CHAPTER- VII
STRATEGIES TO OVER COME THE GAPS IN IPM/INM/SEED REPLACEMENT IN THE DISTRICT

Table -7.1
Proposed Strategies for Integrated Nutrient Management

District : Bokaro **Crop: Paddy**

Sl. No.	Particulars	AES-I					AES-II					AES-III				
		E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.
1.	**Soil Testing/ Soil Health**	-		F	1,4	1,2	-		F	1,4	1,2	-		F	1,4	1,2
2.	**Use of Manures(mt./ha.)**															
	FYM	2 tone	10+/ha	P	2,3,4	1-5	2 tone	10+/ha	P	2,3,4	1-5	2 tone	10+/ha	P	2,3,4	1-5
	Compost	Nil		F	1,2,3	1-5	Nil		F	1,2,3	1-5	Nil		F	1,2,3,4	1-5
	Vermicompost	Nil		F	1,2,3	1-5	Nil		F	1,2,3	1-5	Nil		F	1,2,3,4	1-5
3.	**Use of major Fert.**															
	Basal dose Kg./ha.															
	N kg/ha	20	20-50 kg/ha	P	1,2	1-5	20	20-50 kg/ha	P	1,2	1-5	40	20-50 kg/ha	P	1,2,4	1-5
	P kg/ha	30	20-40 kg/ha	P	1,2	1-5	30	20-40 kg/ha	P	1,2	1-5	30	20-40 kg/ha	P	1,2,4	1-5
	K kg/ha	00	20-40 kg/ha	F	1,2,3	1-5	00	20-40 kg/ha	F	1,2,3	1-5	10	20-40 kg/ha	P	1,2,3,4	1-5
4.	**Top dress (Kg./ha.)**															
	N	20	20-50 kg/ha	P	1, 4	1-5	20	20-50 kg/ha	P	1, 4	1-5	30	20-50 kg/ha	P	1,3,4	1-5
5.	**Cultivation of Legumes**															
	As rotational crop	Not done	Pulse crop	F	1	1-4	Not done	Pulse crop	F	1	1-4	Not done	Pulse crop	F	1,2,4	1-4
	As inter crop	-	-	F	1,2	1-4	-	-	F	1,2	1-4	-	-	F	1,2,4	1-4
	As Green mannure	Not done	Greengram/Cowpea, Sunhemp/Sesbania etc	F	1, 4	1-4	Not done	Greengram/Cowpea, Sunhemp/Sesbania etc	F	1, 4	1-4	Not done	Greengram/Cowpea, Sunhemp/Sesbania etc	F	1,2,4	1-4
	Use of bio-fertl.(Kg./ha.)	-	Blue Green algae 2 kg/ha	F	1,2,3	1-4	-	Blue Green algae 2 kg/ha	F	1,2,3	1-4	-	Blue Green algae 2 kg/ha	F	1,2,4	1-4
		-	Azolla	F	1,2,3	1-4	-	Azolla	F	1,2,3	1-4	-	Azolla	F	1,2,4	1-4
		-	Phosphate Solubilizers	F	1,2,3	1-4	-	Phosphate Solubilizers	F	1,2,3	1-4	-	Phosphate Solubilizers	F	1,2,4	1-4
6.	**Any other**															

Reasons for gap	**Proposed strategy**	**Gap in Adoption**
1. Lack of knowledge 2. Lack resources 3. Non availability of inputs 4. Unaware of Management practices	1. Training and awareness campaign 2. Demonstration 3. Exposure visit 4. On farm trail/ORF 5. Soil testing based fertilizer use needed to be strengthened	N = Nil P = Partial F = Full

Table -7.2
Proposed Strategies for Integrated Nutrient Management

District : Bokaro **Crop: Wheat**

Sl. No.	Particulars	AES-I					AES-II					AES-III				
		E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.
1	**Soil Testing/ Soil Health**			F	1,3,4	1,2			F	1,3,4	1,2			F	1,3,4	1,2
2	**Use of Manures(mt./ha.)**															
	FYM	2 tone	10-15/ha	P	1,2,3	1	2 tone	10-15/ha	P	1,2,3	1	3 tone	10-15/ha	P	1,2,3	1
	Compost	-		F	1, 4	1	-		F	1, 4	1	-		F	1, 4	1
	Vermicompost	-		F	1,2,3,4	1	-		F	1,2,3,4	1	-		F	1,2,3,4	1
3	**Use of major Fert.**															
	Basal dose Kg./ha.															
	N	10	30 kg/ha	P	1,2,3	1,2,3,4,5	10	30 kg/ha	P	1,2,3	1,2,3,4,5	25	30 kg/ha	P	1,2,3	1,2,3,4,5
	P	10	60 kg/ha	P	1,2,3	1,2,3,4,5	10	60 kg/ha	P	1,2,3	1,2,3,4,5	20	60 kg/ha	P	1,2,3	1,2,3,4,5
	K	00	40 kg/ha	F	1,2,3	1,2,3,4,5	00	40 kg/ha	F	1,2,3	1,2,3,4,5	10	40 kg/ha	P	1,2,3	1,2,3,4,5
4	**Top dress (Kg./ha.)**															
	N	30	30-40 kg/ha	P	2	5	30	30-40 kg/ha	P	2	5	30	30-40 kg/ha	P	2	5
5	**Cultivation of Legumes**															
	As rotational crop	-	Pigeonpea, Cowpea	F	1, 4	1,2,3,4	-	Pigeonpea, Cowpea	F	1, 4	1,2,3,4	-	Pigeonpea, Cowpea	F	1, 4	1,2,3,4
	As inter crop	Ground nut	Soybean, Groundnut Cowpea	p	1, 4	2,4	Groun dnut	Soybean, Groundnut Cowpea	p	1, 4	2,4	Ground nut	Soybean, Groundnut Cowpea	p	1, 4	2,4
	As Green mannure	-	-	F	1,2,3	2,4	-	-	F	1,2,3	2,4	-	-	F	1,2,3	2,4
	Use of bio-fertl.(Kg./ha.)	-	Azotobocter	F	1,2,4	2,4	-	Azotobocter	F	1,2,4	2,4	-	Azotobocter	F	1,2,4	2,4
		-	Phosphate Solubilizers	F	1,2,4	2,4	-	Phosphate Solubilizers	F	1,2,4	2,4	-	Phosphate Solubilizers	F	1,2,4	2,4
6	**Any other**															

Reasons for gap	**Gap in Adoption**	**Proposed Strategy**
1. Lack of knowledge 2. Lack resources 3. Non availability of inputs 4. Unaware of Management practices	N = Nil P = Partial F = Full	1. Training & awareness campaigm 2. Demonstration 3. Exposure visit 4. On farm trail/ORF 5. Soil testing based fertilizer use needed to be strengthened

Table -7.3
Proposed Strategies for Integrated Nutrient Management

District : Bokaro **Crop: Maize**

Sl. No.	Particulars	AES-I					AES-II					AES-III				
		E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.
1.	**Soil Testing/ Soil Health**	-		F	1,4	1,2	-		F	1,4	1,2	-		F	1,4	1,2
2.	**Use of Manures(mt./ha.)**															
	FYM	2 tone	5-10/ha	P	1,4	1	2 tone	5-10/ha	P	1,4	1	2 tone	5-10/ha	P	1,4	1
	Compost	-		-	-	-	-		-	-	-	-		-	-	-
	Vermicompost	-		-	-	-	-		-	-	-	-		-	-	-
3.	**Use of major Fert.**															
	Basal dose Kg./ha.															
	N	30	50 kg/ha	P	1,2,4	1-5	30	50 kg/ha	P	1,2,4	1-5	20	50 kg/ha	P	1,2,4	1-5
	P	20	50 kg/ha	P	1,2,4	1-5	20	50 kg/ha	P	1,2,4	1-5	40	50 kg/ha	P	1,2,4	1-5
	K	00	25 kg/ha	F	1,2,3, 4	1-5	00	25 kg/ha	F	1,2,3, 4	1-5	10	25 kg/ha	P	1,2,3, 4	1-5
4.	**Top dress (Kg./ha.)**															
	N	10	50 kg/ha	P	1,4	1-5	10	50 kg/ha	P	1,4	1-5	20	50 kg/ha	P	1,4	1-5
5.	**Cultivation of Legumes**															
	As rotational crop	-	Moong/Urad/Soyabeen	F	1,2,4	1-4	-	Moong/Urad/Soyabeen	F	1,2,4	1-4	-	Moong/Urad/Soyabeen	F	1,2,4	1-4
	As inter crop	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	As Green mannure	-	Sunhemp, Greengram, Cowpea etc.	F	1,2,4	1-4	-	Sunhemp, Greengram, Cowpea etc.	F	1,2,4	1-4	-	Sunhemp, Greengram, Cowpea etc.	F	1,2,4	1-4
	Use of bio-fertl.(Kg./ha.)	-	Azotobocter Azospirillum	F	1,2,3	1,2	-	Azotobocter Azospirillum	F	1,2,3	1,2	-	Azotobocter Azospirillum	F	1,2,3	1,2
			Phosphate Solubilizers	F	1,2,3	1,2		Phosphate Solubilizers	F	1,2,3	1,2		Phosphate Solubilizers	F	1,2,3	1,2
6.	**Any other**															

Reasons for gap	**Gap in Adoption**	**Proposed Strategy**
1. Lack of knowledge 2. Lack resources 3. Non availability of inputs 4. Unaware of Management practices	N = Nil P = Partial F = Full	1. Training & awareness campaigm 2. Demonstration 3. Exposure visit 4. On farm trail/ORF 5. Soil testing based fertilizer use needed to be strengthened

Table -7.4
Proposed Strategies for Integrated Nutrient Management

District : Bokaro **Crop: Arhar**

Sl. No.	Particulars	AES-I					AES-II					AES-III				
		E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.
1.	**Soil Testing/ Soil Health**	-					-					-				
2.	**Use of Manures(mt./ha.)**															
	FYM	1 tone	5 tone	P	2,3,4	1-5	1 tone	5 tone	P	2,3,4	1-5	1 tone	5 tone	P	2,3,4	1-5
	Compost	-		-	-	-	-		-	-	-	-		-	-	-
	Vermicompost	-		-	-	-	-		-	-	-	-		-	-	-
3.	**Use of major Fert.**															
	Basal dose Kg./ha.															
	N	40	20 kg/ha	P	1, 4	1-5	50	20 kg/ha	P	1, 4	1-5	50	20 kg/ha	P	1, 4	1-5
	P	10	40 kg/ha	P	1,2,4	1-5	1	40 kg/ha	P	1,2,4	1-5	5	40 kg/ha	P	1,2,4	1-5
	K	0	20 kg/ha	F	1,2,3,4	1-5	0	20 kg/ha	F	1,2,3,4	1-5	0	20 kg/ha	F	1,2,3,4	1-5
4.	**Top dress (Kg./ha.)**															
	N	5	10	P	1, 4	1-5	5	10	P	1, 4	1-5	7	10	P	1, 4	1-5
5.	**Cultivation of Legumes**															
	As rotational crop	-	Greengram, Blackgram	F	1, 4	1-4	-	Greengram, Blackgram	F	1, 4	1-4	-	Greengram, Blackgram	F	1, 4	1-4
	As inter crop	Upland rice	Upland rice	N	-	-	Upland rice	Upland rice	N	-	-	Upland rice	Upland rice	N	-	-
	As Green mannure	-	Sunhemp, Greengram, Cowpea	F	1, 4	1-4	-	Sunhemp, Greengram, Cowpea	F	1, 4	1-4	-	Sunhemp, Greengram, Cowpea	F	1, 4	1-4
	Use of bio-fertl.(Kg./ha.)	-	Rhizobium	F	1,3	1-4	-	Rhizobium	F	1,3	1-4	-	Rhizobium	F	1,3	1-4
6.	Any other	-	Phosphate Solubilizers	F	1,3	1-4	-	Phosphate Solubilizers	F	1,3	1-4	-	Phosphate Solubilizers	F	1,3	1-4

Reasons for gap	**Gap in Adoption**	**Proposed Strategy**
1. Lack of knowledge 2. Lack resources 3. Non availability of inputs 4. Unaware of Management practices	N = Nil P = Partial F = Full	1. Training & awareness campaigm 2. Demonstration 3. Exposure visit 4. On farm trail/ORF 5. Soil testing based fertilizer use needed to be strengthened

Table -7.5
Proposed Strategies for Integrated Nutrient Management

District : Bokaro **Crop: Potato**

Sl. No.	Particulars	AES-I					AES-II					AES-III				
		E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.
1.	**Soil Testing/ Soil Health**	-	To be done	-	-	-	-	To be done	-	-	-	-	To be done	-	-	-
2.	**Use of Manures(mt./ha.)**															
	FYM	15	20-25 kg/ha	P	2, 4	1,2	15	20-25 kg/ha	P	2, 4	1,2	20	20-25 kg/ha	P	2, 4	1,2
	Compost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vermicompost	-	4-5 kg/ha	F	2,3,4	1,2	-	4-5 kg/ha	F	2,3,4	1,2	-	4-5 kg/ha	F	2,3,4	1,2
3.	**Use of major Fert.**															
	Basal dose Kg./ha.															
	N kg/ha	20	50 kg/ha	P	1,2	1-5	20	50 kg/ha	P	1,2	1-5	30	50 kg/ha	P	1,2	1-5
	P kg/ha	50	90 kg/ha	P	1,2	1-5	50	90 kg/ha	P	1,2	1-5	60	90 kg/ha	P	1,2	1-5
	K kg/ha	20	100 kg/ha	P	1,2	1-5	20	100 kg/ha	P	1,2	1-5	25	100 kg/ha	P	1,2	1-5
4.	**Top dress (Kg./ha.)**															
	N	40	50 kg/ha	P	1, 4	1-5	40	50 kg/ha	P	1, 4	1-5	40	50 kg/ha	P	1, 4	1-5
5.	**Cultivation of Legumes**															
	As rotational crop	-	Frenchbeen	F	1, 4	1-4	-	Frenchbeen	F	1, 4	1-4	-	Frenchbeen	F	1, 4	1-4
	As inter crop	Mustard, Bean	Beans, Cabbage, Cucumber	P	1	1-4	Mustard, Bean	Beans, Cabbage, Cucumber	P	1	1-4	Mustard, Bean	Beans, Cabbage, Cucumber	P	1	1-4
	As Green mannure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Use of bio-fertl.(Kg./ha.)	-	Aqotobacter 0.5 kg/ha Phosphate Solubilizers	F	1,2,3	1-4	-	Aqotobacter 0.5 kg/ha Phosphate Solubilizers	F	1,2,3	1-4	-	Aqotobacter 0.5 kg/ha Phosphate Solubilizers	F	1,2,3	1-4
6.	**Any other**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Reasons for gap	**Gap in Adoption**	**Proposed Strategy**
1. Lack of knowledge 2. Lack resources 3. Non availability of inputs 4. Unaware of Management practices	N = Nil P = Partial F = Full	1. Training & awareness campaigm 2. Demonstration 3. Exposure visit 4. On farm trail/ORF 5. Soil testing based fertilizer use needed to be strengthened

Table -7.6
Proposed Strategies for Integrated Nutrient Management

District :Bokaro **Crop: Tomato**

Sl. No.	Particulars	AES-I					AES-II					AES-III				
		E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.	E.P	R.P.	G.A.	R.G.	P.S.
1.	**Soil Testing/ Soil Health**	-	To be done	F	1,3,4	1-5	-	To be done	F	1,3,4	1-5	-	To be done	F	1,3,4	1-5
2.	**Use of Manures(mt./ha.)**															
	FYM	7	15-20 kg/ha	P	1,4	1-3	7	15-20 kg/ha	P	1,4	1-3	7	15-20 kg/ha	P	1,4	1-3
	Compost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vermicompost	-	4 kg/ha	F	1,4	1-2	-	4 kg/ha	F	1,4	1-2	-	4 kg/ha	F	1,4	1-2
3.	**Use of major Fert.**															
	Basal dose Kg./ha.															
	N	10	60 kg/ha	P	1,2,4	1-5	10	60 kg/ha	P	1,2,4	1-5	20	60 kg/ha	P	1,2,4	1-5
	P	50	80 kg/ha	P	1,2,4	1-5	50	80 kg/ha	P	1,2,4	1-5	60	80 kg/ha	P	1,2,4	1-5
	K	00	60 kg/ha	F	1,2, 4	1-5	00	60 kg/ha	F	1,2, 4	1-5	10	60 kg/ha	P	1,2, 4	1-5
4.	**Top dress (Kg./ha.)**															
	N	10	60 kg/ha	P	1,2, 4	1-5	10	60 kg/ha	P	1,2, 4	1-5	20	60 kg/ha	P	1,2, 4	1-5
5.	**Cultivation of Legumes**															
	As rotational crop	-	Frenchbean/Pea	F	1, 4	1-4	-	Frenchbean/Pea	F	1, 4	1-4	-	Frenchbean/Pea	F	1, 4	1-4
	As inter crop	-	Onion, Carrot, Radish, Chinies cabbage	F	1, 4	1-4	-	Onion, Carrot, Radish, Chinies cabbage	F	1, 4	1-4	-	Onion, Carrot, Radish, Chinies cabbage	F	1, 4	1-4
	As Green mannure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Use of bio-fertl.(Kg./ha.)	-	Aqotobacter 0.5 kg/ha Phosphate Solubilizers	F	1,3	1-4	-	Aqotobacter 0.5 kg/ha Phosphate Solubilizers	F	1,3	1-4	-	Aqotobacter 0.5 kg/ha Phosphate Solubilizers	F	1,3	1-4
6.	**Any other**			-	-	-			-	-	-			-	-	-

Reasons for gap	**Gap in Adoption**	**Proposed Strategy**
1. Lack of knowledge 2. Lack resources 3. Non availability of inputs 4. Unaware of Management practices	N = Nil P = Partial F = Full	1. Training & awareness campaigm 2. Demonstration 3. Exposure visit 4. On farm trail/ORF 5. Soil testing based fertilizer use needed to be strengthened

Table -7.8

Proposed Strategies for Integrated Pest Management

District :Bokaro **Name of the Pest Stem Borer, Hispa, Leaf Folder, & Diseases like blast, Blight etc.**

Crop:Paddy

Sl. No.	Particulars	AES I					AES II					AES III				
		R.P.	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**
1	**Cultural Practices**	Deep repeated ploughing	-	P	1,2,	1	Deep repeated ploughing	-	P	1,2,	1	Deep repeated ploughing	-	P	1,2,	1
	Summer ploughing	Deep ploughing	Shallow ploughing	P	1,4	1	Deep ploughing	Shallow ploughing	P	1,4	1	Deep ploughing	Shallow ploughing	P	1,4	1
	Timely sowing	Y	Y	N	-		Y	Y	N	-		Y	Y	N	-	
	Clean Cultivation	Y	N	F	1,4	1	Y	N	F	1,4	1	Y	N	F	1,4	1
2	**Resistance Varieties**	Y	Local varieties	F	1, 3	2, 4,5	Y	Local varieties	F	1, 3	2, 4,5	Y	Local varieties	F	1, 3	2, 4,5
3	**Bio-pesticides (Y/N)**	Y	N	F	1,3	2	Y	N	F	1,3	2	Y	N	F	1,3	2
	Neem Products	Y	N	F	1,3	1,2	Y	N	F	1,3	1,2	Y	N	F	1,3	1,2
	NPV	Y	N	F	1,3	1,2	Y	N	F	1,3	1,2	Y	N	F	1,3	1,2
	VT	Y	N	F	1,3	1,2	Y	N	F	1,3	1,2	Y	N	F	1,3	1,2
4	**Bioagents**															
	Egg parasite	Trichogramma	-	F	1,2,3	1,2	Trichogramma	-	F	1,2,3	1,2	Trichogramma	-	F	1,2,3	1,2
	Larvel prasite	Trichogramma	-	F	1,2,3	1,2	Trichogramma	-	F	1,2,3	1,2	Trichogramma	-	F	1,2,3	1,2
5	**Other practices**															
	Pheronmone Trap	5 trap/ha	-	F	1, 3	1,2	5 trap/ha	-	F	1, 3	1,2,3	5 trap/ha	-	F	1, 3	1,2,3
	Light Trap	5 trap/ha	-	F	1, 4	1	5 trap/ha	-	F	1, 4	1	5 trap/ha	-	F	1, 4	1
6	**Pesticide (No. of application)**															
	Spraying	2	1	P	1,2,3	1,2	2	1	P	1,2,3	1,2	2	1	P	1,2,3	1,2
	Dusting	1	-	F	1,2,3	1,2	1	-	F	1,2,3	1,2	1	-	F	1,2,3	1,2
	Seed Treatment	1	-	F	1,2,3	1,2	1	-	F	1,2,3	1,2	1	-	F	1,2,3	1,2
	Soil application	Y	N	F	1,2,3	1,2	Y	N	F	1,2,3	1,2	Y	N	F	1,2,3	1,2
	Granular application	Y	N	F	1,2,3	1,2	Y	N	F	1,2,3	1,2	Y	N	F	1,2,3	1,2
7	**Any other**															
	Seedling trreament	Y	N	F	1,4	1, 4	Y	N	F	1,4	1, 4	Y	N	F	1,4	1, 4
	Conservation of natural enemy (Frog)	Y	N	F	1, 4	1	Y	N	F	1, 4	1	Y	N	F	1, 4	1

Reasons for gap	**Gap in Adoption**	**Proposed Strategy**
1. Lack of knowledge 2. Lack resources 3. Non availability of inputs 4. Unaware of Management practices	N = Nil P = Partial F = Full	1. Training & awareness campaigm 2. Demonstration 3. Exposure visit 4. On farm trail/ORF 5. Research is needed for resistant variety having nearer taste to local variety

Table -7.9

Proposed Strategies for Integrated Pest Management

District :Bokaro **Name of the Pest Stem Borer, Hispa, Leaf Folder, & Diseases like blast, Blight etc.**

Crop:Maize		AES I					AES II					AES III				
Sl. No.	**Particulars**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**
1	**Cultural Practices**	Deep repeated ploughing	Shallow ploughing	P	1	1,2	Deep repeated ploughing	Shallow ploughing	P	1	1,2	Deep repeated ploughing	Shallow ploughing	P	1	1,2
	Summer ploughing	Deep ploughing	Shallow ploughing	P	1,2,4	1,2	Deep ploughing	Shallow ploughing	P	1,2,4	1,2	Deep ploughing	Shallow ploughing	P	1,2,4	1,2
	Timely sowing	Y	Y	N	-		Y	Y	N	-		Y	Y	N	-	
	Clean Cultivation	Y	N	F	1,2,4	1,2,3	Y	N	F	1,2,4	1,2,3	Y	N	F	1,2,4	1,2,3
2	**Resistance Varieties**	Y	Local varieties	F	1,2, 4	1,2,3,4, 5	Y	Local varieties	F	1,2, 4	1,2,3,4, 5	Y	Local varieties	F	1,2, 4	1,2,3,4,5
3	**Bio-pesticides (Y/N)**															
	Neem Products	Y	N	F	1,2, 4	1,2, 4	Y	N	F	1,2, 4	1,2, 4	Y	N	F	1,2, 4	1,2, 4
	NPV	Bt-Spray	N	F	1,2,3,4	1,2,3,4	Bt-Spray	N	F	1,2,3,4	1,2,3,4	Bt-Spray	N	F	1,2,3,4	1,2,3,4
	VT	Y	N	F	1,2,3,4	1,2,3,4	Y	N	F	1,2,3,4	1,2,3,4	Y	N	F	1,2,3,4	1,2,3,4
4	**Bioagents**															
	Egg parasite	Trichogramma	-	F	1,3,4	1,2,3,4	Trichogramma	-	F	1,3,4	1,2,3,4	Trichogramma	-	F	1,3,4	1,2,3,4
	Larvel parasite	Trichogramma	-	F	1,3,4	1,2,3,4	Trichogramma	-	F	1,3,4	1,2,3,4	Trichogramma	-	F	1,3,4	1,2,3,4
5	**Other practices**															
	Pheronmone Trap	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3
	Light Trap	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3
6	**Pesticide (No. of application)**															
	Spraying	2-3	1	P	1,2	1,2	2-3	1	P	1,2	1,2	2-3	1	P	1,2	1,2
	Dusting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Seed Treatment	1	-	F	1,4	1,2,	1	-	F	1,4	1,2,	1	-	F	1,4	1,2,
	Soil application	Y	N	F	1, 4	1,2	Y	N	F	1, 4	1,2	Y	N	F	1, 4	1,2
	Granular application	Y	N	F	1,2, 4	1,2	Y	N	F	1,2, 4	1,2	Y	N	F	1,2, 4	1,2
7	**Any other**															
	Seedling trreament	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Conservation of nuturala enemy (Frog)	Y	N	F	1, 4	1,2,3,4	Y	N	F	1, 4	1,2,3,4	Y	N	F	1, 4	1,2,3,4

Reasons for gap		**Gap in Adoption**	**Proposed Strategy**	
1. Lack of knowledge	3. Non availability of inputs	N = Nil	1. Training & awareness campaigm	4. On farm trail/ORF
2. Lack resources	4. Unaware of Management practices	P = Partial	2. Demonstration	5. Research is needed for resistant variety having nearer taste to local variety
		F = Full	3. Exposure visit	

Table -7.10

Proposed Strategies for Integrated Pest Management

District :Bokaro **Name of the Pest Stem Borer, Hispa, Leaf Folder, & Diseases like blast, Blight etc.**

Crop:Wheat		AES I					AES II					AES III				
Sl. No.	**Particulars**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**
1	**Cultural Practices**	Deep repeated ploughing	1-2 Shallow ploughing	P	1	1,2	Deep repeated ploughing	1-2 Shallow ploughing	P	1	1,2	Deep repeated ploughing	1-2 Shallow ploughing	P	1	1,2
	Summer ploughing	Deep ploughing	Shallow ploughing	P	1,2,4	1,2	Deep ploughing	Shallow ploughing	P	1,2,4	1,2	Deep ploughing	Shallow ploughing	P	1,2,4	1,2
	Timely sowing	Y	Y	N	-		Y	Y	N	-		Y	Y	N	-	
	Clean Cultivation	Y	N	F	1,2,4	1,2,3	Y	N	F	1,2,4	1,2,3	Y	N	F	1,2,4	1,2,3
2	**Resistance Varieties**	Y	Local varieties	F	1,2, 4	1,2,3,4,5	Y	Local varieties	F	1,2, 4	1,2,3,4,5	Y	Local varieties	F	1,2, 4	1,2,3,4, 5
3	**Bio-pesticides (Y/N)**	Y	N				Y	N				Y	N			
	Neem Products	Y	N	F	1,2, 4	1,2, 4	Y	N	F	1,2, 4	1,2, 4	Y	N	F	1,2, 4	1,2, 4
	NPV	Y	N	F	1,2,3,4	1,2,3,4	Y	N	F	1,2,3,4	1,2,3,4	Y	N	F	1,2,3,4	1,2,3,4
	VT	Y	N	F	1,2,3,4	1,2,3,4	Y	N	F	1,2,3,4	1,2,3,4	Y	N	F	1,2,3,4	1,2,3,4
4	**Bioagents**															
	Egg parasite	-	-	F	1,3,4	1,2,3,4	-	-	F	1,3,4	1,2,3,4	-	-	F	1,3,4	1,2,3,4
	Larvel parasite	Y	N	F	1,3,4	1,2,3,4	Y	N	F	1,3,4	1,2,3,4	Y	N	F	1,3,4	1,2,3,4
5	**Other practices**															
	Pheronmone Trap	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3
	Light Trap	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3
6	**Pesticide (No. of application)**															
	Spraying	2	1	P	1,2	1,2	2	1	P	1,2	1,2	2	1	P	1,2	1,2
	Dusting	1	-	-	-	-	1	-	-	-	-	1	-	-	-	-
	Seed Treatment	1	-	F	1,4	1,2,	1	-	F	1,4	1,2,	1	-	F	1,4	1,2,
	Soil application	Y	N	F	1, 4	1,2	Y	N	F	1, 4	1,2	Y	N	F	1, 4	1,2
	Granular application	Y	N	F	1,2, 4	1,2	Y	N	F	1,2, 4	1,2	Y	N	F	1,2, 4	1,2
7	**Any other**															
	Seedling trreament								-	-	-			-	-	-
	Conservation of nuturala enemy (Frog)	Y	N	F	1, 4	1,2,3,4	Y	N	F	1, 4	1,2,3,4	Y	N	F	1, 4	1,2,3,4
	Use of Karanj cack, Neem cake	250 kg/ha	N	F	1,2,3	1,2,3,4	250 kg/ha	N	F	1,2,3	1,2,3,4	250 kg/ha	N	F	1,2,3	1,2,3,4

Reasons for gap		**Gap in Adoption**	**Proposed Strategy**	
1. Lack of knowledge	3. Non availability of inputs	N = Nil	1. Training & awareness campaigm	4. On farm trail/ORF
2. Lack resources	4. Unaware of Management practices	P = Partial	2. Demonstration	5. Research is needed for resistant variety having nearer taste to local variety
		F = Full	3. Exposure visit	

Table -7.11
Proposed Strategies for Integrated Pest Management

District :Bokaro **Name of the Pest Stem Borer, Hispa, Leaf Folder, & Diseases like blast, Blight etc.**

Crop:Arhar		AES I					AES II					AES III				
Sl. No.	**Particulars**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**
1	**Cultural Practices**	Deep repeated ploughing	1-2 Shallow ploughing	P	1	1,2	Deep repeated ploughing	1-2 Shallow ploughing	P	1	1,2	Deep repeated ploughing	1-2 Shallow ploughing	P	1	1,2
	Summer ploughing	Deep ploughing	N	P	1,2,4	1,2	Deep ploughing	N	P	1,2,4	1,2	Deep ploughing	N	P	1,2,4	1,2
	Timely sowing	Y	Y	N	-		Y	Y	N	-		Y	Y	N	-	
	Clean Cultivation	Y	N	F	1,2,4	1,2,3	Y	N	F	1,2,4	1,2,3	Y	N	F	1,2,4	1,2,3
2	**Resistance Varieties**	Y	Local varieties	F	1,2, 4	1,2,3,4,5	Y	Local varieties	F	1,2, 4	1,2,3,4, 5	Y	Local varieties	F	1,2, 4	1,2,3,4, 5
3	**Bio-pesticides (Y/N)**	Y	N				Y	N				Y	N			
	Neem Products	Y	N	F	1,2, 4	1,2, 4	Y	N	F	1,2, 4	1,2, 4	Y	N	F	1,2, 4	1,2, 4
	NPV	Y	N	F	1,2,3,4	1,2,3,4	Y	N	F	1,2,3,4	1,2,3,4	Y	N	F	1,2,3,4	1,2,3,4
	Trichodrama specific	Y	N	F	1,2,3,4	1,2,3,4	Y	N	F	1,2,3,4	1,2,3,4	Y	N	F	1,2,3,4	1,2,3,4
4	**Bioagents**															
	Egg parasite	-	-	F	1,3,4	1,2,3,4	-	-	F	1,3,4	1,2,3,4	-	-	F	1,3,4	1,2,3,4
	Larvel parasite	-	-	F	1,3,4	1,2,3,4	-	-	F	1,3,4	1,2,3,4	-	-	F	1,3,4	1,2,3,4
5	**Other practices**															
	Pheronmone Trap	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3
	Light Trap	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3	5 trap/ha	-	F	1,3,4	1,2,3
6	**Pesticide (No. of application)**															
	Spraying	2-3	1	P	1,2	1,2	2-3	1	P	1,2	1,2	2-3	1	P	1,2	1,2
	Dusting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Seed Treatment	1	-	F	1,4	1,2,	1	-	F	1,4	1,2,	1	-	F	1,4	1,2,
	Soil application	Y	N	F	1, 4	1,2	Y	N	F	1, 4	1,2	Y	N	F	1, 4	1,2
	Granular application	Y	N	F	1,2, 4	1,2	Y	N	F	1,2, 4	1,2	Y	N	F	1,2, 4	1,2
7	**Any other**															
	Seedling trreament	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Conservation of nuturala enemy (Frog)	Y	N	F	1, 4	1,2,3,4	Y	N	F	1, 4	1,2,3,4	Y	N	F	1, 4	1,2,3,4
	Use of Karanj cack, Neem cake	250 kg/ha	N	F	1, 3,4	1,2,3,4	250 kg/ha	N	F	1,2,3	1,2,3,4	250 kg/ha	N	F	1,2,3	1,2,3,4

Reasons for gap		**Gap in Adoption**	**Proposed Strategy**	
1. Lack of knowledge	3. Non availability of inputs	N = Nil	1. Training & awareness campaigm	4. On farm trail/ORF
2. Lack resources	4. Unaware of Management practices	P = Partial	2. Demonstration	5. Research is needed for resistant variety having nearer taste to local variety
		F = Full	3. Exposure visit	

Table -7.12

Proposed Strategies for Integrated Pest Management

District :Bokaro **Name of the Pest Stem Borer, Hispa, Leaf Folder, & Diseases like blast, Blight etc.**

Crop:Potato		AES I					AES II					AES III				
Sl. No.	**Particulars**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**
1	**Cultural Practices**	Deep repeated ploughing Crop rotation	Shallow ploughing	P	1	1,2,3	Deep repeated ploughing Crop rotation	Shallow ploughing	P	1	1,2,3	Deep repeated ploughing Crop rotation	Shallow ploughing	P	1	1,2,3
	Summer ploughing	Deep ploughing	Shallow ploughing	P	1, 4	1,2	Deep ploughing	Shallow ploughing	P	1, 4	1,2	Deep ploughing	Shallow ploughing	P	1, 4	1,2
	Timely sowing	Y	Y	N	-		Y	Y	N	-		Y	Y	N	-	
	Clean Cultivation	Y	Y	P	1, 4	1	Y	Y	P	1, 4	1	Y	Y	P	1, 4	1
2	**Resistance Varieties**	Y	Local varieties	F	1,2,3	2,5	Y	Local varieties	F	1,2,3	2,5	Y	Local varieties	F	1,2,3	2,5
3	**Bio-pesticides (Y/N)**	Y	N	F	1-3	2	Y	N	F	1-3	2	Y	N	F	1-3	2
	Neem Products	Y	N	F	1,4	2	Y	N	F	1,4	2	Y	N	F	1,4	2
	NPV	Y	N	F	1, 3	1,2	Y	N	F	1, 3	1,2	Y	N	F	1, 3	1,2
	VT	Y	N	F	1,3	1,2	Y	N	F	1,3	1,2	Y	N	F	1,3	1,2
4	**Bioagents**															
	Egg parasite	Trichgramma	N	F	1, 3	1,2	Trichgramma	N	F	1, 3	1,2	Trichgramma	N	F	1, 3	1,2
	Larvel parasite	Trichoderma Viridi @ 2-4 gram/kg seed	-	F	1, 3	1,2	Trichoderma Viridi @ 2-4 gram/kg seed	-	F	1, 3	1,2	Trichoderma Viridi @ 2-4 gram/kg seed	-	F	1, 3	1,2
5	**Other practices**															
	Pheronmone Trap	5 trap/ha	-	F	1, 3	1,2	5 trap/ha	-	F	1, 3	1,2	5 trap/ha	-	F	1, 3	1,2
	Light Trap	5 trap/ha	-	F	1, 4	2	5 trap/ha	-	F	1, 4	2	5 trap/ha	-	F	1, 4	2
6	**Pesticide (No. of application)**															
	Spraying	3-4	1	P	1,2,3	2	3-4	1	P	1,2,3	2	3-4	1	P	1,2,3	2
	Dusting	1	-	F	1,2,3	2	1	-	F	1,2,3	2	1	-	F	1,2,3	2
	Seed Treatment	1	-	F	1,2,3	2	1	-	F	1,2,3	2	1	-	F	1,2,3	2
	Soil application	Y	N	F	1,2,3,4	2	Y	N	F	1,2,3,4	2	Y	N	F	1,2,3,4	2
	Granular application	Y	N	F	1,2,3,4	2	Y	N	F	1,2,3,4	2	Y	N	F	1,2,3,4	2
7	**Any other**															
	Seedling trreament	Y	N	F	1	1,4	Y	N	F	1	1,4	Y	N	F	1	1,4
	Conservation of nuturala enemy (Frog)	Y	N	F	1	1	Y	N	F	1	1	Y	N	F	1	1
	Use of Karanj cack, Neem cake	250 kg/ha	N	F	1, 4	1,2	250 kg/ha	N	F	1, 4	1,2	250 kg/ha	N	F	1, 4	1,2

Reasons for gap		**Gap in Adoption**	**Proposed Strategy**	
1. Lack of knowledge	3. Non availability of inputs	N = Nil	1. Training & awareness campaigm	4. On farm trail/ORF
2. Lack resources	4. Unaware of Management practices	P = Partial	2. Demonstration	5. Research is needed for resistant variety having nearer taste to local variety
		F = Full	3. Exposure visit	

Table -7.13

Proposed Strategies for Integrated Pest Management

District :Bokaro **Name of the Pest Stem Borer, Hispa, Leaf Folder, & Diseases like blast, Blight etc.**

Crop:Tomato

Sl. No.	Particulars	AES I					AES II					AES III				
		R.P.	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**	**R.P.**	**E.P**	**G.A.**	**R.G.**	**P.S.**
1	**Cultural Practices**	Deep repeated ploughing Crop rotation Use of trap crop	Shallow ploughing	P	1	1,2,3	Deep repeated ploughing Crop rotation Use of trap crop	Shallow ploughing	P	1	1,2,3	Deep repeated ploughing Crop rotation Use of trap crop	Shallow ploughing	P	1	1,2,3
	Summer ploughing	Deep ploughing	Shallow ploughing	P	1, 4	1,2	Deep ploughing	Shallow ploughing	P	1, 4	1,2	Deep ploughing	Shallow ploughing	P	1, 4	1,2
	Timely sowing	Y	Y	N	-		Y	Y	N	-		Y	Y	N	-	
	Clean Cultivation	Y	N	P	1, 4	1	Y	N	P	1, 4	1	Y	N	P	1, 4	1
2	**Resistance Varieties**	Y	N	F	1,2,3	2,5	Y	N	F	1,2,3	2,5	Y	N	F	1,2,3	2,5
3	**Bio-pesticides (Y/N)**	Y	N	F	1-3	2	Y	N	F	1-3	2	Y	N	F	1-3	2
	Neem Products	Y	N	F	1,4	2	Y	N	F	1,4	2	Y	N	F	1,4	2
	NPV	Y	N	F	1, 3	1,2	Y	N	F	1, 3	1,2	Y	N	F	1, 3	1,2
	VT	Y	N	F	1,3	1,2	Y	N	F	1,3	1,2	Y	N	F	1,3	1,2
4	**Bioagents**															
	Egg parasite	Trichgramma	-	F	1, 3	1,2	Trichgramma	-	F	1, 3	1,2	Trichgramma	-	F	1, 3	1,2
	Larvel prasite	Trichoderma Viridi @ 2-4 gram/kg seed	-	F	1, 3	1,2	Trichoderma Viridi @ 2-4 gram/kg seed	-	F	1, 3	1,2	Trichoderma Viridi @ 2-4 gram/kg seed	-	F	1, 3	1,2
5	**Other practices**															
	Pheronmone Trap	5 trap/ha	-	F	1, 3	1,2	5 trap/ha	-	F	1, 3	1,2	5 trap/ha	-	F	1, 3	1,2
	Light Trap	5 trap/ha	-	F	1, 4	2	5 trap/ha	-	F	1, 4	2	5 trap/ha	-	F	1, 4	2
6	**Pesticide (No. of application)**															
	Spraying	3-4	1-2	P	1,2,3	2	3-4	1-2	P	1,2,3	2	3-4	1-2	P	1,2,3	2
	Dusting	1	-	F	1,2,3	2	1	-	F	1,2,3	2	1	-	F	1,2,3	2
	Seed Treatment	1	-	F	1,2,3	2	1	-	F	1,2,3	2	1	-	F	1,2,3	2
	Soil application	Y	N	F	1,2,3,4	2	Y	N	F	1,2,3,4	2	Y	N	F	1,2,3,4	2
	Granular application	Y	N	F	1,2,3,4	2	Y	N	F	1,2,3,4	2	Y	N	F	1,2,3,4	2
7	**Any other**															
	Seedling trreament	Y	N	F	1	1,4	Y	N	F	1	1,4	Y	N	F	1	1,4
	Conservation of nuturala enemy (Frog)	Y	N	F	1	1	Y	N	F	1	1	Y	N	F	1	1
	Use of Karanj cack, Neem cake	250 kg/ha	N	F	1, 4	1,2	250 kg/ha	N	F	1, 4	1,2	250 kg/ha	N	F	1, 4	1,2

Reasons for gap		**Gap in Adoption**	**Proposed Strategy**	
1. Lack of knowledge	3. Non availability of inputs	N = Nil	1. Training & awareness campaigm	4. On farm trail/ORF
2. Lack resources	4. Unaware of Management practices	P = Partial	2. Demonstration	5. Research is needed for resistant variety having nearer taste to local variety
		F = Full	3. Exposure visit	

Table -7.13

STRATEGIES FOR INTEGRATED PEST MANGT.

District :Bokaro **Crop: Paddy**

Sl. No.	Particulars	Gap in adoption in the Pest Mngt. in different AES in the dist.			Reasons for gap in adoption as perceived by the farmers *	Strategies as perceived by the farmers **	Strategies proposed to overcome the gap ***
		AES-I	AES-II	AES-III			
1.	**Cultural Practices**	Simple Tick mark or dash	Simple Tick mark or dash	Simple Tick mark or dash	1 2 3 4 5	1 2 3 4	1 2 3 4 5
	Summer ploughing	√	√	√	1,4	1	1,2
	Timely sowing	-	-	-	-	-	-
	Clean Cultivation	√	√	√	1,4	1,2	1,2,3
2.	**Resistannt Varieties**	√	√	√	1,2,4	1,2	2, 5
3.	**Bio-pesticides (Y/N)**						
	Neem Products	√	√	√	1,4	1, 4	2,4
	NPV	√	√	√	1, 4,5	1	1,2,4
	VT	√	√	√	1,4,5	1	1,2,4
4.	**Bioagents**						
	Egg parasite	√	√	√	1,4,5	1	2,3,4
	Larvel prasite	√	√	√	1,4,5	1	2,3,4
5.	**Other practices**						
	Pheronmone Trap	√	√	√	1, 4,5	1	2,4
	Light Trap	√	√	√	1,4	1,2	2,4
6.	**Pesticide (No. of application)**						
	Spraying	√	√	√	1,4,5	2,4	1, 4
	Dusting	√	√	√	1,4,5	2,4	1, 4
	Seed Treatment	√	√	√	1,4,5	1,4	1
	Soil application	√	√	√	1,4,5	1,4	2,4
	Granular application	√	√	√	1,4,5	1,4	2
7.	**Any other**						
	Seedling trreament	√	√	√	1,4	1	2
	Conservation of natural enemy (Frog)	√	√	√	1,4	2	1
	Use of Karanj cack, Neem cake	√	√	√	1,5	1,4	1

*** Code for Reasons for gap in adoption as perceived by the farmers**

1. Lack of awareness
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Lack of knowledge
5. Lack of resource

**** code for Strategies as perceived by the farmers**

1. On farm trails / Demonstration
2. Training
3. Soil testing and application of fertilizers as per recommendation
4. Use of locally available materials for nutrient management & plant protection

***** code for Strategies proposed to overcome the gap**

1. Training & awareness campaigm
2. Demonstration
3. Exposure visit
4. On farm trail/ORF
5. Research is needed for resistant variety having nearer taste to local variety

Table -7.14

STRATEGIES FOR INTEGRATED PEST MANGT.

District :Bokaro **Crop: Maize**

Sl. No.	Particulars	Gap in adoption in the Pest Mngt. in different AES in the dist.			Reasons for gap in adoption as perceived by the farmers *	Strategies as perceived by the farmers **	Strategies proposed to overcome the gap ***
		AES-I	AES-II	AES-III			
1.	**Cultural Practices**	Simple Tick mark or dash	Simple Tick mark or dash	Simple Tick mark or dash	1 2 3 4 5	1 2 3 4	1 2 3 4 5
	Summer ploughing	√	√	√	1	1,2	1,2,4
	Timely sowing	-	-	-	1,2,4	1,2	-
	Clean Cultivation	√	√	√	-		1,2
2.	**Resistannt Varieties**	√	√	√	1,2,4	1,2,3	1, 2, 5
3.	**Bio-pesticides (Y/N)**				1,2, 4	1,2,3,4,5	
	Neem Products	√	√	√			2,4
	NPV	√	√	√	1,2, 4	1,2, 4	2,4
	VT	√	√	√	1,2,3,4	1,2,3,4	2,4
4.	**Bioagents**				1,2,3,4	1,2,3,4	
	Egg parasite	√	√	√			2, 4
	Larvel prasite	√	√	√	1,3,4	1,2,3,4	2, 4
5.	**Other practices**				1,3,4	1,2,3,4	
	Pheronmone Trap	√	√	√			2,4
	Light Trap	√	√	√	1,3,4	1,2,3	2,3
6.	**Pesticide (No. of application)**				1,3,4	1,2,3	
	Spraying	√	√	√			1, 4
	Dusting	√	√	√	1,2	1,2	1
	Seed Treatment	√	√	√	-	-	1
	Soil application	√	√	√	1,4	1,2,	1,4
	Granular application	√	√	√	1, 4	1,2	1,4
7.	**Any other**				1,2, 4	1,2	
	Seedling trreament	√	√	√			2,4
	Conservation of natural enemy (Frog)	√	√	√	1, 4	1,2,3,4	12,4

*** Code for Reasons for gap in adoption as perceived by the farmers**

1. Lack of awareness
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Lack of knowledge
5. Lack of resource

**** code for Strategies as perceived by the farmers**

1. On farm trails / Demonstration
2. Training
3. Soil testing and application of fertilizers as per recommendation
4. Use of locally available materials for nutrient management & plant protection

***** code for Strategies proposed to overcome the gap**

1. Training & awareness campaigm
2. Demonstration
3. Exposure visit
4. On farm trail/ORF
5. Research is needed for resistant variety having nearer taste to local variety

Table -7.15

STRATEGIES FOR INTEGRATED PEST MANGT.

District :Bokaro **Crop: Wheat**

Sl. No.	Particulars	Gap in adoption in the Pest Mngt. in different AES in the dist.			Reasons for gap in adoption as perceived by the farmers *	Strategies as perceived by the farmers **	Strategies proposed to overcome the gap ***
		AES-I	AES-II	AES-III			
1.	**Cultural Practices**	Simple Tick mark or dash	Simple Tick mark or dash	Simple Tick mark or dash	1 2 3 4 5	1 2 3 4	1 2 3 4 5
	Summer ploughing	√	√	√	1,4	1	1,2
	Timely sowing	-	-	-	-	-	-
	Clean Cultivation	√	√	√	1,4	1,2	1,2,3
2.	**Resistannt Varieties**	√	√	√	1,2,4	1,2	2, 5
3.	**Bio-pesticides (Y/N)**						
	Neem Products	√	√	√	1,4	1, 4	2,4
	NPV	√	√	√	4,5	1	1,2,4
	VT	√	√	√	1,4,5	1	1,2,4
4.	**Bioagents**						
	Egg parasite	√	√	√	1,4,5	1	2,3,4
	Larvel prasite	√	√	√	1,4,5	1	2,3,4
5.	**Other practices**						
	Pheronmone Trap	√	√	√	1, 4,5	1	2,4
	Light Trap	√	√	√	1,4	1,2	2,4
6.	**Pesticide (No. of application)**						
	Spraying	√	√	√	1,4,5	2,4	1, 4
	Dusting	√	√	√	1,4,5	2,4	1, 4
	Seed Treatment	√	√	√	1,4,5	1,4	1
	Soil application	√	√	√	1,4,5	1,4	2,4
	Granular application	√	√	√	1,4,5	1,4	2
7.	**Any other**						
	Seedling trreament	√	√	√	1,4	1	2
	Conservation of natural enemy (Frog)	√	√	√	1,4	2	1
	Use of Karanj cake, Neem cake	√	√	√	1,5	1,4	1

*** Code for Reasons for gap in adoption as perceived by the farmers**

1. Lack of awareness
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Lack of knowledge
5. Lack of resource

**** code for Strategies as perceived by the farmers**

1. On farm trails / Demonstration
2. Training
3. Soil testing and application of fertilizers as per recommendation
4. Use of locally available materials for nutrient management & plant protection

***** code for Strategies proposed to overcome the gap**

1. Training & awareness campaigm
2. Demonstration
3. Exposure visit
4. On farm trail/ORF
5. Research is needed for resistant variety having nearer taste to local variety

Table -7.16

STRATEGIES FOR INTEGRATED PEST MANGT.

District :Bokaro **Crop: Arhar**

Sl. No.	Particulars	Gap in adoption in the Pest Mngt. in different AES in the dist.			Reasons for gap in adoption as perceived by the farmers *	Strategies as perceived by the farmers **	Strategies proposed to overcome the gap ***
		AES-I	AES-II	AES-III			
1.	**Cultural Practices**	Simple Tick mark or dash	Simple Tick mark or dash	Simple Tick mark or dash	1 2 3 4 5	1 2 3 4	1 2 3 4 5
	Summer ploughing	√	√	√	1,4	1	1,2,4
	Timely sowing	-	-	-	-	-	-
	Clean Cultivation	√	√	√	1,4	1,2	1,2
2.	**Resistannt Varieties**	√	√	√	1,4,5	1	1, 2, 5
3.	**Bio-pesticides (Y/N)**						
	Neem Products	√	√	√	1,4	1, 4	2,4
	NPV	√	√	√	1,4,5	1	2,4
	VT	√	√	√	1,4,5	1	2,4
4.	**Bioagents**						
	Egg parasite	√	√	√	1,4,5	1	2, 4
	Larvel prasite	√	√	√	1,4,5	1	2, 4
5.	**Other practices**						
	Pheronmone Trap	√	√	√	1, 4,5	1	2,4
	Light Trap	√	√	√	1, 4,5	1,2	2,3
6.	**Pesticide (No. of application)**						
	Spraying	√	√	√	1,5	1,4	1, 4
	Dusting	√	√	√	1,4	1,4	1
	Seed Treatment	√	√	√	1,4	1,4	1
	Soil application	√	√	√	1,3,4	1,4	1,4
	Granular application	√	√	√	1,3,4	2,4	1,4
7.	**Any other**						
	Seedling trreament	√	√	√	1,4	1	2,4
	Conservation of natural enemy (Frog)	√	√	√	1,4	1	1
	Use of Karanj cake, Neem cake	√	√	√	1,4,5	1,4	12,4

*** Code for Reasons for gap in adoption as perceived by the farmers**

1. Lack of awareness
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Lack of knowledge
5. Lack of resource

**** code for Strategies as perceived by the farmers**

1. On farm trails / Demonstration
2. Training
3. Soil testing and application of fertilizers as per recommendation
4. Use of locally available materials for nutrient management & plant protection

***** code for Strategies proposed to overcome the gap**

1. Training & awareness campaigm
2. Demonstration
3. Exposure visit
4. On farm trail/ORF
5. Research is needed for resistant variety having nearer taste to local variety

Table -7.17

STRATEGIES FOR INTEGRATED PEST MANGT.

District :Bokaro **Crop: Potato**

Sl. No.	Particulars	Gap in adoption in the Pest Mngt. in different AES in the dist.			Reasons for gap in adoption as perceived by the farmers *	Strategies as perceived by the farmers **	Strategies proposed to overcome the gap ***
		AES-I	AES-II	AES-III			
1.	**Cultural Practices**	Simple Tick mark or dash	Simple Tick mark or dash	Simple Tick mark or dash	1	1	1
					2	2	2
					3	3	3
					4	4	4
					5		5
	Summer ploughing	√	√	√	1, 4	1	2, 4
	Timely sowing	-	-	-	-	-	-
	Clean Cultivation	√	√	√	1,4	1	2,4
2.	**Resistannt Varieties**	√	√	√	1,2,5	1	2, 5
3.	**Bio-pesticides (Y/N)**						
	Neem Products	√	√	√	4,5	1,4	2,4
	NPV	√	√	√	4,5	1	1,2,4
	VT	√	√	√	4,5	1	1,2,4
4.	**Bioagents**						
	Egg parasite	√	√	√	4,5	1	2,4
	Larvel prasite	√	√	√	4,5	1	2,4
5.	**Other practices**						
	Pheronmone Trap	√	√	√	4	1	2,4
	Light Trap	√	√	√	1,4	1, 4	2
6.	**Pesticide (No. of application)**						
	Spraying	√	√	√	1,4	1,2,4	2,4
	Dusting	√	√	√	1,3,4	1	2,4
	Seed Treatment	√	√	√	1, 4	2	2,4
	Soil application	√	√	√	1,3,4	1,2,4	1,2,4
	Granular application	√	√	√	1, 4	1,4	2,4
7.	**Any other**						
	Seedling trreament	√	√	√	1,4	1	2,4
	Conservation of natural enemy (Frog)	√	√	√	1,4	1	2,4
	Use of Karanj cake, Neem cake	√	√	√	1,4	1	2,4

*** Code for Reasons for gap in adoption as perceived by the farmers**

1. Lack of awareness
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Lack of knowledge
5. Lack of resource

**** code for Strategies as perceived by the farmers**

1. On farm trails / Demonstration
2. Training
3. Soil testing and application of fertilizers as per recommendation
4. Use of locally available materials for nutrient management & plant protection

***** code for Strategies proposed to overcome the gap**

1. Training & awareness campaigm
2. Demonstration
3. Exposure visit
4. On farm trail/ORF
5. Research is needed for resistant variety having nearer taste to local variety

Table -7.18

STRATEGIES FOR INTEGRATED PEST MANGT.

District :Bokaro **Crop: Tomato**

Sl. No.	Particulars	Gap in adoption in the Pest Mngt. in different AES in the dist.			Reasons for gap in adoption as perceived by the farmers *	Strategies as perceived by the farmers **	Strategies proposed to overcome the gap ***
		AES-I	AES-II	AES-III			
1.	Cultural Practices	Simple Tick mark or dash	Simple Tick mark or dash	Simple Tick mark or dash	1 2 3 4 5	1 2 3 4	1 2 3 4 5
	Summer ploughing	√	√	√	1, 4	1	2, 4
	Timely sowing	-	-	-	-	-	-
	Clean Cultivation	√	√	√	1,4	1	2,4
2.	**Resistannt Varieties**	√	√	√	1,2,5	1	2, 5
3.	**Bio-pesticides (Y/N)**						
	Neem Products	√	√	√	4,5	1,4	2,4
	NPV	√	√	√	4,5	1	1,2,4
	VT	√	√	√	4,5	1	1,2,4
4.	**Bioagents**						
	Egg parasite	√	√	√	4,5	1	2,4
	Larvel prasite	√	√	√	4,5	1	2,4
5.	**Other practices**						
	Pheronmone Trap	√	√	√	4	1	2,4
	Light Trap	√	√	√	1,4	1, 4	2
6.	**Pesticide (No. of application)**						
	Spraying	√	√	√	1,4	1,2,4	2,4
	Dusting	√	√	√	1,3,4	1	2,4
	Seed Treatment	√	√	√	1, 4	2	2,4
	Soil application	√	√	√	1,3,4	1,2,4	1,2,4
	Granular application	√	√	√	1, 4	1,4	2,4
7.	**Any other**						
	Seedling trreament	√	√	√	1,4	1	2,4
	Conservation of natural enemy (Frog)	√	√	√	1,4	1	2,4
	Use of Karanj cake, Neem cake	√	√	√	1,4	1	2,4

*** Code for Reasons for gap in adoption as perceived by the farmers**

1. Lack of awareness
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Lack of knowledge
5. Lack of resource

**** code for Strategies as perceived by the farmers**

1. On farm trails / Demonstration
2. Training
3. Soil testing and application of fertilizers as per recommendation
4. Use of locally available materials for nutrient management & plant protection

***** code for Strategies proposed to overcome the gap**

1. Training & awareness campaigm
2. Demonstration
3. Exposure visit
4. On farm trail/ORF
5. Research is needed for resistant variety having nearer taste to local variety

Table -7.19

STRATEGIES FOR INTEGRATED PEST MANGT.

District :Bokaro **Crop: Mustrad**

Sl. No.	Particulars	Gap in adoption in the Pest Mngt. in different AES in the dist.			Reasons for gap in adoption as perceived by the farmers *	Strategies as perceived by the farmers **	Strategies proposed to overcome the gap ***
		AES-I	AES-II	AES-III			
1.	Cultural Practices	Simple Tick mark or dash	Simple Tick mark or dash	Simple Tick mark or dash	1 2 3 4 5	1 2 3 4	1 2 3 4 5
	Summer ploughing	√	√	√	1, 4	2	1
	Timely sowing	-	-	-	-	-	-
	Clean Cultivation	√	√	√	1,4	1,2	1,4
2.	**Resistannt Varieties**	√	√	√	1,2,4,5	1	1, 4, 5
3.	**Bio-pesticides (Y/N)**						
	Neem Products	√	√	√	1,4	1,4	2,4
	NPV	√	√	√	1,4,5	1,2	2, 4
	VT	√	√	√	1,4,5	1,2	2, 4
4.	**Bioagents**						
	Egg parasite	√	√	√	4,5	2	2,4
	Larvel prasite	√	√	√	4,5	2	2,4
5.	**Other practices**						
	Pheronmone Trap	√	√	√	4,5	1,2	2,4
	Light Trap	√	√	√	1,4	1, 4	2
6.	**Pesticide (No. of application)**						
	Spraying	√	√	√	1,4,5	2,4	1,4
	Dusting	√	√	√	1,3,4	2,4	1,4
	Seed Treatment	√	√	√	1,4	1	2
	Soil application	√	√	√	1, 4,5	1,2,4	1,2,4
	Granular application	√	√	√	4, 5	1,4	2,4
7.	**Any other**						
	Seedling trreament	√	√	√	4	1	2,4
	Conservation of natural enemy (Frog)	√	√	√	1,4	1	4
	Use of Karanj cake, Neem cake	√	√	√	1,4,5	1,4	1,2

*** Code for Reasons for gap in adoption as perceived by the farmers**

1. Lack of awareness
2. Non availability of required quantity of quality seed
3. Plant protection is not economical under rainfed conditions
4. Lack of knowledge
5. Lack of resource

**** code for Strategies as perceived by the farmers**

1. On farm trails / Demonstration
2. Training
3. Soil testing and application of fertilizers as per recommendation
4. Use of locally available materials for nutrient management & plant protection

***** code for Strategies proposed to overcome the gap**

1. Training & awareness campaigm
2. Demonstration
3. Exposure visit
4. On farm trail/ORF
5. Research is needed for resistant variety having nearer taste to local variety

Table -7.20 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF SEED AND ITS MULTIPLICATION

Name of crop: Paddy

Sl. No.	Source of seed of preferred variety/ hybrid	Quantity of seed used of preferred variety (q)				Area sown (ha) under the crop with different preferred variety			Quality of seed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES- I	AES- II	AES- III	AES- I	AES- II	AES- III	AES- I	AES- II	AES- III
	- From Private dealer	Hybrid	4	3.50	2.50	20	17.5	12.5	G	G	G
		MTU-7029	10	10	8	25	25	20	A	A	A
		IR 64	18	16.50	14.50	45	41.25	35.63	G	G	G
	- From Public sector	MTU-7029	10	8	6	25	20	15	G	G	G
		IR 64	2	4	2	5	10	5	G	G	G
		LALAT	10	8	5	25	20	12	A	A	A
		Sita	1	1	1	2.5	2.5	2.5	G	G	G
		ANJALI	5	3	2	12	8	5	G	G	G
B	**Use of self produced seed:**										
	- From own field	IR -64	3	2	.50	7.5	5	1.25	G	G	G
		MTU-7029	3	5	6	7.5	12.5	15	G	G	G
		Lalat	2	3	2.50	5	7.5	6.25	G	G	G
		Sita	2	2	1	5	5	2.5	G	G	G
	- From others field										
C	Any other										
	Total		70	66	51	184.5	174.25	132.63			

Table -7.21 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF SEED AND ITS MULTIPLICATION

Name of crop: Wheat

Sl. No.	Source of seed of preferred variety/ hybrid		Quantity of seed used of preferred variety (q)			Area sown (ha) under the crop with different preferred variety			Quality of seed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III	AES - I	AES - II	AES - III
	- From Private dealer	Sonalika	8	20	2	6	16.67	1.67	G	G	G
		H.D. 2402		3	.50		2.5	0.42		A	A
		Ganga		4	.50		3.33	0.42		A	A
	- From Public sector	C-306	5	5	1	4	4.17	0.83	P	P	P
		H.D.R. 77		1.5			1.25			A	A
		K -9107	4	4	3	3	3	2	A	A	A
		H.D. 2643		2			1.67			A	
B	**Use of self produced seed:**										
	- From own field	Sonalika	2	2	2	1.5	1.67	1.5	G	G	G
		Local	2	3	2	1.5	2.5	1.5	A	A	A
	- From others field										
C	**Any other**										
	Total		21	44.5	11	16	36.76	8.34			

Table -7.22 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF SEED AND ITS MULTIPLICATION

Name of crop: Maize

Sl. No.	Source of seed of preferred variety/ hybrid	Quantity of seed used of preferred variety (q)				Area sown (ha) under the crop with different preferred variety			Quality of seed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III	AES - I	AES - II	AES - III
	- From Private dealer	Hybrid - (Proagro 4212, Kanchan etc.)	7	3	4	35	15	20	G	G	G
		Swan - 1	1	1	1.50	5	5	7.50	G	G	G
	- From Public sector	Swan - 1	1.50	.80	1.50	7.50	4	7.50	G	G	G
		Birsa Maize - 1	.56	.40	.50	2.80	2	2.5	G	G	G
B	**Use of self produced seed:**										
	- From own field	Swan - 1	1	-		5			G	G	G
		Local	1.50	1	.5	7.5	5	2.5	A	A	A
	- From others field										
C	Any other	-	-	-	-	-	-	-	-	-	-
	Total		12.56	6.20	8	62.8	31	40	-	-	-

Table -7.23 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF SEED AND ITS MULTIPLICATION

Name of crop: Arhar

Sl. No.	Source of seed of preferred variety/ hybrid	Quantity of seed used of preferred variety (q)				Area sown (ha) under the crop with different preferred variety			Quality of seed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III	AES - I	AES - II	AES - III
	- From Private dealer	IT-21	.40	.30	1.75	2	1.5	8.75	A	A	A
		BR-65	.40	.20	1.25	2	1	6.25	G	G	G
		Bahar	.40	.40	2.00	2	2	10	A	A	A
	- From Public sector	ND-1	.40	.10	.50	2	0.5	2.5	A	A	A
		Birsa Arhar -1	.40	.30	1.50	2	1.5	7.5	G	G	G
B	**Use of self produced seed:**										
	- From own field	Local	.40	.40	.80	2	2	4	A	A	A
	- From others field	-	-	-	-	-	-	-	-	-	-
C	Any other										
	Total		2.4	1.7	7.8	12	8.5	39	-	-	-

Table -7.24 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF SEED AND ITS MULTIPLICATION

Name of crop: Mustard

Sl. No.	Source of seed of preferred variety/ hybrid	Quantity of seed used of preferred variety (q)				Area sown (ha) under the crop with different preferred variety			Quality of seed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III	AES- I	AES- II	AES- III
	- From Private dealer	Proagro Swarna	.13	.18	-	2.6	3	-	A	A	-
		Proagro Pila Sona	.10	.12	-	1.67	2	-	G	G	-
		T-9	.05	.8	-	1	1.33	-	G	G	-
	- From Public sector	B.R. -23	.05	.06	-	1	1	-	A	A	-
		Shivani	.03	.06	-	.5	1	-	A	A	-
		Pusa bold	.02	.04	-	0.33	0.66	-	A	A	-
B	**Use of self produced seed:**										
	- From own field	Local	.10	.10	.10	1	1	1	A	A	A
	- From others field										
C	**Any other**										
	Total		0.48	1.36	0.1	8.1	9.99	1			

Table -7.25 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF SEED AND ITS MULTIPLICATION IN AES VILLAGE

Name of crop: Potato preferred variety

Sl. No.	Source of seed of preferred variety/ hybrid	Quantity of seed used of preferred variety (Tan)				Area sown (ha) under the crop with different preferred variety			Quality of seed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES- I	AES- II	AES- III	AES- I	AES- II	AES- III	AES- I	AES- II	AES- III
	- From Private dealer	Kufri Chandramukhi	8.0	20.0	16.0	25	1	0.75	G	G	G
		P-1	4.2	6.6	3.0	14	22	10	G	G	G
		C-40	2.7	18.6	3.9	9	62	13	G	G	G
	- From Public sector	Kufri Jyoti	276	30	150	9.2	1	5	G	G	G
		Kufri Badshah	200	10	40	6.67	0.33	1.33	G	G	G
B	**Use of self produced seed:**										
	- From own field	C-1	4.8	6.0	4.5	16	20	15	G	G	G
		Local	250	320	180	10	13	7	G	G	G
C	**Any other**										
	Total		745.7	411.2	397.4	89.87	119.33	52.08			

Table -7.26 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF SEED AND ITS MULTIPLICATION IN AES VILLAGE

Name of crop: Seasonal Vegetable Preferred variety

Sl. No.	Source of seed of preferred variety/ hybrid		Quantity of seed used of preferred variety (q)			Area sown (ha) under the crop with different preferred variety			Quality of seed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III	AES - I	AES - II	AES - III
	- From Private dealer	Hybrid	0. 22	0. 31	0.09	22	36	13	G	G	G
		Improved Variety	0.36	0.24	0.41	18	14	26	G	G	G
	- From Public sector	Improved Variety	0.08	0.01	0.02	05	06	08	G	G	G
B	**Use of self produced seed:**										
	- From own field	Local	0.08	0.04	0.14				P	P	P
	- From others field										
C	**Any other**										
	Total		0.52	0.29	0.57	23	20	34			

Table -7.25 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF SEED AND ITS MULTIPLICATION IN AES VILLAGE

Name of crop: Cucurbits preferred variety

Sl. No.	Source of seed of preferred variety/ hybrid	Quantity of seed used of preferred variety (q)				Area sown (ha) under the crop with different preferred variety			Quality of seed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES- I	AES- II	AES- III	AES- I	AES- II	AES- III	AES- I	AES- II	AES- III
	- From Private dealer	Chaman, Aman sri	0.54	0.63	0.21	07	09	03	G	G	G
	- From Public sector	Priya, S. Sheetl, Arka Bhar	0.10	0.14	0.035	1.5	2	0.5	G	G	G
B	**Use of self produced seed:**										
	- From own field	Local	0.5	0.6	0.2	07	09	03	G	G	G
C	**Any other**										
	Total		**1.14**	**1.37**	**0.445**	**15.5**	**20**	**6.5**			

Table -7.27 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF SEED AND ITS MULTIPLICATION IN AES VILLAGE

Name of crop: Cole Crops Preferred variety

Sl. No.	Source of seed of preferred variety/ hybrid		Quantity of seed used of preferred variety (q)			Area sown (ha) under the crop with different preferred variety			Quality of seed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III	AES - I	AES - II	AES - III
	- From Private dealer	Sarita, AC green	0.01	0.015	0.005	04	06	01	G	G	G
		130 (Sungrow)	0.01	0.015	0.0025	04	06	0.5	G	G	G
		Paras (Dr) No.296									
		Johar (OP), Prabhat									
		Siwan (OP)									
		Mukesh (OP)							G	G	G
	- From Public sector	Green exp.	0.004	0.006	0.002	1.5	2	1	G	G	G
		Golden acre									
B	**Use of self produced seed:**										
	- From own field										
	- From others field										
C	Any other										
	Total		0.024	0.036	0.0095	9.5	14	2.5			

Table -7.28 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF SEED AND ITS MULTIPLICATION IN AES VILLAGE

Name of crop: Tomato Preferred variety

Sl. No.	Source of seed of preferred variety/ hybrid		Quantity of seed used of preferred variety (q)			Area sown (ha) under the crop with different preferred variety			Quality of seed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES- I	AES- II	AES- III	AES- I	AES- II	AES- III	AES- I	AES- II	AES- III
	- From Private dealer	35:35 (Sungro)	0.01	0.015	0.015	1.5	3	1	G	G	G
		Harsa	0.009	0.006	0.005	0.5	1.5	0.5	G	G	G
		Suraksha	0.005	0.004	0.005	1.5	1.5	0.5	G	G	G
	- From Public sector	Swarna Bhaibhav	-	0.0025	-	-	1	-	-	-	-
		Swarna Sampda	0.004	0.0025	-	1.25	0.75	-	-	-	-
B	**Use of self produced seed:**		-	-	-	-	-	-	-	-	-
	- From own field	Local	0.005	0.002	0.005	0.5	0.25	0.5	P	P	P
	- From others field	-	-	-	-	-	-	-	-	-	-
C	**Any other**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total		0.033	0.032	0.03	5.25	8	2.5	**-**	**-**	**-**

Table -7.29 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF BREED AND ITS MULTIPLICATION

Name of Animal: Cow

Sl. No.	Source of breed of preferred variety/ hybrid		Number of breed used (No.)			Quality of breed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III
	- From Private dealer	Exotic	150	10	50	G	G	G
		Cross	200	20	80	G	G	G
	- From Public sector	Exotic	50	10	50	G	G	G
B	**Use of self produced seed:**							
	- From own field	Cross	300	40	200	G	G	G
		Local	800	120	400	A	A	A
	- From others field							
C	**Any other**							
	Total		1500	200	780			

Table -7.30 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF BREED AND ITS MULTIPLICATION

Name of Animal: Goat

Sl. No.	Source of breed of preferred variety/ hybrid	Number of breed used (No.)				Quality of breed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III
	- From Private dealer	Black Bengal	200	65	300	G	G	G
	- From Public sector	Black Bengal	200	50	250	G	G	G
		Beetal	20	5	25	G	G	G
B	**Use of self produced seed:**							
	- From own field	Black Bengal	800	200	1000	G	G	G
		Cross	280	80	300	A	A	A
	- From others field		100	50	80			
C	**Any other**							
	Total		1600	450	1955			

Table -7.31

Name of Animal: Piggery

Sl. No.	Source of breed of preferred variety/ hybrid	Number of breed used (No.)				Quality of breed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III
	- From Private dealer							
	- From Public sector	T & D	15	10	8	G	G	G
B	**Use of self produced seed:**							
	- From own field	Local	30	30	39	A	A	A
	- From others field							
C	**Any other**							
	Total		**45**	**40**	**47**			

Table -7.32 PROPOSED STRATEGY FOR PROMOTING SUPPLY OF BREED AND ITS MULTIPLICATION

Name of Livestock: Poultry

Sl. No.	Source of cheeks of preferred variety/ hybrid		Number of cheeks used of (preferred breed) (No.)			Quality of breed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III
	- From Private dealer	Broiler	800	120	600	G	G	-
		Layer	250	30	150	G	G	-
	- From Public sector	Broiler	400	40	100	G	G	-
		Layer	40	10	30	-	-	-
B	**Use of self produced seed:**					-	-	-
	- From own field	Local	1500	200	1000	A	A	
	- From others field	-	200	100	150	-	-	-
C	Any other	-	-	-		-	-	-
	Total	-	3190	500	2030	-	-	-

Table -7.33

Name of Livestock: Fishery

Sl. No.	Source of breed of preferred variety/ hybrid		Number of cheeks used of (preferred breed) (No.)			Quality of breed of preferred variety (G/A/P)		
A	**Purchase form outside:**		AES - I	AES - II	AES - III	AES - I	AES - II	AES - III
	- From Private dealer	Rehu	3000	2000	2000	G	G	G
		Katla	3500	2000	2500	G	G	G
		Silvercarp	1800	1000	100	G	G	G
		Mrigal	2000	500	500	G	G	G
	- From Public sector	Silvercarp	500	500	500	G	G	G
		Rehu	2000	1000	100	G	G	G
		Katla	3000	2000	200	G	G	G
		Mrigal	800	400	500	G	G	G
B	**Use of self produced seed:**							
	- From own field	Rehu	2200	100	1200	G	G	G
		Katla	1000	500	500	G	G	G
		Mrigal	200	200	200	G	G	G
		Local (Catfish)	4000	200	2000	A	A	A
	- From others field							
C	Any other							
	Total		24000	10400	10300			

Table -7.34 PROPOSED STRATEGY FOR PROMOTING PREFERRED HORTICULTURAL PLANTING MATERIAL

Sl. No.	Source of preferred planting material of horticultural crops	Quantity of planting material used (of preferred variety)	Area sown (ha) under the crop with different variety		Quality of preferred planting material required for the district
			Preferred variety	Other varieties	
A	**Purchase form outside:**				
	- From Private dealer	125000	Mango (Amrapali, Langra, Malika, Dashari, Alphanso) Guava (L 49, Ilahabad Safeda)		A
	- From Public sector	25000			A
B	**Use of self produced planting material**	-			A
	- From own field	10000			-
	- From others field	-			-
C	Any other	-			-
	Total	160000 kg	-	-	-

Table -7.35 PROPOSED STRATEGY FOR PROMOTING MARKETING

Sl. No.	Critical gap	Proposed marketing Strategies
1.	Very high fluctuating market demand & Unpredictable market price	Creating awareness on market led extension
		Encouraging farmer organization/commodity growers groups to create local marketing centers
		Encouraging FO/CGs to serve as market intelligence in association with reputed market organization
		Arranging market survey/exposure visits for farmers to different marketing systems
		Establishing direct linkage between rural market and urban consumers
		Arranging buy back arrangements for farmers' produce
		Training farmers in supply chain and facilitate direct linkage with urban market
		Propaganda and publicity on the quality products/organic product
		Establishing linkage between industries and producers
		Promotion of producer-exporter interface
2.	Lack of post harvest technologies	Motivating farmers to go for value addition, product diversification and other post harvest technologies
3.	Absence of backward and forward linkages	Establishing single window service to provide backward and forward linkages
		Encouraging cooperatives to support farmers in providing inputs and arranging for assured market

Table -7.36 PROPOSED STRATEGY FOR PROMOTING MEDIA SUPPORT

Sl. No.	Critical gap	Proposed Media Strategies
1.	Lack of exclusive agricultural channel in local language	Establishment of region based exclusive agricultural channels to deliver specific information needs of farmers in local language
		Reengineering radio programmes through incorporating farmers innovation, success stories in local language
2.	Lack of proper infrastructure for use of ICT in agriculture	Strengthening information communication technology
		Strengthening Kisan call centers, portals of department of agriculture and cooperation and other related agricultural research, extension and marketing organisations
		Market intelligence through SMS on mobile telephone
3.	Poor and inadequate columns devoted exclusively for agriculture in daily newspapers	Strengthening the agriculture columns in the dailies by earmarking adequate columns and adequate information for the existing farmers' needs
4.	Lack of capsule form information to meet the urgent information requirement in production and marketing	Production of capsule form information on region basis through radio, television and dailies
5.	Lack of quality printed literature in local language.	Encouraging development departments, NGOs, etc. to produce technical literatures like leaflets, folders, booklets etc. in local language
6.	Non existence of farmers' discussion groups in villages/blockts/district level	Encouraging FO/CG/others to organize farmer discussion groups
7.	Lack of opportunity for farmers to interact with scientists and extension specialists	Conducting region specific agricultural seminars to provide opportunity for farmers to participate