



6. Development Strategies for NE India

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6.1 Development Strategies for Arunachal Pradesh

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1. Development Strategies for East Siang

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1	Agri – AH – Hort – Fishery	Field crop	Availability of seed, mechanization, irrigation facility.
		Vegetable	Availability of suitable variety.
		Fishery	Lack of infrastructure, proper transportation facility of fish seed, lack of balance feed, fish seed hatchery is needed.
		AH	Lack of breeding unit, feed.
2	Hort – Agri – AH	Fruits	Proper marketing channel, availability of effective package of practice.
		Paddy	Mechanization, irrigation. Diversification of Jhuming to Terraced cultivation through community mobilization financial and technical support.
		AH	Lack of breeding unit, feed.
3	Agri – AH	Field crop	Availability of seed, mechanization, irrigation facility.
		AH	Diversification of Backyard Pig rearing to Pig Farming through motivation and input support.

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1	Agri – AH – Hort – Fishery	Field crop	To popularise high yielding drought resistant varieties of rice. Integrated nutrient management in major field crops.
		Vegetable	To popularise low volume high cost vegetables.
		Fishery	Formation of fish farmers club and organise training to the practising farmers.

2	Hort - Agri - AH	Fruits	Good quality planting materials for major fruit crops. Small scale processing industry.
		Paddy	Machanization, motivation for tarace cultivation, integrated nutrient management.
3	Agri - AH	Field crop	Upgradation existing local land races of rice.

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1	Agri – AH - Hort - Fishery	Field crop	OFT and FLD in rice varieties. FLD on SRI.
		Vegetable	OFT on protected cultivation of vegetable. Rain water harvesting for live saving irrigation.
		Fishery	OFT & FLD on carried over fish seed production. FLD on composite fish farming. FLD on integrated farming system. OFT on feeding of carps using locally available feed ingredients.
2	Hort – Agri - AH	Fruits	OFT on IPM in citrus. Training on value addition. Integrated nutrient management.
		Paddy	FLD on TRC-rice.
3	Agri - AH	Field crop	OFT on new varieties of rice.



2. Development Strategies for Lohit

1. Extension gaps for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension gaps identified
1	<p>FS-1 (AES-I) (Agri.+ Hort+ Animal Husbandry)</p> <p>FS-2 (AES-I) (Agri + Hort + Animal Husbandry + Fishery)</p>	<p>Agri - WRC/ upland paddy, Potato, mustard, maize, soybean, local pulses, tea</p> <p>Horti. – Banana, Pineapple, citrus Vegetables, ginger, chili, betel vine</p> <p>Animal Husb. –Cattle, pig, goat, elephant, duck and poultry</p> <p>Fishery – Fish species Rohu, Catla, Grass Carp, Silver Carp and Common Carp, Local species</p>	<p>Agriculture :</p> <ol style="list-style-type: none"> Lack of knowledge about scientific agronomic practices for different crops Lack of knowledge and unavailability of quality high yielding seeds of paddy, pulses and oilseed Lack of knowledge about IPM/ INM of different crops Lack of knowledge regarding production and use of organic manures Lack of knowledge regarding soil and moisture conservation techniques. Lack of knowledge about different cropping system Lack of knowledge about different suitable pulses and oilseed for this area Lack of knowledge about bio-fertilizer and bio-pesticides. <p>Horticulture:</p> <ol style="list-style-type: none"> Lack of knowledge on scientific cultivation of fruits & Vegetables. Lack of awareness of symptoms of pest & diseases & their control measures.

		<p>3. Lack of knowledge on fruits & Vegetables reservation & processing.</p> <p>4. lack of awareness on utilization of underexploited crops.</p> <p>5. Lack of knowledge & awareness on scientific Of ornamentals flowers</p> <p>6. Lack of knowledge & awareness on cultivation of mushroom.</p> <p>Animal Husbandry :</p> <p>1. Lack of knowledge about scientific rearing system of poultry and pig</p> <p>2. Lack of knowledge on scientific disease management of cattle, pig & poultry</p> <p>3. Lack of knowledge about quality feed</p> <p>4. Use of local un-described breeds</p> <p>5. Lack of awareness about improved breeds</p> <p>6. Lack of knowledge about integration of different enterprises</p> <p>Fishery :</p> <p>1. Lack of knowledge about composite fish culture</p> <p>2. Lack of knowledge about low cost integrated fish farming systems.</p> <p>3. poLack of awareness about scientific fish husbandry practices.</p>
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2.	<p>Medium altitude, Rainfed</p> <p>FS-3 (AES-II) (Agri + Hort + Animal Husbandry)</p> <p>FS-4 (AES-II) (Agri + Hort + Animal Husbandry + Fishery)</p>	<p>Agri - WRC/ upland paddy, Potato, mustard, maize, soybean, local pulses</p> <p>Horti. – Banana, Pineapple, citrus</p> <p>Vegetables, ginger, chili, betel vine</p> <p>Animal Husb. – Cattle, pig, goat, elephant, duck and poultry</p> <p>Fishery – Fish species Rohu, Catla, Grass Carp, Silver Carp and Common Carp, Local species</p>	<p>Agriculture :</p> <ol style="list-style-type: none"> 1. Lack of knowledge about scientific agronomic practices for different crops 2. Lack of knowledge and unavailability of quality high yielding seeds of paddy, pulses and oilseed 3. Lack of knowledge about IPM/ INM of different crops 4. Lack of knowledge regarding production and use of organic manures 5. Lack of knowledge regarding soil and moisture conservation techniques. 6. Lack of knowledge about different cropping system 7. Lack of knowledge about different suitable pulses and oilseed for this area 8. Lack of knowledge about bio-fertilizer and bio-pesticides. <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Lack of knowledge on scientific cultivation of fruits & vegs. 2. Lack of awareness of symptoms of pest & diseases & their control measures. 3. Lack of knowledge on fruits and vegetable, Preservation & processing. 4. Lack of awareness on
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			<p>utilization of underexploited crops.</p> <p>5. Lack of knowledge & awareness on scientific Of ornamentals flowers</p> <p>6. Lack of knowledge & awareness on cultivation of mushroom.</p> <p>Animal Husbandry :</p> <p>1. Lack of knowledge about scientific rearing system of poultry and pig</p> <p>2. Lack of knowledge on scientific disease management of cattle, pig & poultry</p> <p>3. Lack of knowledge about quality feed</p> <p>4. Use of local un-described breeds</p> <p>5. Lack of awareness about improved breeds</p> <p>6. Lack of knowledge about integration of different enterprises</p> <p>Fishery:</p> <p>1. Lack of knowledge about composite fish culture</p> <p>2. Lack of knowledge about low cost integrated fish farming systems.</p> <p>3. Lack of awareness about scientific fish husbandry practices.</p>
3.	High altitude, Rainfed FS-5 (AES-III) (Agri + Hort +	Agri - Upland paddy, maize, millet, local pulses Horti. – Orange, Tapioca, colocasia, vegetables,	<p>Agriculture :</p> <p>1. Lack of knowledge about scientific agronomic practices for different crops</p>

	<p>Animal husbandry FS-6 (AES-III) (Agri + Hort + Animal Husbandry + Fishery)</p>	<p>ginger, chili, pineapple, banana Animal Husbandry – Mithun cattle, pig, goat, elephant, duck and poultry Fishery – Fish species Rohu, Catla, Grass Carp, Silver Carp and Common Carp, Local species</p>	<ol style="list-style-type: none"> 2. Lack of knowledge and unavailability of quality high yielding seeds of paddy 3. Lack of knowledge about IPM/ INM of different crops 4. Lack of knowledge regarding production and use of organic manures 5. Lack of knowledge regarding soil and moisture conservation techniques. 6. Lack of knowledge about different cropping system 7. Lack of knowledge about bio-fertilizer and bio-pesticides. <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Lack of knowledge on scientific cultivation of fruits & Vegetables 2. Lack of awareness of symptoms of pest & diseases & their control measures. 3. Lack of knowledge on fruits & vegetables, Preservation & processing. 4. Lack of awareness on utilization of underexploited crops. 5. Lack of knowledge & awareness on scientific Of ornamentals flowers 6. Lack of knowledge & awareness on cultivation of mushroom.
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			<p>Animal Husbandry :</p> <ol style="list-style-type: none"> 1. Lack of knowledge about scientific rearing system of poultry and pig 2. Lack of knowledge on scientific disease management of cattle, pig & poultry 3. Lack of knowledge about quality feed 4. Use of local breeds 5. Lack of awareness about improved breeds 6. Lack of knowledge about integration of different enterprises <p>Fishery:</p> <ol style="list-style-type: none"> 1. Lack of knowledge about composite fish culture 2. Lack of knowledge about low cost integrated fish farming systems. 3. Lack of awareness about scientific fish husbandry practices.
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2. Extension priorities finalized for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension priorities finalized
1	<p>Low altitude, Rainfed :</p> <p>FS-1 (AES-I) (Agri + Hort + Animal Husbandry)</p> <p>FS-2 (AES-I) (Agri + Hort + Animal Husbandry+ Fishery)</p>	<p>Agri - WRC/ upland paddy, Potato, mustard, maize, soybean, local pulses, tea</p> <p>Horti. – Banana, Pineapple, citrus</p> <p>Vegetables, ginger, chili, betel vine</p> <p>Animal Hub. –Cattle, pig, goat, elephant, duck and poultry</p>	<p>Agriculture :</p> <ol style="list-style-type: none"> 1. Lack of knowledge about scientific agronomic practices for different crops 2. Lack of knowledge about IPM/ INM of different crops 3. Lack of knowledge about different cropping system 4. Lack of knowledge regarding production and use of organic manures

		<p>Fishery – Fish species Rohu, Catla, Grass Carp, Silver Carp and Common Carp, Local species</p>	<ol style="list-style-type: none"> 5. Lack of knowledge regarding soil and moisture conservation techniques. 6. Lack of knowledge about different suitable pulses and oilseed for this area 7. Lack of knowledge and unavailability of quality high yielding seeds of paddy, pulses and oilseed 8. Lack of knowledge about bio-fertilizer and bio-pesticides. <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Scientific cultivation of fruits & vegetables 2. Value addition of under exploited crops. 3. Scientific cultivation of ornamental flowers. 4. Scientific cultivation of mushroom. <p>Animal Husbandry :</p> <ol style="list-style-type: none"> 1. Scientific rearing of poultry 2. Scientific rearing of pig 3. Management of FMD of cattle 4. Management of Ranikhet disease of poultry 5. Management of Swine fever & parasitic disease of pig 6. Feed management of pig & poultry 7. Upgradation of local breed 8. Pig-poultry- fish integrated farming system <p>Fishery:</p>
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			<ol style="list-style-type: none"> 1. Promotion of composite fish culture technology suitable for low altitude regions of Lohit district. 2. Promotion of low cost integrated fish farming technology. 3. Awareness regarding scientific fish husbandry practices.
2.	<p>Medium altitude, Rainfed</p> <p>FS-3 (AES-II) (Agri + Hort + Animal Husbandry)</p> <p>FS-4 (AES-II) (Agri + Hort + Animal Husbandry+ Fishery)</p>	<p>Agri - WRC/ upland paddy, Potato, mustard, maize, soybean, local pulses</p> <p>Horti. – Banana, Pineapple, citrus</p> <p>Vegetables, ginger, chili, betel vine</p> <p>Animal Husb. – Cattle, pig, goat, elephant, duck and poultry</p> <p>Fishery – Fish species Rohu, Catla, Grass Carp, Silver Carp and Common Carp, Local species</p>	<p>Agriculture :</p> <ol style="list-style-type: none"> 1. Lack of knowledge about scientific agronomic practices for different crops 2. Lack of knowledge about IPM/ INM of different crops 3. Lack of knowledge about different cropping system 4. Lack of knowledge regarding production and use of organic manures 5. Lack of knowledge regarding soil and moisture conservation techniques. 6. Lack of knowledge about different suitable pulses and oilseed for this area 7. Lack of knowledge and unavailability of quality high yielding seeds of paddy, pulses and oilseed 8. Lack of knowledge about bio-fertilizer and bio-pesticides. <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Scientific cultivation of fruits & vegetables 2. Value addition of under exploited crops. 3. Scientific cultivation of

			<p>ornamental flowers.</p> <p>4. Scientific cultivation of mushroom.</p> <p>Animal Husbandry :</p> <ol style="list-style-type: none"> 1. Scientific rearing of poultry 2. Scientific rearing of pig 3. Management of FMD of cattle 4. Management of Ranikhet disease of poultry 5. Management of Swine fever & parasitic disease of pig 6. Feed management of pig & poultry 7. Upgradation of local breed 8. Pig-poultry- fish integrated farming system <p>Fishery:</p> <ol style="list-style-type: none"> 1. Promotion of composite fish culture technology suitable for mid altitude regions of Lohit district. 2. Promotion of low cost integrated fish farming technology. 3. Awareness regarding scientific fish husbandry practices.
3.	<p>High altitude, Rainfed</p> <p>FS-5 (AES-III) (Agri + Hort + Animal Husbandry)</p> <p>FS-6 (AES-III) (Agri + Hort + Animal Husbandry+)</p>	<p>Agri - Upland paddy, maize, millet, local pulses</p> <p>Horti. - Orange, Tapioca, colocasia, vegetables, ginger, chili, pineapple, banana</p> <p>Animal Hub. - Mithun cattle, pig, goat,</p>	<p>Agriculture :</p> <ol style="list-style-type: none"> 1. Lack of knowledge about scientific agronomic practices for different crops 2. Lack of knowledge and unavailability of quality high yielding seeds of paddy 3. Lack of knowledge about

	<p>Fishery)</p>	<p>elephant, duck and poultry Fishery – Fish species Rohu, Catla, Grass Carp, Silver Carp and Common Carp, Local species</p>	<p>IPM/ INM of different crops</p> <ol style="list-style-type: none"> 4. Lack of knowledge regarding production and use of organic manures 5. Lack of knowledge regarding soil and moisture conservation techniques. 6. Lack of knowledge about different cropping system 7. Lack of knowledge about bio-fertilizer and bio-pesticides <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Scientific cultivation of fruits & vegetables 2. Value addition of under exploited crops. 3. Scientific cultivation of ornamental flowers. 4. Scientific cultivation of mushroom. <p>Animal Husbandry :</p> <ol style="list-style-type: none"> 1. Scientific rearing of poultry 2. Scientific rearing of pig 3. Management of FMD of cattle 4. Management of Ranikhet disease of poultry 5. Management of Swine fever & parasitic disease of pig 6. Feed management of pig & poultry 7. Upgradation of local breed 8. Pig-poultry- fish integrated farming system
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Extension strategy for each farming system and crop

Sl. No.	Farming system	Crop under the FS	
1	Low altitude, Rainfed: FS-1 (AES-I) (Agri + Hort + Animal Husbandry) FS-2 (AES-I) (Agri + Hort + Animal Husbandry + Fishery)	Agri - WRC/ upland paddy, Potato, mustard, maize, soybean, local pulses, tea Horti. – Banana, Pineapple, citrus Vegetables, ginger, chili, betel vine Animal Husb. –Cattle, pig, goat, elephant, duck and poultry Fishery – Fish species Rohu, Catla, Grass Carp, Silver Carp and Common Carp, Local species	Agriculture : (Agronomy + Plant protection) Training on 1. Scientific cultivation practices of paddy, maize, mustard, sugarcane and pulses 2. Awareness on high yielding varieties of paddy, maize, mustard and pulses 3. IPM/ INM/IDM of paddy, maize, mustard, pulses 4. Production and use of organic manures 5. Fodder production technology. 6. Awareness about paddy and maize based cropping system and integrated farming system 7. Awareness about bio-fertilizer and bio-pesticides 8. Biointensive IPM for stemborer 9. Oyster Mushroom cultivation technology 10. Biological control of water hyacinth 11. Training on apiculture 12. Bio-control of pests and diseases FLD on 1. Demonstration of HYV of green gram 2. Demonstration of HYV of black gram 3. Sali rice cultivation in flash flood situation 4. Demonstration of perennial forage grass 5. Cultivation of HYV of rapeseed 6. Cultivation of HYV of sesamum 7. Winter paddy- vegetable cropping system 8. Biocontrol of stemborer and leaf

			<p>folder in rice</p> <p>9. Rhizome rot management in Ginger using Biofor-Pf</p> <p>10. Management of rice hispa using mycoinsecticides</p> <p>Horticulture:</p> <p>Training on:</p> <ol style="list-style-type: none"> 1. Scientific cultivation practices of broccoli, turmeric 2. Integrated nutrient management in khasi mandarin 3. Improved cultivation practices in arecanut 4. Management of fruit dropping in Khasi Mandarin 5. Production of low volume and high value crops 6. Production and maintenance of spices like ginger, turmeric 7. Rejuvenation of old orchards 8. Management of young plants/ orchards <p>FLD on :</p> <ol style="list-style-type: none"> 1. Introduction of Broccoli in Lohit District 2. INM in Khasi Mandarin 3. Performance of turmeric variety- Megha Turmeric-1 4. Performance of Variety Arecanut Var. Kahikuchi selection in Lohit District 5. Demonstration of Ginger Variety of Nadia <p>Animal Husbandry :</p> <p>Training on</p> <ol style="list-style-type: none"> 1. Introduction of improved housing system of goat 2. Chemical castration
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			<ol style="list-style-type: none"> 3. Improved milk production by balance feeding 4. Increases fertility rate with AI 5. Introduction of improved breed 6. Introduction of small scale intensive system 7. Improved management practices of Dairy/Poultry/Piggery/ Rabbit 8. Disease management in livestock 9. Livestock feed and fodder production 10. Cross breed Dairy farming as source of income <p>FLD on :</p> <ol style="list-style-type: none"> 1. Introduction of improved housing system of goat 2. Chemical castration 3. Improved milk production by balance feeding 4. Increasing fertility rate with AI 5. Introduction of improved breed 6. Introduction of small scale intensive system <p>Fishery Training on:</p> <ol style="list-style-type: none"> 1. Integrated fish farming 2. Post monsoon culture of carps 3. Carp breeding and hatchery management 4. Carp fry and fingerling rearing 5. Composite fish culture 6. Breeding and culture of ornamental fishes 7. Portable plastic carp hatchery 8. Pen culture of fish and prawn <p>OFT on :</p> <ol style="list-style-type: none"> 1. Carp fry and fingerling rearing <p>FLD on :</p>
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			<ol style="list-style-type: none"> 1. Integrated fish farming 2. Post monsoon culture of carps
2.	<p>Medium altitude, Rainfed</p> <p>FS-3 (AES-II) (Agri + Hort + Animal Husbandry)</p> <p>FS-4 (AES-II) (Agri + Hort + Animal Husbandry + Fishery)</p>	<p>Agri - WRC/ upland paddy, Potato, mustard, maize, soybean, local pulses</p> <p>Horti. – Banana, Pineapple, citrus Vegetables, ginger, chili, betel vine</p> <p>Animal Husb. – Cattle, pig, goat, elephant, duck and poultry</p> <p>Fishery – Fish species Rohu, Catla, Grass Carp, Silver Carp and Common Carp, Local species</p>	<p>Agriculture : (Agronomy + Plant protection)</p> <p>Training on</p> <ol style="list-style-type: none"> 1. Scientific cultivation practices of paddy, maize, mustard, sugarcane and pulses 2. Awareness on high yielding varieties of paddy, maize, mustard and pulses 3. IPM/ INM/IDM of paddy, maize, mustard, pulses 4. Production and use of organic manures 5. Fodder production technology. 6. Awareness about paddy and maize based cropping system and integrated farming system 7. Awareness about bio-fertilizer and bio-pesticides 8. Bio-intensive IPM for stemborer 9. Oyster Mushroom cultivation technology 10. Biological control of water hyacinth 11. Training on apiculture 12. Bio-control of pests and diseases <p>FLD on</p> <ol style="list-style-type: none"> 1. Demonstration of HYV of green gram 2. Demonstration of HYV of black gram 3. Sali rice cultivation in flash flood situation 4. Demonstration of perennial forage grass 5. Cultivation of HYV of rapeseed 6. Cultivation of HYV of sesamum 7. Winter paddy- vegetable cropping

			<p>system</p> <ol style="list-style-type: none"> 8. Biocontrol of stemborer and leaf folder in rice 9. Rhizome rot management in Ginger using Biofor - Pf 10. Management of rice hispa using mycoinsecticides <p>Horticulture:</p> <p>Training on:</p> <ol style="list-style-type: none"> 1. Scientific cultivation practices of broccoli, turmeric 2. Integrated nutrient management in khasi mandarin 3. Improved cultivation practices in arecanut 4. Management of fruit dropping in Khasi Mandarin 5. Production of low volume and high value crops 6. Production and maintenance of spices like ginger, turmeric 7. Rejuvenation of old orchards 8. Management of young plants/ orchards <p>FLD on :</p> <ol style="list-style-type: none"> 1. Introduction of Broccoli in Lohit District 2. INM in Khasi Mandarin 3. Performance of turmeric variety- Megha Turmeric-1 4. Performance of Variety Arecanut Var. Kahikuchi selection in Lohit District 5. Demonstration of Ginger Variety of Nadia <p>Animal Husbandry :</p> <p>Training on</p>
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		<ol style="list-style-type: none"> 1. Introduction of improved housing system of goat 2. Chemical castration 3. Improved milk production by balance feeding 4. Increases fertility rate with AI 5. Introduction of improved breed 6. Introduction of small scale intensive system 7. Improved management practices of Dairy/Poultry/Piggery/ Rabbit 8. Disease management in livestock 9. Livestock feed and fodder production 10. Cross breed Dairy farming as source of income <p>FLD on :</p> <ol style="list-style-type: none"> 1. Introduction of improved housing system of goat 2. Chemical castration 3. Improved milk production by balance feeding 4. Increasing fertility rate with AI 5. Introduction of improved breed 6. Introduction of small scale intensive system <p>Fishery</p> <p>Training on:</p> <ol style="list-style-type: none"> 1. Integrated fish farming 2. Post monsoon culture of carps 3. Carp breeding and hatchery management 4. Carp fry and fingerling rearing 5. Composite fish culture 6. Breeding and culture of ornamental fishes 7. Portable plastic carp hatchery 8. Pen culture of fish and prawn
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			OFT on : 1. Carp fry and fingerling rearing FLD on : 1. Integrated fish farming 2. Post monsoon culture of carps
3.	High altitude, Rainfed FS-5 (AES-III) (Agri + Hort + Animal Husbandry) FS-6 (AES-III) (Agri + Hort + Animal Husbandry+ Fishery)	Agri - Upland paddy, maize, millet, local pulses Horti. - Orange, Tapioca, colocasia, vegetables, ginger, chili, pineapple, banana Animal Husb. - Mithun cattle, pig, goat, elephant, duck and poultry Fishery - Fish species Rohu, Catla, Grass Carp, Silver Carp and Common Carp, Local species	Agriculture : (Agronomy + Plant protection) Training on 1. Scientific cultivation practices of paddy, maize, and pulses 2. Awareness on high yielding varieties of paddy, maize. 3. IPM/ INM/IDM of paddy, maize. 4. Production and use of organic manures 5. Fodder production technology. 6. Awareness about paddy and maize based cropping system and integrated farming system 7. Awareness about bio-fertilizer and bio-pesticides 8. Bio-intensive IPM for stemborer 9. Oyster Mushroom cultivation technology 10. Training on apiculture 11. Bio-control of pests and diseases FLD on 1. Demonstration of perennial forage grass 2. Cultivation of HYV of sesamum 3. Winter paddy- vegetable cropping system 4. Bio-control of stemborer and leaf folder in rice 5. Rhizome rot management in Ginger using Biofor - Pf 6. Management of rice hispa using mycoinsecticides

			<p>Horticulture:</p> <p>Training on:</p> <ol style="list-style-type: none"> 1. Scientific cultivation practices of broccoli, turmeric 2. Integrated nutrient management in khasi mandarin 3. Improved cultivation practices in arecanut 4. Management of fruit dropping in Khasi Mandarin 5. Production of low volume and high value crops 6. Production and maintenance of spices like ginger, turmeric 7. Rejuvenation of old orchards 8. Management of young plants/ orchards <p>FLD on :</p> <ol style="list-style-type: none"> 1. Introduction of Broccoli in Lohit District 2. INM in Khasi Mandarin 3. Performance of turmeric variety- Megha Turmeric-1 4. Demonstration of Ginger Variety of Nadia <p>Animal Husbandry :</p> <p>Training on</p> <ol style="list-style-type: none"> 1. Introduction of improved housing system of goat 2. Chemical castration 3. Improved milk production by balance feeding 4. Increases fertility rate with AI 5. Introduction of improved breed 6. Introduction of small scale intensive system 7. Improved management practices of
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			<p>Diary/Poultry/Piggery/ Rabbit</p> <ol style="list-style-type: none"> 8. Disease management in livestock 9. Livestock feed and fodder production 10. Cross breed Dairy farming as source of income <p>FLD on :</p> <ol style="list-style-type: none"> 1. Introduction of improved housing system of goat 2. Chemical castration 3. Improved milk production by balance feeding 4. Increasing fertility rate with AI 5. Introduction of improved breed 6. Introduction of small scale intensive system <p>Fishery</p> <p>Training on:</p> <ol style="list-style-type: none"> 1. Integrated fish farming 2. Carp breeding and hatchery management 3. Carp fry and fingerling rearing 5. Composite fish culture 6. Portable plastic carp hatchery <p>OFT on :</p> <ol style="list-style-type: none"> 1. Carp fry and fingerling rearing <p>FLD on :</p> <ol style="list-style-type: none"> 1. Integrated fish farming 2. Post monsoon culture of carps
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3. Development Strategies for Papumpare

1. Extension gaps for each farming system and crop

Sl. No.	Farming System	Crops under the FS	Extension gaps identified
1	Agriculture + Livestock Farming	Rice, Maize, Mustard, Potato, Ginger, Pigs, Mithuns, Poultry	1. Lack of Training-cum-Demonstration on latest technology
2	Agriculture + Horticulture	Rice, Maize, Pineapple, Orange, Ginger, Chilli, Sugarcane	1. Awareness and CBs programme on latest technology 2. Lack of exposure visit 3. Lack of Field visit by Extension. Functionaries
3	Livestock farming + Agriculture + Horticulture	Pig, poultry, Mithun, Cattle, Paddy, Maize, Orange, Pineapple, Ginger, Chilli	Lack of Training and demonstration on latest technology by the Extension functionaries
4	Silviculture + cropping system (Agri + Horti)	<i>Albizzia</i> sp, Teak, orange, Rice, Maize, Pineapple, Tea	a. lack of technical know how b. Lack of training and demonstration on value addition activities
5	Livestock farming + Fisheries + Agriculture + Horticulture	Poultry, Cattle, Goat, Pigs, Mithuns, Carp culture (Catla, Rohu, Mrigal, Silver Carp), Paddy, Maize, Pineapple, Ginger etc	a. Poor scientific management of cattle, poultry and piggery due to lack of training and demonstration by Extension functionaries b. Vaccination and deworming Programme is not regularly Organized by the Govt. officials c. lack of knowledge on scientific method of fish culture (stocking pattern of fish fingerlings and fast growing species of fishes) d. Lack of training and demonstration on HYV and Hybrid of paddy, maize, cabbage, guava etc.

2. Extension priorities finalized for each farming system and crop

Sl. No.	Farming System	Crops under the FS	Extension priorities finalized
1	Agriculture + Livestock Farming	Rice, Maize, Mustard, Potato, Ginger, Pigs, Mithuns, Poultry	<ol style="list-style-type: none"> 1. Motivation and change the mindset of farmers towards scientific method of crop cultivation and livestock rearing with community participatory approach (CBs, Awareness campaign, training and demonstration) 2. FLDs on proven technology
2	Agriculture + Horticulture	Rice, Maize, Pineapple, Orange, Ginger, Chilli, Sugarcane	<ol style="list-style-type: none"> a. Training and demonstration on INM/IPM/IWM of major crops b. Radio talks and literature publication in local dialects
3	Livestock farming + Agriculture + Horticulture	Pig, poultry, Mithun, Cattle, Paddy, Maize, Orange, Pineapple, Ginger, Chilli	<ol style="list-style-type: none"> a. Training and demonstration on INM/IPM/IWM of paddy, orange, pineapple b. Field visit by SMS c. To organized Kisan Ghosti
4	Silviculture + Agri + Horti	<i>Albizia</i> sp, Teak, orange, Rice, Maize, Pineapple, Tea	<ol style="list-style-type: none"> a. Training and demonstration on improved package of practices, value addition activities like grading, packaging etc b. Farmers field visit by SMSs, ADO, RFO, HDO and Field Assistant c. a-forestation programme
5	Livestock farming + Fisheries + Agriculture + Horticulture	Poultry, Cattle, Goat, Pigs, Mithuns, Carp culture(Catla, Rohu, Mrigal, Silver Carp), Paddy, Maize, Pineapple, Ginger etc	<ol style="list-style-type: none"> a. Training and demonstration for scientific feeding and management of cattle, piggery, fisheries. b. Record keeping of breeds of Cattle c. Training and demonstration on improved variety of Paddy, pineapple

3. Extension strategy for each farming system and crop

Sl. No.	Farming System	Crops under the FS	Extension strategy proposed
1	Agriculture + Livestock Farming	Rice, Maize, Mustard, Potato, Ginger, Pigs, Mithuns, Poultry	<ol style="list-style-type: none"> 1. Field visit for inspection of major insect-pest and diseases attack 2. CBs and Awareness Programme 3. Revamping of extension machineries and motivation through, positive demonstration effect (to conduct FLDs)
2	Agriculture+ Horticulture	Rice, Maize, Pineapple, Orange, Ginger, Chilli, Sugarcane	<ol style="list-style-type: none"> a. To conduct tranings and FLDs on INM/IPM/IWM for Paddy, Maize, Pineapple, orange etc. b. To Conducts FLDs on hybrid variety of Paddy and Ginger
3	Livestock farming + Agriculture + Horticulture	Pig, poultry, Mithun, Cattle, Paddy, Maize, Orange, Pineapple, Ginger, Chilli	<ol style="list-style-type: none"> a. FLDs on proven technology to be conducted at farmers field b. Exposure visit of the farmers
4	Silviculture + Agri + Hort	<i>Albizzia</i> sp, Teak, orange, Rice, Maize, Pineapple, Tea	<ol style="list-style-type: none"> a. Training and demonstration programme to conduct on preparation of squah, jam, jellies etc b. Agro-foresrty programme c. Bench mark survey of plant resource of economic importance
5	Livestock farming + Fisheries + Agriculture + Horticulture	Poultry, Cattle, Goat, Pigs, Mithuns, Carp culture (Catla, Rohu, Mrigal, Silver Carp), Paddy, Maize, Pineapple, Ginger etc	<ol style="list-style-type: none"> a. Motivational and awareness programme to be conducted on scientific feeding and management of cattle, piggery, fisheries. b. Mass vaccination and deworming programme to

			<p>be conducted for Livestock for FS areas</p> <p>c. FLDs on releasing fish fingerlings</p> <p>d. Training and demonstration on technical know how of paddy, maize, pineapple, ginger.</p>
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4. Development Strategies for Tirap

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1.	Low altitude, Rainfed FS- 1 (Agri.+ Horti.+ Pisciculture+ Animal husb.+ Forestry) FS-2 (Agri.+ Horti.+ Animal husb.+ Forestry)	Agriculture : (WRC/ upland paddy, maize, millet, soyabean, mustard, local pulses, tea) Horticulture: (Tapioca, colocasia, sweet potato, vegetables(cucurbits, solanacea,cruciferae,okra) ginger, chili, black pepper, betelvine, arecanut, citrus, (pummelo, lemon, limes) pineapple, banana, papaya, litchi, plum, jackfruit guava, mango) Pisciculture: Catla, Rohu, Mrigal, Silver Carp, Grass Carp and Common Carp Animal Husbandry. – (Cattle, Pig, Goat and Poultry)	Agriculture : 1. Lack of knowledge about scientific agronomic practices for different crops 2. Lack of knowledge and unavailability of quality high yielding seeds of paddy, pulses and oilseed 3. Lack of knowledge about IPM/ INM of different crops 4. Lack of knowledge regarding production and use of organic manures 5. Lack of knowledge regarding soil and moisture conservation techniques. 6. Lack of knowledge about different cropping system 7. Lack of knowledge about different suitable pulses and oilseed for this area 8. Lack of knowledge about bio-fertilizer and bio-pesticides. Horticulture: 1. Lack of knowledge on scientific cultivation of fruits & vegs. 2. Lack of awareness of symptoms of pest & diseases & their control measures. 3. Lack of knowledge on fruits & vegs. Preservation & processing. 4. lack of awareness on utilization of underexploited crops. 5. Lack of knowledge & awareness on scientific Of ornamentals flowers 6. Lack of knowledge & awareness on cultivation of mushroom. Animal Husbandry : 1. Lack of knowledge about scientific rearing system of poultry and pig 2. Lack of knowledge on scientific disease management of cattle, pig & poultry

			<ol style="list-style-type: none"> 3. Lack of knowledge about quality feed 4. Use of local undescript breeds 5. Lack of awareness about improved breeds 6. Lack of knowledge about integration of different enterprises <p>Pisciculture:</p> <p>Lack of knowledge about composite fish culture</p> <p>Lack of knowledge about low cost integrated fish farming systems.</p> <p>Lack of awareness about scientific fish husbandry practices.</p>
2.	<p>Mid altitude, Rainfed</p> <p>FS- 3 (Agri.+ Horti.+ Pisciculture+ Animal husb.+ Forestry)</p> <p>FS- 4 (Agri.+ Horti.+ Animal husb.+ Forestry)</p>	<p>Agriculture : (WRC/ upland paddy, maize, millet, soybean, local pulses & oilseeds, tea)</p> <p>Horticulture : (Tapioca, colocasia, sweet potato, vegetables, ginger, chili, betel vine, ,citrus, pineapple, banana)</p> <p>Pisciculture – Catla, Rohu, Mrigal, Silver Carp, Grass Carp and Common Carp</p> <p>Animal Husbandry : (Cattle, Pig, Goat and Poultry)</p>	<p>Agriculture :</p> <ol style="list-style-type: none"> 1. Lack of knowledge about scientific agronomic practices for different crops 2. Lack of knowledge and unavailability of quality high yielding seeds of paddy, pulses and oilseed 3. Lack of knowledge about IPM/ INM of different crops 4. Lack of knowledge regarding production and use of organic manures 5. Lack of knowledge regarding soil and moisture conservation techniques. 6. Lack of knowledge about different cropping system 7. Lack of knowledge about different suitable pulses and oilseed for this area 8. Lack of knowledge about bio-fertilizer and bio-pesticides. <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Lack of knowledge on scientific cultivation of fruits & vegs. 2. Lack of awareness of symptoms of pest & diseases & their control measures. 3. Lack of knowledge on fruits & vegs. Preservation & processing. 4. lack of awareness on utilization of

			<p>underexploited crops.</p> <ol style="list-style-type: none"> Lack of knowledge & awareness on scientific Of ornamentals flowers Lack of knowledge & awareness on cultivation of mushroom. <p>Animal Husbandry :</p> <ol style="list-style-type: none"> Lack of knowledge about scientific rearing system of poultry and pig Lack of knowledge on scientific disease management of cattle, pig & poultry Lack of knowledge about quality feed Use of local undescript breeds Lack of awareness about improved breeds Lack of knowledge about integration of different enterprises <p>Pisciculture:</p> <p>Lack of knowledge about composite fish culture</p> <p>Lack of knowledge about low cost integrated fish farming systems.</p> <p>Lack of awareness about scientific fish husbandry practices.</p>
3.	<p>High altitude, Rainfed</p> <p>FS- 5 (Agri.+ Horti.+ Pisciculture+ Animal husb.+ Forestry)</p> <p>FS- 6 (Agri.+ Horti.+ Animal husb.+ Forestry)</p>	<p>Agriculture : (Upland paddy, maize, millet, soybean, local pulses)</p> <p>Horticulture : (Tapioca, colocasia, sweet potato, vegetables, ginger, chili, betel vine, ,citrus, pineapple, banana)</p> <p>Pisciculture - Silver Carp, Grass Carp and Common Carp</p> <p>Animal Husbandry : (Cattle, Pig, Goat and Poultry)</p>	<p>Agriculture :</p> <ol style="list-style-type: none"> Lack of knowledge about scientific agronomic practices for different crops Lack of knowledge and unavailability of quality high yielding seeds of paddy Lack of knowledge about IPM/ INM of different crops Lack of knowledge regarding production and use of organic manures Lack of knowledge regarding soil and moisture conservation techniques. Lack of knowledge about different cropping system Lack of knowledge about bio-fertilizer and bio-pesticides.

			<p>Horticulture:</p> <ol style="list-style-type: none"> 1. Lack of knowledge on scientific cultivation of fruits & vegs. 2. Lack of awareness of symptoms of pest & diseases & their control measures. 3. Lack of knowledge on fruits & vegs. Preservation & processing. 4. lack of awareness on utilization of underexploited crops. 5. Lack of knowledge & awareness on scientific Of ornamentals flowers 6. Lack of knowledge & awareness on cultivation of mushroom. <p>Animal Husbandry :</p> <ol style="list-style-type: none"> 1. Lack of knowledge about scientific rearing system of poultry and pig 2. Lack of knowledge on scientific disease management of cattle, pig & poultry 3. Lack of knowledge about quality feed 4. Use of local undescript breeds 5. Lack of awareness about improved breeds 6. Lack of knowledge about integration of different enterprises <p>Pisciculture:</p> <p>Lack of knowledge about composite fish culture</p> <p>Lack of knowledge about low cost integrated fish farming systems.</p> <p>Lack of awareness about scientific fish husbandry practices.</p>
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2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1.	Low altitude, Rainfed FS- 1 (Agri.+ Horti.+	Agriculture : (WRC/ upland paddy, maize, millet, soybean, mustard, local pulses, tea)	Agriculture : 1. Lack of knowledge about scientific agronomic practices for different crops 2. Lack of knowledge about IPM/ INM of

	<p>Pisciculture+ Animal husb.+ Forestry)</p> <p>FS-2 (Agri.+ Horti.+ Animal husb.+ Forestry)</p>	<p>Horticulture: (Tapioca, colocasia, sweet potato, vegetables(cucurbits, solanacea,cruciferae,okra) ginger, chili, black pepper, betelvine, arecanut ,citrus,(pummelo, lemon, limes) pineapple, banana, papaya, litchi, plum, jackfruit guava, mango) Animal Husbandry. – (Cattle, Pig, Goat and Poultry) Pisciculture: Catla, Rohu, Mrigal, Silver Carp, Grass Carp and Common Carp</p>	<p>different crops</p> <ol style="list-style-type: none"> 3. Lack of knowledge about different cropping system 4. Lack of knowledge regarding production and use of organic manures 5. Lack of knowledge regarding soil and moisture conservation techniques. 6. Lack of knowledge about different suitable pulses and oilseed for this area 7. Lack of knowledge and unavailability of quality high yielding seeds of paddy, pulses and oilseed 8. Lack of knowledge about bio-fertilizer and bio-pesticides. <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Scientific cultivation of fruits & vegs. 2. Value addition of under exploited crops. 3. Scientific cultivation of ornamental flowers. 4. Scientific cultivation of mushroom. <p>Animal Husbandry :</p> <ol style="list-style-type: none"> 1. Scientific rearing of poultry 2. Scientific rearing of pig 3. Management of FMD of cattle 4. Management of Ranikhet disease of poultry 5. Management of Swine fever & parasitic disease of pig 6. Feed management of pig & poultry 7. Upgradation of local breed 8. Pig-poultry- fish integrated farming system <p>Pisciculture:</p> <p>Promotion of composite fish culture technology suitable for low altitude regions of Tirap district.</p>
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			<p>Promotion of low cost integrated fish farming technology.</p> <p>Awareness regarding scientific fish husbandry practices.</p>
2.	<p>Mid altitude, Rainfed</p> <p>FS- 3 (Agri.+ Horti.+ Pisciculture+ Animal husb.+ Forestry)</p> <p>FS- 4 (Agri.+ Horti.+ Animal husb.+ Forestry)</p>	<p>Agriculture : (WRC/ upland paddy, maize, millet, soyabean, local pulses & oilseeds, tea)</p> <p>Horticulture : (Tapioca, colocasia, sweet potato, vegetables, ginger, chili, betel vine, ,citrus, pineapple, banana)</p> <p>Pisciculture: Catla, Rohu, Mrigal, Silver Carp, Grass Carp and Common Carp</p> <p>Animal Husbandry : (Cattle, Pig, Goat and Poultry)</p>	<p>Agriculture :</p> <ol style="list-style-type: none"> 1. Lack of knowledge about scientific agronomic practices for different crops 2. Lack of knowledge about IPM/ INM of different crops 3. Lack of knowledge about different cropping system 4. Lack of knowledge regarding production and use of organic manures 5. Lack of knowledge regarding soil and moisture conservation techniques. 6. Lack of knowledge about different suitable pulses and oilseed for this area 7. Lack of knowledge and unavailability of quality high yielding seeds of paddy, pulses and oilseed 8. Lack of knowledge about bio-fertilizer and bio-pesticides. <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Scientific cultivation of fruits & vegs. 2. Value addition of under exploited crops. 3. Scientific cultivation of ornamental flowers. 4. Scientific cultivation of mushroom. <p>Animal Husbandry :</p> <ol style="list-style-type: none"> 1. Scientific rearing of poultry 2. Scientific rearing of pig 3. Management of FMD of cattle 4. Management of Ranikhet disease of poultry 5. Management of Swine fever &

			<p>parasitic disease of pig</p> <ol style="list-style-type: none"> 6. Feed management of pig & poultry 7. Upgradation of local breed 8. Pig-poultry- fish integrated farming system <p>Pisciculture:</p> <p>Promotion of composite fish culture technology suitable for mid altitude regions of Tirap district.</p> <p>Promotion of low cost integrated fish farming technology.</p> <p>Awareness regarding scientific fish husbandry practices.</p>
3.	<p>High altitude, Rainfed</p> <p>FS- 5 (Agri.+ Horti.+ Pisciculture+ Animal husb.+ Forestry)</p> <p>FS- 6 (Agri.+ Horti.+ Animal husb.+ Forestry)</p>	<p>Agriculture : (Upland paddy, maize, millet, soyabean, local pulses)</p> <p>Horticulture : (Tapioca, colocasia, sweet potato, vegetables, ginger, chili, betel vine, ,citrus, pineapple, banana)</p> <p>Pisciculture - Silver Carp, Grass Carp and Common Carp</p> <p>Animal Husbandry : (Cattle, Pig, Goat and Poultry)</p>	<p>Agriculture :</p> <ol style="list-style-type: none"> 1. Lack of knowledge about scientific agronomic practices for different crops 2. Lack of knowledge and unavailability of quality high yielding seeds of paddy 3. Lack of knowledge about IPM/ INM of different crops 4. Lack of knowledge regarding production and use of organic manures 5. Lack of knowledge regarding soil and moisture conservation techniques. 6. Lack of knowledge about different cropping system 7. Lack of knowledge about bio-fertilizer and bio-pesticides <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Scientific cultivation of fruits & vegs. 2. Value addition of under exploited crops. 3. Scientific cultivation of ornamental flowers.

			<p>4. Scientific cultivation of mushroom.</p> <p>Animal Husbandry :</p> <ol style="list-style-type: none"> 1. Scientific rearing of poultry 2. Scientific rearing of pig 3. Management of FMD of cattle 4. Management of Ranikhet disease of poultry 5. Management of Swine fever & parasitic disease of pig 6. Feed management of pig & poultry 7. Upgradation of local breed 8. Pig-poultry- fish integrated farming system
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3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1.	<p>Low altitude, Rainfed</p> <p>FS- 1 (Agri.+ Horti.+ Pisciculture+ Animal husb.+ Forestry)</p> <p>FS-2 (Agri.+ Horti.+ Animal husb.+ Forestry)</p>	<p>Agriculture : (WRC/ upland paddy, maize, millet, soyabean, mustard, local pulses, tea)</p> <p>Horticulture: (Tapioca, colocasia, sweet potato, vegetables(cucurbits, solanacea,cruciferae,okra) ginger, chili, black pepper, betelvine, arecanut ,citrus,(pummelo, lemon, limes)</p> <p>pineapple, banana, papaya, litchi, plum, jackfruit</p> <p>guava, mango)</p> <p>Pisciculture - Catla, Rohu, Mrigal, Silver Carp, Grass Carp and</p>	<p>Agriculture :</p> <p>Training on</p> <ol style="list-style-type: none"> 1. Scientific cultivation practices of paddy, maize, mustard and pulses 2. Awareness on high yielding varieties of paddy, maize, mustard and pulses 3. IPM/ INM of paddy, maize, mustard, pulses 4. Production and use of organic manures 5. Soil and moisture conservation techniques. 6. Awareness about paddy and maize based cropping system 7. Awareness about bio-fertilizer and bio-pesticides 8. Management of acidic soil. <p>FLD on</p> <ol style="list-style-type: none"> 1. Biological control of paddy stem borer 2. INM in direct sown upland paddy 3. INM in transplanted paddy 4. Cultivation of HYV of greengram

		<p>Common Carp Animal Husbandry. – (Cattle, Pig, Goat and Poultry)</p>	<p>5. Cultivation of HYV of blackgram 6. Cultivation of HYV of rapeseed 7. Cultivation of HYV of sesamum 8. Winter paddy- vegetable cropping system</p> <p>Demonstration on :</p> <ol style="list-style-type: none"> 1. Seedling treatment of paddy 2. Use of bio-fertilizer in paddy, oilseed and pulses 3. Production of compost 4. Production of vermicompost 5. Control measure against stem borer, gall midge and Gandhi bug of paddy 6. Control measure against maize top borer <p>Horticulture:</p> <p>Training on:</p> <ol style="list-style-type: none"> 1. Scientific cultivation practices of cabbage & cauliflower. 2. Scientific cultivation practices of chilli. 3. Off season vegetable cultivation. 4. Scientific cultivation practices of radish. 5. Nursery management technique in vegetables. 6. Scientific cultivation practices in seasonal flowers. 7. Oyster mushroom cultivation technology. 8. Technology for commercial cultivation of pineapple. 9. Post harvest management of Tapioca & Colocasia. 10. Seed & soil treatment for pest & disease management in winter vegetables. 11. Preparation & preservation of Jackfruit & cucumber pickle. 12. Preparation of fruit beverages from pineapple.
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		<p>Method Demonstration on</p> <ol style="list-style-type: none"> 1. Seed & soil treatment for vegs. Nursery. 2. seed treatment of ginger 3. Air layering in litchi <p>FLD on :</p> <ol style="list-style-type: none"> 1. High Density Planting in Queen Var. of Pineapple. 2. Cultivation of HYV of Tomato with respect to fertility .management. & plant protection.. 3. High Density Planting of banana. var. Dwarf cavendish. 4. Cultivation of HYV of cucumber with rrspect to fertizer managemwnt & plant protection. 5. Cultivation of Tapioca with disease & pest management practices <p>Animal Husbandry :</p> <p>Training on</p> <ol style="list-style-type: none"> 1. Scientific rearing of poultry 2. Scientific rearing of pig 3. Management of FMD of cattle. 4. Management of Ranikhet disease of poultry. 5. Management of Swine fever and parasitic disease of pig. 6. Quality feed 7. Upgradation of local breed <p>FLD on :</p> <ol style="list-style-type: none"> 1. Improved breed of poultry 2. Scientific management of pig 3. Scientific management of poultry 4. Scientific management of goat 5. Feed formulation for poultry 6. Feed formulation for pig 7. Floor type for increasing production of dairy cattle
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			<p>Method Demonstration on</p> <ol style="list-style-type: none"> 1. Preparation of quality feed 2. Vaccination against Ranikhet disease <p>Pisciculture</p> <p>Training on</p> <p>Scientific fish culture technology Composite fish culture Integrated fish farming technologies Water quality management in fish culture Cure and prevention of fish diseases Quality fish seed for fish culture Method Demonstration on Pond water quality management for fish culture Induced breeding technology Fish health management Scientific fish husbandry practices</p>
2.	<p>Mid altitude, Rainfed</p> <p>FS- 3 (Agri.+ Horti.+ Pisciculture+ Animal husb.+ Forestry)</p> <p>FS- 4 (Agri.+ Horti.+ Animal husb.+ Forestry)</p>	<p>Agriculture : (WRC/ upland paddy, maize, millet, soyabean, local pulses & oilseeds, tea)</p> <p>Horticulture : (Tapioca, colocasia, sweet potato, vegetables, ginger, chili, betel vine, ,citrus, pineapple, banana)</p> <p>Pisciculture - Catla, Rohu, Mrigal, Silver Carp, Grass Carp and Common Carp</p> <p>Animal Husbandry : (Cattle, Pig, Goat and Poultry)</p>	<p>Agriculture :</p> <p>Training on</p> <ol style="list-style-type: none"> 1. Scientific cultivation practices of paddy, maize and pulses 2. Awareness on high yielding varieties of paddy, maize and pulses 3. IPM/ INM of paddy, maize, pulses 4. Production and use of organic manures 5. Soil and moisture conservation techniques. 6. Awareness about paddy and maize based cropping system 7. Awareness about bio-fertilizer and bio-pesticides 8. Management of acidic soil. <p>FLD on</p> <ol style="list-style-type: none"> 1. Biological control of paddy stem borer 2. INM in direct sown upland paddy 3. INM in transplanted paddy 4. Cultivation of HYV of greengram 5. Cultivation of HYV of blackgram 6. Cultivation of HYV of sesamum

			<p>7. Winter paddy- vegetable cropping system</p> <p>Demonstration on :</p> <ol style="list-style-type: none"> 1. Seedling treatment of paddy 2. Use of bio-fertilizer in paddy, oilseed and pulses 3. Production of compost 4. Production of vermicompost 5. Control measure against stem borer, gall midge and Gandhi bug of paddy 6. Control measure against maize top borer <p>Horticulture:</p> <p>Training on:</p> <ol style="list-style-type: none"> 1. Scientific cultivation practices of cabbage & cauliflower. 2. Scientific cultivation practices of chilli. 3. Off season vegetable cultivation. 4. Scientific cultivation practices of radish. 5. Nursery management technique in vegetables. 6. Scientific cultivation practices in seasonal flowers. 7. Oyster mushroom cultivation technology. 8. Technology for commercial cultivation of pineapple. 9. Post harvest management of Tapioca & Colocasia. 10. Seed & soil treatment for pest & disease management in winter vegetables. 11. Preparation & preservation of Jackfruit & cucumber pickle. 12. Preparation of fruit beverages from pineapple. <p>Method Demonstration on</p> <ol style="list-style-type: none"> 1. Seed & soil treatment for vegs.
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			<p>Nursery.</p> <ol style="list-style-type: none"> seed treatment of ginger Air layering in litchi <p>FLD on :</p> <ol style="list-style-type: none"> High Density Planting in Queen Var. of Pineapple. Cultivation of HYV of Tomato with respect to fertility .management. & plant protection.. High Density Planting of banana. var. Dwarf cavendish. Cultivation of HYV of cucumber with rrspect to fertizer managemwnt & plant protection. Cultivation of Tapioca with disease & pest management practices <p>Animal Husbandry :</p> <p>Training on</p> <ol style="list-style-type: none"> Scientific rearing of poultry Scientific rearing of pig Management of FMD of cattle. Management of Ranikhet disease of poultry. Management of Swine fever and parasitic disease of pig. Quality feed Upgradation of local breed <p>Method Demonstration on</p> <ol style="list-style-type: none"> Preparation of quality feed Vaccination against Ranikhet diseasePisciculture <p>Training on</p> <p>Scientific fish culture technology</p> <p>Composite fish culture</p> <p>Integrated fish farming technologies</p> <p>Water quality management in fish culture</p> <p>Cure and prevention of fish diseases</p>
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			Quality fish seed for fish culture Method Demonstration on Pond water quality management for fish culture Induced breeding technology Fish health management Scientific fish husbandry practices
3.	High altitude, Rainfed FS- 5 (Agri.+ Horti.+ Pisciculture+ Animal husb.+ Forestry) FS- 6 (Agri.+ Horti.+ Animal husb.+ Forestry)	Agriculture : (Upland paddy, maize, millet, soyabean, local pulses) Horticulture : (Tapioca, colocasia, sweet potato, vegetables, ginger, chili, betel vine, ,citrus, pineapple, banana) Pisciculture - Silver Carp, Grass Carp and Common Carp Animal Husbandry : (Cattle, Pig, Goat and Poultry)	Agriculture : Training on 1. Scientific cultivation practices of paddy and maize 2. Awareness on high yielding varieties of paddy and maize 3. IPM/ INM of paddy and maize 4. Production and use of organic manures 5. Soil and moisture conservation techniques. 6. Awareness about paddy and maize based cropping system 7. Awareness about bio-fertilizer and bio- pesticides 8. Management of acidic soil. FLD on 1. Biological control of paddy stem borer 2. INM in direct sown upland paddy 3. Maize - vegetable cropping system Demonstration on : 1. Use of bio-fertilizer in paddy 2. Production of compost 3. Production of vermicompost 4. Control measure against stem borer and gandhi bug of paddy Horticulture: Training on: 1. Scientific cultivation practices of cabbage & cauliflower. 2. Scientific cultivation practices of chilli. 3. Off season vegetable cultivation.

			<ol style="list-style-type: none"> 4. Scientific cultivation practices of radish. 5. Nursery management technique in vegetables. 6. Scientific cultivation practices in seasonal flowers. 7. Oyster mushroom cultivation technology. 8. Technology for commercial cultivation of pineapple. 9. Post harvest management of Tapioca & Colocasia. 10. Seed & soil treatment for pest & disease management in winter vegetables. 11. Preparation & preservation of Jackfruit & cucumber pickle. 12. Preparation of fruit beverages from pineapple. <p>Method Demonstration on</p> <ol style="list-style-type: none"> 1. Seed & soil treatment for vegs. Nursery. 2. seed treatment of ginger 3. Air layering in litchi <p>FLD on :</p> <ol style="list-style-type: none"> 1. High Density Planting in Queen Var. of Pineapple. 2. Cultivation of HYV of Tomato with respect to fertility .management. & plant protection.. 3. High Density Planting of banana. var. Dwarf cavendish. 4. Cultivation of HYV of cucumber with rrspect to fertizer managemwnt & plant protection. 5. Cultivation of Tapioca with disease & pest management practices
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		<p>Animal Husbandry :</p> <p>Training on</p> <ol style="list-style-type: none"> 1. Scientific rearing of poultry 2. Scientific rearing of pig 3. Management of FMD of cattle. 4. Management of Ranikhet disease of poultry. 5. Management of Swine fever and parasitic disease of pig. 6. Quality feed 7. Upgradation of local breed <p>Method Demonstration on</p> <ol style="list-style-type: none"> 1. Preparation of quality feed 2. Vaccination against Ranikhet disease <p>Pisciculture</p> <p>Training on</p> <p>Scientific fish culture technology Composite fish culture Integrated fish farming technologies Water quality management in fish culture Cure and prevention of fish diseases Quality fish seed for fish culture Method Demonstration on Pond water quality management for fish culture Induced breeding technology Fish health management Scientific fish husbandry practices</p>
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5. Development Strategies for West Kameng

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1	Agri - Hort	Maize, Paddy, soybean, potato, cabbage, Apple, Kiwi, Orange, Walnut, livestock	Improper knowledge related to agriculture, including improved seeds, fertilizers, implements, pesticides, cultural practices, dairying, poultry, nutrition etc., lack of exposure to commercial agriculture, lack of collaborative approach among different departments related to agriculture.
2	Hort – Agri -AH	Potato, buckwheat, yak and sheep	Improper knowledge related to agriculture, including improved seeds, fertilizers, implements, pesticides, cultural practices, dairying, poultry, nutrition etc., lack of exposure to commercial agriculture, lack of collaborative approach among different departments related to agriculture.

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1	Agri - Hort	Maize, Paddy, soybean, potato, cabbage, Apple, Kiwi, Orange, Walnut, livestock	Adoption and diffusion of new technologies, training and capacity building of farmers, exposure visit of farmers.
2	Hort – Agri - AH	Potato, buckwheat, yak and sheep	Adoption and diffusion of new technologies, training and capacity building of farmers, exposure visit of farmers.

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1	Agri - Hort	Maize, Paddy, soybean, potato, cabbage, Apple, Kiwi, Orange, Walnut, livestock	Organizing production oriented and need based short-term and long-term vocational training courses in agriculture and allied vocation to the farmers and rural youth, organizing FLD on various suitable crops, organizing training to update extension personnel with

			<p>immerging advances in agricultural research on regular basis, organizing farm science clubs to inculcate in the younger generation a scientific temper and an interest in agricultural and allied sciences and for scientific to supervised individual and group projects, Exposure visit of farmers.</p>
2	Hort – Agri - AH	Potato, buckwheat, yak and sheep	<p>Organizing production oriented and need based short-term and long-term vocational training courses in agriculture and allied vocation to the farmers and rural youth, organizing FLD on various suitable crops, organizing training to update extension personnel with immerging advances in agricultural research on regular basis, organizing farm science clubs to inculcate in the younger generation a scientific temper and an interest in agricultural and allied sciences and for scientific to supervised individual and group projects, Exposure visit of farmers.</p>



6. Development Strategies for West Siang

1. Extension gaps for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension gaps identified
1.	Agri - Fishery	Fish crops: Catla, Rohu, Mrigal, Grass carp, Silver carp, Common carp Agricultural crop: Paddy	Lack of adoption of improved practices
2.	Agri - Hort	Rice, cole crops and vegetables	-do-
3.	Horticulture	Banana, khasi mandarin, Ginger, turmeric, tomato, cabbage etc.	-do-
4.	Animal Husbandry	Fodder grasses	-do-

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension priorities finalized
1.	Paddy cum fish farming	Fish crops: Catla, Rohu, Mrigal, Grass carp, Silver carp, Common carp Agricultural crop: Paddy	Farmers training
2.	Wet Rice Cultivation	Rice, cole crops and vegetables	-do-
3.	Horticulture	Banana, khasi mandarin, Ginger, turmeric, tomato, cabbage etc.	-do-
4.	Integrated animal farming	Fodder grasses	-do-

3. Extension Strategy for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension strategy proposed
1.	Paddy cum fish farming	Fish crops: Catla, Rohu, Mrigal, Grass carp, Silver carp, Common carp Agricultural crop: Paddy	Farmers training, field demonstration, awareness campaigns, trial plots, field trips/farmers tour, exposure visit, exhibitions, farmers fare, leaflets, farm and home visit, result demonstration.
2.	Wet Rice Cultivation	Rice, cole crops and vegetables	-do-
3.	Horticulture	Banana, khasi mandarin, Ginger, turmeric, tomato, cabbage etc.	-do-
4.	Integrated animal farming	Fodder grasses	-do-



7. Development Strategies for Lower Dibang Valley

1. Extension gaps for each farming system and crop

S. N	Farming System	Crops under the FS	Extension gaps identified
1	Agriculture + horticulture	Rice, Maize, Mustard, Potato, Ginger, Orange, Kiwi, Banana and Pineapple.	<ol style="list-style-type: none"> Lack of Training-cum-Demonstration on latest technology. Farmers lack confidence in adopting new technologies.
2	Agriculture+ Livestock	Rice, Maize, ginger, mustard, pigs, cattles, poultry, and goatsetc.	<ol style="list-style-type: none"> Lack of awareness and CBs programme on latest technology Lack of exposure visit Lack of Field visit by Extension. Functionaries
3	Livestock farming + Agriculture + Horticulture	Pig, poultry, Mithun, Cattle, Paddy, Maize, Orange, Pineapple, Ginger, Chilli	Lack of Training and demonstration on latest technology by the Extension functionaries
4	Silviculture + Agr + Hort	<i>Albizia</i> sp, Teak, Orange, Rice, Maize, Pineapple, Tea	<ol style="list-style-type: none"> Lack of technical know how Lack of training and demonstration on value addition activities
5	Livestock farming + Fisheries + Agriculture + Horticulture	Poultry, Cattle, Goat, Pigs, Mithuns, Carp culture (Catla, Rohu, Mrigal, Silver Carp), Paddy, Maize, Pineapple, Ginger etc	<ol style="list-style-type: none"> Poor scientific management of cattle, poultry and piggery due to lack of training and demonstration by Extension functionaries Vaccination and deworming Programme is not regularly organized by the Govt. officials Lack of knowledge on scientific method of fish culture (stocking pattern of fish fingerlings and fast growing species of fishes) Lack of training and demonstration on HYV and Hybrid of paddy, maize, cabbage, guave etc.

2. Extension priorities finalized for each farming system and crop

Sl.No.	Farming System	Crops under the FS	Extension priorities finalized
1	Agriculture + Livestock farming	Rice, Maize, Mustard, Potato, Ginger, Pigs, Mithuns, Poultry	1. Motivation and change of the mindset of farmers towards scientific method of crop cultivation and livestock rearing with community participatory approach (CBs, awareness campaign, training and demonstration) 2. FLDs on proven technology
2	Agriculture + Horticulture	Rice, Maize, Pineapple, Orange, Ginger, Chilli, Sugarcane	a. Training and demonstration on INM/IPM/IWM of major crops b. Radio talks and literature publication in local dialects
3	Agriculture + Horticulture+ Livestock farming.	Pig, poultry, Mithun, Cattle, Paddy, Maize, Orange, Pineapple, Ginger, Chilli, orange, kiwi, pineapple.	a. Training and demonstration on INM/IPM/IWM of paddy, orange, pineapple b. Field visit by SMS c. To organize Kisan Ghosti
4	Silviculture + Agri + Hort	<i>Albizia</i> sp, Teak, orange, Rice, Maize, Pineapple, Tea	a. Training and demonstration on improved package of practices, value addition activities like grading, packaging etc b. Farmers field visit by SMSs, ADO, RFO, HDO and Field Assistant c. Aforestation programme
5	Livestock farming + Fisheries + Agriculture + Horticulture	Poultry, Cattle, Goat, Pigs, Mithuns, Carp culture (Catla, Rohu, Mrigal, Silver Carp), Paddy, Maize, Pineapple, Ginger etc	a. Training and demonstration for scientific feeding and management of cattle, piggery, fisheries. b. Record keeping of breeds of Cattle c. Training and demonstration on improved variety of Paddy, pineapple

3. Extension strategy for each farming system and crop

Sl. No.	Farming System	Crops under the FS	Extension strategy proposed
1	Agriculture + Livestock Farming	Rice, Maize, Mustard, Potato, Ginger, Pigs, Mithuns, Poultry	1. Field visit for inspection of major insect-pest and diseases attack 2. CBs and awareness programmes. 3. Revamping of extension

			<p>machineries and motivation through, positive demonstration effect (to conduct FLDs)</p>
2	Agriculture + Horticulture	Rice, Maize, Pineapple, Orange, Ginger, Chilli, Sugarcane	<p>a. To conduct trainings and FLDs on INM/IPM/IWM for Paddy, Maize, Pineapple, orange etc.</p> <p>b. To Conducts FLDs on hybrid variety of Paddy and Ginger</p>
3	Livestock farming + Agriculture + Horticulture	Pig, Poultry, Mithun, Cattle, Paddy, Maize, Orange, Pineapple, Ginger, Chilli	<p>a. FLDs on proven technology to be conducted at farmers field</p> <p>b. Exposure visit of the farmers</p>
4	Silviculture + Agri + Horti	<i>Albizzia</i> sp, Teak, orange, Rice, Maize, Pineapple, Tea	<p>a. Training and demonstration programme to conduct on preparation of squash, jam, jellies etc</p> <p>b. Agro-forestry programme</p> <p>c. Bench mark survey of plant resource of economic importance</p>
5	Livestock farming + Fisheries + Agriculture + Horticulture	Poultry, Cattle, Goat, Pigs, Mithuns, Carp culture(Catla, Rohu, Mrigal, Silver Carp), Paddy, Maize, Pineapple, Ginger etc	<p>a. Motivational and awareness programme to be conducted on scientific feeding and management of cattle, piggery, fisheries.</p> <p>b. Mass vaccination and deworming programme to be conducted for Livestock for FS areas</p> <p>c. FLDs on stocking of fish fingerlings</p> <p>d. Training and demonstration on technical know how on Paddy, Maize, Pineapple, Ginger.</p>





6.2 Development Strategies for Assam

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1. Development Strategies for Barpeta

1. Extension gaps for each farming system and crop

SI No	Farming system	Crops under the FS	Extension gaps identified
1.	<i>Agri-Horti-AH-Seri</i>	Rice, Mustard, Potato, vegetables, Coconut, Arecanut, Eri, Som, Mulberry	Knowledge/skill upgradation, attitude development, poor communication, poor extension contact, improper & inadequate use of extension methods & aids, absence of networking & interest group formation, absence of IT support
2.	<i>Agri-AH-Horti</i>	Rice, Vegetables, Coconut, Arecanut, Banana	-do-
3.	<i>Agri-AH</i>	Rice, Potato, Mustard	-do-
4.	<i>Agri-AH-Fish</i>	Rice, Jute, Pulse, Mustard, Wheat	-do-
5.	<i>Agri-Horti-Fish</i>	Rice, Pulse, Mustard, Coconut, Arecanut	-do-

2. Extension priorities finalized for each farming system and crop

SI No	Farming system	Crops under the FS	Extension priorities finalized
1.	<i>Agri-Horti-AH-Seri</i>	Rice, Mustard, Potato, vegetables, Coconut, Arecanut, Eri, Som, Mulberry	Awareness & motivation camp, Training & demonstration, Exposure visit, Group approach, Diagnostic visits, Field Days/Farmers' Fair, Film shows, Ensuring women's participation
2.	<i>Agri-AH-Horti</i>	Rice, Vegetables, Coconut, Arecanut, Banana	-do-
3.	<i>Agri-AH</i>	Rice, Potato, Mustard	-do-
4.	<i>Agri-AH-Fish</i>	Rice, Jute, Pulse, Mustard, Wheat	-do-
5.	<i>Agri-Horti-Fish</i>	Rice, Pulse, Mustard, Coconut, Arecanut	-do-

3. Extension strategy for each farming system and crop

SI No	Farming system	Crops under the FS	Extension strategy proposed
1.	<i>Agri-Horti-AH-Seri</i>	Rice, Mustard, Potato, vegetables, Coconut, Arecanut, Eri, Som, Mulberry	Productivity enhancement, Group promotion, Agro-technique popularization, Result & method demonstrations, HRD interventions, Gender mainstreaming, ICT network strengthening, Participatory approaches, FSR/E
2.	<i>Agri-AH-Horti</i>	Rice, Vegetables, Coconut, Arecanut , Banana	-do-
3.	<i>Agri-AH</i>	Rice, Potato, Mustard	-do-
4.	<i>Agri-AH-Fish</i>	Rice, Jute, Pulse, Mustard, Wheat	-do-
5.	<i>Agri-Horti-Fish</i>	Rice, Pulse, Mustard, Coconut, Arecanut	-do-



2. Development Strategies for Cachar

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1	Agriculture- Animal Husbandry-Fishery	Rice, Vegetable, cow, buffalo, sheep, goat, pig, poultry, fish	Lack of Technical knowledge
2	Agriculture- Animal Husbandry	Rice, Vegetable, cow, buffalo, , sheep, goat, pig, poultry	Poor sanitation & health urgent
3	Horticulture- Animal Husbandry	Coconut, Arecanut, Banana, Pineapple, Orange, Jackfruit, cow, buffalo, , sheep, goat, pig, poultry	Less no. of training and demonstration Less no. of FLD and OFT
4	Animal Husbandry	cow, buffalo, , sheep, goat, pig, poultry	Less no. of interaction of scientists & framers
5	Dairy	Milk	Partial adoption of technologies
6	Fishery- agriculture	Fish, rice, vegetable, mustard	Non availability of inputs in time
7	Horticulture	Coconut, Arecanut, Banana, Pineapple, Orange, Jackfruit	Non availability of sufficient AI centers. Communication problems.
8	Horticulture- Animal Husbandry - Sericulture	Coconut, Arecanut, Banana, Pineapple, Orange, Jackfruit, cow, buffalo, sheep, goat, pig, poultry, fish, Eri silk, muga	

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1	Agriculture- Animal Husbandry-Fishery	Rice, Vegetable, cow, buffalo, sheep, goat, pig, poultry, fish	Lack of technical knowledge.
2	Agriculture- Animal Husbandry	Rice, Vegetable, cow, buffalo, sheep, goat, pig, poultry	Non availability of inputs in time
3	Horticulture- Animal Husbandry	Coconut, Arecanut, Banana, Pineapple, Orange, Jackfruit, cow, buffalo, , sheep, goat, pig, poultry	Partial adoption of technology Less no. of scientists & farmers interaction
4	Animal Husbandry	cow, buffalo, , sheep, goat, pig, poultry	Communication problems
5	Dairy	Milk	
6	Fishery- agriculture	Fish, rice, vegetable, mustard	
7	Horticulture	Coconut, Arecanut, Banana, Pineapple, Orange, Jackfruit	
8	Horticulture- Animal Husbandry - Sericulture	Coconut, Arecanut, Banana, Pineapple, Orange, Jackfruit, cow, buffalo, sheep, goat, pig, poultry, fish, Eri silk, muga	

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1	Agriculture- Animal Husbandry-Fishery	Rice, Vegetable, cow, buffalo, sheep, goat, pig, poultry, fish	Awareness camp Trainings
2	Agriculture- Animal Husbandry	Rice, Vegetable, cow, buffalo, , sheep, goat, pig, poultry	Demonstration Field day
3	Horticulture- Animal Husbandry	Coconut, Arecanut, Banana, Pineapple, Orange, Jackfruit, cow, buffalo, , sheep, goat, pig, poultry	Linkage with credit institutions Formation of farmers group Establishment of agri clinic /Agri service centre.
4	Animal Husbandry	cow, buffalo, , sheep, goat, pig, poultry	
5	Dairy	Milk	
6	Fishery- agriculture	Fish, rice, vegetable, mustard	
7	Horticulture	Coconut, Arecanut, Banana, Pineapple, Orange, Jackfruit	
8	Horticulture- Animal Husbandry - Sericulture	Coconut, Arecanut, Banana, Pineapple, Orange, Jackfruit, cow, buffalo, sheep, goat, pig, poultry, fish, Eri silk, muga	



3. Development Strategies for Darrang

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1	Agriculture	Paddy	Assured rice production in flood affected areas instead of winter paddy
2		Pulses	Low production
3		Oilseeds	Low production
4		Jute	Fluctuating prices of raw jute
5	Horticulture	Summer/winter vegetables	Non utilization of potentiality for vegetables
6	Animal Husbandry	Livestock	Poor productive and reproductive efficiency
7	Fishery	Fish	Low fish production

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1	Agriculture	Paddy	Expansion of summer area in flood affected areas
2		Pulses	Expansion of pulse area under char and char like areas
3		Oilseeds	Expansion of pulse area under char and char like areas
4		Jute	Diversification of jute areas
5	Horticulture	Summer/winter vegetables	Area expansion under different fruit crops
6	Animal Husbandry	Livestock/poultry	Genetic improvement of livestock and poultry, production of feed ingredient and cultivation of fodder
7	Fishery	Fish	Introduction of polyculture in village tanks, Intensification of integrated fish farming and centralized production of fish seed

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1	Agriculture	Paddy	Expansion of summer area in flood affected areas
2		Pulses	Expansion of pulse area under char and char like areas

3		Oilseeds	Expansion of pulse area under char and char like areas
4		Jute	Diversification of jute areas
5	Horticulture	Summer/winter vegetables	Area expansion under different fruit crops
6	Animal Husbandry	Livestock/poultry	Genetic improvement of livestock and poultry, production of feed ingredient and cultivation of fodder
7	Fishery	Fish	Introduction of polyculture in village tanks, Intensification of integrated fish farming and centralized production of fish seed



4. Development Strategies for Jorhat

1. Extension gaps for each farming system and crop

Sl.No	Farming system	Crops under the FS	Extension gaps identified
1.	Agri-Horti-A.H - Fishery	Paddy, Rapeseed vegetables (rabi)	<ol style="list-style-type: none"> 1. Lack of knowledge and skill for pest and disease management and water management 2. Line transplanting is perceived as time consuming, Labour intensive. 3. Non availability of herbicide in small pack. 4. Non availability of seed. 5. Lack of credit facilities. 6. Low sale price 7. Less mechanization of farming
2.	Agri-Horti	Vegetable, rapeseed	<ol style="list-style-type: none"> 1. Lack of knowledge about water management and pest and disease management. 2. Non-availability of seed and other inputs in time. 3. Low sale price 4. Less mechanization of farming
3.	Agri-Horti -Fishery	Paddy, rapeseed	<ol style="list-style-type: none"> 1. Lack of knowledge about water management and pest and disease management. 2. Non availability of seed and other inputs in time 3. Lack of knowledge about fertilizer application.
4.	Agri-Horti-A.H- Seri-Fishery	Paddy, vegetables	<ol style="list-style-type: none"> 1. Lack of knowledge and skill for pest and disease management and water management

			<ol style="list-style-type: none"> 2. Line transplanting is perceived as time consuming, Labour intensive. 3. Non availability of herbicide in small pack. 4. Non availability of seed and improved breed 5. Lack of knowledge about feed management, health care management of livestock and birds. 6. Lack of irrigation facilities 7. Low sale price 8. Less mechanization of farming
5.	Agri-Horti-A.H- Seri	Paddy, vegetables	<ol style="list-style-type: none"> 1. Lack of knowledge and skill for pest and disease management and water management 2. Line transplanting is perceived as time consuming, Labour intensive. 3. Non availability of herbicide in small pack. 4. Non availability of seed and improved breed 5. Lack of knowledge about feed management, health care management of livestock and birds. 6. Low sale price 7. less mechanization of farming
6.	Agri-A.H- Seri	Paddy, vegetables	<ol style="list-style-type: none"> 1. Lack of knowledge and skill for pest and disease management and water management 2. Line transplanting is perceived as time

			consuming, Labour intensive. 3. Non availability of herbicide in small pack. 4. Non availability of seed and improved breed 5. Lack of knowledge about feed management, health care management of livestock and birds. 6. Low sale price 7. less mechanization of farming
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2. Extension priorities finalized for each farming system and crop

Sl.No	Farming system	Crops under the FS	Extension priorities finalized
1.	Agri-Horti-A.H-Fishery	Paddy, Rapeseed vegetables (rabi)	1. Lack of knowledge and skill for pest and disease management and water management 2. Line transplanting is perceived as time consuming, Labour intensive. 3. Non availability of herbicide in small pack. 4. Non availability of seed. 5. Lack of credit facilities.
2.	Agri-Horti	Vegetable, rapeseed	1. Lack of knowledge about water management and pest and disease management. 2. Non-availability of seed and other inputs in time.
3.	Agri-Horti –Fishery	Paddy, rapeseed	1. Lack of knowledge about water management and pest and disease management. 2. Non availability of seed and other inputs in time

			3. Lack of knowledge about fertilizer application.
4.	Agri-Horti-A.H- Seri-Fishery	Paddy, vegetables	<ol style="list-style-type: none"> 1. Lack of knowledge and skill for pest and disease management and water management 2. Line transplanting is perceived as time consuming, Labour intensive. 3. Non availability of herbicide in small pack. 4. Non availability of seed and improved breed 5. Lack of knowledge about feed management, health care management of livestock and birds.
5.	Agri-Horti-A.H- Seri		<ol style="list-style-type: none"> 1. Lack of knowledge and skill for pest and disease management and water management 2. Line transplanting is perceived as time consuming, Labour intensive. 3. Non availability of herbicide in small pack. 4. Non availability of seed and improved breed 5. Lack of knowledge about feed management, health care management of livestock and birds.
6.	Agri-A.H- Seri		<ol style="list-style-type: none"> 1. Lack of knowledge and skill for pest and disease management and water management 2. Line transplanting is perceived as time consuming, Labour

			<p>intensive.</p> <p>3. Non availability of herbicide in small pack.</p> <p>4. Non availability of seed and improved breed</p> <p>5. Lack of knowledge about feed management, health care management of livestock and birds.</p>
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3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1.	Agri-Horti-A.H-Fishery	Paddy, Rapeseed vegetables (rabi)	<p>Strategy :</p> <p>i. To improve the productivity of autumn paddy to 1.5 t/ha from 0.9t/ha.</p> <p>ii. To improve the productivity of rapeseed to 1.3 t/ha from 0.9t/ha</p> <p>iii. Area expansion under rapeseed and mustard to 10374 ha from 9384 ha.</p> <p>Activities:</p> <p>Mobilization of FMC/SHG/CIG through capacity building by providing training for knowledge and skill upgrading, demonstration and organizing field days and exposure visit to –</p> <p>I. Cultivate high yielding varieties</p> <p>ii. Replace the old seed with new certified seed at every alternate year with his own multiply seeds</p>

			<ul style="list-style-type: none"> iii. Eradicate the weeds at appropriate time iv. Control of insects/pests at proper time v. Use the recommended dose of fertilizers at proper time through appropriate methods vi. Adopt corrective measures in acidic soils vii. Maintain optimum plant population
2.	Agri-Horti	Vegetable, rapeseed	<p>Strategy:</p> <ul style="list-style-type: none"> i. To improve the productivity of vegetables 1.20 t/ha from 0.8t/ha ii. Expansion of are of potato to 3200ha from 3110 ha <p>Activities :</p> <ul style="list-style-type: none"> i. Training for knowledge and skill upgradation. ii. Demonstration and exposure visit to motivate farmers for adopting recommended packages iii. Formation and mobilization of CIG/SHG/FMC for production and marketing.
3.	Agri-Horti –Fishery	Paddy, rapeseed	<ul style="list-style-type: none"> To improve the productivity of autumn paddy to 1.5 t/ha from 0.9t/ha. ii. To improve the productivity of rapeseed to 1.3 t/ha from 0.9t/ha iii. Area expansion under

			<p>rapeseed and mustard to 10374 ha from 9384 ha.</p> <p>Activities:</p> <p>Mobilization of FMC/SHG/CIG through capacity building by providing training for knowledge and skill upgrading, demonstration and organizing field days and exposure visit to –</p> <ol style="list-style-type: none"> I. Cultivate high yielding varieties ii. Replace the old seed with new certified seed at every alternate year with his own multiply seeds iii. Eradicate the weeds at appropriate time iv. Control of insects/pests at proper time v. Use the recommended dose of fertilizers at proper time through appropriate methods vi. Adopt corrective measures in acidic soils vii. Maintain optimum plant population
4.	Agri-Horti-A,H- Seri-Fishery	Paddy, vegetables	<p>Strategy :</p> <ol style="list-style-type: none"> i. To improve the productivity of Sali paddy to 3.5 t/ha from 3.0/ha. ii. To improve the productivity of potato to 1.3 t/ha from 0.8t/ha iii. Area expansion under potato and other

			<p>vegetables to 10374 ha from 9384 ha.</p> <p>Activities:</p> <p>Mobilization of FMC/SHG/CIG through capacity building by providing training for knowledge and skill upgrading, demonstration and organizing field days and exposure visit to –</p> <ol style="list-style-type: none"> I. Cultivate high yielding varieties ii. Replace the old seed with new certified seed at every alternate year with his own multiply seeds iii. Eradicate the weeds at appropriate time iv. Control of insects/pests at proper time v. Use the recommended dose of fertilizers at proper time through appropriate methods vi. Maintain optimum plant population
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5. Development Strategies for Kamrup

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1	Agri - Horti	Rice, rapeseed, pulses, fruits, vegetables, tuber crops	Inadequate training on improved technologies and visit of extension functionaries to follow up the activities of farmers applicable to different enterprises of the farming system.
2	Agri - Horti - AH	Rice, rapeseed, pulses, fruits, vegetables, tuber crops and AH	Inadequate training on improved technologies and visit of extension functionaries to follow up the activities of farmers applicable to different enterprises of the farming system.
3	Agri - Horti - AH - Fishery	Rice, rapeseed, pulses, fruits, vegetables, tuber crops, AH and Fishery	Inadequate training on improved technologies and visit of extension functionaries to follow up the activities of farmers applicable to different enterprises of the farming system.
4	Horti - AH - Fishery	Fruits, vegetables, tuber crops. AH and Fishery	Inadequate training on improved technologies and visit of extension functionaries to follow up the activities of farmers applicable to different enterprises of the farming system.
5	Horti - Sericulture	Fruits, vegetables, tuber crops spices, flowers, plants for sericulture	Inadequate training on improved technologies and visit of extension functionaries to follow up the activities of farmers applicable to different enterprises of the farming system.

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1	Agri - Horti	Rice, rapeseed, pulses, fruits, vegetables, tuber crops	Frequent field visit by extension functionaries and necessary follow up action. Knowledge up-gradation of extension functionaries applicable to all enterprises of farming system
2	Agri – Horti – AH	Rice, rapeseed, pulses, fruits, vegetables, tuber crops and AH	Frequent field visit by extension functionaries and necessary follow up action. Knowledge up-gradation of extension functionaries applicable to all enterprises of farming system
3	Agri – Horti – AH – Fishery	Rice, rapeseed, pulses, fruits, vegetables, tuber crops, AH and Fishery	Frequent field visit by extension functionaries and necessary follow up action. Knowledge up-gradation of extension functionaries applicable to all enterprises of farming system
4	Horti – AH – Fishery	Fruits, vegetables, tuber crops. AH and Fishery	Frequent field visit by extension functionaries and necessary follow up action. Knowledge up-gradation of extension functionaries applicable to all enterprises of farming system
5	Horti – Sericulture	Fruits, vegetables, tuber crops spices, flowers, plants for sericulture	Frequent field visit by extension functionaries and necessary follow up action. Knowledge up-gradation of extension functionaries applicable to all enterprises of farming system

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1	Agri - Horti	Rice, rapeseed, pulses, fruits, vegetables, tuber crops	Joint field visit of scientists and extension personal from concerned departments. Orientation programme for extension personal applicable to all enterprises in the farming system
2	Agri - Horti - AH	Rice, rapeseed, pulses, fruits, vegetables, tuber crops and AH	Joint field visit of scientists and extension personal from concerned departments. Orientation programme for extension personal applicable to all enterprises in the farming system
3	Agri - Horti - AH - Fishery	Rice, rapeseed, pulses, fruits, vegetables, tuber crops, AH and Fishery	Joint field visit of scientists and extension personal from concerned departments. Orientation programme for extension personal applicable to all enterprises in the farming system
4	Horti - AH - Fishery	Fruits, vegetables, tube crops. AH and Fishery	Joint field visit of scientists and extension personal from concerned departments. Orientation programme for extension personal applicable to all enterprises in the farming system
5	Horti - Sericulture	Fruits, vegetables, tuber crops spices, flowers, plants for sericulture	Joint field visit of scientists and extension personal from concerned departments. Orientation programme for extension personal applicable to all enterprises in the farming system



6. Development Strategies for Karimganj

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1.	Agri. + Hort. + Fishery	Rice (<i>sali, ahu & asra</i>), sugarcane, vegetables, french bean (as pulse crop), toria, betelvine	Lack of knowledge, awareness and skill of the farmers regarding: 1. HYV rice varieties. 2. Quality planting materials of vegetables. 3. Fish farming. 4. Integrated farming. 5. INM & IPM in rice and vegetables.
2.	Agri. + Hort. + Animal Husbandry	Rice (<i>sali, ahu & asra</i>), <i>boro</i> rice, pre flood summer vegetables, post flood <i>rabi</i> vegetables, potato, pulses (black gram, french bean), rapeseed, amaranthas and lady's finger	Lack of knowledge, awareness and skill of the farmers regarding: 1. Suitable rice varieties for flood affected areas. 2. Short duration rice varieties. 3. Disease and pest resistant varieties of rice and vegetables. 4. Dairy farming. 5. INM & IPM in rice and vegetables.
3.	Agri. + Fishery	<i>Boro</i> rice, winter vegetables, <i>asra</i> rice, toria	Lack of knowledge, awareness and skill of the farmers regarding: 1. <i>Boro</i> rice varieties. 2. Fish farming. 3. INM & IPM in rice and vegetables.
4.	Agri. + Hort.	Coconut, arecanut, tea, fruit crops (pineapple, banana, jackfruit, litchi), vegetables (summer & winter), pulses, sugarcane, oilseed (toria), potato and spices	Lack of knowledge, awareness and skill of the farmers regarding: 1. Production technology for plantation crops. 2. Scientific utilization of tillah land. 3. Arecanut/ coconut based HDMSCS model. 4. IPM & INM in plantation crops and vegetables.
5.	Agri. based	Fruit trees (myrobalans, jam, kul, orange, lemon, jackfruit), spices (turmeric, ginger & bay leaf), vegetables (gourds, sweet potato, country bean), tea, rubber, sugarcane, pineapple, betelvine and arecanut	Lack of knowledge, awareness and skill of the farmers regarding: 1. Improved methods of mixed cropping. 2. Soil and water conservation measures. 3. Scientific utilization of tillah land. 4. Arecanut/ coconut based HDMSCS model.

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1.	Agri. + Hort. + Fishery	Rice (<i>sali, ahu & asra</i>), sugarcane, vegetables, french bean (as pulse crop), toria, betelvine	Building awareness and skill of the farmers regarding: 1. HYV rice varieties. 2. Quality planting materials of vegetables. 3. INM & IPM in rice and vegetables.
2.	Agri. + Hort. + Animal Husbandry	Rice (<i>sali, ahu & asra</i>), <i>boro</i> rice, pre flood summer vegetables, post flood <i>rabi</i> vegetables, potato, pulses (black gram, french bean), rapeseed, amaranthas and lady's finger	Building awareness and skill of the farmers regarding: 1. Suitable rice varieties for flood affected areas. 2. Short duration rice varieties. 3. Dairy farming. 4. INM & IPM in rice and vegetables.
3.	Agri. + Fishery	<i>Boro</i> rice, winter vegetables, <i>asra</i> rice, toria	Building awareness and skill of the farmers regarding: 1. <i>Boro</i> rice varieties. 2. Fish farming.
4.	Agri. + Hort.	Coconut, arecanut, tea, fruit crops (pineapple, banana, jackfruit, litchi), vegetables (summer & winter), pulses, sugarcane, oilseed (toria), potato and spices	Building awareness and skill of the farmers regarding: 1. Production technology for plantation crops. 2. Scientific utilization of tillah land. 3. Arecanut/ coconut based HDMSCS model.
5.	Agri. based	Fruit trees (myrobalans, jam, kul, orange, lemon, jackfruit), spices (turmeric, ginger & bay leaf), vegetables (gourds, sweet potato, country bean), tea, rubber, sugarcane, pineapple, betelvine and arecanut	Building awareness and skill of the farmers regarding: 1. Improved methods of mixed cropping. 2. Soil and water conservation measures. 3. Scientific utilization of tillah land.

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1.	Agri. + Hort. + Fishery	Rice (<i>sali, ahu & asra</i>), sugarcane, vegetables, french bean (as pulse crop), toria, betelvine	Training and demonstration on: 1. HYV rice varieties. 2. Quality planting materials of vegetables. 3. Fish farming. 4. Integrated farming. 5. INM & IPM in rice and vegetables.
2.	Agri. + Hort. + Animal Husbandry	Rice (<i>sali, ahu & asra</i>), <i>boro</i> rice, pre flood summer vegetables, post flood <i>rabi</i> vegetables,	Training and demonstration on: 1. Suitable rice varieties for flood affected areas. 2. Short duration

		potato, pulses (black gram, french bean), rapeseed, amaranthas and lady's finger	rice varieties. 3. Disease and pest resistant varieties of rice and vegetables. 4. Dairy farming. 5. INM & IPM in rice and vegetables.
3.	Agri. + Fishery	Boro rice, winter vegetables, asra rice, toria	Training and demonstration on: 1. Boro rice varieties. 2. Fish farming. 3. INM & IPM in rice and vegetables.
4.	Agri. + Hort.	Coconut, arecanut, tea, fruit crops (pineapple, banana, jackfruit, litchi), vegetables (summer & winter), pulses, sugarcane, oilseed (toria), potato and spices	Training and demonstration on: 1. Production technology for plantation crops. 2. Scientific utilization of tillah land. 3. Arecanut/ coconut based HDMSCS model. 4. IPM & INM in plantation crops and vegetables.
5.	Agri. based	Fruit trees (myrobalans, jam, kul, orange, lemon, jackfruit), spices (turmeric, ginger & bay leaf), vegetables (gourds, sweet potato, country bean), tea, rubber, sugarcane, pineapple, betelvine and arecanut	Training and demonstration on: 1. Improved methods of mixed cropping. 2. Soil and water conservation measures. 3. Scientific utilization of tillah land. 4. Arecanut/ coconut based HDMSCS model.



7. Development Strategies for Kokrajhar

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1.	FS-1	Paddy, rapessed & mustard, maize, blackgram, nizer, sessamum etc	Training not based on felt need and CIGs
2.	FS-2	Paddy, banana, Assam lemon Areacanut, betevine, vegetables	Lack of skill and market oriented training
3.	FS-3	Paddy, vegetables (pumkin, pointed gourd, ridge gourd, bottle gourd etc.)	Poor effort for method demonstration and exposure visit
4.	FS-4	Paddy, banana, Assam lemon, Areacanut, betelvine, vegetables etc.	Lack of incentives to dedicated extension personnel
5.	FS-5	Paddy, vegetables (potato, cabbage, brinjal, tomato, cauliflower etc.)	

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1.	FS-1	Paddy, rapessed & mustard, maize, blackgram, nizer, sessamum etc	Popularization and area expansion of HYV varieties of paddy during Boro season
2.	FS-2	Paddy, banana, Assam lemon Areacanut, betevine, vegetables	Assured supply of quality planting material/ seed material
3.	FS-3	Paddy, vegetables (pumkin, pointed gourd, ridge gourd, bottle gourd etc.)	Rejuvenation of homestead garden/orchard
4.	FS-4	Paddy, banana, Assam lemon, Areacanut, betelvine, vegetables etc.	Proper organization and motivation of SHGs to make them sustainable in farming and allied activities
5.	FS-5	Paddy, vegetables (potato, cabbage, brinjal, tomato, cauliflower etc.)	

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1.	FS-1	Paddy, rapessed & mustard, maize, blackgram, nizer, sessamum etc	Motivating farmers/SHGs towards commercialization of Agriculture/horticulture/ fisheries/ livestock on cluster basis.
2.	FS-2	Paddy, banana, Assam lemon Areacanut, betevine, vegetables	Conducting FLD and OFT for transferring technology
3.	FS-3	Paddy, vegetables (pumkin, pointed gourd, ridge gourd, bottle gourd etc.)	Organizing training cum awareness programme on dairy, poultry and piggery farming
4.	FS-4	Paddy, banana, Assam lemon, Areacanut, betelvine, vegetables etc.	Motivation for organic farming in strategic crops like banana, pine apple, ginger, turmeric
5.	FS-5	Paddy, vegetables (potato, cabbage, brinjal, tomato, cauliflower etc.)	Motivation for organic farming of export potential Joha rice (scented rice) to capture distant market



8. Development Strategies for Nagaon

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1	Agriculture	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables	<ol style="list-style-type: none"> 1. Lack of knowledge and awareness for adoption of HY varieties. 2. Low and imbalance use of fertilizer. Lack of knowledge on adoption of INM, IPM & IDM practices
2	Agri-Horti-AH	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat, Sheep, Poultry, Fish	<ol style="list-style-type: none"> 1. Lack of knowledge and awareness for adoption of HY varieties. 2. Low and imbalance use of fertilizer. 3. Lack of knowledge on adoption of INM, IPM & IDM practices. 4. Lack of knowledge regarding crossbreeding, Housing, vaccination and disease management.
3	Agri-Horti-AH Fishery	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat, Sheep, Poultry, Fish	<ol style="list-style-type: none"> 1. Lack of knowledge and awareness for adoption of HY varieties. 2. Low and imbalance use of fertilizer. 3. Lack of knowledge on adoption of INM, IPM & IDM practices 4. Lack of knowledge regarding crossbreeding, Housing, vaccination and disease management. 5. Lack of knowledge of fish breeding, post harvest management, disease management and rearing practices.
4	Agri-AH- Fishery	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat,	<ol style="list-style-type: none"> 1. Lack of knowledge and awareness for adoption of HY varieties.

		Sheep, Poultry, Fish	<ol style="list-style-type: none"> 2. Low and imbalance use of fertilizer. 3. Lack of knowledge on adoption of INM, IPM & IDM practices 4. Lack of knowledge regarding crossbreeding, Housing, vaccination and disease management. 5. Lack of knowledge of fish breeding, post harvest management, disease management and rearing practices.
5	Agri-Horti	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables,	<ol style="list-style-type: none"> 1. Lack of knowledge and awareness for adoption of HY varieties. 2. Low and imbalance use of fertilizer. 3. Lack of knowledge on adoption of INM, IPM & IDM practices
6	Agri-AH	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat, Sheep, Poultry	<ol style="list-style-type: none"> 1. Lack of knowledge and awareness for adoption of HY varieties. 2. Low and imbalance use of fertilizer. 3. Lack of knowledge on adoption of INM, IPM & IDM practices. 4. Lack of knowledge regarding crossbreeding, Housing, vaccination and disease management.
7	Agri-Fishery	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Fish	<ol style="list-style-type: none"> 1. Lack of knowledge and awareness for adoption of HY varieties. 2. Low and imbalance use of fertilizer. 3. Lack of knowledge on adoption of INM, IPM & IDM practices. 4. Lack of knowledge of fish breeding, post harvest management, disease

			management and rearing practices.
8	Agri-Seri-Apiculture	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Bee, Muga.	<ol style="list-style-type: none"> 1. Lack of knowledge and awareness for adoption of HY varieties. 2. Low and imbalance use of fertilizer. 3. Lack of knowledge on adoption of INM, IPM & IDM practices.

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1	Agriculture	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables	Addressing low and imbalance use of fertilizers, INM with micronutrients. Non adoption of HYV. IPM & IDM practices.
2	Agri-Horti-AH	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat, Sheep, Poultry	Addressing low and imbalance use of fertilizers, INM with micronutrients. Non adoption of HYV. IPM & IDM practices. Crossbreeding of selected indigenous cattle with high yielding exotic cattle
3	Agri-Horti-AH Fishery	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat, Sheep, Poultry, Fish	Addressing low and imbalance use of fertilizers, INM with micronutrients. Non adoption of HYV. IPM & IDM practices. Crossbreeding of selected indigenous cattle with high yielding exotic animals. Scientific Fish Farming, quality fish seed production.
4	Agri-AH- Fishery	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables,	Addressing low and imbalance use of fertilizers, INM with

		Cattle, Buffalo, Pig, Goat, Sheep, Poultry, Fish	micronutrients. Non adoption of HYV. IPM & IDM practices.
5	Agri-Horti	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables,	Addressing low and imbalance use of fertilizers, INM with micronutrients. Non adoption of HYV. IPM & IDM practices. Crossbreeding of selected indigenous cattle with high yielding exotic animals. Scientific Fish Farming, quality fish seed production.
6	Agri-AH	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat, Sheep, Poultry	Addressing low and imbalance use of fertilizers, INM with micronutrients. Non adoption of HYV. IPM & IDM practices. Crossbreeding of selected indigenous cattle with high yielding exotic animals.
7	Agri-Fishery	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Fish	Addressing low and imbalance use of fertilizers, INM with micronutrients. Non adoption of HYV. IPM & IDM practices. Scientific Fish Farming, quality fish seed production.
8	Agri-Seri- Apiculture	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Bee, Muga.	Addressing low and imbalance use of fertilizers, INM with micronutrients. Non adoption of HYV. IPM & IDM practices. 4. Scientific Bee keeping.

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1	Agriculture	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables	Training, Demonstration and OFT.
2	Agri-Horti-AH	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat, Sheep, Poultry, Fish	Training, Demonstration and OFT.
3	Agri-Horti-AH Fishery	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat, Sheep, Poultry, Fish	Training, Demonstration and OFT.
4	Agri-AH- Fishery	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat, Sheep, Poultry, Fish	Training, Demonstration and OFT.
5	Agri-Horti	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables,	Training, Demonstration and OFT.
6	Agri-AH	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Cattle, Buffalo, Pig, Goat, Sheep, Poultry	Training, Demonstration and OFT.
7	Agri-Fishery	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Fish	Training, Demonstration and OFT.
8	Agri-Seri- Apiculture	Summer paddy, Jute, Pulses, Pulses, Rapeseed, Vegetables, Bee, Muga.	Training, Demonstration and OFT.



9. Development Strategies for Nalbari

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1.	Agri-Hort-AH-Fishery	Rice, Toria, Pulses, Jute, Sugarcane, Potato, Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, Poultry & Duck-Indigenous, Improved, Cow-indigenous, Cross breed, Local buffalo, indigenous & exotic fish	<ul style="list-style-type: none"> • Low adoption of HYVs and improved breeds/species. • Non adoption of scientific management and production practices with respect to crop and livestock enterprises. • Non availability/inadequate availability of quality seeds/ planting materials, pesticides, medicines etc. on time. • Lack of knowledge and skills amongst farmers for pursuing scientific management/ production practices. • Poor extension support and/or facilities from concerned line departments.
2.	Agri-Hort-AH	Rice, Toria, Pulses, Jute, Sugarcane, Potato, Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, Poultry & Duck-Indigenous, Improved, Cow-indigenous, Cross breed, Local buffalo	<ul style="list-style-type: none"> • Low adoption of HYVs and improved breeds/species. • Non adoption of scientific management and production practices with respect to crop and livestock enterprises. • Non availability/inadequate availability of quality seeds/ planting materials, pesticides, medicines etc. on time. • Lack of knowledge and skills amongst farmers for pursuing scientific management/ production practices. • Poor extension support and/or facilities from concerned line departments.
3.	Agri-Hort-Fishery	Rice, Toria, Pulses, Jute, Kharif and Rabi vegetables, Assam lemon, Banana,	<ul style="list-style-type: none"> • Low adoption of HYVs and improved breeds/species.

		Coconut, Arecanut, indigenous & exotic fish	<ul style="list-style-type: none"> • Non adoption of scientific management and production practices with respect to crop and livestock enterprises. • Non availability/inadequate availability of quality seeds/ planting materials, pesticides, medicines etc. on time. • Lack of knowledge and skills amongst farmers for pursuing scientific management/ production practices. • Poor extension support and/ or facilities from concerned line departments.
4.	Hort-AH	Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, indigenous & exotic fish	<ul style="list-style-type: none"> • Low adoption of HYVs and improved breeds/species. • Non adoption of scientific management and production practices with respect to crop and livestock enterprises. • Non availability/inadequate availability of quality seeds/ planting materials, pesticides, medicines etc. on time. • Lack of knowledge and skills amongst farmers for pursuing scientific management/ production practices. • Poor extension support and/or facilities from concerned line departments.

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1.	Agri-Hort-AH-Fishery	Rice, Toria, Pulses, Jute, Sugarcane, Potato, Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, Poultry & Duck-	<ul style="list-style-type: none"> • Increasing area coverage under field crops. • Increasing adoption of modern technologies. • Promoting scientific resource

		Indigenous, Improved, Cow-indigenous, Cross breed, Local buffalo, indigenous & exotic fish	<p>management practices.</p> <ul style="list-style-type: none"> • Ensuring timely availability of quality inputs. • Increasing situation specific cropping intensity. • Promoting farm mechanization. • Capacity building of stakeholders. • Undertaking entrepreneurship development initiatives. • Facilitating technical and financial institutional support. • Gender mainstreaming.
2.	Agri-Hort-AH	Rice, Toria, Pulses, Jute, Sugarcane, Potato, Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, Poultry & Duck- Indigenous, Improved, Cow-indigenous, Cross breed, Local buffalo	<ul style="list-style-type: none"> • Increasing area coverage under field crops. • Increasing adoption of modern technologies. • Promoting scientific resource management practices. • Ensuring timely availability of quality inputs. • Increasing situation specific cropping intensity. • Promoting farm mechanization. • Capacity building of stakeholders. • Undertaking entrepreneurship development initiatives. • Facilitating technical and financial institutional support. • Gender mainstreaming
3.	Agri-Hort-Fishery	Rice, Toria, Pulses, Jute, Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, indigenous & exotic fish	<ul style="list-style-type: none"> • Increasing area coverage under field crops. • Increasing adoption of modern technologies. • Promoting scientific resource management practices. • Ensuring timely availability of quality inputs.

			<ul style="list-style-type: none"> • Increasing situation specific cropping intensity. • Promoting farm mechanization. • Capacity building of stakeholders. • Undertaking entrepreneurship development initiatives. • Facilitating technical and financial institutional support. • Gender mainstreaming
4.	Hort-AH	Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, indigenous & exotic fish	<ul style="list-style-type: none"> • Increasing area coverage under field crops. • Increasing adoption of modern technologies. • Promoting scientific resource management practices. • Ensuring timely availability of quality inputs. • Increasing situation specific cropping intensity. • Promoting farm mechanization. • Capacity building of stakeholders. • Undertaking entrepreneurship development initiatives. • Facilitating technical and financial institutional support. • Gender mainstreaming

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1.	Agri-Hort-AH-Fishery	Rice, Toria, Pulses, Jute, Sugarcane, Potato, Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, Poultry & Duck-Indigenous, Improved, Cow-indigenous, Cross breed,	<ul style="list-style-type: none"> • Undertaking Frontline Demonstration Programme. • Undertaking awareness and motivational campaigns. • Launching technology week programmes. • Implementing Entrepreneurship Development Programmes.

		Local buffalo, indigenous & exotic fish	<ul style="list-style-type: none"> • Undertaking need based and structured training programmes for farmers, rural youth, farm women and extension functionaries. • Capacity building of farmer groups, SHGs and CBOs. • Exposure visits for farmer groups and individuals. • Organizing marketing awareness/training programmes. • Organizing method demonstration programmes.
2.	Agri-Hort-AH	Rice, Toria, Pulses, Jute, Sugarcane, Potato, Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, Poultry & Duck-Indigenous, Improved, Cow-indigenous, Cross breed, Local buffalo	<ul style="list-style-type: none"> • Undertaking Frontline Demonstration Programme. • Undertaking awareness and motivational campaigns. • Launching technology week programmes. • Implementing Entrepreneurship Development Programmes. • Undertaking need based and structured training programmes for farmers, rural youth, farm women and extension functionaries. • Capacity building of farmer groups, SHGs and CBOs. • Exposure visits for farmer groups and individuals. • Organizing marketing awareness/training programmes. • Organizing method demonstration programmes.
3.	Agri-Hort-Fishery	Rice, Toria, Pulses, Jute, Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, indigenous & exotic fish	<ul style="list-style-type: none"> • Undertaking Frontline Demonstration Programme. • Undertaking awareness and motivational campaigns. • Launching technology week programmes. • Implementing Entrepreneurship

			<p>Development Programmes.</p> <ul style="list-style-type: none"> • Undertaking need based and structured training programmes for farmers, rural youth, farm women and extension functionaries. • Capacity building of farmer groups, SHGs and CBOs. • Exposure visits for farmer groups and individuals. • Organizing marketing awareness/training programmes. • Organizing method demonstration programmes.
4.	Hort-AH	<p>Kharif and Rabi vegetables, Assam lemon, Banana, Coconut, Arecanut, indigenous & exotic fish</p>	<ul style="list-style-type: none"> • Undertaking FLDs . • Undertaking awareness and motivational campaigns. • Launching technology week programmes. • Implementing Entrepreneurship Development Programmes. • Undertaking need based and structured training programmes for farmers, rural youth, farm women and extension functionaries. • Capacity building of farmer groups, SHGs and CBOs. • Exposure visits for farmer groups and individuals. • Organizing marketing awareness/training programmes. • Organizing method demonstration programmes.



10. Development Strategies for Sivasagar

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1.	Agri-Horti-AH-Fishery	Given in Chapter - 4	1. Insufficient training programme
2.	Agri-Horti-AH	do	2. Non availability of required inputs in time.
3.	Horti-Agri-Seri-AH	do	3. Credit linkages are not sound.

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1.	All FS	Given in Chapter - 4	Sufficient teaching programmes and credit linkage
2.	All FS	do	Sufficient teaching programmes and credit linkage

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1.	All FS	Given in Chapter - 4	Training, Linkages
2.	All FS	Do	Training, Linkages



11. Development Strategies for Tinsukia

1. Extension gap for each farming system and crop

Sl. No.	Farming system	Crops under FS	Extension gaps identified
1.	Agri - Horti	Paddy, mustard, blackgram, pea, potato etc. Vegetables, fruit and other crops	Lack of awareness in disseminating the approved technologies
2.	Agri – Horti - Fishery	Paddy, mustard, blackgram, pea, potato etc. Vegetable, Citrus and other crops	Lack of awareness in disseminating the approved technologies
3.	Agri - Horti -Animal Husbandry	Paddy, mustard, blackgram, pea, potato etc. Vegetable, Citrus and other crops	Lack of awareness in disseminating the approved technologies
4.	Agri – Horti – Silviculture	Paddy, mustard, blackgram, pea, potato etc. Vegetable, Citrus and other crops	Lack of awareness in disseminating the approved technologies

2. Extension priorities finalized for each farming system and crop

Sl. No.	Farming system	Crops under FS	Extension priorities finalized
1.	Agri - Horti	Paddy, mustard, blackgram, pea, potato etc. Vegetables, fruit and other crops	Demonstration & Trial Trainings
2.	Agri – Horti - Fishery	Paddy, mustard, blackgram, pea, potato etc. Vegetable, Citrus and other crops	Demonstration & Trial Trainings
3.	Agri - Horti -Animal Husbandry	Paddy, mustard, blackgram, pea, potato etc. Vegetable, Citrus and other crops	Demonstration & Trial Trainings
4.	Agri – Horti – Silviculture	Paddy, mustard, blackgram, pea, potato etc. Vegetable, Citrus and other crops	Demonstration & Trial Trainings

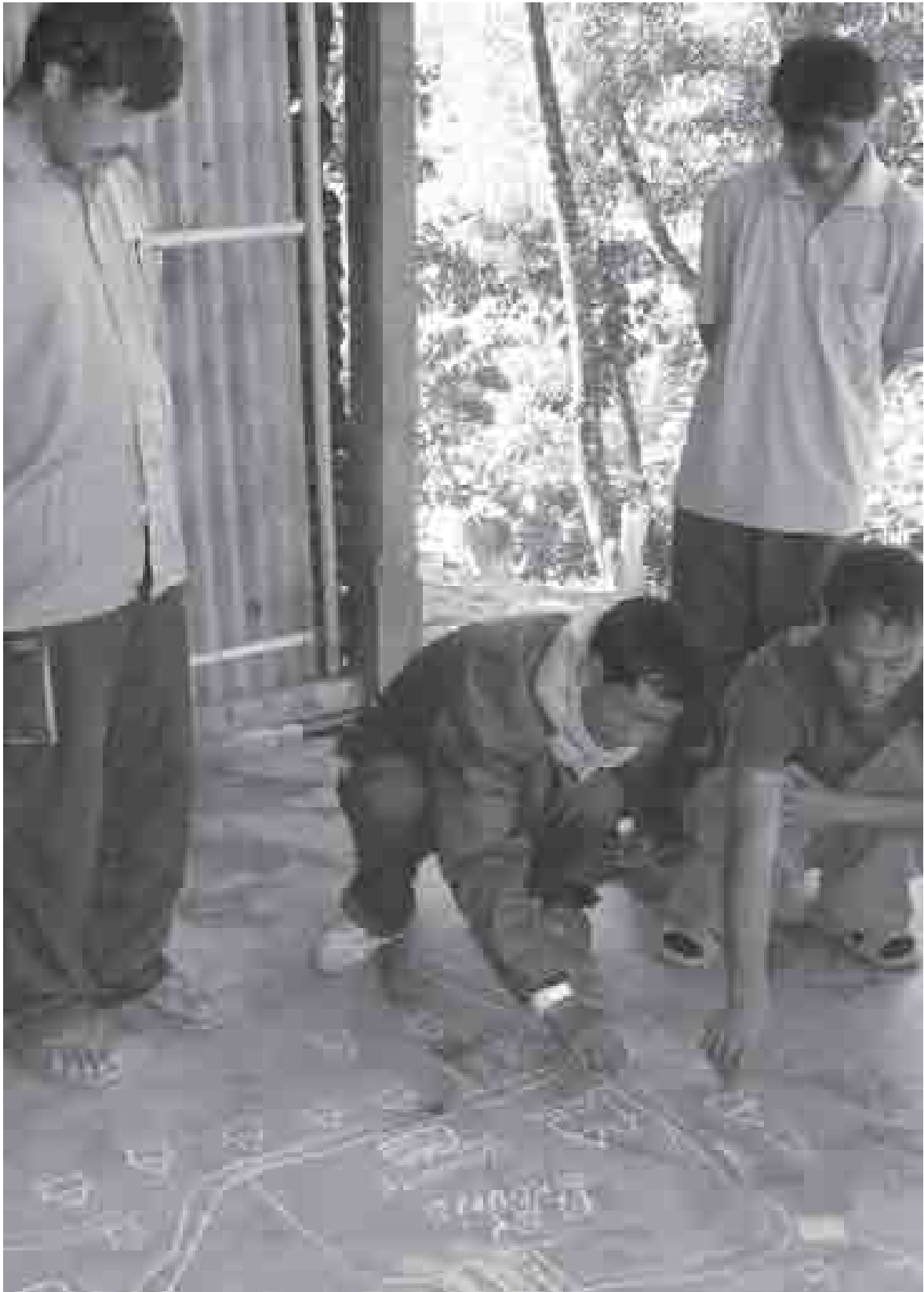
3. Extension strategy for each farming system and crop

Sl. No.	Farming system	Crops under FS	Extension strategy proposed
1.	Agri - Horti	Paddy, mustard, blackgram, pea, potato etc. Vegetables, fruit and other crops	Teachings and awareness campaigns for: Substitution of upland paddy with oilseed and pulses. Expansion of area under specific varieties for producing processed rice products. Scope of expansion of area under off-season vegetables by substitution. Introduction of multistoried cropping system by using compatible varieties of crops. Scope of production of organic orange.
2.	Agri – Horti - Fishery	Paddy, mustard, blackgram, pea, potato etc. Vegetable, Citrus and other crops	-- Do-- & Promotion of composite fish farming in available water bodies.
3.	Agri - Horti -Animal Husbandry	Paddy, mustard, blackgram, pea, potato etc. Vegetable, Citrus and other crops	--Do-- & Breed up gradation in milch cows of local breed Practice of feeding quality concentrate feed to local milchcows Encouraging of adoption of newly introduced cross bred.
4.	Agri – Horti – Silviculture	Paddy, mustard, blackgram, pea, potato etc. Vegetable, Citrus and other crops	Substitution of upland paddy with oilseed and pulses. Expansion of area under specific varieties for producing processed rice products. Scope of expansion of area under off-season vegetables by substitution. Introduction of multistoried cropping system by using compatible varieties of crops. Scope of production of organic

			<p>orange.</p> <p>Encouraging indoor rearing of Eri & Silk worm to prevent exposure to pollutants and insecticides.</p> <p>Encouraging plantation of Som, Kesheru and Mulberry trees for sericulture production.</p> <p>Encouraging collection of Cocoons from outside source and processing and production of Silk and Eri threads.</p>
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6.3 Development Strategies for Manipur

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1. Development Strategies for Bishnupur

1. Extension gaps for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension gaps identified
1	Agriculture based system	Rice- potato/mustard/pea/Blackgram Rice - Soyabean Maize + Soyabean	FLD, feedback mechanism, lack of farmers involvement in implementing programme, lack of linkages with line departments, training and programme on need based of the farmers.
2	Horticulture based system	Banana+turmeric/ginger Tree bean + turmeric/ginger Guava + turmeric/ginger Pineapple + Guava + turmeric/ginger	FLD, feedback mechanism, lack of farmers involvement in implementing programme, lack of linkages with line departments, training and programme on need based of the farmers.
3	Agri-Hort.	Maize+banana +alocasia Rice+Rice bean Sugarcane+Mustard +Onion Tree bean+ginger/ Turmeric+guava	FLD, feedback mechanism, lack of farmers involvement in implementing programme, lack of linkages with line departments, training and programme on need based of the farmers.
4	Agri + Horticulture + Livestock	Maize+banana +alocasia+pig (Hampshire)	FLD, feedback mechanism, lack of farmers involvement in implementing programme, lack of linkages with line departments, training and programme on need based of the farmers.
5	Agri + Fishery	Rice+magur+IMC	FLD, feedback mechanism, lack of farmers involvement in implementing programme, lack of linkages with line departments, training and programme on need based of the farmers.

2. Extension priorities finalized for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension priorities finalized
1	Agriculture based system	Rice- potato /mustard /pea /blackgram Rice-soyabean Maize+soyabean	Training, FLD and need based programme
2	Horticulture based system	Banana+turmeric/ginger Tree bean + turmeric/ginger Guava + turmeric/ginger Pineapple + Guava + turmeric/ginger	Training, FLD and need based programme
3	Agri-Hort.	Maize+banana + alocasia Rice+Rice bean Sugarcane +Mustard + Onion Tree bean +ginger/ Turmeric+guava	Training, FLD and need based programme
4	Agri + Horticulture + Livestock	Maize+banana +alocasia+pig (Hampshire)	Training, FLD and need based programme
5	Agri + Fishery	Rice+magur+IMC	Training, FLD and need based programme

3. Extension strategy for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension strategy proposed
1	Agriculture based system	Rice-potato/mustard/pea/blackgram Rice-soyabean Maize+soyabean	FLD and training.
2	Horticulture based system	Banana+turmeric/ginger Tree bean + turmeric/ginger Guava + turmeric/ginger Pineapple + Guava + turmeric/ginger	FLD and training.
3	Agri-Hort.	Maize+banana +alocasia Rice+Rice bean Sugarcane+Mustard +Onion Tree bean+ginger/ Turmeric+guava	FLD and training.
4	Agri + Horticulture + Livestock	Maize+banana +alocasia+pig (Hampshire)	FLD and training.
5	Agri + Fishery	Rice+magur+IMC	FLD and training.



2. Development Strategies for Churachandpur

1. Extension gaps for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension gaps identified
1	Agriculture based system	Rice- potato/mustard/pea/blackgram Rice-soyabean Maize + soyabean	FLD, feedback mechanism, lack of farmers involvement in implementing programme, lack of linkages with line departments, training and programme on need based of the farmers.
2	Horticulture based system	Banana + turmeric/ginger Tree bean + turmeric/ginger Tomato + Mustard + Onion Guava + turmeric/ginger + Papaya Pineapple + Guava + turmeric/ginger	FLD, feedback mechanism, lack of farmers involvement in implementing programme, lack of linkages with line departments, training and programme on need based of the farmers.
3	Agri + Hort.	Maize + banana + Colocasia Rice + Rice bean Sugarcane + Mustard +Onion Tree bean + ginger/ Turmeric + guava	FLD, feedback mechanism, lack of farmers involvement in implementing programme, lack of linkages with line departments, training and programme on need based of the farmers.
4	Agri + Horticulture + Livestock	Maize + banana +Colocasia + pig (Hampshire)	FLD, feedback mechanism, lack of farmers involvement in implementing programme, lack of linkages with line departments, training and programme on need based of the farmers.
5	Agri + Fishery	Rice + magur	FLD, feedback mechanism, lack of farmers involvement in implementing programme, lack of linkages with line departments, training and programme on need based of the farmers.

2. Extension priorities finalized for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension priorities finalized
1	Agriculture based system	Rice-potato/ mustard/ pea/ blackgram Rice- soyabean Maize + soyabean	Training, FLD and need based programme
2	Horticulture based system	Banana + turmeric/ginger Tree bean + turmeric/ginger Tomato + Mustard + Onion Guava + turmeric/ginger + Papaya Pineapple + Guava + turmeric/ ginger	Training, FLD and need based programme
3	Agri + Hort.	Maize + banana + Colocasia Rice + Rice bean Sugarcane + Mustard +Onion Tree bean + ginger/ Turmeric + guava	Training, FLD and need based programme
4	Agri + Horticulture + Livestock	Maize + banana + Colocasia + pig (Hampshire)	Training, FLD and need based programme
5	Agri + Fishery	Rice + magur	Training, FLD and need based programme

3. Extension strategy for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension strategy proposed
1	Agriculture based system	Rice-potato/ mustard/ pea/ blackgram Rice - soyabean Maize + soyabean	FLD and training.
2	Horticulture based system	Banana + turmeric/ginger Tree bean + turmeric/ginger Tomato + Mustard + Onion Guava + turmeric/ginger+ Papaya Pineapple + Guava + turmeric/ginger	FLD and training.
3	Agri + Hort.	Maize + banana + Colocasia Rice + Rice bean Sugarcane + Mustard +Onion Tree bean + ginger/ Turmeric + guava	FLD and training.
4	Agri + Horticulture + Livestock	Maize + banana + Colocasia + pig (Hampshire)	FLD and training.
5	Agri + Fishery	Rice + magur	FLD and training.



3. Development Strategies for Senapati

1. Extension gaps for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension gaps
1	Agriculture	Paddy (both terrace & upland rice)	Lack of knowledge about crop diversification.
2	Agriculture-Horticulture	Maize ,pulses, calocasia, tapioca etc.	- do -
3	Livestock + Agriculture	Maize, bean, calocasia, Piggery & poultry	Traditional farming (non-adoption of improved technique)
4	Agro-forestry	Forest tree species, Passion fruit, Cabbage Potato, pea etc.	- do -
5	Agri+Horti+Livestock	Maize, Passion fruit, Potato, piggery, cattle, peach, plum etc.	Lack of entrepreneurship

2. Extension priorities finalized for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension priorities finalized
1	Agriculture	Paddy (both terrace & upland rice)	Adoption of diversification of crop
2	Agriculture-Horticulture	Maize ,pulses, calocasia, tapioca etc.	Adoption of suitable crops
3	Livestock + Agriculture	Maize, bean, colocasia, Piggery & poultry	Replacement of components of farming system with suitable.
4	Agro-forestry	Forest tree species, Passion fruit, Cabbage Potato, pea etc.	Better management practices through skill promotion.
5	Agri+Horti+Livestock	Maize, Passion fruit, Potato, piggery, cattle, peach, plum etc.	Development of entrepreneurship

3. Extension strategy proposed for each farming system and cop

Sl. No.	Farming system	Crops under the FS	Extension strategy proposed
1	Agriculture	Paddy (both terrace & upland rice)	Motivational training based on unfelt needs through group approach.
2	Agriculture-Horticulture	Maize ,pulses, calocasia, tapioca etc.	Awareness campaign follow by training and demonstration.
3	Livestock + Agriculture	Maize, bean, colocasia, Piggery & poultry	- do -

4	Agro-forestry	Forest tree species, Passion fruit, Cabbage Potato, pea etc.	Selection informal leaders as a resource for dissemination of improved agro-forestry techniques.
5	Agri+Horti+Livestock	Maize, Passion fruit, Potato, piggery, cattle, peach, plum etc.	Selection of technology for marginal farmers.



4. Development Strategies for Ukhrul

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1.	Agri based system	Rice + bean/mustard	Lack of awareness of FS.
2.	Horti based system	Potato +bean/maize	-do-

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1.	Agri based system	Rice + bean/mustard	To develop suitable FS.
2.	Horti based system	Potato +bean/maize	-do-

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1.	Agri based system	Rice + bean/mustard	To include all components of FS like certified seeds/ animal/organic manure for more sustainable
2.	Horti based system	Potato +bean/maize	-do-



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6.4 Development Strategies for Meghalaya

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1. Development Strategies for Ri-Bhoi

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1.	<p>There are three Agro ecological situations .They are AES I,AES II& AES III.Under AES I there are two Existing farming system viz,EFS I &EFS II. EFS I Comprises of Agri+Horti+A.H+Fishery ,EFS II comprises of Agri+Horti+A.H+Fishery</p> <p>In AES II,there are two existing farming systems.They are EFS I- Agri+Horti+AH+Sericulture, EFS II- Horti+Agri+AH+Fishery</p> <p>In AES III,there are two existing farming systems.They are EFSI:- Agri+Horti+AH+Bee keeping, EFS II : Horti+Agri+AH+Fishery</p>	Paddy, Maize, Betelnut, Pineapple, Tomato and ginger	<ol style="list-style-type: none"> 1.Lack of awareness 2.Lack of finance 3. Non availability of planting materials 4. Adoption gap 5.Skill or knowledge gap 6.Poor linkage with mass media 7.Problem of marketing 8.Altitudinal gap

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1.	<p>There are three Agro ecological situations .They are AES I,AES II& AES III.Under AES I there are two Existing farming system viz,EFS I &EFS II. EFS I Comprises of Agri+Horti+A.H+Fishery ,EFS II comprises of Agri+Horti+A.H+Fishery</p> <p>In AES II,there are two existing farming systems.They are EFS</p>	Paddy, Maize, Betelnut, Pineapple, Tomato and ginger	<ol style="list-style-type: none"> 1.To popularize the adoption of HYV of paddy 2. To popularize the practice of raising nursery bed for horticultural crops. 3. To impart knowledge on IPM technology 4. To develop proper linkage with mass media 5.To assure proper planting material

	<p>I- Agri+Horti+AH+Sericulture, EFS II- Horti+Agri+AH+Fishery In AES III,there are two existing farming systems.They are EFSI:- Agri+Horti+AH+Bee keeping, EFS II : Horti+Agri+AH+Fishery</p>		
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3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1.	<p>There are three Agro ecological situations .They are AES I, AES II& AES III.Under AES I there are two Existing farming system viz,EFS I &EFS II. EFS I Comprises of Agri+Horti+A.H+Fishery ,EFS II comprises of Agri+Horti+A.H+Fishery In AES II,there are two existing farming systems.They are EFS I- Agri+Horti+AH+Sericulture, EFS II- Horti+Agri+AH+Fishery In AES III,there are two existing farming systems.They are EFSI:- Agri+Horti+AH+Bee keeping, EFS II : Horti+Agri+AH+Fishery</p>	<p>Paddy, Maize, Betelnut, Pineapple, Tom ato and ginger</p>	<p>1.To do On Farm Trials/Demonstration 2.To encourage people to adopt new varieties through demonstration 3.To recommend planting materials which are specified 4. To develop linkage with financial institutions.</p>





6.5 Development Strategies for Mizoram

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1. Development Strategies for Aizawl

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1	Agri -Horti	Rice, Maize, Pulses, Orange, Banana, Passion fruits, Vegetables, Flowers	<ul style="list-style-type: none"> - Meeting with the farmers, coordination with the line Department and RRCs. - Training and demonstration, advisory services, exposure visit etc.
2	Animal Husbandry – Fisheries.	Crossed Bred Cows, Croiler, piggery, Indian major carp and exotic carp.	-do-

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1	Agri - Horti	Rice, Maize, Pulses, Orange, Banana, Passion fruits, Vegetables, Flowers	<ul style="list-style-type: none"> - To organize awareness / motivation generation camp. - Training and demonstration - Farmers and scientist discussion. - To conduct exposure visit.
2	Animal Husbandry – Fisheries	Crossed Bred Cows, Croiler, piggery, Indian major carp, exotic carp.	-do-

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Research gaps identified
1	Agri - Horti.	Rice, Maize, Pulses, Orange, Banana, Passion fruits, Vegetables, Flowers	<ul style="list-style-type: none"> - To develop networking system. - Coordination and cooperation with the research institute and developmental Department.

			<ul style="list-style-type: none">- Training and extension programme.- Playing the role as facilitator.- Time to time feed back.
2	Animal Husbandry- Fishery	Crossed Bred Cows, Croiler, piggery, Indian major carp and exotic carp.	-do-



2. Development Strategies for Kolasib

1. Extension gaps for each farming system and crops.

Sl.No.	Farming system.	Crops under the FS	Extension gaps identified.
1.	FS-1	Paddy,Ginger,Maize.	Inadequate farmers training, trail and demonstration.
2.	FS-2	Paddy, Maize, Banana, Orange, Chillies, Oil Palm.	-do-
3.	FS-3	Paddy, Maize, Arecanut, Hatkora, Oil Palm.	-do-
4.	FS-4	Paddy, Maize, Pineapple, Oilseeds, Pulses, Oil Palm.	-do-

2. Extension priorities finalized for each farming system and crop

Sl.No.	Farming system.	Crops under the FS	Extension priorities finalized.
1.	FS-1	Paddy,Ginger,Maize.	Adequate training, trails and demonstration for farmers as well as extension staff.
2.	FS-2	Paddy, Maize, Banana, Orange, Chillies, Oil Palm.	-do-
3.	FS-3	Paddy, Maize, Arecanut, Hatkora, Oil Palm.	-do-
4.	FS-4	Paddy, Maize, Pineapple, Oilseeds, Pulses, Oil Palm.	-do-

3. Extension strategy for each farming system and crop.

Sl.No.	Farming System	Crops under the FS	Extension Strategy Proposed.
1.	FS-1	Paddy,Ginger,Maize.	Conducting farmer as well as extension staff training, conducting OFT and FLD, field day, exposure visit.
2.	FS-2	Paddy, Maize, Banana, Orange, Chillies, Oil Palm.	-do-
3.	FS-3	Paddy, Maize, Arecanut, Hatkora, Oil Palm.	-do-
4.	FS-4	Paddy, Maize, Pineapple, Oilseeds, Pulses, Oil Palm.	-do-





3. Development Strategies for Lawngtlai

1. Extension gaps for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension gaps identified
1.	Agri - Horti	Rice, Cole crops and vegetables	Lack of awareness and adoption of improved practices
2.	Horticulture	Banana, Citrus, Ginger, Turmeric, French bean, Cabbage, Chilli, etc.	-do-
3.	Animal Husbandry	Fodder grasses	-do-

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension priorities finalized
1.	Agri - Horti	Rice, Cole crops and vegetables	Farmers training
2.	Horticulture	Banana, Citrus, Ginger, Turmeric, French bean, Cabbage, Chilli, etc.	-do-
3.	Animal Husbandry	Fodder grasses	-do-

3. Extension Strategy for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension strategy proposed
1.	Agri - Horti	Rice, Cole crops and vegetables	Farmers training, farmers fare, field trips/farmers tour, field demonstration, awareness campaigns, trial plots, exposure visit, exhibitions, leaflets, farm and home visit, result demonstration.
2.	Horticulture	Banana, hatkora, khasi mandarin, cabbage, Ginger, turmeric, tomato, etc.	-do-
3.	Animal Husbandry	Fodder grasses	-do-





4. Development Strategies for Lunglei

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1.	Agriculture based	Paddy, vegetables	Unavailability of water & Agricultural inputs
2.	Agriculture+ Fishery	Paddy, Maize, Fish Culture	Lack of technical knowledge Inadequate supply of feed
3.	Agriculture+ AH	Paddy, Maize, Poultry, Piggery	Inadequate supply of feeds, Unavailability of water
4.	Agriculture+ Horticulture	Paddy, Maize, Orange, Lemon	Unavailability of water & Agril inputs

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1.	Agriculture based	Paddy, vegetables	Training on water management, Water harvesting methods.
2.	Agriculture+ Fishery	Paddy, Maize, Fish Culture	Training on Integrated farming, production of fish feed
3.	Agriculture+ AH	Paddy, Maize, Poultry, Piggery	Training on Water management, production of livestock feed & fodder
4.	Agriculture + Horticulture	Paddy, Maize, Orange, Lemon	Training on water management, plant propagation techniques

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1.	Agriculture based	Paddy, vegetables	Training on Resource Conservation Technologies, Integrated farming, Trials & Demonstrations
2.	Agriculture+ Fishery	Paddy, Maize, Fish Culture	Awareness campaign, exposure visit
3.	Agriculture + AH	Paddy, Maize, Poultry, Piggery	Field demonstration, farmers fare
4.	Agriculture+ Horticulture	Paddy, Maize, Orange, Lemon	Training on management of young plants/orchards,field visits ,exhibitions



5. Development Strategies for Mamit

1. Extension gaps for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension gaps identified
1.	Agri - Fishery	Fish crops: Catla, Rohu, Mrigal, Grass carp, Silver carp, Common carp Agricultural crop: Paddy	Lack of adoption of improved practices
2.	Agri - Horti	Rice, cole crops and vegetables	-do-
3.	Horticulture	Banana, hatkora, khasi mandarin, Ginger, turmeric, oil palm, tomato, cabbage etc.	-do-
4.	Animal Husbandry	Fodder grasses	-do-

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension priorities finalized
1.	Agri - Fishery	Fish crops: Catla, Rohu, Mrigal, Grass carp, Silver carp, Common carp Agricultural crop: Paddy	Farmers training
2.	Agri - Horti	Rice, cole crops and vegetables	-do-
3.	Horticulture	Banana, hatkora, khasi mandarin, Ginger, turmeric, oil palm, tomato, cabbage etc.	-do-
4.	Animal Husbandry	Fodder grasses	-do-

3. Extension Strategy for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension strategy proposed
1.	Agri - Fishery	Fish crops: Catla, Rohu, Mrigal, Grass carp, Silver carp, Common carp Agricultural crop: Paddy	Farmers training, field demonstration, awareness campaigns, trial plots, field trips/farmers tour, exposure visit, exhibitions, farmers fare, leaflets, farm and home visit, result demonstration.
2.	Agri - Horti	Rice, cole crops and vegetables	-do-
3.	Horticulture	Banana, hatkora, khasi mandarin, Ginger, turmeric, oil palm, tomato, cabbage etc.	-do-
4.	Animal Husbandry	Fodder grasses	-do-



6. Development Strategies for Saiha

1. Extension gaps for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension gaps identified
1.	Agri – Horti	Rice, cabbage, ginger, Cole crops and vegetables	Lack of awareness of improved practices and varieties
2.	Horticulture	Banana, Orange, citrus, Mandarin orange, etc.	-do-
3.	Animal Husbandry	Fodder grasses	-do-

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension priorities finalized
1.	Agri – Horti	Rice, cabbage, ginger, Cole crops and vegetables	Farmers training
2.	Horticulture	Banana, Orange, citrus, Mandarin orange, etc.	-do-
3.	Animal Husbandry	Fodder grasses	-do-

3. Extension Strategy for each farming system and crop

Sl. No	Farming System	Crops under the FS	Extension strategy proposed
1.	Agri – Horti	Rice, cabbage, ginger, Cole crops and vegetables	Farmers training, Awareness Campaign, Field trips / Farmers Tour, field demonstration, exhibitions, farm and home visit.
2.	Horticulture	Banana, Orange, citrus, Mandarin orange, etc.	-do-
3.	Animal Husbandry	Fodder grasses	-do-



7. Development Strategies for Serchhip

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1.	Agriculture: (W.R.C & Jhuming)	Rice, Maize, Sugarcane, Soybean, Rapeseed and Mustard	Poor adoption of High Yielding Varieties, Lack of proper irrigation facilities. Lack of awareness regarding IPM No proper Soil and water Conservation Practices.
2.	Horticulture	Citrus (Orange), Banana, Passion fruit, Cabbage, Potato, French Bean, Bird's Eye Chilies, Ginger, Turmeric	Lack of knowledge for Value addition for higher income, Lack of knowledge regarding IPM & INM, Lack of Water harvesting structures, Lack of disease resistant or tolerant & high yielding varieties.
3.	Animal Husbandry	Pig: Local, Hampshire cross, Large white yorkshire cross Poultry: Local, Vencob, Hubberd Cattle: Local, HF & Jersey cross	Poor Scientific management and disease control techniques, Insufficient Fodder production, Lack of Quality breeds.
4.	Fishery	Common Carp, Silver Carp, Grass carp, Magur	Poor knowledge on value addition for higher income, Lack of quality seeds, Unavailability of timely seed supply, lack of knowledge on use of production enhancing inputs like manures and supplementary feeds.
5.	Sericulture	Muga & Eri silk	Lack of High Yielding Variety Seeds. Lack of proper irrigation facilities. Pest and disease management. No proper Soil and water Conservation Practices.

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1.	Agriculture: W.R.C Jhuming	Rice Rice, Maize, Sugarcane, Soybean, Rapeseed and Mustard	Proper irrigation facilities, Pest and disease management, Soil and water Conservation Practices in Jhum, High Yielding Variety.
2.	Horticulture	Citrus (Orange), Banana, Passion fruit, Cabbage, Potato, French Bean, Bird's Eye Chilies, Ginger, Turmeric	IPM & INM, Disease resistant or tolerant & high yielding varieties, Water harvesting structures, Post harvest management and value addition for higher income.
3.	Animal Husbandry	Pig: Local, Hampshire cross, Large white yorkshire cross Poultry: Local, Vencob, Hubberd Cattle: Local, HF & Jersey cross	Increase Fodder production, Scientific management and disease control, Quality breeds.
4.	Fishery	Common Carp, Silver Carp, Grass carp, Magur	Knowledge on use of production enhancing inputs like manures and supplementary feeds, Unavailability of timely supply of quality seeds, Poor knowledge on value addition for higher income.
5.	Sericulture	Muga & Eri silk	Introduction of improved variety of mulberry & scientific management techniques, To create linkage with important silk industries.

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategies proposed
1.	Agriculture: W.R.C Jhuming	Rice Rice, Maize, Sugarcane, Soybean, Rapeseed and Mustard	Training on Pest and disease management incorporating biological & locally available plant extracts, Identification and Introduction of tolerant/resistant crop varieties, Development Soil and water Conservation Practices in Jhum, Introduction of High Yielding Variety.
2.	Horticulture	Citrus (Orange), Banana, Passion fruit, Cabbage, Potato, French Bean, Bird's Eye Chillies, Ginger, Turmeric	IPM & INM, Identification and Introduction of tolerant/resistant/high yielding crop varieties, Water harvesting structures, Identification & development of traditional methods of preparations and preservation for value addition and higher income.
3.	Animal Husbandry	Pig: Local, Hamshire cross, Large white yorkshire cross Poultry: Local, Vencob, Hubberd Cattle: Local, HF & Jersey cross	Identification and development of locally available fodder and herbs, Scientific management and disease control, Implementation of cross breeding programmes for upgradation of local breeds.
4.	Fishery	Common Carp, Silver Carp, Grass carp, Magur	Enhancement of inputs like manures and supplementary feeds, Implementation of breeding programmes for self sufficiency in seed supply, Research on value addition for higher income.
5.	Sericulture	Muga & Eri silk	Introduction of improved variety of mulberry & scientific management techniques, To create linkage with important silk industries.



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6.6 Development Strategies for Nagaland

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1. Development Strategies for Dimapur

1. Extension gaps for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension gaps identified
1.	Agri – Horti – AH - Fishery	Paddy, Maize, ginger, Banana, Pineapple, Animal Husbandry, Fisheries	a) Lack of awareness about ongoing schemes run by government b) Lack of marketing infrastructures and linkages c) Complicated procedures of bank loans d) Poor Agri-link road conditions
2.	Agri – Horti – AH - Fishery - Sericulture	Paddy, Maize, Mustard, Banana, Pineapple, Vegetables, Animal Husbandry, Fisheries, Sericulture	a) Lack of awareness about ongoing schemes by government b) Lack of marketing infrastructures and linkages c) Complicated procedures of bank loans d) Poor Agri-link road conditions

2. Extension priorities finalized for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension priorities finalized
1.	Agri – Horti – AH - Fishery	Paddy, Maize, ginger, Banana, Pineapple, Animal Husbandry, Fisheries, Sericulture	a) Awareness about ongoing schemes run by government b) Facilitator between farmers and marketing bodies
2.	Agri – Horti – AH - Fishery - Sericulture	Paddy, Maize, Mustard, Banana, Pineapple, Vegetables, Animal Husbandry, Fisheries, Sericulture	a) Awareness about ongoing schemes run by government b) Facilitator between farmers and marketing bodies

3. Extension strategy for each farming system and crop

Sl. No.	Farming system	Crops under the FS	Extension strategy proposed
1.	Agri – Horti – AH - Fishery	Paddy, Maize, ginger, Banana, Pineapple, Vegetables, Animal Husbandry, Fisheries, Sericulture	a) Creating awareness through awareness camps b) Trainings c) Demonstrations d) Linkage with marketing agents and banks for credit financing

2.	Agri – Horti – AH – Fishery - Sericulture	Paddy, Maize, Mustard, Banana, Pineapple, Vegetables, Animal Husbandry, Fisheries, Sericulture	a) Creating awareness through awareness camps b) Trainings c) Demonstrations d) Linkage with marketing agents and banks for credit financing
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2. Development Strategies for Kohima

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
AES-I	a) EFS-1 Agri + Animal Husbandry	Paddy (TRC), Rainfed Potato Piggery, Cow	Research cum extension Financial constraints
	b)EFS-2 Agri + Horticulture	Paddy (TRC), Rainfed Potato, passion fruits, Garlic	Research cum extension
	c)EFS-3 Agri+Anil.Hus+Fishery	Paddy (TRC),Potato Cow,Pig, Fishery	Research cum extension Financial constraints Research gap
	d) EFS-4 Agri + Others	Paddy & Stone quarry	Quality seed
AES-II	a)EFS-1 Agri + Animal Husbandry	Paddy (Jhum) Collocassia+ chilly+Maize Piggery	Preference of local varieties/ lack of proper knowledge Lack of mandays/financial constraints lack of proper knowledge
	b) EFS-2 Hort + Apiculture	Passion fruits Orange,Bee keeping/Box	lack of proper knowledge lack of technical knowledge
	c) EFS-3 Agri+Fishery	Paddy (TRC) Fishery	Preference of local varieties Shortage of water/ lack of proper knowledge

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
AES-I	a) EFS-1 Agri + Animal Husbandry	Paddy (TRC), Rainfed Potato Piggery, Cow	HYV varieties for altitude above 1000MSL
	b)EFS-2 Agri + Horticulture	Paddy (TRC), Rainfed Potato, passion fruits, Garlic	HYV suitable for rainfed conditions Purity seeds selection
	c)EFS-3 Agri + Anil.Hus + Fishery	Paddy (TRC),Potato Cow,Pig, Fishery	Segregation of varieties in use. Diseases on Potato tubers. Proper management of fishery ponds
	d) EFS-4 Agri + Others	Paddy & Stone quarry	Value addition of horticultural crops. Control of epidemic in Pigs through research finding and consultations.

	b)EFS-2 Agri + Horticulture	Paddy (TRC), Rainfed Potato, passion fruits, Garlic	
	c)EFS-3 Agri+Anil.Hus+Fishery	Paddy (TRC),Potato Cow,Pig, Fishery	
	d) EFS-4 Agri + Others	Paddy & Stone quarry	
AES-II	a)EFS-1 Agri + Animal Husbandry	Paddy (Jhum) Collocassia+ chilly+Maize Piggery	
	b) EFS-2 Hort + Apiculture	Passion fruits Orange,Bee keeping/Box	HYV suitable for Jhum/short or medium duration variety for reinfed conditions Promotion of IPM methods. Post harvest value additions. Market linkages.
	c) EFS-3 Agri+Fishery	Paddy (TRC) Fishery	

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
AES-I	a) EFS-1 Agri + Animal Husbandry	Paddy (TRC), Rainfed Potato Piggery, Cow	Introduction of HYV Introduction of exotic breed
	b)EFS-2 Agri + Horticulture	Paddy (TRC), Rainfed Potato, passion fruits, Garlic	Introduction of HYV Intensification Intensification & trailing system with GI wire. Intensification of farming system
	c)EFS-3 Agri+Anil.Hus+Fishery	Paddy (TRC), Potato,Cow,Pig, Fishery	Introduction of HYV Intensification Provides quality seeds
	d) EFS-4 Agri + Others	Paddy Stone quarry	Introduction of HYV Extension and diversification from local tools to mechanized one
AES-II	a)EFS-1 Agri + Animal Husbandry	Paddy (Jhum) Collocassia+ chilly+Maize & Piggery	Both local and HYV/Training and exposure trips, timely cultural operation to be done Extension help from department

	b) EFS-2 Hort & Apiculture	Passion fruits Orange Bee keeping/Box	Timely cultural operation to be done Extension help from department/ Training and exposure trips Extension help from department
	c) EFS-3 Agri+Fishery	Paddy (TRC) Fishery	Both local and HYV, Training and exposure trips Proper construction of drainage and extension help from department



3. Development Strategies for Mokokchung

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1.	Agri + Horti	Paddy, Tapioca, Maize, Passion fruit, Ginger, Orange, Banana	Lack of awareness, Non adoption of recommended practices, lack of skill in post harvest technology, Practice of monoculture, limited farming literature and media coverage
2.	Agri + AH	Paddy, Tapioca, Maize, Local cross bred	Lack of awareness, Non adoption of recommended practices, lack of skill in post harvest technology, Practice of monoculture, limited farming literature and media coverage, inadequate animal health care centre
3.	Agri+ Fishery	Paddy, Tapioca, Maize, IMC & exotic carp	Lack of awareness, lack of training and demonstration, Non adoption of recommended practices, inadequate availability of fingerlings
4.	Agri + Horti + AH + Fishery	Paddy, Tapioca, Maize, Passion fruit, Ginger, Orange, Banana, Local cross bred, IMC & exotic carp, indigenous MAP, silkworm	Lack of awareness, lack of training and demonstration, Non adoption of recommended practices, inadequate availability of fingerlings, lack of skill

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1.	Agri + Horti	Paddy, Tapioca, Maize, Passion fruit, Ginger, Orange, Banana	Training and demonstration on improved farming system (Paddy, Tapioca, Passion fruit, banana), training on post harvest technology, exposure trips
2.	Agri + AH	Paddy, Tapioca, Maize, Local cross bred	Training and demonstration on improved farming system (Paddy, Tapioca), awareness through conducting animal health camps
3.	Agri+ Fishery	Paddy, Tapioca, Maize, IMC & exotic carp	Training and demonstration on improved farming system (Paddy, Tapioca), training and demonstration on breeding and hatchery
4.	Agri + Horti + AH + Fishery	Paddy, Tapioca, Maize, Passion fruit, Ginger, Orange, Banana,	Training and demonstration, awareness programme, farmers cross visits and exposure trips

		Local cross bred, IMC & exotic carp, indigenous MAP, silkworm	
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3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1.	Agri + Horti	Paddy, Tapioca, Maize, Passion fruit, Ginger, Orange, Banana	Training on improved farming system on paddy, tapioca, passion fruit and banana. Demonstration on value addition products on tapioca, banana. Training on post harvest technology Organizing exposure trips with a theme 'Seeing is believing'
2.	Agri + AH	Paddy, Tapioca, Maize, Local cross bred	Training and demonstration on improved farming system (Paddy, Tapioca, maize) Conducting awareness programme through animal health camps Training and demonstration on formulation of locally available fodder Demonstration on AI Organizing exposure trips
3.	Agri+ Fishery	Paddy, Tapioca, Maize, IMC & exotic carp	Training and demonstration on improved farming system (Paddy, Tapioca, maize) Training and demonstration on fish cum paddy cultivation Training and demonstration on composite fish culture, breeding and hatchery Organizing farmers exchange tour
4.	Agri + Horti + AH + Fishery	Paddy, Tapioca, Maize, Passion fruit, Ginger, Orange, Banana, Local cross bred, IMC & exotic carp, indigenous MAP, silkworm	Training and demonstration on improved farming system Training and demonstration on MAP, silkworm culture Conducting awareness programmes. Conducting farmers cross visit and exposure trips



4. Development Strategies for Phek

1. Extension gaps for each farming system and crop

Sl.No	Farming system	Crops under the FS	Extension gaps identified
1	Agri – Horti – AH – Fishery Zabo system	Paddy, Maize Beans, Pea, Cowpea, Arahar, Nagadal, Cabbage Banana, Pear, Peach, Plum, Garlic, Potato, Buffalo, Cattle and Fish	Lack of knowledge on scientific production technology for TRC Lack of knowledge on scientific production technology for cereals and pulses Lack of knowledge on nursery raising technique for vegetables Lack of knowledge on improved production technology for banana, passion fruit, Lack of knowledge IPM Lack of knowledge on composite fish farming. Lack of knowledge on post harvest storage and processing of cereals, fruits and vegetables.
2	Agri – Silvi – Horti – Pastural	Forest trees like Ficus spp, Bauhinia spp., Legistroma. Fodder grasses like Broom grass, Napier etc. Maize, Millets, Banana, Pear, Peach, Plum, Mithun, Cattle	Lack of knowledge on multistoried cropping system Lack of knowledge on high yielding varieties of fodder crops, Lack of knowledge on production technology on banana and mandarin Lack of knowledge on rejuvenation of declining mandarin orchards Lack of knowledge on on health coverage livestock. Lack of knowledge on nursery raising technique for vegetables Lack of knowledge on post harvest storage and processing of cereals, fruits and vegetables.
3	Agri - Horti	Maize, Millets, Jobstears, Beans, Cowpea, Pea, Garlic, Potato Banana, Pear, Peach, Plum, Mandarin, Papaya, Large cardamom Tea,	Lack of knowledge on scientific production technology on Maize. Lack of knowledge IPM technology Lack of knowledge on agro techniques for Tea cultivation on temperate hills. Lack of knowledge on layout and orchard management. Lack of knowledge on training and pruning in fruits trees. Lack of knowledge on nursery raising technique for vegetables Lack of knowledge on INM and IWM

			Lack of knowledge on post harvest storage and processing of cereals, fruits and vegetables.
4	Agri - Horti Jhum	Jhoom Paddy, Maize, Banana, Papaya, Beans, Cowpea, Pea, Garlic, Potato, Cabbage	Lack of knowledge IPM technology Lack of knowledge on high yielding varieties of papaya. Lack of knowledge on high quality banana varieties. Lack of knowledge on soil erosion and nutrient leaching Lack of knowledge on post harvest storage and processing of cereals, fruits and vegetables.
5	Agri – Horti - Fishery Pani-kheti system	Paddy, Pea, Summer vegetables, Fish	Lack of knowledge on scientific production technology for TRC/WRC. Lack of knowledge on production technology for summer vegetables. Lack of knowledge on scientific production technology on pea. Lack of knowledge on fish diseases and control. Lack of knowledge IPM, INM, and IWM technology Lack of knowledge on storage

2. Extension priorities finalized for each farming system and crop.

Sl.No	Farming system	Crops under the FS	Extension priority finalized
1	Agri – Horti – AH – Fishery Zabo system	Paddy, Maize Beans, Pea, Cowpea, Arahar, Nagadal, Cabbage Banana, Pear, Peach, Plum, Garlic, Potato, Buffalo, Cattle and Fish	Lack of knowledge on scientific production technology for TRC Lack of knowledge on scientific production technology for cereals and pulses Lack of knowledge on nursery raising technique for vegetables Lack of knowledge on improved production technology for banana, passion fruit, Lack of knowledge on IPM in cereals, fruits and vegetables Lack of knowledge on composite fish farming. Lack of knowledge on post harvest storage and processing of cereals, fruits and vegetables.
2	Agri – Silvi – Horti – Pastural	Forest trees like Ficus spp, Bauhinia spp., Legistroma.	Lack of knowledge on multistoried cropping system Lack of knowledge on high yielding varieties of

		Fodder grasses like Broom grass, Napier etc. Maize, Millets, Banana, Pear, Peach, Plum, Mithun, Cattle	fodder crops, Lack of knowledge on production technology on banana and mandarin Lack of knowledge on rejuvenation of declining mandarin orchards Lack of knowledge on on health coverage livestock. Lack of knowledge on nursery raising technique for vegetables Lack of knowledge on post harvest storage and processing of cereals, fruits and vegetables.
3	Agri - Horti	Maize, Millets, Jobstears, Beans, Cowpea, Pea, Garlic, Potato Banana, Pear, Peach, Plum, Mandarin, Papaya, Large cardamom Tea,	Lack of knowledge on scientific production technology on Maize. Lack of knowledge IPM technology Lack of knowledge on agro techniques for Tea cultivation on temperate hills. Lack of knowledge on layout and orchard management. Lack of knowledge on training and pruning in fruits trees. Lack of knowledge on nursery raising technique for vegetables Lack of knowledge on INM and IWM Lack of knowledge on post harvest storage and processing of cereals, fruits and vegetables.
4	Agri – Horti Jhum	Jhoom Paddy, Maize, Banana, Papaya, Beans, Cowpea, Pea, Garlic, Potato, Cabbage	Lack of knowledge IPM technology Lack of knowledge on high yielding varieties of papaya. Lack of knowledge on high quality banana varieties. Lack of knowledge on soil erosion and nutrient leaching Lack of knowledge on post harvest storage and processing of cereals, fruits and vegetables.
5	Agri – Horti - Fishery Pani-kheti System	Paddy, Pea, Summer vegetables, Fish	Lack of knowledge on scientific production technology for TRC/WRC. Lack of knowledge on production technology for summer vegetables. Lack of knowledge on scientific production technology on pea.

			<p>Lack of knowledge on fish diseases and control.</p> <p>Lack of knowledge IPM, INM, and IWM technology</p> <p>Lack of knowledge on post harvest storage and processing of cereals, fruits and vegetables.</p>
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3. Extension strategy for each farming system and crop.

Sl.No	Farming system	Crops under the FS	Extension strategy proposed
1	Agri – Horti – AH – Fishery Zabo system	Paddy, Maize Beans, Pea, Cowpea, Arahara, Nagadal, Cabbage Banana, Pear, Peach, Plum, Garlic, Potato, Buffalo, Cattle and Fish	<p>Training on scientific production technology for TRC</p> <p>Training on scientific production technology for cereals and pulses</p> <p>Training cum demonstration on nursery raising technique for vegetables</p> <p>Demonstration on production technology for banana, passion fruit,</p> <p>Training on IPM in cereals, fruits and vegetables</p> <p>Training & exposure visit to develop fish farm.</p> <p>Training on storage and processing of cereals, fruits and vegetables.</p> <p>Exposure visit to food processing plant</p>
2	Agri – Silvi – Horti – Pastoral	Forest trees like Ficus spp, Bauhinia spp., Legistroma. Fodder grasses like Broom grass, Napier etc. Maize, Millets, Banana, Pear, Peach, Plum, Mithun, Cattle	<p>Training on multistoried cropping system</p> <p>Exposure visit to developed horticultural farm</p> <p>Training on production technology of fodder crops,</p> <p>Demonstration on production technology on banana</p> <p>Demonstration on rejuvenation of declining mandarin orchards</p> <p>Vaccination camp for livestock.</p> <p>Training cum demonstration on nursery raising technique for vegetables</p> <p>Training on storage and processing of cereals, fruits and vegetables.</p> <p>Exposure visit to food processing plant</p> <p>Training on soil and water conservation</p>
3	Agri - Horti	Maize, Millets, Jobstears, Beans, Cowpea, Pea, Garlic, Potato Banana, Pear,	<p>Training on scientific production technology on Maize.</p> <p>Training on IPM technology</p> <p>Training on agro techniques for Tea cultivation</p>

		Peach, Plum, Mandarin, Papaya, Large cardamom Tea,	on temperate hills. Training on layout and orchard management. Demonstration on training and pruning in fruits trees. Demonstration on nursery raising technique for vegetables Training on INM and IWM Training on soil and water conservation
4	Agri – Horti Jhum	Jhoom Paddy, Maize, Banana, Papaya, Beans, Cowpea, Pea, Garlic, Potato, Cabbage	Training on IPM technology Demonstration on high yielding varieties of papaya. Demonstration on high quality banana varieties. Training on soil and water conservation technique
5	Agri – Horti – Fishery Pani-kheti System	Paddy, Pea, Summer vegetables, Fish	Training on scientific production technology for TRC/WRC. Demonstration on production technology for summer vegetables. Demonstration on scientific production technology on pea. Training on fish diseases and their control. Training on IPM, INM, and IWM technology



5. Development Strategies for Tuensang

1. Extension gaps for each farming System and crops

Sl.No	Farming System	Crop Under the FS	Extension gaps Identified
1.	Agril.+Horti	Cereals, potato, veg., garlic, chillies, Rajmah/ beans, Mustard, Ginger, Groundnut, Colocasia, Tapioca, Banana, Mango, guava, pears, passion fruit, peach, p.apple, Apple etc.	Promotion of HYV Adoption of improved technology IPM & INM practice Seed treatment Promotion of irrigation
2.	Agril.+Horti + A.H	Cereals, potato, veg., cole-crops, Rajmah / beans, soyabean, Rice bean, Ginger, soyabean, Groundnut, Mustard, Pea, Colocasia, Tapioca, Banana, apple, plum, guava, Mango, passion fruit, peach, Poultry, goatry, diary, piggery (mainly Indigenous & Mix breeds) etc.	Weed management Farm mechanization Organic manures Post harvest Management Correct planting methods and system Training and Pruning Contour bunds/half-moon terracing
3.	Agril.+Horti + A.H + Fishery	Cereals, Potato, Winter.veg., garlic, chillies, Rajmah/ beans, Ginger, Soyabean, Groundnut, Mustard, Pea, Colocasia, Tapioca, Banana, Mango, guava, pears, passion fruit, peach, p.apple etc, Poultry, goatry, diary, piggery (mainly Indigenous & Mix breeds) and fishery.	Harvesting techniques Linkage of FO's/FIG's with regulated markets Breed up-gradation through Graded Bull/A.I Improving percentage of conception in AI
4.	Agril.+Horti + A.H + Sericulture	Cereals, potato, Winter.veg., garlic, chillies, Rajmah/beans, Ginger, Groundnut, Colocasia Tapioca, Banana, Mango, guava, pears, passion fruit, peach, p.apple, Poultry, goatry, diary, piggery (mainly Indigenous & Mix breeds) and sericulture (Iri & Muga)	Improving Feed and Fodder management Encouraging commercial poultry farming Information about prices & Demand in Different markets. Management of ponds Introduction of latest rearing/spinning & weaving methods

2. Extension Priorities for each farming System and crops

Sl.No	Farming System	Crop Under the FS	Extension Priorities finalized
1.	Agril.+Horti	Cereals, potato, veg., garlic, chillies, Rajmah/ beans, Mustard, Ginger, Groundnut, Colocasia, Tapioca, Banana, Mango, guava, pears, passion fruit, peach, p.apple, Apple etc.	Promotion of HYV Adoption of improved technology IPM, INM & IWM practice Farm mechanization
2.	Agril.+Horti + A.H	Cereals, potato, veg., cole-crops, Rajmah / beans, soyabean, Rice bean, Ginger, soyabean, Groundnut, Mustard, Pea, Colocasia, Tapioca, Banana, apple, plum, guava, Mango, passion fruit, peach, Poultry, goatry, diary, piggery (mainly Indigenous & Mix breeds) etc.	Organic manures Post harvest Management Correct planting methods and system Training and Pruning Contour bunds/half-moon terracing
3.	Agril.+Horti + A.H + Fishery	Cereals, Potato, Winter.veg., garlic, chillies, Rajmah/ beans, Ginger, Soyabean, Groundnut, Mustard, Pea, Colocasia, Tapioca, Banana, Mango, guava, pears, passion fruit, peach, p.apple etc, Poultry, goatry, diary, piggery (mainly Indigenous & Mix breeds) and fishery.	Harvesting techniques Linkage of FO's/FIG's with regulated markets Breed up gradation through Graded Bull/A.I Improving percentage of conception in AI Improving Feed and Fodder management
4.	Agril.+Horti + A.H + Sericulture	Cereals, potato, Winter.veg., garlic, chillies, Rajmah/beans, Ginger, Groundnut, Colocasia Tapioca, Banana, Mango, guava, pears, passion fruit, peach, p.apple, Poultry, goatry, diary, piggery (mainly Indigenous & Mix breeds) and sericulture (Iri & Muga)	Encouraging commercial poultry farming Information about prices & Demand in different markets. Management of ponds Introduction of latest rearing/spinning & weaving methods

3. Extension Strategy Proposed for each farming System and crops

Sl.No	Farming System	Crop Under the FS	Extension Strategy Proposed
1.	Agril.+Horti	Cereals, potato, veg., garlic, chillies, Rajmah/ beans, Mustard, Ginger, Groundnut, Colocasia, Tapioca, Banana, Mango, guava, pears, passion fruit, peach, p.apple, Apple etc.	1. Training on Scientific Technologies 2. Demonstration on Proven Technologies 3. Awareness camps.
2.	Agril.+Horti + A.H	Cereals, potato, veg., cole-crops, Rajmah / beans, soyabean, Rice bean,	4. Field days. 5. Exhibitions.

		Ginger, soyabean, Groundnut, Mustard, Pea, Colocasia, Topioca, Banana, apple, plum, guava, Mango, passion fruit, peach, Poultry, goatry, diary, piggery (mainly Indigenous & Mix breeds) etc.	6. Exposure visit 7. Entrepreneurship Development. 8. Agri-Clinic. 9. Diagnostic Service
3.	Agril.+Horti + A.H + Fishery	Cereals, Potato, Winter.veg., garlic, chillies, Rajmah/ beans, Ginger, Soyabean, Groundnut, Mustard, Pea, Colocasia, Tapioca, Banana, Mango, guava, pears, passion fruit, peach, p.apple etc, Poultry, goatry, diary, piggery (mainly Indigenous & Mix breeds) and fishery.	9. Linkage with finance Agency. 10. Training & demonstration on spawn / fry / fingerling production & composite fish Culture. 11. Veterinary Services.
4.	Agril.+Horti + A.H + Sericulture	Cereals, potato, Winter.veg., garlic, chillies, Rajmah/beans, Ginger, Groundnut, Colocasia Tapioca, Banana, Mango, guava, pears, passion fruit, peach, p.apple, Poultry, goatry, diary, piggery (mainly Indigenous & Mix breeds) and sericulture (Iri & Muga)	



6. Development Strategies for Wokha

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1	Agriculture	Rice, Maize	Lack of awareness Lack of trainings
2	Agri+Horti	Rice, Maize, sugarcane, passion fruit	Lack of demonstrations Lack of farmers participations
3	Agri+Fishery	Rice, Maize, common carp, grass carp etc..	Lack of proven germplasm Lack of regular visit to farmers field
4	Agri+Horti+Fishery	Rice, Maize, banana, jackfruit, pineapple, common carp, grass carp etc...	Lack of trainings to village level extension personnel
5	Agri+Horti+AH	Rice, Maize, banana, jackfruit, pineapple, pig, poultry, cattle etc...	
6	Agri+AH	Rice, Maize, pig, poultry, cattle	

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1	Agriculture	Rice, Maize	Trials and Demonstrations
2	Agri+Horti	Rice, Maize, sugarcane, passion fruit	Regular farmers field visit Farmers tour
3	Agri+Fishery	Rice, Maize, common carp, grass carp etc..	Film show Diagnostic visit
4	Agri+Horti+Fishery	Rice, Maize, banana, jackfruit, pineapple, common carp, grass carp etc...	Scientist farmers interaction Training and awareness programmes Advisory services
5	Agri+Horti+AH	Rice, Maize, banana, jackfruit, pineapple, pig, poultry, cattle etc...	
6	Agri+AH	Rice, Maize, pig, poultry, cattle	

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1	Agriculture	Rice, Maize	Regular awareness programme Regular trainings programmes Demonstrations on improved technology Farmers participations to be encouraged Popularization of improved breeds of livestock and poultry Visit to farmers field on regular basis Trainings to village level extension personnel
2	Agri+Horti	Rice, Maize, sugarcane, passion fruit	
3	Agri+Fishery	Rice, Maize, common carp, grass carp etc...	
4	Agri+Horti+Fishery	Rice, Maize, banana, jackfruit, pineapple, common carp, grass carp etc...	
5	Agri+Horti+AH	Rice, Maize, banana, jackfruit, pineapple, pig, poultry, cattle etc...	
6	Agri+AH	Rice, Maize, pig, poultry, cattle	



7. Development Strategies for Zunheboto

1. Extension gaps for each Farming system and crop

Sl.No.	Farming system	Crop under the FS	Extension gaps identified
1	FS- I	Rice, soybean & Maize	Lack of Mass Media, awareness and interest Lack of Demonstration facility
2	FS- II	Rice, Maize	Lack of Mass Media, awareness and interest Lack of Demonstration facility
3	FS- III	Rice, Maize & Kholar	Lack of Mass Media, awareness and interest Lack of Demonstration facility

2. Extension priorities finalized for each Farming system and crop

Sl.No.	Farming system	Crop under the FS	Extension priorities finalized
1	FS- I	Rice, soybean & Maize	Creating interest, awareness, updating skill, knowledge and attitude change towards new technology
2	FS- II	Rice, Maize	Creating interest, awareness, updating skill, knowledge and attitude change towards new technology
3	FS- III	Rice, Maize & Kholar	Creating interest, awareness, updating skill, knowledge and attitude change towards new technology

3. Extension strategy for each Farming system and crop

Sl.No.	Farming system	Crop under the FS	Extension strategy proposed
1	FS- I	Rice, soybean & Maize	Exposure to mass media, conducting OFT, FLD, method demonstration, result demonstration, arousing interesting, creating awareness
2	FS- II	Rice, Maize	Exposure to mass media, conducting OFT, FLD, method demonstration, result demonstration, arousing interesting, creating awareness
3	FS- III	Rice, Maize & Kholar	Exposure to mass media, conducting OFT, FLD, method demonstration, result demonstration, arousing interesting, creating awareness





6.7 Development Strategies for Sikkim

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1. Development Strategies for North Sikkim

1. Extension gaps for each farming system and crop:

Sl. No.	Farming System	Crops under the FS	Extension gaps identified
1.	Agriculture+ Horticulture + Animal Husbandry	Maize, paddy, wheat, soybean, orange, cardamom.	Use of untreated seeds, imbalance use of fertilizers, inadequate pest and disease management, low adoption of hybrid varieties, no proper irrigation facilities, sowing by broadcasting, low application of organic manure, non-use of bio fertilizers.

2. Extension priorities finalized for each farming system and crop:

Sl. No.	Farming System	Crops under the FS	Extension priorities finalized
1.	Agriculture+ Horticulture + Animal Husbandry	Maize, paddy, wheat, soybean, orange, cardamom.	Encourage seed treatment, encourage balance use of fertilizers as per the package of practices, popularization of integrated pest and disease management, popularizing the use of hybrid varieties, impart knowledge about the judicious use of water and also about water harvesting structures, popularizing sowing in line, popularizing the use of FYM/Vermi compost, popularizing the use of bio fertilizers like rhizobium, azotobacter, Phosphate solubilizing bacteria, etc.

3. Extension strategy for each farming system and crop:

Sl. No.	Farming System	Crops under the FS	Extension strategy proposed
1.	Agriculture+ Horticulture + Animal Husbandry	Maize, paddy, wheat, soybean, orange, cardamom.	-Demonstration, print material. -Field day and exposure visit.



2. Development Strategies for West Sikkim

1. Development strategies proposed

Sl. No.	Crop	Gaps in Technology adoption	Reasons for non adoption	Proposed Extension Strategy
1.	Maize	<p>Low germination of hybrid seed</p> <p>Low yield due to low germination</p> <p>Proper plant spacing not maintain</p> <p>No integrated nutrient management and pest management</p>	<p>Lack of awareness</p> <p>Lack of input for IPM/INM/organic fertilizer</p> <p>Lack of knowledge on organic cultivation</p>	<p>Encouraging farmers for adopting seed village programme</p> <p>Capacity building of farmers on organic cultivation practices</p> <p>Promoting biopesticed for pest and disease mangement</p>
2	Paddy	<p>Less adoption of improved and high yielding hybrid varieties</p> <p>No application of bio fertilizers for paddy.</p> <p>Low application organic manure</p> <p>Less plant protection measures for paddy</p> <p>Low yield due to high plant population</p>	<p>Lack of awareness</p> <p>Lack of conviction</p> <p>Low mechanization</p> <p>High cost of weeding</p>	<p>Promotion of high yielding hybrid varieties.</p> <p>Accelerate the seed village programme for ensuring supply of good quality seed.</p> <p>Promotion of raised bed preparation</p> <p>Promotion of Nursery management</p> <p>Promotion of SRI</p> <p>Promotion of organic fertilizers for paddy crop</p> <p>Promotion of Farmers Field School for integrated paddy management</p> <p>Promotion of Biofertilizers i.e. Blue green algae and Azolla for paddy.</p> <p>Promoting biopesticides for pest management</p>

3	Wheat	Less application of recently released improved varieties seed.. No water management as per critical growth stage of the crop Organic cultivation	Lack of resources Lack of awareness Non availability of organic package of Practices	Promoting seed production of recently released improved varieties Educating farmers for integrated crop management practices through Farmers Field Schools. Promoting organic cultivation
4	Soyabean	Less adoption of HYV No seed treatment with biofer tiler Farmer consider the crop as least important crop	Lack of knowledge on organic package of practices Biofertilizer not easily available except the government distribution	Promoting organic cultivation Training and demonstration for use of biofertilizer
5	Paheli Dal	No management of storage Pest Least importance to the crop by the government agencies Quality seed is not assured	Lack of knowledge on management of storage pest Least importance being the local race though the crop is preferred one and have assured market	Promoting organic cultivation Creat awareness on storage pest management Village seed programme for quality seed
6	Pea	Staking properly not done Non adoption of dwarf varieties due to low yield Definite management practices for pest and diseases not followed	Lack of knowledge on organic Practices for pest and disease management practices Low yield of dwarf varieties	Promoting organic cultivation Taining and demonstration on staking and Pest and diseases

7	Cardamom	Nursery management is very poor Shade regulation Improper nutrient management Pest management is nil Faulty and energy consuming bhatti for curing	Lack of Knowledge and resources for quality seedling production No knowledge on organic pest control and nutrient mangement Lack of conviction and slackness toward the crop because of devastating loss due to various diseases Non availability of disease free seedling Treat the crop as traditional one None availability of biopesticides Improved bhatti for curing is not available	Promotion of nurseriman for production of quality seedlings Frontline demonstration on farmers field for pest snd disease management Promotion of farmer field school Promotion of organic pest and disease management Training on shade regulation
8	Potato	Non adoption of varieties resistant to Late Blight No Tuber treatment Low nutrient input No management for pest and diseases No grading	Non availability of organic package of Practices	Promotion of organic package and practices Training, demonstration and exposure visit
9	Ginger	Seed rate is very high Donot follow the proper crop rotation No Rhizome treatment Low nutrient input Use the seed rhizome from diseased soil Improper pest and management Improper seed rhizome storage	Lack of knowledge on organic package of Practices Lack of knowledge Less availability of input for pest and disease management	Training Demonstration and exposure visit

10	Sikkim Mandarin	Faulty nursery technique Planting time, technique orchard layout usually not done Exhaustive intercrop Deep ploughing around the plant Low nutrient input Donot irrigate during the dry spell Sanitation around the tree not maintain Application of bordeaux paste Improper pest and disease management No management specially Fruitfly and Trunk borer Grading and marketing not upto the mark	Lack of knowledge on nursery raising Lack of irrigation facilities Exhaustive intercrop like Ginzer fetch better price Intercultivation due to low land holding Non availability of input like biopesticides Lack of knowledge on organic package of practices Lack of knowledge on organic pest management	Capacity building on nursery management and production of disease free seedlings, orchard layout Promotion of drip irrigation Training and demonstration on complete package of practices Exposure visit
11	Cabbage / Cauliflower	Lack of nursery management. Lack of water management. Lack of nutrient management.	Lack of knowledge	Organizing training on nursery preparation, improved and about cultivation practices, Organic pest and disease management Demonstration on Organic pest and disease management Organic production practices convergence with micro-irrigation Promotion of off-season cultivation
12	Tomato	No nursery management practices No fertilizer management Poor water management Severe yield losses due to blight	Lack of knowledge on Package of Practices High cost of polyhouse for off	Organizing training on nursery preparation, improved and about cultivation

		<p>and fruit borer No pest management followed No training and support to tomato plant. Poor grading practices No facility for cold storage & cooling chain No processing facilities</p>	<p>season tomato cultivation</p>	<p>practices, Demonstration on Organic pest and disease management Organic production practices convergence with micro-irrigation Promotion of greenhouse cultivation for off season production through training and demonstration</p>
13	Carrot / Radish	<p>Lack of availability of quality seed. Severe infestation of nematodes. Lack of water management. Lack of fertilizer management. Lack of grading. Lack of value addition and processing.</p>	<p>Lack of knowledge on package and practices</p>	<p>Organizing training on improved and about cultivation practices, Pest, nutrient and disease mangement Demonstration on Organic pest and disease management Organic production practices convergence with micro-irrigation</p>
14	Cucurbitaceae crops	<p>Lack of proper trailing. Lack of water management. Lack of nutrient management. Lack of knowledge regarding fruit setting. Lack of plant protection. Lack of grading, packaging and value addition.</p>	<p>Lack of knowledge on package and practices</p>	<p>Organizing training on seedling preparation, improved and about cultivation practices Demonstration on Organic pest and disease management Organic production practices</p>

				convergence with micro-irrigation
15	Cymbidium	Seedlings are not treated with fungicide Lanuna in making potting mixture Spacing of pot and Size of the pot not maintained Improper pest and disease management Grading and Packaging of the flowers Net or polyhouse not properly maintain	High cost of potting mixture Highly specific package of practices Lack of knowledge on pest and diseases management Non-availability of quality planting material	Exposure visit and training to the cymbidium grower Training on pest and disease management, housing and other cultivation aspects
16	Lilium	Bulb treatment not done Spacing is not properly maintained Pest and disease management practices not followed Timely cold storage of the bulb not followed Grading and packaging of the cut flower not up to the mark	Lack of knowledge Non-availability of input for different activities	Training & Demonstration Exposure visit
17	Gladiolus	Selection of site is not proper Selection of varieties Spacing Lack of bulb treatment Improper nutrient, pest and disease management Grading and packaging of flower	Lack of knowledge Non-availability of input different activities	Training and Demonstration Training on pest and disease management
18	Marigold	No nursery management for seedling preparation. Less application of organic fertilizers. No adoption of improved seed. Low basal fertilizer application. Poor water management practices. Marigold has been devastatingly	Lack of availability Lack of knowledget No authentic control for alterneria blig	Organizing training on production technology of marigold. Demonstration on IPM/INM /IDM. Convergence with micro-irrigation

		damaged by Blight		
19	Aromatic Plants cultivation and processing	<p>Unavailability of pure planting material in the district.</p> <p>Low recovery of oil from present variety due to admixture</p> <p>No standardized processing technology</p> <p>No sufficient area under citronella plantation for economically operating installed processing unit.</p> <p>No value addition and fractional distillation facilities available</p> <p>No marketing facilities available for marketing citronella oil</p> <p>Fluctuating citronella oil markets</p> <p>Marketing is concentrated in private sector</p> <p>Marketing is depending on middlemen.</p> <p>Lack of group processing and marketing</p>	<p>No availability of pure planting material at Government nurseries.</p> <p>Planting material is not true to type.</p> <p>Low land holding and lack of group plantation</p> <p>Lack of technology and investment capacity</p> <p>Lack of group approach in marketing</p> <p>Marketing is control by middlemen</p>	<p>Capacity building of farmers about cultivation practices of citronella and other aromatic plants</p> <p>Promoting multiplication of pure planting material by raising nursery</p> <p>Promoting for area expansion</p> <p>Organizing aromatic plant cultivators for marketing,</p> <p>Processing and value addition activities</p> <p>Capacity building of entrepreneurs for value addition and standardized distillation process</p> <p>Promoting for integrated fertilizer management.</p> <p>Promoting organic cultivation</p> <p>Promoting for micro-irrigation to aromatic plants.</p>
20	Post Harvest Management	<p>15 -20% post harvest losses due to lack of proper handling of fruits & vegetables.</p> <p>No pack houses on farms for proper packaging</p> <p>No facilities for grading</p> <p>Low prices due to lack of sorting of fruits and vegetables</p>	<p>Lack of proper handling of fruits & vegetables.</p> <p>Lack of farm facilities proper packing.</p> <p>No facilities for proper grading and</p>	<p>Capacity building of farmers on post harvest management activities</p> <p>Promoting farmers for construction of Pack houses</p>

			<p>sorting No facilities of storage for short period</p>	<p>Promoting farmers for construction of cold storages. Promoting farmers for construction of pre cooling centres. Promoting farmers for fruit and vegetable processing activities Market intelligence Formation of farmers group for contract farming Capacity building on contract farming</p>
21	Soil health	<p>Soil and water testing facilities inadequate No awareness about soil fertility index No technical knowledge about taking soil and water samples No technical knowledge in understanding of analysis report. Poor drainage of soils due to obstructions to drainage Deterioration of well water quality for crop irrigation</p>	<p>Lack of soil and water testing facilities within farmers' reach.</p>	<p>Promoting fertilizer application based on soil analysis Collection of soil samples and water samples for rejuvenation of old orchards under NIIM Organizing farmers training on farmers fields. Organizing farmers training on problematic & horticulture concentrated villages Educating farmers about importance of organic/bio-fertilizers Educating farmers about methods of fertilizer application</p>

				& fertilizer use as per soil analysis Collection of ten soil samples from each village. Prioritizing water sampling for installation of micro- irrigation system
22	Organic farming Activities	Low availability of organic fertilizers Lack of standardized recommended package of practices for organic production. Lack of standardization of ITK's for low cost plant protection measures More cost of organic certification No retailing outlets for organically crop produce No certifying agency in the district	Lack of awareness Lack of resources	Trainings on Vermicompost Units Biodynamic Compost Pits preparation Formation of Organic Farming Group Promoting Groups for Organic Farming Certification Promoting organic crop production through Exhibitions Promoting for on farm Organic Inputs Production
23	Dryland Agriculture Development	No insitu soil moisture conservation activities No contour cultivation practices No crop planning as per soil type and depth No adoption of improved drought resistant varieties No crop rotations No recommended intercropping No application of recommended organic manures No basal fertilizers No adoption of double bowl seed ferti drill	Lack of awareness Lack of knowledge Lack of resources Lack of skills Lack of Credit	In DPAP Zone giving major thrust of in situ moisture conservation by adopting dry land technique i.e. Drought resistant varieties Cereal + Pulses inter cropping Contour cultivation with ridges / furrows Compartment

		<p>No adequate interculturing</p> <p>Lack of soil mulching</p> <p>No recommended plant population</p> <p>No protective irrigation facilities</p> <p>Poor plant protection measures</p> <p>No alternative cropping pattern</p> <p>No vegetative bunds</p> <p>No application of biofertilizers,.</p> <p>No adoption of integrated nutrient management</p> <p>No adoption of integrated pest management</p> <p>No foliar sprays of fertilizers</p>		<p>bunding</p> <p>Farm pond</p> <p>Mulching</p> <p>Dead furrow opening</p> <p>Well recharging</p> <p>Plantation on bunds</p> <p>Foliar application of fertilizer</p> <p>Promoting application of Biofertilizers</p> <p>Promoting for organic farming</p> <p>Diversification by introducing dry land and strengthening of AHDS</p> <p>Promoting for integrated nutrient management practices.</p> <p>Promoting for integrated pest management</p>
24	Cows Cross breed	<p>Repeat breeding due to malnutrition, inbreeding, and infections.</p> <p>Reducing trend of productivity due to indiscriminate and poor quality Artificial Insemination service</p> <p>Low milk yield due to lack of mineral and vitamins</p> <p>No clean milk production</p> <p>Poor housing management for milk cattles</p> <p>Ecto and endo parasite infection</p> <p>Inadequate forage production and its availability</p> <p>No balanced ration and feed supplement</p>	<p>Lack of awareness</p> <p>Lack of awareness</p> <p>Lack of awareness</p> <p>Lack of awareness</p> <p>Lack of awareness</p>	<p>Organizing training on feeding, breeding and health care management</p> <p>Educating about hygienic clean housing for dairy chattels</p> <p>Promoting timely vaccination</p> <p>Promoting diversification of Animal Husbandry & Dairy enterprise</p> <p>Promoting deworming and</p>

		<p>No sufficient dry fodder</p> <p>Frequent sickness in lactation</p> <p>Unutilization of available livestock biomass for generating electricity in rural areas</p>	<p>Lack of awareness</p>	<p>seasonal vaccination for sheep and goat herds</p> <p>Educating farmers for better management of animals for higher returns</p> <p>Promoting forage crop cultivation by introducing high yielding forage crops</p> <p>Promoting adoption of recommended management practices and timely vaccinations</p> <p>Utilization of available livestock biomass for generating electricity in rural areas</p> <p>Cattle Fair and Exhibition</p>
25	Goat	<p>Slow weight gain and low productivity due to indiscriminate breeding practices</p> <p>Non-availability of graded bucks for natural service</p> <p>Lack of concentrates, vitamins and minerals</p> <p>Foot & mouth disease & foot rot disease due to lack of preventive vaccination and hygiene management practices</p>	<p>Lack of awareness</p> <p>Lack of resources</p> <p>Lack of availability</p>	<p>Organizing training on feeding, breeding and health care management.</p> <p>Promoting timely vaccination</p> <p>Promoting deworming and seasonal vaccination for sheep and goat herds</p> <p>Educating farmers for better management of animals for higher returns</p> <p>Promoting adoption of recommended</p>

				management practices and timely vaccinations
26	Fisheries	No technical knowledge of fish farming Under utilization of available water bodies for fish farming. Poor management of existing fishfarms Non availability of fisherlings	Lack of awareness Lack of knowledge Lack of resources	Promoting fish farming in available private water bodies Promoting fish farming in farm ponds and community ponds constructed under NREGS Capacity building of farmers on fish farming management activities Promoting farmers for group formation for marketing
27	Involvement of farm women in Agriculture	Lack of farm women involvement in Extension activities	Lack of awareness	Promoting farm women to participate in various Extension activities by activities Organizing training of farm women for improving skill in agricultural activities Promoting need based training to farm women Promoting mobilization of farm women groups
28	Promoting Public-Private Partnership in Agriculture	Low involvement of private sector in government programmes for agricultural technology dissemination, input production and supply, post harvest management and marketing.	Lack of conviction and integration.	Promoting public-private partnership in agricultural extension activities Promoting multi agency extension services in

				agricultural development Promoting private extension service providers to strengthen agricultural activities.
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6.8 Development Strategies for Tripura

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1. Development Strategies for West Tripura

1. Extension gaps for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension gaps identified
1	Agri-Horti-Pisci-Livestock	Paddy, summer & winter vegetables, oilseeds, pulses, Indian major & minor carps, poultry birds, milch cattle, goat, pig duck etc.	(a) Lack of awareness towards recent technologies (b) More adherence towards social beliefs, (c) Unavailability of technical guidance from concerned department, (d) Lack of Knowledge and favourable attitude of farmers towards innovation, (e) Lack of communication between researcher/extension personnel and villagers, (f).Preference to traditional practices (g) Fluctuating market prices. (h) Lack of awareness for routine healthcare of livestock, zoonosis, epidemics, prophylaxis
2	Horti-Agri-Livestock	Paddy, summer & winter vegetables, oilseeds, pulses, poultry birds,	
3	Agriculture based	Paddy (2 crops)	
4	Livestock based	Poultry birds and pig	
5	Horti-Pisci-Agri	Paddy, summer & winter vegetables, Indian major & minor carps	
6	Livestock-Agri-Horti	Pig, goat, poultry birds, paddy, mustard, maize, colocasia, banana, pine apple	
7	Agri-Horti-Silvi-Pastoral-Livestock	Rubber, pineapple, banana, teak, karo, bamboo, citrus	
8	Plantation (Rubber) based	Rubber and tea	
9	Plantation-Pisci-Livestock based	Rubber, pig, poultry bird.	
10	Horticulture based	Summer and winter vegetables	

2. Extension priorities finalized for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension priorities finalized
1	Agri-Horti-Pisci-Livestock	Paddy, summer & winter vegetables, oilseeds, pulses, Indian major & minor carps, poultry birds, milch cattle, goat, pig duck etc.	(a) Development of good communication between researcher, extension personnel and farmers (b) Comparison between traditional and modern techniques of cultivation (c) Development of positive attitude among farmers towards innovation keeping in mind the importance of traditional practices.
2	Horti-Agri-Livestock	Paddy, summer & winter vegetables, oilseeds, pulses, poultry birds,	
3	Agriculture based	Paddy (2 crops)	
4	Livestock based	Poultry birds and pig	
5	Horti-Pisci-Agri	Paddy, summer & winter vegetables, Indian major & minor carps	

6	Livestock-Agri-Horti	Pig, goat, poultry birds, paddy, mustard, maize, colocasia, banana, pine apple	(d) Improvement of socio-economic condition of the farmers.
7	Agri-Horti-Silvi-Pastoral-Livestock	Rubber, pineapple, banana, teak, karoi, bamboo, citrus	
8	Plantation (Rubber) based	Rubber and tea	
9	Plantation-Pisci-Livestock based	Rubber, pig, poultry bird.	
10	Horticulture based	Summer and winter vegetables	

3. Extension strategy for each farming system and crop

Sl. No	Farming system	Crops under the FS	Extension strategy proposed
1	Agri-Horti-Pisci-Livestock	Paddy, summer & winter vegetables, oilseeds, pulses, Indian major & minor carps, poultry birds, milch cattle, goat, pig duck etc.	Awareness programme and result demonstration
2	Horti-Agri-Livestock	Paddy, summer & winter vegetables, oilseeds, pulses, poultry birds,	Awareness programme, result demonstration and farm and home visit
3	Agriculture based	Paddy (2 crops)	Method demonstration, result demonstration, FLD and OFT
4	Livestock based	Poultry birds and pig	OFT, exposure visit, farm and home visit, livestock health care and awareness programmes with line departments.
5	Horti-Pisci-Agri	Paddy, summer & winter vegetables, Indian major & minor carps	Result demonstration Awareness programme, OFT,
6	Livestock-Agri-Horti	Pig, goat, poultry birds, paddy, mustard, maize, colocasia, banana, pine apple	Result demonstration, awareness programme and OFT,
7	Agri-Horti-Silvi-Pastoral-Livestock	Rubber, pineapple, banana, teak, karoi, bamboo, citrus	Method demonstration, study tour, awareness programme and Personal interview,
8	Plantation	Rubber and tea	Exposure visit, result demonstration

	(Rubber) based		and method demonstration,
9	Plantation- Pisci-Livestock based	Rubber, pig, poultry bird.	Awareness programme, personal interview and result demonstration
10	Horticulture based	Summer and winter vegetables	Method demonstration, OFT, FLD and exposure visit.



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