Manure		Nil		100 Qt		F	2,3,5	1,2,4,5
Fertilizer (Nutrient in Kg/ha.								
		H.Y.V	Hybrid	H.Y.V	Hybrid			
Basal (N+P+K) KG/ H		25: 30 : 0	30 : 20 : 10	40 : 40 :20	40 : 50 : 30	P	2,4,7	1,2,4,5
Top Dressing (N) KG/H		25	30	40	60 : 00 : 20	P	2,4,7	1,2,4,5
Total KG/ H		50 : 30 : 0	60 : 20 : 10	80 : 40 : 20	100 : 50 : 50			1,2,4,5
Method of fertilizer use								
Basal (N+P+K)		Broad Casting		Broad Casting		N	-	1
Top Dressing (N)		Broad Casting		Broad Casting		N	-	1
Disease & Pest Management								
Pest Management								
Soil Treatment		-		Carbofuran 3-G 25kg/ha		F	1,2,3,4,7	1,2,4,5
Gall Midge		Indosuphan		Carbofuran 3-G 25kg/ha		P	1,2,3,4,7	1,2,4,5
Stem Borer		Chloprpyriphos		Chloprpyriphos		P	1,2,3,4,7	1,2,4,5
Gundhi Bug		Dusting of Pesticide		Monocrhrotfhos 1.5 lit/ha		P	1,2,3,4,7	1,2,4,5
Leaf Roller		Chloprpyriphos		Quinalphos 2lit/ha		P	1,2,3,4,7	1,2,4,5
Disease Management								
Seed Treatment		Practiced by a few farmers		Carbendazim 2gm/kg seed		P	1,2,3,4,7	1,2,4,5
Leaf Blast		Practiced by a few farmers		Carbendazim 1kg/500 lit seed		P	1,2,3,4,7	1,2,4,5
Leaf Spot		Practiced by a few farmers		Mencageb 2kg/ha		P	1,2,3,4,7	1,2,4,5
Bacterial Leaf Blight		Practiced by a few farmers		Streptocyclin 0.5 gm/Lit. of water (250gm/ha)		P	1,2,3,4,7	1,2,4,5
False Smut		Practiced by a few farmers		Copper oxichloride 0.3% sol.		P	1,2,3,4,7	1,2,4,5
Case Worm		Practiced by a few farmers		Monochrotophos 1.5 lit/ha		P	1,2,3,4,7	1,2,4,5
Weed Management								
Mechanical		Hand weeding Once		Hand weeding twice Use of Cono weeder		P	1,2,3,4	1,2,4,5,6
Chemical		-		Butachlore @ 3 lit/ha.		F	1,2,3,4	1,2,4,5

Water Management					
No. of Irrigation	Rainfed	When required	F	4	5
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	2" - 3" water to be maintained	F	4	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	22 qut/ha	40 qut/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Note * :- More than 50 popular un recommended Hybrid varities are in the farmar's field.
Only Pro-Agro 6444 Hybrid varity has been recommended by BAU., Ranchi for all Sitution.

Table-6.05 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I, Resource Rich & Poor | Agriculture | Farming Situation(V) :Rainfed Late Sown

Representative Village : Karakara | Crop : Paddy | Transplanting, Mid/Mid Low Land

Sandy Loam/Loam Soil

ITEMS		EFS – I						
		Existing practices		Recommended		Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing								
Varity	Local	-		-		-	-	-
	H.Y.V	Mid Low Land/Loe land – (Don – I & II) Lalat, MTU-7029, Sonam, IR-36, IR-64		Subham, MTU-7029, Sugandha, IR-36, RI-64.		N	-	1,2,3,4,5
	Hybrid	Pro-Agro 6444, PHB-71, Advanta-832, Advanta-807, Myhico-6145, KRH-2, NK sahydri,		Pro-Agro 6444, KRH-2		N	-	1,2,3,4,5
Method		Haphazard Transplanting		Line Transplanting		F	1,3,4,6	1,2,3
Time	Seeding	20^{th} June to 5^{th} July		15^{th} June to 25^{th} June		N	-	1,2,3
	Transplanting	1^{th} Agu. to 15^{th} Agu.		15^{th} July to 30^{th} July		N	-	1,2,3
Seed Rate		65-70Kg/ha		50kg/ha		P	3,4,6	1,2,3,4
Organic Manure & Fertilizer								
Organic Manure		Nil		100 Qt		F	2,3,5	1,2,4,5
Fertilizer (Nutrient in Kg/ha.								
		H.Y.V	Hybrid	H.Y.V	Hybrid			
Basal (N+P+K) KG/ H		25: 30 : 0	30 : 20 : 10	40 : 40 :20	40 : 50 : 30	P	2,4,7	1,2,4,5
Top Dressing (N) KG/H		25	30	40	60 : 00 : 20	P	2,4,7	1,2,4,5
Total KG/ H		50 : 30 : 0	60 : 20 : 10	80 : 40 : 20	100 : 50 : 50			1,2,4,5
Method of fertilizer use								
Basal (N+P+K)		Broad Casting		Broad Casting		N	-	1
Top Dressing (N)		Broad Casting		Broad Casting		N	-	1
Disease & Pest Management								
Pest Management								
Soil Treatment		-		Carbofuran 3-G 25kg/ha		F	1,2,3,4,7	1,2,4,5
Gall Midge		Indosuphan		Carbofuran 3-G 25kg/ha		P	1,2,3,4,7	1,2,4,5
Stem Borer		Chloprpyriphos		Chloprpyriphos		P	1,2,3,4,7	1,2,4,5
Gundhi Bug		Dusting of Pesticide		Monocrhrotfhos 1.5 lit/ha		P	1,2,3,4,7	1,2,4,5
Leaf Roller		Chloprpyriphos		Quinalphos 2lit/ha		P	1,2,3,4,7	1,2,4,5
Disease Management								
Seed Treatment		Practiced by a few farmers		Carbendazim 2gm/kg seed		P	1,2,3,4,7	1,2,4,5
Leaf Blast		Practiced by a few farmers		Carbendazin 1kg/500 lit seed		P	1,2,3,4,7	1,2,4,5
Leaf Spot		Practiced by a few farmers		Mencageb 2kg/ha		P	1,2,3,4,7	1,2,4,5
Bacterial Leaf Blight		Practiced by a few farmers		Streptocyclin 0.5 gm/Lit. of water (250gm/ha)		P	1,2,3,4,7	1,2,4,5
False Smut		Practiced by a few farmers		Copper oxichloride 0.3% sol.		P	1,2,3,4,7	1,2,4,5
Case Worm		Practiced by a few farmers		Monochrotophos 1.5 lit/ha		P	1,2,3,4,7	1,2,4,5
Weed Management								

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

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Note * :- More than 50 popular un recommended Hybrid varities are in the farmar's field.
Only Pro-Agro 6444 Hybrid varity has been recommended by BAU., Ranchi for all Sitution.

Table – 6.06 : Consolidated Gaps in Production Practices of a Crop/Commodity and Proposed Strategies for the Ranchi District.

Agriculture Crop : Rice

Item	AES I		AES II		AES III	
	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. Adoptation of IPM/INM recomedetion.10. Irrigation facility.

Table-6.07 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I, Resource Rich & Poor Agriculture Farming Situation(FS-I) : Irrigated Early Sown

Representative Village : Karakara Crop : Wheat Up Land Red Laterite Sandy Siol

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	HD-2402, PBW-343, Sonali.	HUW-450, HUW- 468, PBW-443, PBW-639	P	1,2,3,4	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	125 Kg/ha	125 Kg/ha	N	-	1,2,4,5
Time	25th Oct- 10th Nov.	5th Nov-20th Nov.	P	1,2,4	1,2,3
Organic Manure & Fertilizer					
Organic Manure	Nil	100 Qt To be Used in the previous crop	F	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Early Sown					
Basal (N+P+K) KG/ H	30:40:20	50:50:25	P	1,2,3,4	1,2,3,4,5
Top Dressing (N) KG/H	30	50	P	1,2,3,4	1,2,3,4,5
Total KG/ H	**60:40:20**	**100:50:25**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100%, k_2OBroad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N, Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	-	Chlorepyriphos Dust @ 10Kg/ha	F	1,2,3,4	1,2,4,5
Disease Management					
Seed Treatment	-	Carbendazim 2gm/kg seed	F	1,2,3,4	1,2,4,5
Alternaria Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Rust	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Losse Smut	-	Copper Oxichloride 0.3% Soulation & Seed Treatment	F	1,2,3,4	1,2,4,5
Weed Management	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,2,3,4	1,2,4,5,6
Water Management					
No. of Irrigation	8 – 10 Light Irrigation	7 Irrigation	P	1,2,3,4,5,7	1,2,3,4,5,6
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	Extra water removed	P	1,7	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	22 - 25qu/ha	40 - 45 qu/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Table-6.08 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I, Resource Rich & Poor Agriculture Farming Situation(FS-II) : Irrigated Normal Sown

Representative Village : Karakara Crop : Wheat Mid/Mid Low Land, Sandy Loame Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	HD-2402, PBW-343, Sonali.	PBW-334, HP-1731, HP- 1761,HUW-343, K-9107	N	-	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	125 Kg/ha	125 Kg/ha	N	-	1,2,4,5
Time	15th Nov - 30th Nov.	10th Nov – 25th Nov.	P	1,2,4	1,2,3
Organic Manure & Fertilizer					
Organic Manure	Nil	100 Qt To be Used in the previous crop	F	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	30:40:20	50:50:25	P	1,2,3,4	1,2,3,4,5
Top Dressing (N) KG/H	30	50	P	1,2,3,4	1,2,3,4,5
Total KG/ H	**60:40:20**	**100:50:25**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2O Broad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	-	Chlorepyriphos Dust @ 10Kg/ha	F	1,2,3,4	1,2,4,5
Disease Management					
Seed Treatment	-	Carbendazim 2gm/kg seed	F	1,2,3,4	1,2,4,5
Alternaria Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Rust	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Losse Smut	-	Copper Oxichloride 0.3% Soulation & Seed Treatment	F	1,2,3,4	1,2,4,5
Weed Management	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,2,3,4	1,2,4,5,6
Water Management					
No. of Irrigation	8 – 10 Light Irrigation	7 Irrigation	P	1,2,3,4,5,7	1,2,3,4,5,6
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	Extra water removed	P	1,7	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	20 – 22 qu/ha	35 – 40 qu/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Table-6.09 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I, Resource Rich & Poor | Agriculture | Farming Situation(FS-III) : Irrigated Late Sown

Representative Village : Karakara | Crop : Wheat | Mid/Mid Low Land, Sandy Loame Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	HD-2402, PBW-343, Sonali.	HD-2643, HUW-234, HP-1744, NW-1014,	P	1,2,3,4	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	125 kg/ha	150kg/ha	P	3,4,6	1,2,3,4
Time	25th Dec - 10th Jan	5th Dec - 25th Dec	F	1,2,4	1,2,3
Organic Manure & Fertilizer					
Organic Manure	Nil	100 Qt To be Used in the previous crop	F	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Late Sown					
Basal (N+P+K) KG/ H	25:40:20	40:40:20	P	2,4,7	1,2,4,5
Top Dressing (N) KG/H	25	40	P	2,4,7	1,2,4,5
Total KG/ H	**50:40:20**	**80:40:20**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2OBroad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	-	Chlorepyriphos Dust @ 10Kg/ha	F	1,2,3,4	1,2,4,5
Disease Management					
Seed Treatment	-	Carbendazim 2gm/kg seed	F	1,2,3,4	1,2,4,5
Alternaria Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Rust	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Losse Smut	-	Copper Oxichloride 0.3% Soulation & Seed Treatment	F	1,2,3,4	1,2,4,5
Weed Management	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,2,3,4	1,2,4,5,6
Water Management					
No. of Irrigation	8 – 10 Light Irrigation	7 Irrigation	P	1,2,3,4,5,7	1,2,3,4,5,6
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	Extra water removed	P	1,7	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	10 - 12 qut/ha	22 - 25 qut/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Table-6.10 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II, Resource Rich & Poor Agriculture Farming Situation(FS-I) : Irrigated Early Sown

Representative Village : Nawagarh Crop : Wheat Up Land Red Laterite Sanday Siol

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	HD-2402, PBW-343, Sonali.	HUW-450, HUW- 468, PBW-443, PBW-639	P	1,2,3,4	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	125 Kg/ha	125 Kg/ha	N	-	1,2,4,5
Time	25th Oct - 10th Nov.	5th Nov-20th Nov.	P	1,2,4	1,2,3
Organic Manure & Fertilizer					
Organic Manure	Nil	100 Qt To be Used in the previous crop	F	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Early Sown					
Basal (N+P+K) KG/ H	25:30:20	50:50:25	P	1,2,3,4	1,2,3,4,5
Top Dressing (N) KG/H	25	50	P	1,2,3,4	1,2,3,4,5
Total KG/ H	**50:30:20**	**100:50:25**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2O Broad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	-	Chlorepyriphos Dust @ 10Kg/ha	F	1,2,3,4	1,2,4,5
Disease Management					
Seed Treatment	-	Carbendazim 2gm/kg seed	F	1,2,3,4	1,2,4,5
Alternaria Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Rust	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Losse Smut	-	Copper Oxichloride 0.3% Soulation & Seed Treatment	F	1,2,3,4	1,2,4,5
Weed Management	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,2,3,4	1,2,4,5,6
Water Management					
No. of Irrigation	8 – 10 Light Irrigation	7 Irrigation	P	1,2,3,4,5,7	1,2,3,4,5,6
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	Extra water removed	P	1,7	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	20 – 22 qu/ha	40 - 45 qu/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Table-6.11 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II, Resource Rich & Poor Agriculture Farming Situation(FS-II) : Irrigated Normal Sown

Representative Village : Nawagarh Crop : Wheat Mid/Mid Low Land, Sanday Loame Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	HD-2402, PBW-343, Sonali.	PBW-334, HP-1731, HP- 1761,HUW-343, K-9107	N	-	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	125 Kg/ha	125 Kg/ha	N	-	1,2,4,5
Time	15th Nov - 30th Nov.	10th Nov – 25th Nov.	P	1,2,4	1,2,3
Organic Manure & Fertilizer					
Organic Manure	Nil	100 Qt To be Used in the previous crop	F	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	25:30:20	50:50:25	P	1,2,3,4	1,2,3,4,5
Top Dressing (N) KG/H	25	50	P	1,2,3,4	1,2,3,4,5
Total KG/ H	**50:30:20**	**100:50:25**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2O Broad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	-	Chlorepyriphos Dust @ 10Kg/ha	F	1,2,3,4	1,2,4,5
Disease Management					
Seed Treatment	-	Carbendazim 2gm/kg seed	F	1,2,3,4	1,2,4,5
Alternaria Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Rust	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Losse Smut	-	Copper Oxichloride 0.3% Soulation & Seed Treatment	F	1,2,3,4	1,2,4,5
Weed Management	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,2,3,4	1,2,4,5,6
Water Management					
No. of Irrigation	8 – 10 Light Irrigation	7 Irrigation	P	1,2,3,4,5,7	1,2,3,4,5,6
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	Extra water removed	P	1,7	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	18 – 20 qu/ha	35 – 40 qu/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Table-6.12 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II, Resource Rich & Poor Agriculture Farming Situation(FS-III) : Irrigated Late Sown

Representative Village : Nawagarh Crop : Wheat Mid/Mid Low Land, Sanday Loame Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	HD-2402, PBW-343, Sonali.	HD-2643, HUW-234, HP-1744, NW-1014,	P	1,2,3,4	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	125 kg/ha	150kg/ha	P	3,4,6	1,2,3,4
Time	25th Dec - 10th Jan	5th Dec - 25th Dec	F	1,2,4	1,2,3
Organic Manure & Fertilizer					
Organic Manure	Nil	100 Qt To be Used in the previous crop	F	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Late Sown					
Basal (N+P+K) KG/ H	25:40:20	40:40:20	P	2,4,7	1,2,4,5
Top Dressing (N) KG/H	25	40	P	2,4,7	1,2,4,5
Total KG/ H	**50:30:20**	**80:40:20**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2O_5 +100% k_2O Broad Casting	50 % + 100% P_2O_5 +100% k_2OBroad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	-	Chlorepyriphos Dust @ 10Kg/ha	F	1,2,3,4	1,2,4,5
Disease Management					
Seed Treatment	-	Carbendazim 2gm/kg seed	F	1,2,3,4	1,2,4,5
Alternaria Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Rust	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Losse Smut	-	Copper Oxichloride 0.3% Soulation & Seed Treatment	F	1,2,3,4	1,2,4,5
Weed Management	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,2,3,4	1,2,4,5,6
Water Management					
No. of Irrigation	8 – 10 Light Irrigation	7 Irrigation	P	1,2,3,4,5,7	1,2,3,4,5,6
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	Extra water removed	P	1,7	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	8 - 10 qut/ha	22 - 25 qut/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Table-6.13 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III, Resource Rich & Poor Agriculture Farming Situation(FS-I) : Irrigated Early Sown

Representative Village : Chapi Crop : Wheat Up Land Red Laterite Sanday Siol

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	HD-2402, PBW-343, Sonali.	HUW-450, HUW- 468, PBW-443, PBW-639	P	1,2,3,4	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	125 Kg/ha	125 Kg/ha	N	-	1,2,4,5
Time	25^{th} Oct - 10^{th} Nov.	5^{th} Nov-20^{th} Nov.	P	1,2,4	1,2,3
Organic Manure & Fertilizer					
Organic Manure	Nil	100 Qt To be Used in the previous crop	F	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Early Sown					
Basal (N+P+K) KG/ H	25:30:20	50:50:25	P	1,2,3,4	1,2,3,4,5
Top Dressing (N) KG/H	25	50	P	1,2,3,4	1,2,3,4,5
Total KG/ H	**50:30:20**	**100:50:25**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2OBroad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	-	Chlorepyriphos Dust @ 10Kg/ha	F	1,2,3,4	1,2,4,5
Disease Management					
Seed Treatment	-	Carbendazim 2gm/kg seed	F	1,2,3,4	1,2,4,5
Alternaria Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Rust	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Losse Smut	-	Copper Oxichloride 0.3% Soulation & Seed Treatment	F	1,2,3,4	1,2,4,5
Weed Management	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,2,3,4	1,2,4,5,6
Water Management					
No. of Irrigation	8 – 10 Light Irrigation	7 Irrigation	P	1,2,3,4,5,7	1,2,3,4,5,6
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	Extra water removed	P	1,7	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	18 – 20 qu/ha	40 - 45 qu/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Table-6.14 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III, Resource Rich & Poor Agriculture Farming Situation(FS-II) : Irrigated Normal Sown

Representative Village : Chapi Crop : Wheat Mid/Mid Low Land, Sanday Loame Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	HD-2402, PBW-343, Sonali.	PBW-334, HP-1731, HP- 1761,HUW-343, K-9107	N	-	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	125 Kg/ha	125 Kg/ha	N	-	1,2,4,5
Time	15th Nov - 30th Nov.	10th Nov – 25th Nov.	P	1,2,4	1,2,3
Organic Manure & Fertilizer					
Organic Manure	Nil	100 Qt To be Used in the previous crop	F	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	25:20:20	50:50:25	P	1,2,3,4	1,2,3,4,5
Top Dressing (N) KG/H	25	50	P	1,2,3,4	1,2,3,4,5
Total KG/ H	**50:20:20**	**100:50:25**	-	-	-
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2O Broad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	-	Chlorepyriphos Dust @ 10Kg/ha	F	1,2,3,4	1,2,4,5
Disease Management					
Seed Treatment	-	Carbendazim 2gm/kg seed	F	1,2,3,4	1,2,4,5
Alternaria Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Rust	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Losse Smut	-	Copper Oxichloride 0.3% Soulation & Seed Treatment	F	1,2,3,4	1,2,4,5
Weed Management	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,2,3,4	1,2,4,5,6
Water Management					
No. of Irrigation	8 – 10 Light Irrigation	7 Irrigation	P	1,2,3,4,5,7	1,2,3,4,5,6
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	Extra water removed	P	1,7	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	18 – 20 qu/ha	35 – 40 qu/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Table-6.15 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III, Resource Rich & Poor Agriculture Farming Situation(FS-III) : Irrigated Late Sown

Representative Village : Chapi Crop : Wheat Mid/Mid Low Land, Sanday Loame Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	HD-2402, PBW-343, Sonali.	HD-2643, HUW-234, HP-1744, NW-1014,	P	1,2,3,4	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	125 kg/ha	150kg/ha	P	3,4,6	1,2,3,4
Time	25^{th} Dec - 10^{th} Jan	5^{th} Dec - 25^{th} Dec	F	1,2,4	1,2,3
Organic Manure & Fertilizer					
Organic Manure	Nil	100 Qt To be Used in the previous crop	F	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Late Sown					
Basal (N+P+K) KG/ H	25:40:20	40:40:20	P	2,4,7	1,2,4,5
Top Dressing (N) KG/H	25	40	P	2,4,7	1,2,4,5
Total KG/ H	**50:30:20**	**80:40:20**	-	-	-
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2OBroad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	-	Chlorepyriphos Dust @ 10Kg/ha	F	1,2,3,4	1,2,4,5
Disease Management					
Seed Treatment	-	Carbendazim 2gm/kg seed	F	1,2,3,4	1,2,4,5
Alternaria Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Rust	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Losse Smut	-	Copper Oxichloride 0.3% Soulation & Seed Treatment	F	1,2,3,4	1,2,4,5
Weed Management	Hand weeding Once	Hand weeding twice Use of Cono weeder	P	1,2,3,4	1,2,4,5,6
Water Management					
No. of Irrigation	8 – 10 Light Irrigation	7 Irrigation	P	1,2,3,4,5,7	1,2,3,4,5,6
Method	Flooding	Flooding	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	-	Extra water removed	P	1,7	7
Harvesting & Threshing					
Method of Harvesting	Local sickle	Sickle , Harvester	P	5	5,6
Any Other/Threshing	Bullock	Tractor , Thresser	P	5	5,6
Average Yield					
Grain	8 - 10 qut/ha	22 - 25 qut/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Reasons for gap-1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices.

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.7. Open Bund.

Table – 6.16 : Consolidated Gaps in Production Practices of a Crop/Commodity and Proposed Strategies for the Ranchi District.

Agriculture Crop : Wheat

Item	AES I		AES II		AES III	
	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
Termiet	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
Alternaria Blight	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Rust	P	1,2,5,6,8,9	P	1,2,5,6,8,9	P	1,2,5,6,8,9
Loose 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. Adoptation of IPM/INM recomedetion.10. Irrigation facility.

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

AES – I, Resource Rich & Poor Agriculture Farming Situation(FS-I) : Rainfed Normal Sown

Representative Village :Karkara Crop : Maize Up Land Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Ganga Safed -2, Ganga-5, Swan-1,	Birasa-1, Birasa-2 , Priya, Kanchan	N	-	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	20 Kg/ha	18 Kg/ha	P	1,3,4,6,7	1,2,3,4,6
Time	15^{th} June-25^{th} June	15^{th} June -25^{th} June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	50 Qt.	100 Qt	P	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	30:40:20	40:60:40	P	1,2,3,4	1,2,3,4,5
Top Dressing (N) KG/H	30	30+30N	P	1,2,3,4	1,2,3,4,5
Total KG/ H	**60:40:20**	**100:60:40**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2O Broad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	Lindel dust @25%	Indosulfan 4% dust @25kg	P	1,2,3,4	1,2,4,5
Stem/Shoot Borer					
Disease Management					
Helmenthosparium Lef Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Sheath Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Weed Management					
Mechanical	Hand weeding Once	Hand weeding twice and earthing up	P	1,2,3,4	1,2,4,5,6
Chemical	-	Simazine and Atrazine 1.0-1.25kg/ha	F	1,2,4,5	1,2,3,5
Water Management					
No. of Irrigation	Rainfed	Rainfed Life saving irrigation may be needed	P	8	8
Method	-	-	-	-	-
Soil Management					
Acidity	-	3 Qt/hect.Lime in Furough	F	1,2,3,4,5,6	1,2,3,4,5,6
Water Logging	Open bunding	Extra water to be removed through Open bunding	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand plucking	Hand plucking	N	-	-
Any Other/Threshing	By hand	Maize Seller machine	F	4,5	5,6
Average Yield*					
Grain	30 - 35qu/ha	40-45 qu/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

Not – Normalay green cobes are sold in the market.

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty .

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

AES – II, Resource Rich & Poor Agriculture Farming Situation(FS-I) : Rainfed Normal Sown

Representative Village : Nawagarh Crop : Maize Up Land Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Ganga Safed -2, Ganga-5, Swan-1,	Birasa-1, Birasa-2 , Priya, Kanchan	N	-	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	20 Kg/ha	18 Kg/ha	P	1,3,4,6,7	1,2,3,4,6
Time	15^{th} June-25^{th} June	15^{th} June -25^{th} June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	50 Qt.	100 Qt	P	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	25:30:20	40:60:40	P	1,2,3,4	1,2,3,4,5
Top Dressing (N) KG/H	30	30+30N	P	1,2,3,4	1,2,3,4,5
Total KG/ H	**50:30:20**	**100:60:40**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2O Broad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	Lindel dust @25%	Indosulfan 4% dust @25kg	P	1,2,3,4	1,2,4,5
Stem/Shoot Borer					
Disease Management					
Helmenthosparium Lef Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Sheath Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Weed Management					
Mechanical	Hand weeding Once	Hand weeding twice and earthing up	P	1,2,3,4	1,2,4,5,6
Chemical	-	Simazine and Atrazine 1.0-1.25kg/ha	F	1,2,4,5	1,2,3,5
Water Management					
No. of Irrigation	Rainfed	Rainfed Life saving irrigation may be needed	P	8	8
Method	-	-	-	-	-
Soil Management					
Acidity	-	3Qt/hect Lime in Furough	F	1,2,3,4,5,6	1,2,3,4,5,6
Water Logging	Open bunding	Extra water to be removed through Open bunding	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand plucking	Hand plucking	N	-	-
Any Other/Threshing	By hand	Maize Seller machine	F	4,5	5,6
Average Yield*					
Grain	28 - 30qu/ha	40-45 qu/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

*** Not –** Normalay green cobes are sold in the market.

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty .

Table-6.19 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III, Resource Rich & Poor Agriculture Farming Situation(FS-I) : Rainfed Normal Sown Up Land

Representative Village :Chapi Crop : Maize Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Ganga Safed -2, Ganga-5, Swan-1,	Birasa-1, Birasa-2 , Priya, Kanchan	N	-	1,2,4,5
Method	Line Sowing	Line Sowing	N	-	1,2,5,6
Seed Rate	20 Kg/ha	18 Kg/ha	P	1,3,4,6,7	1,2,3,4,6
Time	15^{th} June-25^{th} June	15^{th} June -25^{th} June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	50 Qt.	100 Qt	P	1,2,3,4,5	1,2,3,4,5
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	20:20:20	40:60:40	P	1,2,3,4	1,2,3,4,5
Top Dressing (N) KG/H	20	30+30N	P	1,2,3,4	1,2,3,4,5
Total KG/ H	**40:20:20**	**100:60:40**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2O Broad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	Lindel dust @25%	Indosulfan 4% dust @25kg	P	1,2,3,4	1,2,4,5
Stem/Shoot Borer					
Disease Management					
Helmenthosparium Lef Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Sheath Blight	-	DM-45/Cafbendazim 0.2 % Soulation	F	1,2,3,4	1,2,4,5
Weed Management					
Mechanical	Hand weeding Once	Hand weeding twice and earthing up	P	1,2,3,4	1,2,4,5,6
Chemical	-	Simazine and Atrazine 1.0-1.25kg/ha	F	1,2,4,5	1,2,3,5
Water Management					
No. of Irrigation	Rainfed	Rainfed Life saving irrigation may be needed	P	8	8
Method	-	-	-	-	-
Soil Management					
Acidity	-	3Qt/hect. Lime in Furough	F	1,2,3,4,5,6	1,2,3,4,5,6
Water Logging	Open bunding	Extra water to be removed through Open bunding	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand plucking	Hand plucking	N	-	-
Any Other/Threshing	By hand	Maize Seller machine	F	4,5	5,6
Average Yield*					
Grain	22 - 25 qu/ha	40-45 qu/ha	P	1,2,3,4,5,7	1,2,3,4,5
Storage Pest Control	-	Aluminium phosphide 1 tablet/matric ton	P	1,2,3,4,5,7	1

*** Not –** Normalay green cobes are sold in the market.

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty .

Table – 6.20: Consolidated Gaps in Production Practices of a Crop/Commodity and Proposed Strategies for the Ranchi District.

Agriculture Crop : Maize

Item	AES I		AES II		AES III	
	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. Adoptation of IPM/INM recomedetion.10. Irrigation facility.

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

AES – I, Resource Rich & Poor Agriculture Farming Situation(FS-I) : Rainfed Normal Sown Up Land

Representative Village : Karkara Crop : Ground Nut Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	AK -12-24, JL -24	AK -12-24, JL -24 GG-2, TG-22	P	1,2,4,5	1,2,3,5
Method	Line sowing on furrough	Line sowing on furrough	N	-	-
Seed Rate	100kg/ha kernel	80kg/ha kernel	P	1,2,4,5	1,2,4,5
Time	15th June to 25th June	15th June to 25th June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	40 -50 qut.	100 qut.	P	1,2,4,5	1,2,4,5
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	10:30:00	15:50:20	P	1,2,4,5	1,2,4,5
Top Dressing (N) KG/H	10	10	P	1,2,4,5	1,2,4,5
Total KG/ H	**20:30:00**	**25:50:20**			
Method of fertilizer use					
Basal (N+P+K)	50 % + 100% P_2o_5 +100% k_2O Broad Casting	50 % + 100% P_2o_5 +100% k_2O Broad Casting	N	-	1
Top Dressing (N)	25 % + 25% N Broad Casting	25 % + 25% N Broad Casting	N	-	1
Disease & Pest Management					
Pest Management					
Soil Treatment(Termite)	Lindel dust @25%	Indosulfan 4% dust @25kg	P	1,2,3,4	1,2,4,5
Disease Management					
Seed Treatment	-	A. Carbendazim 2gm/kg seed. B. Rhizobium Culture	F	1,2,3,4,5	1,2,3,4,5,6
Tikka	-	0.2% solution Carbendazin	F	1,2,3,4,5	1,2,3,4,5,6
Weed Management					
Mechanical	Hand weeding	Hand weeding twice	N	-	-
Chemical	-	Toke E- 25 @4k/ha	F	1,2,3,4,5	1,2,3,4,5,6
Water Management					
No. of Irrigation	A. Early sown partially Irrigated follwed by mulching. B. Normal sown rainfed	Rainfed Life saving irrigation may required during long rain gap.	N	-	-
Method	-	-	-	-	-
Soil Management					
Acidity	-	3-4 qut. of lime in furrough	F	1,2,3,4,5	1,2,3,4,5,6
Water Logging	Open bunding	Open bunding	N	-	-
Harvesting & Threshing					
Method of Harvesting	Digging by spade	Digging by spade	N	-	-
Any Other/Threshing	Picking of pods from plant and drying in the sun.	Picking of pods from plant and drying in the shade.	P	4	1
Average Yield*					
Grain	8 - 10qut.	18 – 20 qut.	P	1,2,3,4,5	1,2,3,4,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty .

Table – 6.22: Consolidated Gaps in Production Practices of a Crop/Commodity and Proposed Strategies for the
Ranchi District.

Agriculture Crop : Ground Nut

Item	AES I	
	Gap in adoption N/P/P	Proposed strategy to overcome the gap
Sowing Time	N	1,2,3
Method	F	1,2,3
Variety	P	1,2,3,5
Seed Rate	P	1,2,5,8
Seed Treatment	F	1,2,4
Organic Manure	P	1,2,4,5,8
Fertilizer(Mutrient Kg/ha		
Basal (N + P + K)	P	1,2,4
Top Dressing (N)	P	1,2,4
Pest Management		
Termite	P	1,2,5,6,8,9
Disease Management		
Seed Treatment	P	1,2,5,6,8,9
Tikka	P	1,2,5,6,8,9
Leaf Spot	P	1,2,5,6,8,9
Weed Management		
Mechanical	P	1,2,5,6,8,9
Chemical	F	1,2,5,6,8,9
Water Management		
No. of Irrigation	N	10
Method	N	1,2,3
Soil Management		
Acidity	-	-
Water Logging	P	-
Harvesting & Threshing		
Method of Harvestig	P	1,2,6
Any Other/Threshig	P	1,2,6
Average Yield		
Grain	P	1,2,3,5
Storage Pest Control	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. Adoptation of IPM/INM recomedetion.10. Irrigation facility.

Table-6.23 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I, Resource Rich & Poor | Horticulture | Farming Situation(FS-I) : Partialy Irrigated Early Sown

Representative Village : Karkara | Crop : Ginger | Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Nadia, Local	Nadia, Suruchi, Supabha, Shurbhi	P	1,2,4,5	1,2,5,8
Method	Line Sowing	Line Sowing	N	-	-
Seed Rate	20-22 qut.	18 qut.	P	1,4	1,2,5
Time	15th May – 30th May	15th May – 30th May	N	-	-
Organic Manure & Fertilizer					
Organic Manure	20-25 qut.	100 qut.	P	1,2,4,6	1,2,3
Fertilizer (Nutrient in Kg/ha.)					
Early Sown					
Basal (N+P+K) KG/ H	30 : 30 : 20	60: 60 : 40	P	1,2,3,4	1,2,3,4,5,8
Top Dressing (N) KG/H	30	60	P	1,2,3,4	1,2,3,4,5,8
Total KG/ H	**60 : 30 : 20**	**120: 60:40**			
Method of fertilizer use					
Basal (N+P+K)	Furrugh Application	Furrugh Application	N	-	-
Top Dressing (N)	At the time eathing up	At the time eathing up	N	-	-
Disease & Pest Management					
Pest Management					
Soil Sanitation	-	Neem/Karanj Cake @ 4qut/ha. 5 kg Trichoderma with 100 kg compost/ha	F	1,2,3,4,5	1,2,3,4,5
Disease Management					
Seed Treatment	-	0.3 % solution of copper oxichloride or 5gm trichoderma/kg seed	F	1,2,3,4,5	1,2,3,4,5
Lef Blight	-	Copper Oxichloride 0.2% +Carbehdazim 0.2% Solution. Seed to deeped in the solution for ½ houre.	F	1,2,4,5	1,2,4,5
Rottig of Rhyzome	-	Carbofuran 3g/Themate 10g at the time sowing.	F	1,2,4,5	1,2,4,5
Weed Management					
Mechanical	Hand weeding	Hand weeding	N	-	-
Chemical	-	-	-	-	-
Water Management					
No. of Irrigation	1-2 Irragation for germition in Early sowing crop	1-2 Irragation for germition in Early sowing crop	N	-	-
Method	Open Bunding for avoied water logging	Open Bunding for avoied water logging	N	-	-
Soil Management					
Acidity	3-4 Qut. Lime/ha Furrough	3-4 Qut. Lime/haFurrough	N	-	-
Water Logging	Open Bunding	Open Bunding	N	-	-
Harvesting & Threshing					
Method of Harvesting	Spade / Hoe	Spade / Hoe	N	-	-
Average Yield*					-
Grain	50 - 60 qut/ha	80 - 90 qut/ha.	P	1,2,4,5,6	-
Storage Pest Control	-	For Seed purpose seed Treatment with 0.2% solution Carbehdazime	F	2,4,5	-

Not :- Irriagation is provided for germination Only. Mulchi is Practied .

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.24 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I, Resource Rich & Poor | Horticulture | Farming Situation(FS-II) : Rainfed Normal Sown

Representative Village : Karkara | Crop : Ginger | Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Nadia, Local	Nadia, Suruchi, Supabha, Shurbhi	P	1,2,4,5	1,2,5,8
Method	Line Sowing	Line Sowing	N	-	-
Seed Rate	20-22 qut.	18 qut.	P	1,4	1,2,5
Time	15th June – 25th June	15th June – 30th June	P	1,4	1,2
Organic Manure & Fertilizer					
Organic Manure	20-25 qut.	100 qut.	P	1,2,4,6	1,2,3
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	30 : 30 : 20	60: 60 : 40	P	1,2,3,4	1,2,3,4,5,8
Top Dressing (N) KG/H	30	60	P	1,2,3,4	1,2,3,4,5,8
Total KG/ H	**60 : 30 : 20**	**120: 60:40**			
Method of fertilizer use					
Basal (N+P+K)	Furrugh Application	Furrugh Application	N	-	-
Top Dressing (N)	At the time eathing up	At the time eathing up	N	-	-
Disease & Pest Management					
Pest Management					
Soil Sanitation	-	Neem/Karanj Cake @ 4qut/ha.5 kg Trichoderma with 100 kg compost/ha	F	1,2,3,4,5	1,2,3,4,5
Disease Management					
Seed Treatment	-	0.3 % solution of copper oxichloride or 5gm trichoderma/kg seed	F	1,2,3,4,5	1,2,3,4,5
Lef Blight	-	Copper Oxichloride 0.2% +Carbehdazim 0.2% Solution. Seed to deeped in the solution for ½ houre.	F	1,2,4,5	1,2,4,5
Rottig of Rhyzome	-	Carbofuran 3g/Themate 10g at the time sowing.	F	1,2,4,5	1,2,4,5
Weed Management					
Mechanical	Hand weeding	Hand weeding	N	-	-
Chemical	-	-	-	-	-
Water Management					
No. of Irrigation	1-2 Irragation for germition in Early sowing crop	1-2 Irragation for germition in Early sowing crop	N	-	-
Method	Open Bunding for avoied water logging	Open Bunding for avoied water logging	N	-	-
Soil Management					
Acidity	3-4 Qut. Lime/ha Furrough	3-4 Qut. Lime/haFurrough	N	-	-
Water Logging	Open Bunding	Open Bunding	N	-	-
Harvesting & Threshing					
Method of Harvesting	Spade / Hoe	Spade / Hoe	N	-	-
Average Yield*					-
Grain	45 - 50 qut/ha	75 - 80 qut/ha.	P	1,2,4,5,6	-
Storage Pest Control	-	For Seed purpose seed Treatment with 0.2% solution Carbehdazime	F	2,4,5	-

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table – 6.25 Consolidated Gaps in Production Practices of a Crop/Commodity and Proposed Strategies for the
Ranchi District.

Agriculture Crop : Ginger

Item	AES I	
	Gap in adoption N/P/P	Proposed strategy to overcome the gap
Sowing Time	N	1,2,3
Method	F	1,2,3
Variety	P	1,2,3,5
Seed Rate	P	1,2,5,8
Seed Treatment	F	1,2,4
Organic Manure	P	1,2,4,5,8
Fertilizer(Mutrient Kg/ha		
Basal (N + P + K)	P	1,2,4
Top Dressing (N)	P	1,2,4
Pest Management		
Soil Sanitation	P	1,2,5,6,8,9
Disease Management		
Seed Treatment	P	1,2,5,6,8,9
Lef Blight	P	1,2,5,6,8,9
Rottig of Rhyzome	P	1,2,5,6,8,9
Weed Management		
Mechanical	P	1,2,5,6,8,9
Chemical	F	1,2,5,6,8,9
Water Management		
No. of Irrigation	N	10
Method	N	1,2,3
Soil Management		
Acidity	-	-
Water Logging	P	-
Harvesting & Threshing		
Method of Harvestig	P	1,2,6
Any Other/Threshig	P	1,2,6
Average Yield		
Grain	P	1,2,3,5
Storage Pest Control	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. Adoptation of IPM/INM recomedetion.10. Irrigation facility.

Table-6.26 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I & III Resource Rich & Poor Horticulture Farming Situation(FS-I) : Rainfed (Rainy Season)Early Sown/Up Land

Representative Village : Karkara & Chapi Crop : Potato Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Kufari jyoti, Kufari Chandrmukhi, Lal Gulab.	Kufari jyoti, Kufari Chandrmukhi, Kufari Badshah, K. Kuber	P	1,2,4,5	1,2,5,8
Method	Furrow	Furrow	N	-	-
Seed Rate	20 Qut.	25Qut.	P	1,4	1,2,5
Time	15th Aug. to 31st Aug.	20th Aug. to 10th Sep.			
Organic Manure & Fertilizer					
Organic Manure	100Qut./ha.	200Q	P	1,2,4,6	1,2,3
Fertilizer (Nutrient in Kg/ha.)					
Rainy Season					
Basal (N+P+K) KG/ H	30:40:20	60:60:40	P	1,2,3,4	1,2,3,4,5,8
Top Dressing (N) KG/H	30	60	P	1,2,3,4	1,2,3,4,5,8
Total KG/ H	**60:40:20**	**120:60:40**			
Method of fertilizer use					
Basal (N+P+K)	In Furrow	In Furrow	N	-	-
Top Dressing (N)	Earthing up	Earthing up	N	-	-
Disease & Pest Management					
Pest Management					
Tuber Moth	-	Chlorepyriphos 4% Dust @ 25kg/ha.	F	1,2,3,4,5	1,2,3,4,5
Soil Sanitation	-	10 kg Bleaching Powder with 300kg of Karanj Cake	F	1,2,3,4,5	1,2,3,4,5
Disease Management					
Seed Treatment	-	Carbehdazim 0.2% Solution	F	1,2,3,4,5	1,2,3,4,5
Early & Lef Blight	Mencozeb	Mencozeb/Carbehdazim /Ridomil 0.2% Solution	F	1,2,4,5	1,2,4,5
Wilt	-	Mencozeb/Carbehdazim /Ridomil 0.2% Soluti+Streptomycin	F	1,2,4,5	1,2,4,5
Damping off	-	Copper Oxichloride 0.3% Solution at root jone	F	1,2,4,5	1,2,4,5
Weed Management					
Mechanical	Spade/Hoe	Spade/Hoe	N	-	-
Chemical	-	Atrazine 50%/ha	F	1,2,4,5	1,2,4,5
Water Management					
No. of Irrigation	6-8	6-8	N	-	-
Method	Furrow	Furrow	N	-	-
Soil Management					
Acidity	100 kg/ha Lime	300kg/ha Lime	P	1,2,4	1,2,4,5
Water Logging	-	-	-	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Weeding	Hand Weeding	N	-	-
Average Yield*					-
Grain	50 - 60 Qut/ha	100 - 120Qut/ha	P	1,2,4,5,6	1,2,4,5
Storage Pest Control	-	-	F	2,4,5	-

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

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

AES – I & III Resource Rich & Poor | Horticulture | Farming Situation(FS-II) : Irrigated Early & Normal Sown/Up Land

Representative Village : Karkara & Chapi | Crop : Potato | Red Laterite Sandy Soil

ITEMS		Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing						
Variety	Early Sown	Kufari jyoti, Kufari Chandrmukhi, Lal Gulab,	Kufari jyoti, Kufari Chandrmukhi, Kufari Badshah, K. Kuber	P	1,2,4,5	1,2,5,8
	Normal Sown	K. Sunduri,K. Lalima	K. Sunduri,K. Lalima, K. Badsha	P	1,2,4,5	1,2,5,8
Method		Furrow	Furrow	N	-	-
Seed Rate		20 Qut.	25Qut.	P	1,4	1,2,5
Time	Early Sown	15th Oct to 31st Oct.	**1st Nov to 15th Nov.**	P	1,4	1,2
	Normal Sown	15th Nov. to 30th Nov.	15th Nov. to 30th Nov.	N	-	-
Organic Manure & Fertilizer						
Organic Manure		100Qut./ha.	200Q	P	1,2,4,6	1,2,3
Fertilizer (Nutrient in Kg/ha.)						
Early & Normal Sown						
Basal (N+P+K) KG/ H		40:40:20	60:60:40	P	1,2,3,4	1,2,3,4,5,8
Top Dressing (N) KG/H		40	60	P	1,2,3,4	1,2,3,4,5,8
Total KG/ H		**80:40:20**	**120:60:40**			
Method of fertilizer use						
Basal (N+P+K)		In Furrow	In Furrow	N	-	-
Top Dressing (N)		Earthing up	Earthing up	N	-	-
Disease & Pest Management						
Pest Management						
Tuber Moth		-	Chlorepyriphos 4% Dust @ 25kg/ha.	F	1,2,3,4,5	1,2,3,4,5
Soil Sanitation		-	10 kg Bleaching Powder with 300kg of Karanj Cake	F	1,2,3,4,5	1,2,3,4,5
Disease Management						
Seed Treatment		-	Carbehdazim 0.2% Solution	F	1,2,3,4,5	1,2,3,4,5
Early & Lef Blight		Mencozeb	Mencozeb/Carbehdazim /Ridomil 0.2% Solution	F	1,2,4,5	1,2,4,5
Wilt		-	Mencozeb/Carbehdazim /Ridomil 0.2% Soluti+Streptomycin	F	1,2,4,5	1,2,4,5
Damping off		-	Copper Oxichloride 0.3% Solution at root jone	F	1,2,4,5	1,2,4,5
Weed Management						
Mechanical		Spade/Hoe	Spade/Hoe	N	-	-
Chemical		-	Atrazine 50%/ha	F	1,2,4,5	1,2,4,5
Water Management						
No. of Irrigation		6-8	6-8	N	-	-
Method		Furrow	Furrow	N	-	-
Soil Management						
Acidity		100 kg/ha Lime	300kg/ha Lime	P	1,2,4	1,2,4,5
Water Logging		-	-	-	-	-
Harvesting & Threshing						
Method of Harvesting		Hand Weeding	Hand Weeding	N	-	-

Average Yield*						-
Grain	Early Sown	80 - 100 Qut/ha	200 Qut/ha	P	1,2,4,5,6	1,2,4,5
	Normal Sown	110 - 120 Qut/ha	250Qut/ha	P	1,2,4,5,6	1,2,4,5
Storage Pest Control		-	-	F	2,4,5	-

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table – 6.28 Consolidated Gaps in Production Practices of a Crop/Commodity and Proposed Strategies for the
Ranchi District.

Horticulture Crop : Potato

Item	AES I & III	
	Gap in adoption N/P/P	Proposed strategy to overcome the gap
Sowing Time	N	1,2,3
Method	F	1,2,3
Variety	P	1,2,3,5
Seed Rate	P	1,2,5,8
Seed Treatment	F	1,2,4
Organic Manure	P	1,2,4,5,8
Fertilizer(Mutrient Kg/ha		
Basal (N + P + K)	P	1,2,4
Top Dressing (N)	P	1,2,4
Pest Management		
Tuber Moth	P	1,2,5,6,8,9
Soil Sanitation	P	1,2,5,6,8,9
Disease Management		
Seed Treatment	P	1,2,5,6,8,9
Early & Lef Blight	P	1,2,5,6,8,9
Wilt	P	1,2,5,6,8,9
Damping off	P	1,2,5,6,8,9
Weed Management		
Mechanical	P	1,2,5,6,8,9
Chemical	F	1,2,5,6,8,9
Water Management		
No. of Irrigation	N	10
Method	N	1,2,3
Soil Management		
Acidity	-	-
Water Logging	P	-
Harvesting & Threshing		
Method of Harvestig	P	1,2,6
Any Other/Threshig	P	1,2,6
Average Yield		
Grain	P	1,2,3,5
Storage Pest Control	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. Adoptation of IPM/INM recomedetion.10. Irrigation facility.

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

AES – I Resource Rich & Poor Agriculture Farming Situation(FS-I) : Rainfed Normal Sown/Up Land

Representative Village : Karkara Crop : Pigeon Pea Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Local	T-21, BR-65, Brisa Arahara-1, Bahar.	F	1,2,3,4,5	1,2,3,4
Method	Broad Casting	Lime Sowing	F	1,2,3,4,5	1,2,3,4
Seed Rate	15-20 kg/ha	20 kg/ha	P	1,2,3,4,5	1,2,3,4
Time	15th June – 30th June	15th June – 30th June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	-	50 qu.	F	1,2,3,4,5	1,2,3,4
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	10:20:00	20:40:20	P	1,2,3,4,5	1,2,3,4
Top Dressing (N) KG/H	-	-	P	1,2,3,4,5	1,2,3,4
Total KG/ H	**10:20:00**	**20:40:20**	**-**	-	-
Method of fertilizer use					
Basal (N+P+K)	-	20:40:20	F	1,2,3,4,5	1,2,3,4
Top Dressing (N)	-	-	-	-	-
Disease & Pest Management					
Pest Management					
Termiet	-	Indosulfan 4% dust @25kg	F	1,2,3,4,5	1,2,3,4
Pod Borer	-	Endosulphan 35 EC@1.5-2ml/lit. water	F	1,2,3,4,5	1,2,3,4
Disease Management					
Seed Treatment	-	Captan/Thiram/Carbendazim 2.0/kg seed, Rizhobium treatment	F	1,2,3,4,5	1,2,3,4
Wilt	-	Crop Rotation & Inter Cropping	F	1,2,3,4,5	1,2,3,4
Weed Management					
Mechanical	Hand Weeding	Hand Weeding within one month.	N	-	-
Chemical	-	Fluchlorine 45Ec@ 2 lit./ha	F	1,2,3,4,5	1,2,3,4
Water Management					
No. of Irrigation	Rainfed	Rainfed	N	-	-
Method	-	-	-	-	-
Soil Management					
Acidity	-	3-4 qu/ha Lime	F	1,2,3,4,5	1,2,3,4
Water Logging	Open Bunding	Open Bunding	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel & Beating	Cutting by Sickel & Beating	N	-	-
Any Other/Threshing	-	-	-	-	-
Average Yield	5 - 6 qu.	10 – 12 qu.	P	4,5	1,2,5,6
Storage Pest Control					
Grain	-	Alumunium Phosfid, avoid moisture	F	1,4,5	1,5

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.30 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II Resource Rich & Poor | Agriculture | Farming Situation(FS-I) : Rainfed Normal Sown/Up Land

Representative Village : Nawagarh | Crop : Pigeon Pea | Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Local	T-21, BR-65, Brisa Arahara-1, Bahar.	F	1,2,3,4,5	1,2,3,4
Method	Broad Casting	Lime Sowing	F	1,2,3,4,5	1,2,3,4
Seed Rate	15 - 20 kg/ha	20 kg/ha	P	1,2,3,4,5	1,2,3,4
Time	15th June – 30th June	15th June – 30th June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	-	50 qu.	F	1,2,3,4,5	1,2,3,4
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	-	20:40:20	P	1,2,3,4,5	1,2,3,4
Top Dressing (N) KG/H	-	-	P	1,2,3,4,5	1,2,3,4
Total KG/ H	**-**	**20:40:20**	**-**	-	-
Method of fertilizer use					
Basal (N+P+K)	-	20:40:20	F	1,2,3,4,5	1,2,3,4
Top Dressing (N)	-	-	-	-	-
Disease & Pest Management					
Pest Management					
Termiet	-	Indosulfan 4% dust @25kg	F	1,2,3,4,5	1,2,3,4
Pod Borer	-	Endosulphan 35 EC@1.5-2ml/lit. water	F	1,2,3,4,5	1,2,3,4
Disease Management					
Seed Treatment	-	Captan/Thiram/Carbendazim 2.0/kg seed, Rizhobium treatment	F	1,2,3,4,5	1,2,3,4
Wilt	-	Crop Rotation & Inter Cropping	F	1,2,3,4,5	1,2,3,4
Weed Management					
Mechanical	Hand Weeding	Hand Weeding within one month.	N	-	-
Chemical	-	Fluchlorine 45Ec@ 2 lit./ha	F	1,2,3,4,5	1,2,3,4
Water Management					
No. of Irrigation	Rainfed	Rainfed	N	-	-
Method	-	-	-	-	-
Soil Management					
Acidity	-	3-4 qu/ha Lime	F	1,2,3,4,5	1,2,3,4
Water Logging	Open Bunding	Open Bunding	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel & Beating	Cutting by Sickel & Beating	N	-	-
Any Other/Threshing	-	-	-	-	-
Average Yield	3 - 4 qu.	10 – 12 qu.	P	4,5	1,2,5,6
Storage Pest Control					
Grain	-	Alumunium Phosfid, avoid moisture	F	1,4,5	1,5

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.31 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor Agriculture Farming Situation(FS-I) : Rainfed Normal Sown/Up Land

Representative Village : Chapi Crop : Pigeon Pea Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Local	T-21, BR-65, Brisa Arahara-1, Bahar.	F	1,2,3,4,5	1,2,3,4
Method	Broad Casting	Lime Sowing	F	1,2,3,4,5	1,2,3,4
Seed Rate	15 - 20 kg/ha	20 kg/ha	P	1,2,3,4,5	1,2,3,4
Time	15th June – 30th June	15th June – 30th June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	-	50 qu.	F	1,2,3,4,5	1,2,3,4
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	10: 20:00	20:40:20	P	1,2,3,4,5	1,2,3,4
Top Dressing (N) KG/H	-	-	P	1,2,3,4,5	1,2,3,4
Total KG/ H	**10:20:00**	**20:40:20**	**-**	-	-
Method of fertilizer use					
Basal (N+P+K)	-	20:40:20	F	1,2,3,4,5	1,2,3,4
Top Dressing (N)	-	-	-	-	-
Disease & Pest Management					
Pest Management					
Termiet	-	Indosulfan 4% dust @25kg	F	1,2,3,4,5	1,2,3,4
Pod Borer	-	Endosulphan 35 EC@1.5-2ml/lit. water	F	1,2,3,4,5	1,2,3,4
Disease Management					
Seed Treatment	-	Captan/Thiram/Carbendazim 2.0/kg seed, Rizhobium treatment	F	1,2,3,4,5	1,2,3,4
Wilt	-	Crop Rotation & Inter Cropping	F	1,2,3,4,5	1,2,3,4
Weed Management					
Mechanical	Hand Weeding	Hand Weeding within one month.	N	-	-
Chemical	-	Fluchlorine 45Ec@ 2 lit./ha	F	1,2,3,4,5	1,2,3,4
Water Management					
No. of Irrigation	Rainfed	Rainfed	N	-	-
Method	-	-	-	-	-
Soil Management					
Acidity	-	3-4 qu/ha Lime	F	1,2,3,4,5	1,2,3,4
Water Logging	Open Bunding	Open Bunding	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel & Beating	Cutting by Sickel & Beating	N	-	-
Any Other/Threshing	-	-	-	-	-
Average Yield	4 - 5 qu.	10 – 12 qu.	P	4,5	1,2,5,6
Storage Pest Control					
Grain	-	Alumunium Phosfid, avoid moisture	F	1,4,5	1,5

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table – 6.32 : Consolidated Gaps in Production Practices of a Crop/Commodity and Proposed Strategies for the
Ranchi District.

Agriculture Crop : Pigeon Pea

Item	AES I		AES II		AES III	
	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						
Termiet	F	1,2,5,6,8,9	F	1,2,5,6,8,9	F	1,2,5,6,8,9
Pod Borer	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
Wilt	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. Adoptation of IPM/INM recomedetion.10. Irrigation facility.

Table-6.33 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown Irrigated
Representative Village : Karkara | Crop : Pea | Up/Land, Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Arkel, Boneviae	Arkel, Boneviae, Swarn Amar, Swarn Mukti	P	1,2,3,4,5	1,2,3,4
Method	Lime Seeding	Lime Seeding	N	-	-
Seed Rate	90-100kg/ha	75-80kg/ha)	P	1,2,3,4,5	1,3,4,5
Time	1st Oct - 15th Oct	1st Oct - 15th Oct	N	-	-
Organic Manure & Fertilizer					
Organic Manure	100qt/ha	100qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	25:25:00	25:50:30	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	25:00:00	25:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**50:25:00**	**50:50:30**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Furrow	Furrow	N	-	-
Top Dressing (N)	Near Root Zone & Hoeing	Near Root Zone & Hoeing	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Miner	Endosulphan, Roger	Mono crotophos1.5Lit/ha, Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery mildew	Karathen 0.1% Sol.	Karathen 0.1% Sol. Sulphex 0.2%/Carbendazim 0.1%	P	1,3.4,5	1,2,3,5,6
Yellow Rust	-	Karathen 0.1% Sol. Sulphex 0.2%/Carbendazim 0.1%	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	8 To 10 Times	N	-	-
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	Lime 3 – 4 qu. In furrow	P	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield (Green Pod)	50 - 55 qu/ha	100-120 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.34 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-II) Normal Sown Irrigated

Representative Village : Karkara | Crop : Pea | Mid Land, Sandy lome Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Arkel, Boneviae	Arkel, Boneviae, Swarn Amar, Swarn Mukti	P	1,2,3,4,5	1,2,3,4
Method	Lime Seeding	Lime Seeding	N	-	-
Seed Rate	80-90kg/ha	75-80kg/ha)	P	1,2,3,4,5	1,3,4,5
Time	15 Oct. – 15 Nov.	15 Oct. – 15 Nov.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	100qt/ha	100qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	20:20:00	25:50:30	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	20:00:00	25:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**40:20:00**	**50:50:30**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Furrow	Furrow	N	-	-
Top Dressing (N)	Near Root Zone & Hoeing	Near Root Zone & Hoeing	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Miner	Endosulphan, Roger	Mono crotophos1.5Lit/ha, Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery mildew	Karathen 0.1% Sol.	Karathen 0.1% Sol. Sulphex 0.2%/Carbendazim 0.1%	P	1,3.4,5	1,2,3,5,6
Yellow Rust	-	Karathen 0.1% Sol. Sulphex 0.2%/Carbendazim 0.1%	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	8 To 10 Times	N	-	-
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	Lime 3 – 4 qu. In furrow	P	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield(Green Pod)	65 – 70 qu/ha	100-120 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.35 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II & III Resource Rich Horticulture Farming Situation(FS-I) Early Sown Irrigated
Representative Village : Nawagarh & Chapi Crop : Pea Up/Land, Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Arkel, Boneviae	Arkel, Boneviae, Swarn Amar, Swarn Mukti	P	1,2,3,4,5	1,2,3,4
Method	Lime Seeding	Lime Seeding	N	-	-
Seed Rate	90-100kg/ha	75-80kg/ha)	P	1,2,3,4,5	1,3,4,5
Time	1st Oct - 15th Oct	1st Oct - 15th Oct	N	-	-
Organic Manure & Fertilizer					
Organic Manure	100qt/ha	100qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	25:25:00	25:50:30	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	25:00:00	25:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**40:20:00**	**50:50:30**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Furrow	Furrow	N	-	-
Top Dressing (N)	Near Root Zone & Hoeing	Near Root Zone & Hoeing	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Miner	Endosulphan, Roger	Mono crotophos1.5Lit/ha, Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery mildew	Karathen 0.1% Sol.	Karathen 0.1% Sol. Sulphex 0.2%/Carbendazim 0.1%	P	1,3.4,5	1,2,3,5,6
Yellow Rust	-	Karathen 0.1% Sol. Sulphex 0.2%/Carbendazim 0.1%	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	8 To 10 Times	N	-	-
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	Lime 3 – 4 qu. In furrow	P	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield (Green Pod)	40 - 45 qu/ha	100-120 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.36 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II & III Resource Rich Horticulture Farming Situation(FS-II) Normal Sown Irrigated

Representative Village : Nawagarh & Chapi Crop : Pea Mid Land, Sandy lome Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Arkel, Boneviae	Arkel, Boneviae, Swarn Amar, Swarn Mukti	P	1,2,3,4,5	1,2,3,4
Method	Lime Seeding	Lime Seeding	N	-	-
Seed Rate	80-90kg/ha	75-80kg/ha)	P	1,2,3,4,5	1,3,4,5
Time	15 Oct. – 15 Nov.	15 Oct. – 15 Nov.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	100qt/ha	100qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	25 : 25 : 00	25:50:30	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	25 : 00 : 00	25:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**50 : 25 : 00**	**50:50:30**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Furrow	Furrow	N	-	-
Top Dressing (N)	Near Root Zone & Hoeing	Near Root Zone & Hoeing	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Miner	Endosulphan, Roger	Mono crotophos1.5Lit/ha, Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery mildew	Karathen 0.1% Sol.	Karathen 0.1% Sol. Sulphex 0.2%/Carbendazim 0.1%	P	1,3.4,5	1,2,3,5,6
Yellow Rust	-	Karathen 0.1% Sol. Sulphex 0.2%/Carbendazim 0.1%	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	8 To 10 Times	N	-	-
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	Lime 3 – 4 qu. In furrow	P	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield(Green Pod)	55 - 60 qu/ha	100-120 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.37 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown (Rainy Season) Partial Irrigated/Rainfed Up Land Red Laterite Sandy Soil

Representative Village : Karkara | Crop : Cauliflower

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Early Kuvari, Pusa Katki & , HazipuExtra Early	Early Kuvari, Pusa Depali,Pant Shubhra, Pusa Early Cinthetic.	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha (Hybrid-150gm)	500 gm/ha ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	May – June	May – June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Early Sown					
Basal (N+P+K) KG/ H	40:50:30	80:75:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	35:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**75:50:30**	**160:75:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol, Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	120 - 125 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.38 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation (FS-II) Normal Sown

Representative Village : Karkara | Crop : Cauliflower | Irrigated Up Land Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Kaitki, Snow ball, HazipuExtra Early	Pusa Katki, Dipalika, Japani Improved, Pusa Subhra, Pusa hybrid - 2	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha ha (Hybrid-150gm)	400 gm/ha ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	July – August	July – August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	50:60:40	80:75:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	50:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**100:60:40**	**160:75:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.,Delfin	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	150 - 160 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap- 1. Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.39 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation (FS-III) Late Sown (Summer)

Representative Village : Karkara | Crop : Cauliflower | Irrigated Yellow Sandy Loam/Loam Soil Mid Low Land

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Early Kuvari, HazipuExtra Early, Patna Early	Early Kuvari, HazipuExtra Early	N	-	-
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha (Hybrid-150gm)	500 gm/ha ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	Feb - March	Feb - March	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Summer Secson					
Basal (N+P+K) KG/ H	40 : 50 : 30	80:75:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	35 : 00 : 00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**75 : 50 : 30**	**160:75:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol., Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	125 -150 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.40 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown (Rainy Season)

Representative Village : Nawagarh | Crop : Cauliflower | Partial Irrigated/Rainfed Up Land Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Early Kuvari, Pusa Katki & , HazipuExtra Early	Early Kuvari, Pusa Depali,Pant Shubhra, Pusa Early Cinthetic.	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha (Hybrid-150gm)	500 gm/ha ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	May – June	May – June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Early Sown					
Basal (N+P+K) KG/ H	40 : 40 : 30	80:75:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	35 : 00 : 00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**75 : 40 : 30**	**160:75:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol., Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Cpermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	100 - 110 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

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

AES – II Resource Rich & Poor | Horticulture | Farming Situation(FS-II) Normal Sown

Representative Village : Nawagarh | Crop : Cauliflower | Irrigated Up Land Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Kaitki, Snow ball, HazipuExtra Early	Pusa Katki, Dipalika, Japani Improved, Pusa Subhra, Pusa hybrid - 2	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha ha (Hybrid-150gm)	400 gm/ha ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	July – August	July – August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	40:50:30	80:75:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	35:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**75:50:30**	**160:75:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol., Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25 Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	120 – 125 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap- 1. Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.42 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-III) Late Sown (Summer)

Representative Village : Nawagarh | Crop : Cauliflower | Irrigated Yellow Sandy Loam/Loam Soil Mid Low Land

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Early Kuvari, HazipuExtra Early, Patna Early	Early Kuvari, HazipuExtra Early	N	-	-
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha (Hybrid-150gm)	500 gm/ha ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	Feb - March	Feb - March	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Summer Secson					
Basal (N+P+K) KG/ H	40 : 50 : 30	80:75:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	35 : 00 : 00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60 : 30 : 20**	**160:75:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol., Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	90 - 100 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.43 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor Horticulture Farming Situation(FS-I) Early Sown (Rainy Season)

Representative Village : Chapi Crop : Cauliflower Partial Irrigated/Rainfed Up Land Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Early Kuvari, Pusa Katki & , HazipuExtra Early	Early Kuvari, Pusa Depali,Pant Shubhra, Pusa Early Cinthetic.	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha (Hybrid-150gm)	500 gm/ha ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	May – June	May – June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Early Sown					
Basal (N+P+K) KG/ H	30 : 30 : 20	80:75:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30 : 00 : 00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60 : 30 : 20**	**160:75:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol., Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	80 - 100 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.44 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor | Horticulture | Farming Situation(FS-II) Normal Sown

Representative Village : Chapi | Crop : Cauliflower | Irrigated Up Land Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Kaitki, Snow ball, HazipuExtra Early	Pusa Katki, Dipalika, Japani Improved, Pusa Subhra, Pusa hybrid - 2	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha ha (Hybrid-150gm)	400 gm/ha ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	July – August	July – August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	30 : 40 : 20	8 0:75:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30 : 00 : 00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60 : 40 : 20**	**160:75:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol., Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	110 – 120 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap- 1. Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.45 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor | Horticulture | Farming Situation(FS-III) Late Sown (Summer) Irrigated

Representative Village : Chapi | Crop : Cauliflower | Yellow Sandy Loam/Loam Soil Mid Low Land

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Early Kuvari, HazipuExtra Early, Patna Early	Early Kuvari, HazipuExtra Early	N	-	-
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha (Hybrid-150gm)	500 gm/ha ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	Feb - March	Feb - March	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Summer Secson					
Basal (N+P+K) KG/ H	40 : 50 : 30	80:75:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	35 : 00 : 00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60 : 30 : 20**	**160:75:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol., Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	80 - 90 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.46 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Normal Sown Up

Representative Village : Karkara | Crop : Cabbage | Land Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Golden Acer, Early Drum head, Pride of India.	Golden Acer, Early Drum head, Pride of India, Green Express, IAHS-3, IAHS-5,6, BS-50	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha (Hybrid-150gm)	500 gm/ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	July – August	July – August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	50:60:40	80:75:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	50:00:00	70:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**100:60:40**	**150:75:60**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol., Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	150-175 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.47 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Normal Sown Up

Representative Village : Nawagarh | Crop : Cabbage | Land Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Golden Acer, Early Drum head, Pride of India.	Golden Acer, Early Drum head, Pride of India, Green Express, IAHS-3, IAHS-5,6, BS-50	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha (Hybrid-150gm)	500 gm/ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	July – August	July – August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	40 : 50 : 30	80:75:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	35 : 00 : 00	70:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**75 : 50 : 30**	**150:75:60**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol., Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Siper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Siper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	125 - 130 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.48 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Normal Sown Up

Representative Village : Chapi | Crop : Cabbage | Land Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Golden Acer, Early Drum head, Pride of India.	Golden Acer, Early Drum head, Pride of India, Green Express, IAHS-3, IAHS-5,6, BS-50	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-800 gm/ha (Hybrid-150gm)	500 gm/ha (Hybrid-150gm)	P	1,2,3,4,5	1,3,4,5
Time	July – August	July – August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Normal Sown					
Basal (N+P+K) KG/ H	30 : 40 : 20	80:75:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30 : 00 : 00	70:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60 : 40 : 20**	**150:75:60**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimond back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol., Delfin.	P	1,3,4,5	1,2,3,5,6
Borer	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Semi Looper	Endosulphan, Roger	Ciper methrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Black Rott	-	Boric Acid 5.0 gm/20Lit Water 10 D.A.T. 3 To 4 Times.	F	1,3.4,5	1,2,3,5,6
Downy mildew	-	copper Oxichloride	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding	Hand Weeding	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Forrow	Forrow	N	-	-
Soil Management					
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Cutting by Sickel	Cutting by Sickel	N	-	-
Average Yield	110 - 115 qu/ha	225-250 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.49 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Season) Up Land Red Laterite Sandy Soil

Representative Village : karkara | Crop : Tomato

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Rubi, Pusa Early Dwarf, Panjab Keshari, Panjab Chohara	Swern Lalma, Swern Navien, Arka Abhay, Swern baibhav, Kishi hybrid-1 & 2	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	600-700 gm/ha (Hybrid-300gm)	500 gm/ha ha (Hybrid-300gm)	P	1,2,3,4,5	1,3,4,5
Time	May – June	May – June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	40:40:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	50:60:40	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	50:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**100:60:40**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimoend back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Minor	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Early & Late Blight	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-

Average Yield	HYV (OP)	90 - 100 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	125 - 150 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.50 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor Horticulture Farming Situation(FS-II) Normal Sown Up Land Irrigated

Representative Village : karkara Crop : Tomato Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo - Amerincan hybrid	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo -Amrincan hybrid	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	600-870 gm/ha ha (Hybrid-300gm)	500 gm/ha ha (Hybrid-3000gm)	P	1,2,3,4,5	1,3,4,5
Time	July – August	July – August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	40:40:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	50:60:40	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	50:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**100:60:40**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimoend back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Minor	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Early & Late Blight	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					

Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	125-150 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	225-250 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.51 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-III) Late Sown Irrigated

Representative Village : karkara | Crop : Tomato | Yellowish Sandy Loam/Loam Soil.

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo -Amrincan hybrid, Money maker	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo -Amrincan hybrid, Money maker	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	600-700 gm/ha ha (Hybrid-300gm)	500 gm/ha ha (Hybrid-300gm)	P	1,2,3,4,5	1,3,4,5
Time	Sept. – Oct.	Sept. – Oct.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	25:30:10	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	25:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**50:30:10**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	30:30:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:30:20**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimoend back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Froiut Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Minor	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Early & Late Blight	-	Carbendazim 2.0gm/Mencozeb 2.0gm/Lit. of water for Spraying	F	1,3.4,5	1,2,3,5,6
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					

Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	100 - 125 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	200 - 225 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.52 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Season) Up Land Red Laterite Sandy Soil

Representative Village : Nawagarh | Crop : Tomato

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Rubi, Pusa Early Dwarf, Panjab Keshari, Panjab Chohara	Swern Lalma, Swern Navien, Arka Abhay, Swern baibhav, Kishi hybrid-1 & 2	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	600-700 gm/ha (Hybrid-300gm)	500 gm/ha ha (Hybrid-300gm)	P	1,2,3,4,5	1,3,4,5
Time	May – June	May – June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	30:30:10	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:30:10**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	40:40:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimoend back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Minor	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Early & Late Blight	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-

Average Yield	HYV (OP)	75 - 80 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	125 - 150 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.53 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II Resource Rich & Poor | Horticulture | Farming Situation(FS-II) Normal Sown Up

Representative Village : Nawagarh | Crop : Tomato | Land Irrigated Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo - Amerincan hybrid	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo -Amrincan hybrid	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	600-870 gm/ha ha (Hybrid-300gm)	500 gm/ha ha (Hybrid-3000gm)	P	1,2,3,4,5	1,3,4,5
Time	July – August	July – August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	30:30:10	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:30:10**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	40:40:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimoend back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Minor	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Early & Late Blight	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-

Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	100 - 110qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	140 - 150 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.54 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II Resource Rich & Poor | Horticulture | Farming Situation(FS-III) Late Sown Irrigated

Representative Village : Nawagarh | Crop : Tomato | Yellowish Sandy Loam/Loam Soil.

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo -Amrincan hybrid, Money maker	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo -Amrincan hybrid, Money maker	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	600-700 gm/ha ha (Hybrid-300gm)	500 gm/ha ha (Hybrid-300gm)	P	1,2,3,4,5	1,3,4,5
Time	Sept. – Oct.	Sept. – Oct.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	30:40:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:40:20**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	40:30:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:30:20**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimoend back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Froiut Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Minor	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Early & Late Blight	-	Carbendazim 2.0gm/Mencozeb 2.0gm/Lit. of water for Spraying	F	1,3.4,5	1,2,3,5,6
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					

Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	80 - 90 qu/ha	200-225 qu/ha	P	4,5,7	75-80 qu/ha
	Hybrid	140 - 150 qu/ha	400-425 qu/ha	P	4,5,7	125-150 qu/ha

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.55 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Season) Up Land Red Laterite Sandy Soil

Representative Village : Chapi | Crop : Tomato

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Rubi, Pusa Early Dwarf, Panjab Keshari, Panjab Chohara	Swern Lalma, Swern Navien, Arka Abhay, Swern baibhav, Kishi hybrid-1 & 2	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	600-700 gm/ha (Hybrid-300gm)	500 gm/ha ha (Hybrid-300gm)	P	1,2,3,4,5	1,3,4,5
Time	May – June	May – June	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	30:40:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:40:20**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	40:40:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimoend back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Minor	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Early & Late Blight	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					

Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	75 - 80 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	125 - 150 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.56 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor | Horticulture | Farming Situation(FS-II) Normal Sown Up
Representative Village : Chapi | Crop : Tomato | Land Irrigated Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo - Amerincan hybrid	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo - Amrincan hybrid	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	600-870 gm/ha ha (Hybrid-300gm)	500 gm/ha ha (Hybrid-3000gm)	P	1,2,3,4,5	1,3,4,5
Time	July – August	July – August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	30:30:10	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:30:10**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	40:40:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimoend back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Minor	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Early & Late Blight	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-

Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	90 -100 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	125 -150 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.57 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor | Horticulture | Farming Situation(FS-III) Late Sown Irrigated

Representative Village : Chapi | Crop : Tomato | Yellowish Sandy Loam/Loam Soil.

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo -Amrincan hybrid, Money maker	Pusa Rubi, Pant Bahar, Pusa Shda Bahar, Indo -Amrincan hybrid, Money maker	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	600-700 gm/ha ha (Hybrid-300gm)	500 gm/ha ha (Hybrid-300gm)	P	1,2,3,4,5	1,3,4,5
Time	Sept. – Oct.	Sept. – Oct.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	30:40:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:40:20**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	40:30:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	100:000:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:30:20**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Dimoend back moth	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Froiut Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Minor	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	-	Bule copper/copper Oxichloride 0.3% Sol.	F	1,3.4,5	1,2,3,5,6
Early & Late Blight	-	Carbendazim 2.0gm/Mencozeb 2.0gm/Lit. of water for Spraying	F	1,3.4,5	1,2,3,5,6
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					

Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	80 - 90 qu/ha	200-225 qu/ha	P	4,5,7	75-80 qu/ha
	Hybrid	100-125 qu/ha	400-425 qu/ha	P	4,5,7	125-150 qu/ha

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.58 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Season) Up Land Red Laterite Sandy Soil

Representative Village : Karkara | Crop : Brinjal

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Pearple Long, Pusa Pearple Round, Banaras Jaint, Panjab Barshti	Pusa Pearple Long, Pusa Pearple Round, Swarn Pratibha, Swarn Shyamali	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	500-600 gm/ha (Hybrid-300gm)	400 gm/ha ha (Hybrid-250gm)	P	1,2,3,4,5	1,3,4,5
Time	July- August	July- August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	30:30:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:30:20**	**120:80:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	40:40:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**175:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Mite	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery Mildew	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Phomopsis Rott	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time	F		
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8

Method		Flooded	Flooded	N	-	-
Soil Management						
Acidity		3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging		Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	90 - 100 qu/ha	200-250 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	150 - 160 qu/ha	350-400 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.59 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-II) Normal Sown Up Land Irrigated Red Laterite Sandy Soil

Representative Village : Karkara | Crop : Brinjal

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Pearple Long, Pusa Pearple Round, Banaras Jaint, Panjab Barshti	Pusa Pearple Long, Pusa Pearple Round, Swarn Pratibha, Swarn Shyamali	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	500-600 gm/ha (Hybrid-300gm)	400 gm/ha ha (Hybrid-250gm)	P	1,2,3,4,5	1,3,4,5
Time	Sept. – Oct.	Sept. – Oct.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	40:40:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	50:60:40	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	50:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**120:60:40**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Mite	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery Mildew	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Phomopsis Rott	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time	F		
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8

Method		Flooded	Flooded	N	-	-
Soil Management						
Acidity		3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging		Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	140 - 150 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	200 - 220 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.60 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-III) Late Sown Irrigated

Representative Village : Karkara | Crop : Brinjal | Yellowish Sandy Loam/Loam Soil.

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Pearple Cluster, Pusa Anmol, Arka Navanit	Pusa Pearple Cluster, Pusa Anmol, Arka Navanit, Swarn Shyamali	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	500-600 gm/ha (Hybrid-300gm)	400 gm/ha ha (Hybrid-250gm)	P	1,2,3,4,5	1,3,4,5
Time	Oct – Nov.	Oct – Nov.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	25:30:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	25:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**50:30:20**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	30:30:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:30:20**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Mite	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery Mildew	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Phomopsis Rott	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time	F		
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-

Soil Management						
Acidity		3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging		Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	120 - 125 qu/ha	200-225 qu/ha	P	4,5,7	70-75 qu/ha
	Hybrid	175 - 180 qu/ha	400-425 qu/ha	P	4,5,7	100-110 qu/ha

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.61 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Season) Up Land Red Laterite Sandy Soil

Representative Village : Nawagarh | Crop : Brinjal

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Pearple Long, Pusa Pearple Round, Banaras Jaint, Panjab Barshti	Pusa Pearple Long, Pusa Pearple Round, Swarn Pratibha, Swarn Shyamali	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	500-600 gm/ha (Hybrid-300gm)	400 gm/ha ha (Hybrid-250gm)	P	1,2,3,4,5	1,3,4,5
Time	July- August	July- August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	30:40:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:40:20**	**120:80:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	40:40:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**175:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Mite	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery Mildew	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Phomopsis Rott	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time	F		
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8

Method		Flooded	Flooded	N	-	-
Soil Management						
Acidity		3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging		Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	80 - 90 qu/ha	200-250 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	135 - 140 qu/ha	350-400 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.62 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II Resource Rich & Poor Horticulture Farming Situation(FS-II) Normal Sown Up Land Irrigated

Representative Village : Nawagarh Crop : Brinjal Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Pearple Long, Pusa Pearple Round, Banaras Jaint, Panjab Barshti	Pusa Pearple Long, Pusa Pearple Round, Swarn Pratibha, Swarn Shyamali	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	500-600 gm/ha (Hybrid-300gm)	400 gm/ha ha (Hybrid-250gm)	P	1,2,3,4,5	1,3,4,5
Time	Sept. – Oct.	Sept. – Oct.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	40:40:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	50:40:40	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	50:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**100:40:40**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Mite	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery Mildew	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Phomopsis Rott	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time	F		
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					

Acidity		3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging		Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	110 -120 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	160 - 175qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.63 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II Resource Rich & Poor | Horticulture | Farming Situation(FS-III) Late Sown Irrigated

Representative Village : Nawagarh | Crop : Brinjal | Yellowish Sandy Loam/Loam Soil.

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Pearple Cluster, Pusa Anmol, Arka Navanit	Pusa Pearple Cluster, Pusa Anmol, Arka Navanit, Swarn Shyamali	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	500-600 gm/ha (Hybrid-300gm)	400 gm/ha ha (Hybrid-250gm)	P	1,2,3,4,5	1,3,4,5
Time	Oct – Nov.	Oct – Nov.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	25:30:10	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	25:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**50:30:10**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	30:20:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:20:20**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Mite	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery Mildew	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Phomopsis Rott	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time	F		
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					

Acidity		3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging		Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	100 - 110 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	160 - 170 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.64 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Season) Up Land Red Laterite Sandy Soil

Representative Village : Chapi | Crop : Brinjal

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Pearple Long, Pusa Pearple Round, Banaras Jaint, Panjab Barshti	Pusa Pearple Long, Pusa Pearple Round, Swarn Pratibha, Swarn Shyamali	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	500-600 gm/ha (Hybrid-300gm)	400 gm/ha ha (Hybrid-250gm)	P	1,2,3,4,5	1,3,4,5
Time	July- August	July- August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	30:30:10	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:30:10**	**120:80:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	50:60:40	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	50:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**175:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Mite	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery Mildew	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Phomopsis Rott	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time	F		
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8

Method		Flooded	Flooded	N	-	-
Soil Management						
Acidity		3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging		Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	100-125 qu/ha	200-250 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	200-225 qu/ha	350-400 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.65 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor | Horticulture | Farming Situation(FS-II) Normal Sown Up Land Irrigated

Representative Village : Chapi | Crop : Brinjal | Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Pearple Long, Pusa Pearple Round, Banaras Jaint, Panjab Barshti	Pusa Pearple Long, Pusa Pearple Round, Swarn Pratibha, Swarn Shyamali	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	500-600 gm/ha (Hybrid-300gm)	400 gm/ha ha (Hybrid-250gm)	P	1,2,3,4,5	1,3,4,5
Time	Sept. – Oct.	Sept. – Oct.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	40:40:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	50:60:40	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	50:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**120:60:40**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Mite	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery Mildew	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Phomopsis Rott	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time	F		
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-

Soil Management						
Acidity		3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging		Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	90-100 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	125-150 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.66 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – III Resource Rich & Poor | Horticulture | Farming Situation(FS-III) Late Sown Irrigated

Representative Village : Chapi | Crop : Brinjal | Yellowish Sandy Loam/Loam Soil.

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Pearple Cluster, Pusa Anmol, Arka Navanit	Pusa Pearple Cluster, Pusa Anmol, Arka Navanit, Swarn Shyamali	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	500-600 gm/ha (Hybrid-300gm)	400 gm/ha ha (Hybrid-250gm)	P	1,2,3,4,5	1,3,4,5
Time	Oct – Nov.	Oct – Nov.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
HYV (OP)					
Basal (N+P+K) KG/ H	30:30:20	80:60:60	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	80:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:30:20**	**120:60:60**	**-**	**-**	**-**
Hybrid					
Basal (N+P+K) KG/ H	40:40:20	100:100:75	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	40:00:00	100:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**80:40:20**	**200:100:75**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Fruit Borer	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Mite	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 25Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Powdery Mildew	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Phomopsis Rott	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time	F		
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Earthing up	Hand Weeding, Earthing up	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8

Method		Flooded	Flooded	N	-	-
Soil Management						
Acidity		3 – 4 qut. Lime	3 – 4 qut. Lime	N	-	-
Water Logging		Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing						
Method of Harvesting		Hand Picking	Hand Picking	N	-	-
Average Yield	HYV (OP)	70-75 qu/ha	200-225 qu/ha	P	4,5,7	1,3,5,6
	Hybrid	100-110 qu/ha	400-425 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.67 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Season) Up Land Red Laterite Sandy Soil

Representative Village : Karkara | Crop : Chilli

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Sadabhar, Pusa Jwala.	Pusa Sadabhar, Pusa Jwala, Kalyanpur red, , Bhagya luxmi, K-2	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-750 gm/ha	600 gm/ha)	P	1,2,3,4,5	1,3,4,5
Time	July- August	July- August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	20:20:10	40:60:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	20:00:00	35:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**40:20:10**	**75:60:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Anthrecnose	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield	45-50 qu/ha	90-100 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratic rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.68 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor Horticulture Farming Situation(FS-II) Normal Sown Up Land Irrigated

Representative Village : Karkara Crop : Chilli Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Kalyanpur red, RCH-236, Arka Lohit,	Kalyanpur red, RCH-236, Arka Lohit, Pusa Jwala.	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-750 gm/ha	600 gm/ha)	P	1,2,3,4,5	1,3,4,5
Time	Sept. – Oct.	Sept. – Oct.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	25:30:30	40:60:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	25:00:00	35:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**50:30:30**	**75:60:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Anthrecnose	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield	60 - 65qu/ha	90-100 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.69: Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Horticulture | Farming Situation(FS-III) Late Sown Irrigated

Representative Village : Karkara | Crop : Chilli | Yellowish Sandy Loam/Loam Soil.

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Kalyanpur red, RCH-236, Arka Lohit,	Kalyanpur red, RCH-236, Arka Lohit, Pusa Jwala.	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-750 gm/ha	600 gm/ha)	P	1,2,3,4,5	1,3,4,5
Time	Oct – Nov.	Oct – Nov.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	25:20:20	40:60:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	20:00:00	35:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**45:20:20**	**75:60:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Anthrecnose	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield	40 - 45 qu/ha	90-100 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.70 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II & III Resource Rich & Poor | Horticulture | Farming Situation(FS-I) Early Sown Partialy Irrigated/Rainfed (Rainy Secson) Up Land Red Laterite Sandy Soil

Representative Village : Nawagarh & Chapi | Crop : Chilli

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Pusa Sadabhar, Pusa Jwala.	Pusa Sadabhar, Pusa Jwala, Kalyanpur red, , Bhagya luxmi, K-2	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-750 gm/ha	600 gm/ha)	P	1,2,3,4,5	1,3,4,5
Time	July- August	July- August	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	20:20:00	40:60:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	20:00:00	35:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**40:20:00**	**75:60:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Anthrecnose	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield	35 - 40 qu/ha	90-100 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratic rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.71 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II & III Resource Rich & Poor | Horticulture | Farming Situation(FS-II) Normal Sown Up
Representative Village : Nawagarh & Chapi | Crop : Chilli | Land Irrigated
Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Kalyanpur red, RCH-236, Arka Lohit,	Kalyanpur red, RCH-236, Arka Lohit, Pusa Jwala.	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-750 gm/ha	600 gm/ha)	P	1,2,3,4,5	1,3,4,5
Time	Sept. – Oct.	Sept. – Oct.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	20:20:20	40:60:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	25:00:00	35:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**40:20:20**	**75:60:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Anthrecnose	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield	45 – 50 qu/ha	90-100 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.72 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II & III Resource Rich & Poor | Horticulture | Farming Situation(FS-III) Late Sown Irrigated

Representative Village : Nawagarh & Chapi | Crop : Chilli | Yellowish Sandy Loam/Loam Soil.

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Kalyanpur red, RCH-236, Arka Lohit,	Kalyanpur red, RCH-236, Arka Lohit, Pusa Jwala.	P	1,2,3,4,5	1,2,3,4,5
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-750 gm/ha	600 gm/ha)	P	1,2,3,4,5	1,3,4,5
Time	Oct – Nov.	Oct – Nov.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	25:20:20	40:60:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	20:00:00	35:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**40:20:20**	**75:60:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Anthrecnose	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield	40 - 45 qu/ha	90-100 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.73 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor Horticulture Farming Situation(FS-I) Normal Sown Up Land Irrigated

Representative Village : karkara Crop : Capsicum Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Arka Gaurav, Arka mohani,Arka Basant,.	Arka Gaurav, Arka mohani, Arka Basant.	N	-	-
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-750 gm/ha	600 gm/ha)	P	1,2,3,4,5	1,3,4,5
Time	Aug.- Sept.	Aug. - Sept.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	30:30:30	40:60:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	30:00:00	35:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**60:30:30**	**75:60:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Anthrecnose	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield	55 - 60 qu/ha	90-100 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.74 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES –I Resource Rich & Poor | Horticulture | Farming Situation(FS-II) Late Sown Irrigated

Representative Village : Karkara | Crop : Capsicum | Yellowish Sandy Loam/Loam Soil.

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Arka Basant,California wonder.	Arka Basant,California wonder.	N	-	-
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-750 gm/ha	600 gm/ha)	P	1,2,3,4,5	1,3,4,5
Time	Oct. – Nov.	Oct. – Nov.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	25:20:20	40:60:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	25:00:00	35:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**50:20:20**	**75:60:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Anthrecnose	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	-	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield	45-50 qu/ha	90-100 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.75 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II & III Resource Rich | Horticulture | Farming Situation(FS-I) Normal Sown Up

Representative Village : Nawagarh & Chapi | Crop : Capsicum | Land Irrigated Red Laterite Sandy Soil

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Arka Gaurav, Arka mohani,Arka Basant,.	Arka Gaurav, Arka mohani, Arka Basant.	N	-	-
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-750 gm/ha	600 gm/ha)	P	1,2,3,4,5	1,3,4,5
Time	Aug.- Sept.	Aug. - Sept.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	25:25:20	40:60:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	25:00:00	35:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**50:25:20**	**75:60:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Anthrecnose	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield	45-50 qu/ha	90-100 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.76 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – II & III Resource Rich | Horticulture | Farming Situation(FS-II) Late Sown Irrigated

Representative Village : Nawagarh & Chapi | Crop : Capsicum | Yellowish Sandy Loam/Loam Soil

ITEMS	Existing practices	Recommended	Gap in adoption	Specific Reasons for gap	Farmer Strategy
Sowing					
Variety	Arka Basant,California wonder.	Arka Basant,California wonder.	N	-	-
Method	Lime Transplanting	Lime Transplanting	N	-	-
Seed Rate	700-750 gm/ha	600 gm/ha)	P	1,2,3,4,5	1,3,4,5
Time	Oct. – Nov.	Oct. – Nov.	N	-	-
Organic Manure & Fertilizer					
Organic Manure	200qt/ha	200qt/ha	N	-	-
Fertilizer (Nutrient in Kg/ha.)					
Basal (N+P+K) KG/ H	20:20:20	40:60:50	P	1,2,4,5,6	1,2,4,5
Top Dressing (N) KG/H	20:00:00	35:00:00	P	1,2,4,5,6	1,2,4,5
Total KG/ H	**40:20:20**	**75:60:50**	**-**	**-**	**-**
Method of fertilizer use					
Basal (N+P+K)	Near Root Zone	Near Root Zone	N	-	-
Top Dressing (N)	Near Root Zone	Near Root Zone	N	-	-
Disease & Pest Management					
Pest Management					
Leaf Hooper	Endosulphan, Roger	Cipermethrin 0.2 ml., Padan 1gm/Lit. Sol.	P	1,3,4,5	1,2,3,5,6
Aphides	Mono crotophos, Metacistox 1.5 Lit/water	Mono crotophos, Metacistox 1.5 Lit/water	N	-	-
Termite	Lindel	Chlorepyriphos Dust @ 10Kg/ha	P	1,3,4,5	1,2,3,5,6
Disease Management					
Damping off	Mencozeb 75% (0.2% Solution)	Bule copper/copper Oxichloride 0.3% Sol.	P	1,3.4,5	1,2,3,5,6
Anthrecnose	Mencozeb 75% (0.2% Solution)	Carbendazim 2.0gm/Mencozeb 2.0 gm/Lit. of water for Spraying	P	1,3.4,5	1,2,3,5,6
Leaf Sport	-	Seed Treatment with Carbendazim & Spraying of 0.2% Solution of Carbendazim 3 - 4 Time			
Bactirial Blight	-	Use of Resistant Varieties	F	1,3.4,5	1,2,3,5,6
Weed Management	Hand Weeding, Hoeing	Hand Weeding, Hoeing	N	**-**	-
Water Management					
No. of Irrigation	8 To 10 Times	6 To 8 Times	P	2,5,7	5,6,8
Method	Flooded	Flooded	N	-	-
Soil Management					
Acidity	-	-	-	-	-
Water Logging	Removal of Water	Removal of Water	N	-	-
Harvesting & Threshing					
Method of Harvesting	Hand Picking	Hand Picking	N	-	-
Average Yield	40 - 45 qu/ha	90-100 qu/ha	P	4,5,7	1,3,5,6

Reasons for gap -1.Reluctance to new technology. 2. Lack of capital. 3. Poor excess to improved technologies. 4. Lack of awareness. 5. Lack of resources.6. Lack of trained resources person.7. Improper management practices. 8. Erratice rainfull.

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.7. Open Bund. 8. Irrigation faclilty.

Table-6.77 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

AES – I Resource Rich & Poor | Animal Husbandary | Farming Situation(FS-I) Own Land

Representative Village : Karkara | Crop : Cow

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Breed Up gradation	-		-	-	-
Artificaial Insemination	Partial Facility available	C.B. Hraa., S. H. wal	F	1,2,3,4	1,3,4
Breed	Local	Jercy,C.B.,HF.	P	1,2,3,4	1,3,4
Location	-	A.I. Center	F	2,3,4	1,3,4,5
Natural Insemination	Followed	-	F	2,5	1,3
Breed	Local	Jercy, C.B.	F	1,2,3,4	1,3,4
Location	Local	A.I. Centre	P	2,3,4	1,3,4,5
Feed Management (Per animal)					
Green Fodder (kg/day)	Grazing	10-15 kg	P	2,6	1,6
Dry Fodder (kg/day)	Paddy Straw as such 0-5 kg	Paddy Straw after Cutting 5-8 kg	P	2,6	1,4
Concentrates (cow/day)	-	2-2.5 kg for per kg of milk product	F	1,2,4	1,4
Minerals (g/days)	-	25-30 gm	F	1,2,4	1,4
Vitamins (ml/day)	-	10ml/day	F	1,2,4	1,4
Intercalving Care (per annum)	18-24	12-14 Month	P	1,2,4,6	1,3,4
HSBQ (No. of Vaccinations)	-	Twice	F	1,2,3,4	1,2,3,4
FMD	-	Twice e/Year	F	1,2,3,4	1,2,3,4
Rinder Pest	-	1/Lifetime	F	1,2,3,4	1,2,3,4
Mastitis	-	Daily	F	1,2,3,4	1,2,3,4
Thilarisis	-	On demand	F	1,2,3,4	1,2,3,4
Deworming	Use of Local Herbicide	Twice/Years	P	1,2,3,4	1,2,3,4
Gerneral Management					
Washing (times/day)	-	Once	F	2	1
Cleaning (times/day)	Once	Once	N	-	-
Housing (Pucca/Kaccha)	Kaccha	Pacca	P	4	4
Drinking Water	Contiminated water	Fresh water	P	1,2	1,2
Average Yield (Milk)					
Exotic	C.B	10-15 lit/day	F	1,2,3,4	1,3,4
Deshi	1lit/day	1-2 lit/day	P	1,2,3,4	1,3,4

Reasons for gap :–
1. Reluctance to new technology.
2. Lack of awareness.
3. Poor excess to improved technologies.
4. Lack of capital.
5. Lack of resources.
6. Improper management practices.

Prop. Strategies :-
1. Training and awareness campaign & Exposer visit.
2. Organisation of Health Camp.
3. Availability of traind Persons.
4. Financial support
5. Availablity of improved Breed.
6. Irrigation faclilty.

Table-6.78 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Animal Husbandary

AES – II Resource Rich & Poor Crop : Cow

Representative Village : Nawagarh Farming Situation(FS-I) Own Land

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Breed Up gradation					
Artificaial Insemination	Partial Facility available	C.B. Hraa., S. H. wal	F	1,2,3,4	1,3,4
Breed	Local	Jercy,C.B.,HF.	P	1,2,3,4	1,3,4
Location	-	A.I. Center	F	2,3,4	1,3,4,5
Natural Insemination	Followed	-	F	2,5	1,3
Breed	Local	Jercy, C.B.	F	1,2,3,4	1,3,4
Location	Local	A.I. Centre	P	2,3,4	1,3,4,5
Feed Management (Per animal)					
Green Fodder (kg/day)	Grazing	10-15 kg	P	2,6	1,6
Dry Fodder (kg/day)	Paddy Straw as such 0-5 kg	Paddy Straw after Cutting 5-8 kg	P	2,6	1,4
Concentrates (cow/day)	-	2-2.5 kg for per kg of milk product	F	1,2,4	1,4
Minerals (g/days)	-	25-30 gm	F	1,2,4	1,4
Vitamins (ml/day)	-	10ml/day	F	1,2,4	1,4
Intercalving Care (per annum)	18-24	12-14 Month	P	1,2,4,6	1,3,4
HSBQ (No. of Vaccinations)	-	Twice	F	1,2,3,4	1,2,3,4
FMD	-	Twice e/Year	F	1,2,3,4	1,2,3,4
Rinder Pest	-	1/Lifetime	F	1,2,3,4	1,2,3,4
Mastitis	-	Daily	F	1,2,3,4	1,2,3,4
Thilarisis	-	On demand	F	1,2,3,4	1,2,3,4
Deworming	Use of Local Herbicide	Twice/Years	P	1,2,3,4	1,2,3,4
Gerneral Management					
Washing (times/day)	-	Once	F	2	1
Cleaning (times/day)	Once	Once	N	-	-
Housing (Pucca/Kaccha)	Kaccha	Pacca	P	4	4
Drinking Water	30-80 lit.	50-100 lit.	P	1,2	1,2
Average Yield (Milk)					
Exotic	C.B	10-15 lit/day		1,2,3,4	1,3,4
Deshi	1lit/day	1-2 lit/day	P	1,2,3,4	1,3,4

Reasons for gap :–
1. Reluctance to new technology.
2. Lack of awareness.
3. Poor excess to improved technologies.
4. Lack of capital.
5. Lack of resources.
6. Improper management practices.

Prop. Strategies :-
1. Training and awareness campaign & Exposer visit.
2. Organisation of Health Camp.
3. Availability of traind Persons.
4. Financial support
5. Availablity of improved Breed.
6. Irrigation faclilty.

Table-6.79 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Animal Husbandary

AES – III Resource Rich & Poor Crop : Cow

Representative Village : Chapi Farming Situation(FS-I) Own Land

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Breed Up gradation					
Artificaial Insemination	Partial Facility available	C.B. Hraa., S. H. wal	F	1,2,3,4	1,3,4
Breed	Local	Jercy,C.B.,HF.	P	1,2,3,4	1,3,4
Location	-	A.I. Center	F	2,3,4	1,3,4,5
Natural Insemination	Followed	-	F	2,5	1,3
Breed	Local	Jercy, C.B.	F	1,2,3,4	1,3,4
Location	Local	A.I. Centre	P	2,3,4	1,3,4,5
Feed Management (Per animal)					
Green Fodder (kg/day)	Grazing	10-15 kg	P	2,6	1,6
Dry Fodder (kg/day)	Paddy Straw as such 0-5 kg	Paddy Straw after Cutting 5-8 kg	P	2,6	1,4
Concentrates (cow/day)	-	2-2.5 kg for per kg of milk product	F	1,2,4	1,4
Minerals (g/days)	-	25-30 gm	F	1,2,4	1,4
Vitamins (ml/day)	-	10ml/day	F	1,2,4	1,4
Intercalving Care (per annum)	18-24	12-14 Month	P	1,2,4,6	1,3,4
HSBQ (No. of Vaccinations)	-	Twice	F	1,2,3,4	1,2,3,4
FMD	-	Twice e/Year	F	1,2,3,4	1,2,3,4
Rinder Pest	-	1/Lifetime	F	1,2,3,4	1,2,3,4
Mastitis	-	Daily	F	1,2,3,4	1,2,3,4
Thilarisis	-	On demand	F	1,2,3,4	1,2,3,4
Deworming	Use of Local Herbicide	Twice/Years	P	1,2,3,4	1,2,3,4
Gerneral Management					
Washing (times/day)	-	Once	F	2	1
Cleaning (times/day)	Once	Once	N	-	-
Housing (Pucca/Kaccha)	Kaccha	Pacca	P	4	4
Drinking Water	30-80 lit.	50-100 lit.	P	1,2	1,2
Average Yield (Milk)					
Exotic	C.B	10-15 lit/day		1,2,3,4	1,3,4
Deshi	1lit/day	1-2 lit/day	P	1,2,3,4	1,3,4

Reasons for gap :–
1. Reluctance to new technology.
2. Lack of awareness.
3. Poor excess to improved technologies.
4. Lack of capital.
5. Lack of resources.
6. Improper management practices.

Prop. Strategies :-
1. Training and awareness campaign & Exposer visit.
2. Organisation of Health Camp.
3. Availability of traind Persons.
4. Financial support
5. Availablity of improved Breed.
6. Irrigation faclilty.

Table – 6.80: CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A LIVESTOCK/COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Animal - Cow

Production practices (items)	Gap in adoption N/P/F	proposed strategy overcome the gap
Breed Up gradation		
Artificaial Insemination	F	1,2,3.6
Breed	P	1,2,3.6
Location	F	1,2,3.6
Natural Insemination	F	1,2,3.6
Breed	F	1,2,3.6
Location	P	1,2,3.6
Feed Management (Per animal)		
Green Fodder (kg/day)	P	1,2,3.6
Dry Fodder (kg/day)	P	1,2,3.6
Concentrates (cow/day)	F	1,2,3.6
Minerals (g/days)	F	1,2,3.6
Vitamins (ml/day)	F	1,2,3.6
Intercalving Care (per annum)	P	1,2,3.6
HSBQ (No. of Vaccinations)	F	1,2,3.6
FMD	F	1,2,3.6
Rinder Pest	F	1,2,3.6
Mastitis	F	1,2,3.6
Thilarisis	F	1,2,3.6
Deworming	P	1,2,3.6
Gerneral Management		
Washing (times/day)	F	1,2
Cleaning (times/day)	N	1,2
Housing (Pucca/Kaccha)	P	1,2,3
Drinking Water	P	1,2,5
Average Yield (Milk)		
Exotic	F	1,2,3,4,5,6,7,8
Deshi	P	1,2,3,4,5,6,7,8

Prop. Strategies :-
1. Training and exposure visit. 2. Denonstration/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-6.81 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Animal Husbandary

AES –I Resource Rich & Poor Crop : Buffalo

Representative Village : Karkara Farming Situation(FS-I) Own Land

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Breed Up gradation					
Artificaial Insemination	Partial available	Natural	-	-	-
Breed	Local	Myrrag, Surti	P	1,2,3,4	1,3,4
Location	-	A.I. Center	F	2,3,4	1,3,4,5
Natural Insemination					
Breed	Local, Murrah	Murrah,/PVC, MPCS	P	1,2,3,4	1,3,4
Location	Village Lavle	A.I.Center	P	2,3,4	1,3,4,5
Feed Management (Per animal)					
Green Fodder (kg/day)	Grazing, Paddy Straw Some time grass	15-20 kg	P	2,6	1,6
Dry Fodder (kg/day)	Paddy Straw as such5 kg	Paddy Straw after Cutting 6-8 kg	P	2,6	1,4
Concentrates (/day)	-	2.5-3.0 (kg of concentrate for every 2.5lit. of milk produced)	F	1,2,4	1,4
Minerals (mix)	-	20-30 gm/day	F	1,2,4	1,4
Vitamins (mix)	-	5-10gm/day	F	1,2,4	1,4
Intercalving Care (per annum)	24-30 Month	15-18 Month	P	1,2,4,6	1,3,4
HSBQ (No. of Vaccinations)	-	Twice	F	1,2,3,4	1,2,3,4
FMD	-	Twice /Year	F	1,2,3,4	1,2,3,4
Rinder Pest	-	1/Year	F	1,2,3,4	1,2,3,4
Mastitis	-	1/life time	F	1,2,3,4	1,2,3,4
Thilarisis	-	On demand	F	1,2,3,4	1,2,3,4
Deworming	Use of Local Herbicide	1-2/Years	P	1,2,3,4	1,2,3,4
Gerneral Management					
Washing (times/day)	Daily once	Daily once	N	-	-
Cleaning (times/day)	Once	Once	N	-	-
Housing (Pucca/Kaccha)	Kaccha	Pacca	P	4	4
Drinking Water	Contiminated water	Fresh water	P	1,2	1,2
Average Yield (Milk)					
Exotic/Graded	8 - 10 kg/Animal/day	15-20kg/Animal/day	P	1,2,3,4	1,3,4
Deshi	4 - 6 kg/Animal/day	5-8 kg/Animal/day	P	1,2,3,4	1,3,4

Nots :- He and She buffalos are used also as darft animal.

Reasons for gap :–
1. Reluctance to new technology.
2. Lack of awareness.
3. Poor excess to improved technologies.
4. Lack of capital.
5. Lack of resources.
6. Improper management practices.

Prop. Strategies :-
1. Training and awareness campaign & Exposer visit.
2. Organisation of Health Camp.
3. Availability of traind Persons.
4. Financial support
5. Availablity of improved Breed.
6. Irrigation faclilty.

Table-6.82 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Animal Husbandary

AES –II Resource Rich & Poor Crop : Buffalo

Representative Village : Nawagarh Farming Situation(FS-I) Own Land

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Breed Up gradation					
Artificaial Insemination	Partial available	Natural	-	-	-
Breed	Local	Myrrag, Surti	P	1,2,3,4	1,3,4
Location	-	A.I. Center	F	2,3,4	1,3,4,5
Natural Insemination					
Breed	Local, Murrah	Murrah,/PVC, MPCS	P	1,2,3,4	1,3,4
Location	Village Lavle	A.I.Center	P	2,3,4	1,3,4,5
Feed Management (Per animal)					
Green Fodder (kg/day)	Grazing, Paddy Straw Some time grass	15-20 kg	P	2,6	1,6
Dry Fodder (kg/day)	Paddy Straw as such5 kg	Paddy Straw after Cutting 6-8 kg	P	2,6	1,4
Concentrates (/day)	-	2.5-3.0 (kg of concentrate for every 2.5lit. of milk produced)	F	1,2,4	1,4
Minerals (mix)	-	20-30 gm/day	F	1,2,4	1,4
Vitamins (mix)	-	5-10gm/day	F	1,2,4	1,4
Intercalving Care (per annum)	24-30 Month	15-18 Month	P	1,2,4,6	1,3,4
HSBQ (No. of Vaccinations)	-	Twice	F	1,2,3,4	1,2,3,4
FMD	-	Twice /Year	F	1,2,3,4	1,2,3,4
Rinder Pest	-	1/Year	F	1,2,3,4	1,2,3,4
Mastitis	-	1/life time	F	1,2,3,4	1,2,3,4
Thilarisis	-	On demand	F	1,2,3,4	1,2,3,4
Deworming	Use of Local Herbicide	1-2/Years	P	1,2,3,4	1,2,3,4
Gerneral Management					
Washing (times/day)	Daily once	Daily once	N	-	-
Cleaning (times/day)	Once	Once	N	-	-
Housing (Pucca/Kaccha)	Kaccha	Pacca	P	4	4
Drinking Water	Contiminated water	Fresh water	P	1,2	1,2
Average Yield (Milk)					
Exotic/Graded	7-8 kg/Animal/day	15-20kg/Animal/day	P	1,2,3,4	1,3,4
Deshi	3-4 kg/Animal/day	5-8 kg/Animal/day	P	1,2,3,4	1,3,4

Nots :- He and She buffalos are used also as darft animal.

Reasons for gap :–
1. Reluctance to new technology.
2. Lack of awareness.
3. Poor excess to improved technologies.
4. Lack of capital.
5. Lack of resources.
6. Improper management practices.

Prop. Strategies :-
1. Training and awareness campaign & Exposer visit.
2. Organisation of Health Camp.
3. Availability of traind Persons.
4. Financial support
5. Availablity of improved Breed.
6. Irrigation faclilty.

Table-6.83 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Animal Husbandary

AES –III Resource Rich & Poor Crop : Buffalo

Representative Village : Chapi Farming Situation(FS-I) Own Land

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Breed Up gradation					
Artificaial Insemination	Partial available	Natural	-	-	-
Breed	Local	Myrrag, Surti	P	1,2,3,4	1,3,4
Location	-	A.I. Center	F	2,3,4	1,3,4,5
Natural Insemination					
Breed	Local, Murrah	Murrah,/PVC, MPCS	P	1,2,3,4	1,3,4
Location	Village Lavle	A.I.Center	P	2,3,4	1,3,4,5
Feed Management (Per animal)					
Green Fodder (kg/day)	Grazing, Paddy Straw Some time grass	15-20 kg	P	2,6	1,6
Dry Fodder (kg/day)	Paddy Straw as such5 kg	Paddy Straw after Cutting 6-8 kg	P	2,6	1,4
Concentrates (/day)	-	2.5-3.0 (kg of concentrate for every 2.5lit. of milk produced)	F	1,2,4	1,4
Minerals (mix)	-	20-30 gm/day	F	1,2,4	1,4
Vitamins (mix)	-	5-10gm/day	F	1,2,4	1,4
Intercalving Care (per annum)	24-30 Month	15-18 Month	P	1,2,4,6	1,3,4
HSBQ (No. of Vaccinations)	-	Twice	F	1,2,3,4	1,2,3,4
FMD	-	Twice /Year	F	1,2,3,4	1,2,3,4
Rinder Pest	-	1/Year	F	1,2,3,4	1,2,3,4
Mastitis	-	1/life time	F	1,2,3,4	1,2,3,4
Thilarisis	-	On demand	F	1,2,3,4	1,2,3,4
Deworming	Use of Local Herbicide	1-2/Years	P	1,2,3,4	1,2,3,4
Gerneral Management					
Washing (times/day)	Daily once	Daily once	N	-	-
Cleaning (times/day)	Once	Once	N	-	-
Housing (Pucca/Kaccha)	Kaccha	Pacca	P	4	4
Drinking Water	Contiminated water	Fresh water	P	1,2	1,2
Average Yield (Milk)					
Exotic/Graded	5 -6 kg/Animal/day	15-20kg/Animal/day	P	1,2,3,4	1,3,4
Deshi	2 - 3 kg/Animal/day	5-8 kg/Animal/day	P	1,2,3,4	1,3,4

Nots :- He and She buffalos are used also as darft animal.

Reasons for gap :–
1. Reluctance to new technology.
2. Lack of awareness.
3. Poor excess to improved technologies.
4. Lack of capital.
5. Lack of resources.
6. Improper management practices.

Prop. Strategies :-
1. Training and awareness campaign & Exposer visit.
2. Organisation of Health Camp.
3. Availability of traind Persons.
4. Financial support
5. Availablity of improved Breed.
6. Irrigation faclilty.

Table – 6.84 : CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A LIVESTOCK/COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Animal - Buffalo

Production practices (items)	AES – I	
	Gap in adoption N/P/F	proposed strategy overcome the gap
Breed Up gradation		
Artificaial Insemination	F	1,2,3.6
Breed	P	1,2,3.6
Location	F	1,2,3.6
Natural Insemination	F	1,2,3.6
Breed	F	1,2,3.6
Location	P	1,2,3.6
Feed Management (Per animal)		
Green Fodder (kg/day)	P	1,2,3.6
Dry Fodder (kg/day)	P	1,2,3.6
Concentrates (cow/day)	F	1,2,3.6
Minerals (g/days)	F	1,2,3.6
Vitamins (ml/day)	F	1,2,3.6
Intercalving Care (per annum)	P	1,2,3.6
HSBQ (No. of Vaccinations)	F	1,2,3.6
FMD	F	1,2,3.6
Rinder Pest	F	1,2,3.6
Mastitis	F	1,2,3.6
Thilarisis	F	1,2,3.6
Deworming	P	1,2,3.6
Gerneral Management		
Washing (times/day)	F	1,2
Cleaning (times/day)	N	1,2
Housing (Pucca/Kaccha)	P	1,2,3
Drinking Water	P	1,2,5
Average Yield (Milk)		
Exotic	F	1,2,3,4,5,6,7,8
Deshi	P	1,2,3,4,5,6,7,8

Prop. Strategies :-
1. Training and exposure visit. 2. Denonstration/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-6.85 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Animal Husbandary

AES –I Resource Rich & Poor Crop : Goat

Representative Village : Karkara Farming Situation(FS-I) Own Land

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Breed Up gradation	-		-	-	-
Artificaial Insemination	-		-	-	-
Breed	Local	Black Bengal, Improved	P	1,2,3,4	1,3,4
Location	-	A.I.Centre	F	2,3,4	1,3,4,5
Natural Insemination					
Breed	Local	Black Bengal, Improved, Jamanapuri	P	1,2,3,4	1,3,4
Location	Local	Buck Centre	F	2,3,4	1,3,4,5
Feed Management (Per animal)					
Green Fodder (kg/day)	3 kg	4-6 kg	P	2,6	1,6
Dry Fodder (kg/day)	-	0.5	F	2,6	1,4
Concentrates (Goat/day)	30-40	150-250gm	P	1,2,4	1,4
Minerals (g/days)	-	10-15gm/dat	F	1,2,4	1,4
Vitamins (ml/day)	-	10-15g/day	F	1,2,4	1,4
Health Carae(per/Goat)					
HSBQ (No. of Vaccinations)	-	Twice	F	1,2,3,4	1,2,3,4
FMD	-	Once	F	1,2,3,4	1,2,3,4
ENT		On need			
Mastitis	-	On need	F	1,2,3,4	1,2,3,4
Thilarisis	-	On need	F	1,2,3,4	1,2,3,4
Deworming	1	Quarterly once	P	1,2,3,4	1,2,3,4
Gerneral Management					
Washing (times/day)	Nil	Nil	N	2	1
Cleaning (times/day)	Nil	Once	F	-	-
Housing (Pucca/Kaccha)	Kaccha	Pucca/katcha	P	4	4
Drinking Water	4 Lit.	5 Lit.	P	1,2	1,2
Average Yield (Milk)					
Exotic	-	3-4 kg/day	F	1,2,3,4	1,3,4
Deshi	0.50-0.75 lit/day	2-3 kg/day	P	1,2,3,4	1,3,4

Reasons for gap :–
1. Reluctance to new technology.
2. Lack of awareness.
3. Poor excess to improved technologies.
4. Lack of capital.
5. Lack of resources.
6. Improper management practices.

Prop. Strategies :-
1. Training and awareness campaign & Exposer visit.
2. Organisation of Health Camp.
3. Availability of traind Persons.
4. Financial support
5. Availablity of improved Breed.
6. Irrigation faclilty.

Table-6.86 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Animal Husbandary

AES –II & III Resource Rich & Poor Crop : Goat

Representative Village : Nawagarh & Chapi Farming Situation(FS-I) Own Land

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Breed Up gradation	-		-	-	-
Artificaial Insemination	-		-	-	-
Breed	Local	Black Bengal, Improved	P	1,2,3,4	1,3,4
Location	-	A.I.Centre	F	2,3,4	1,3,4,5
Natural Insemination					
Breed	Local	Black Bengal, Improved, Jamanapuri	P	1,2,3,4	1,3,4
Location	Local	Buck Centre	F	2,3,4	1,3,4,5
Feed Management (Per animal)					
Green Fodder (kg/day)	2 kg	4-6 kg	P	2,6	1,6
Dry Fodder (kg/day)	-	0.5	F	2,6	1,4
Concentrates (Goat/day)	25-30	150-250gm	P	1,2,4	1,4
Minerals (g/days)	-	10-15gm/dat	F	1,2,4	1,4
Vitamins (ml/day)	-	10-15g/day	F	1,2,4	1,4
Health Carae(per/Goat)					
HSBQ (No. of Vaccinations)	-	Twice	F	1,2,3,4	1,2,3,4
FMD	-	Once	F	1,2,3,4	1,2,3,4
ENT		On need			
Mastitis	-	On need	F	1,2,3,4	1,2,3,4
Thilarisis	-	On need	F	1,2,3,4	1,2,3,4
Deworming	1	Quarterly once	P	1,2,3,4	1,2,3,4
Gerneral Management					
Washing (times/day)	Nil	Nil	N	2	1
Cleaning (times/day)	Nil	Once	F	-	-
Housing (Pucca/Kaccha)	Kaccha	Pucca/katcha	P	4	4
Drinking Water	4 Lit.	5 Lit.	P	1,2	1,2
Average Yield (Milk)					
Exotic	-	3-4 kg/day	F	1,2,3,4	1,3,4
Deshi	0.25-0.50 lit/day	2-3 kg/day	P	1,2,3,4	1,3,4

Reasons for gap :–
1. Reluctance to new technology.
2. Lack of awareness.
3. Poor excess to improved technologies.
4. Lack of capital.
5. Lack of resources.
6. Improper management practices.

Prop. Strategies :-
1. Training and awareness campaign & Exposer visit.
2. Organisation of Health Camp.
3. Availability of traind Persons.
4. Financial support
5. Availablity of improved Breed.
6. Irrigation faclilty.

Table – 6.87: CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A LIVESTOCK/COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Animal - Goat

Production practices (items)	Gap in adoption N/P/F	proposed strategy overcome the gap
Breed Up gradation		
Artificaial Insemination	-	1,2,3.6
Breed	P	1,2,3.6
Location	F	1,2,3.6
Natural Insemination		1,2,3.6
Breed	P	1,2,3.6
Location	F	1,2,3.6
Feed Management (Per animal)		
Green Fodder (kg/day)	P	1,2,3.6
Dry Fodder (kg/day)	F	1,2,3.6
Concentrates (Goat/day)	P	1,2,3.6
Minerals (g/days)	F	1,2,3.6
Vitamins (ml/day)	F	1,2,3.6
Health Carae(per/Goat)		1,2,3.6
HSBQ (No. of Vaccinations)	F	1,2,3.6
FMD	F	1,2,3.6
ENT		1,2,3.6
Mastitis	F	1,2,3.6
Thilarisis	F	1,2,3.6
Deworming	P	1,2,3.6
Gerneral Management		
Washing (times/day)	N	1,2
Cleaning (times/day)	F	1,2
Housing (Pucca/Kaccha)	P	1,2,3
Drinking Water	P	1,2,5
Average Yield (Milk)		
Exotic	F	1,2,3,4,5,6,7,8
Deshi	P	1,2,3,4,5,6,7,8

Prop. Strategies :-
1. Training and exposure visit. 2. Denonstration/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-6.88 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Animal Husbandary

AES –I Resource Rich & Poor Crop : Backyard Poultry

Representative Village : Karkara Farming Situation(FS-I) Own Land

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Breed Up gradation			-	-	-
Artificaial Insemination	-	-	-	-	-
Breed	Deshi	Red Divyayan	P	1,2,3,4	1,3,4
Location	-		F	2,3,4	1,3,4,5
Natural Insemination	-				
Breed	-		P	1,2,3,4	1,3,4
Location	-		F	2,3,4	1,3,4,5
Feed Management (Per animal)					
Green Fodder (kg/day)	-	2-3 kg	F	2,6	1,6
Dry Fodder (kg/day)	-	-	F	2,6	1,4
Concentrates (Goat/day)	-	80-100gm	P	1,2,4	1,4
Minerals (g/days)	-	1gm/bird/day	F	1,2,4	1,4
Vitamins (ml/day)	-	0.1ml/bird/day	F	1,2,4	1,4
Health Carae(per/Goat)	-	-			
Marks disease	-	Once in lifetime	F	1,2,3,4	1,2,3,4
RD(No. fo caccination)	-	Twice	F	1,2,3,4	1,2,3,4
Fowl Pox	-	Once			
Mastitis	-	On need	F	1,2,3,4	1,2,3,4
Thilarisis	-	-	F	1,2,3,4	1,2,3,4
Deworming	-	Quarterly once	F	1,2,3,4	1,2,3,4
Gerneral Management					
Washing (times/day)		Once	F	2	1
Cleaning (times/day)		Once	F	-	-
Housing (Pucca/Kaccha)	Kaccha	Pucca	P	4	4
Drinking Water	Adequate	Adequate	P	1,2	1,2
Average Yield (Milk)70					
Chicken Meat	1.5 kg/bird	2-2.5 kg/bird	P	1,2,3,4	1,3,4
Broiler Meat	0.75 – 1.0 kg/bird	1.2-2.0 kg/bird	N	1,2,3,4	1,3,4

Reasons for gap :–
1. Reluctance to new technology.
2. Lack of awareness.
3. Poor excess to improved technologies.
4. Lack of capital.
5. Lack of resources.
6. Improper management practices.

Prop. Strategies :-
1. Training and awareness campaign & Exposer visit.
2. Organisation of Health Camp.
3. Availability of traind Persons.
4. Financial support
5. Availablity of improved Breed.
6. Irrigation faclilty.

Table-6.89 : Gap in adoption and Farmer Strategies for improving the production and productivity of the crop

Animal Husbandary

AES – II & III Resource Rich & Poor Crop : Backyard Poultry

Representative Village : Nawagarh & Chapi Farming Situation(FS-I) Own Land

ITEMS	Existing practices	Recommended	Gap in adop tion	Specific Reasons for gap	Farmer Strategy
Breed Up gradation			-	-	-
Artificaial Insemination	-	-	-	-	-
Breed	Deshi	Red Divyayan	P	1,2,3,4	1,3,4
Location	-		F	2,3,4	1,3,4,5
Natural Insemination	-				
Breed	-		P	1,2,3,4	1,3,4
Location	-		F	2,3,4	1,3,4,5
Feed Management (Per animal)					
Green Fodder (kg/day)	-	2-3 kg	F	2,6	1,6
Dry Fodder (kg/day)	-	-	F	2,6	1,4
Concentrates (Goat/day)	-	80-100gm	P	1,2,4	1,4
Minerals (g/days)	-	1gm/bird/day	F	1,2,4	1,4
Vitamins (ml/day)	-	0.1ml/bird/day	F	1,2,4	1,4
Health Carae(per/Goat)	-	-			
Marks disease	-	Once in lifetime	F	1,2,3,4	1,2,3,4
RD(No. fo caccination)	-	Twice	F	1,2,3,4	1,2,3,4
Fowl Pox	-	Once			
Mastitis	-	On need	F	1,2,3,4	1,2,3,4
Thilarisis	-	-	F	1,2,3,4	1,2,3,4
Deworming	-	Quarterly once	F	1,2,3,4	1,2,3,4
Gerneral Management					
Washing (times/day)		Once	F	2	1
Cleaning (times/day)		Once	F	-	-
Housing (Pucca/Kaccha)	Kaccha	Pucca	P	4	4
Drinking Water	Adequate	Adequate	P	1,2	1,2
Average Yield (Milk)70					
Chicken Meat	1 kg/bird	2-2.5 kg/bird	P	1,2,3,4	1,3,4
Broiler meat		1.2-2.0 kg/bird	N	1,2,3,4	1,3,4

Reasons for gap :–
1. Reluctance to new technology.
2. Lack of awareness.
3. Poor excess to improved technologies.
4. Lack of capital.
5. Lack of resources.
6. Improper management practices.

Prop. Strategies :-
1. Training and awareness campaign & Exposer visit.
2. Organisation of Health Camp.
3. Availability of traind Persons.
4. Financial support
5. Availablity of improved Breed.
6. Irrigation faclilty.

Table – 6.90: CONSOLIDATED GAPS IN PRODUCTION PRACTICES OF A LIVESTOCK/COMMODITY AND PROPOSED STRATEGIES FOR THE DISTRICT

Animal - Goat

Production practices (items)	AES – I	
	Gap in adoption N/P/F	proposed strategy overcome the gap
Breed Up gradation		
Artificaial Insemination	-	1,2,3.6
Breed	P	1,2,3.6
Location	F	1,2,3.6
Natural Insemination		1,2,3.6
Breed	P	1,2,3.6
Location	F	1,2,3.6
Feed Management (Per animal)		
Green Fodder (kg/day)	F	1,2,3.6
Dry Fodder (kg/day)	F	1,2,3.6
Concentrates (Goat/day)	P	1,2,3.6
Minerals (g/days)	F	1,2,3.6
Vitamins (ml/day)	F	1,2,3.6
Health Carae(per/Goat)		1,2,3.6
Marks disease	F	1,2,3.6
RD(No. fo caccination)	F	1,2,3.6
Fowl Pox		1,2,3.6
Mastitis	F	1,2,3.6
Thilarisis	F	1,2,3.6
Deworming	F	1,2,3.6
Gerneral Management		
Washing (times/day)	F	1,2
Cleaning (times/day)	F	1,2
Housing (Pucca/Kaccha)		1,2,3
Drinking Water	F	1,2,5
Average Yield (Milk)		
Chicken Meat	P	1,2,3,4,5,6,7,8
Broiler meat	N	1,2,3,4,5,6,7,8

Prop. Strategies :-
1. Training and exposure visit. 2. Denonstration/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.