

## PROFORMA FOR ANNUAL REPORT OF KVKS, 2015-16

### 1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail

Address	Telephone		E mail
	Office	FAX	
Krishi Vigyan Kendra, Rice Research Station Wangbal, Thoubal-795138			kvkthoubal@gmail.com

1.2 .Name and address of host organization with phone, fax and e-mail

Address	Telephone		E mail
	Office	FAX	
Department of Agriculture, Government of Manipur, Sanjenthong Imphal-795001.	-	-	amdmn@nic.in

1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr.M.Thoithoi Singh		9856282339	thoithoi_pp@yahoo.co.in

1.4. Year of sanction: 16<sup>th</sup> Nov.,2005



12	Stenographer	M.Geeta Devi	Jr.Steno cum Computer operator		5200-20,200 GP 2400-P.B-1	10190	12-4-07	-do-	-do-
13	Driver	M.Hemanta Singh	Driver cum Mechanic		5200-20,200 GP 2000-P.B-1	7970	12-4-07	-do	-do-
14	Driver	Th.Tiken Singh	-do-		5200-20,200 GP 2000-P.B-1	7970	03-5-07	-do	-do-
15	Supporting staff	S.Dhabali Singh	Peon cum Chowkidar		5200-20,200 GP 1800-P.B-1	7100	12-4-07	-do-	-do-
16	Supporting staff	Mangminthang Zou	-do-		5200-20,200 GP 1800-P.B-1	7100	12-4-07	-do-	ST

1.6. a. Total land with KVK (in ha) : 10 ha

b. Total cultivable land with KVK (in ha): 7.5 ha

c. Total cultivated land (in ha):

S. No.	Item	Area (ha)
1	Under Buildings(Administrative building+ Staff Quarters)	0.055
2.	Under Demonstration Units	0.016
3.	Under Crops(Cereals, pulses, oilseeds etc.)	5.4
4.	Under vegetales	2.32
5.	Orchard/Agro-forestry	1.52
6	Others (specify)	0.809

## 1.7. Infrastructural Development:

## A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	Within 12 months.	550(Ground floor)	76,33,000	Dec,2007	550(1 <sup>st</sup> floor)	Work in good progress.
2.	Farmers Hostel	-	-	-	-	-	-	-
3.	Staff Quarters (5)	-do-	31-3-12		67.90	2-1-12		Completed
4.	Demonstration Units (2)	-do-	31-3-12		20.07	2-1-12		Completed
5	Fencing	-do-	31-3-12	215m	19.75	2-1-12		Completed
6	Rain Water harvesting system							

7	Threshing floor	Host	15.4.2015					Completed
8	Farm godown	Host	15.4.2015					Completed

## B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero, Diesel jeep		2006-07	5,08,657	(62344)	Bad
Tractor, complete set		2006-07	4,35,543	(1116)	Good

## C) Equipments &amp; AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Computer withj accessories(2nos.)	March 2010	75,000	Good
Fax	March,2010	25,000	Good



		<p>10)A.Deben Singh, S.I(Police) dept. Thoubal</p> <p>11)Mohd.Rujajuddin Khan, ATM, ATMA, Thoubal</p> <p>12) <u>Two representative from male farmer</u></p> <p>i) Shri L.Rajen Singh, (Thoubal Wangmataaba)</p> <p>ii) Shri James Singh (Tentha)</p> <p>13. <u>Two representative from female farmer</u></p> <p>i) Smt.W . Bimola Devi (Laiphrakpam Mayai Leikai)</p> <p>ii) Smt Ibechoubi Devi ( Umathel)</p> <p>14) Dr.M.Thoithoi Singh, Programme Coordinator ,KVK Thoubal</p>	<p>Suggested to include state released var. in trial &amp; demonstration.</p> <p>Enquired about facilities for water harvesting structure.</p>	
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**\* Attach a copy of SAC proceedings along with list of participants**

## **2. DETAILS OF DISTRICT**

### 2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

S. No	Farming system/enterprise
1.	Agriculture
2.	Agriculture-Horticulture
3.	Agriculture-Horticulture-Animal Husbandry
4.	Agriculture-Horticulture-Fishery
5.	Agriculture-Animal Husbandry-Fishery
6.	Agriculture-Fishery
7.	Fishery
8	Vety & A.H
9	Agriculture-vety & A.H

### 2.2 Description of Agro-climatic Zone & major agro-ecological situations (based on soil and topography)

S. No	Agro-climatic Zone	Characteristics
1.	Sub tropical plain zone	The agro-climatic zone of the Thoubal dist. May be characterized by diverse soil type ranging from clay, clay loam, silty loam to peat and muck soil, high rainfall and high RH with distinct temperature variation between summer and winter, wide cultural diversity with different cropping pattern from fruits (pine apple, banana, mango), Vegetables (cauliflower, cabbage, brinjal, tomato), paddy, pulses and oil seeds, fish and farm animals. The district has the following topographical structures:- upland, medium land and low land and shallow lakes.

### 2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Fine, Umbric Dystrochrepts Fine, Typic Haplo	Deep, excessively drained fine soils moderately steep side slopes of hills having clayey surface with moderate erosion, associated with deep well drained fine soils on moderately sloping side slopes of hills with moderate erosion and slight stoniness.	3500

	humults.		
2.	Fine Typic, Haplo humults Fine, Loamy Umbric Dystrochrepts	Deep, well drained, fine soils on moderately sloping side slopes of hills having loamy surface with moderate erosion, associated with moderately deep, excessively drained fine loamy soils on moderately steep side slopes of hills with moderate erosion and slight stoniness.	14,803.2
3.	Fine, Typic Haplaquepts Fine Ruptic Ultic Dystrochrepts	Deep, poorly drained, fine soils on nearly level valleys having clayey surface with very slight erosion, ground water table between one to two meters of the surface and slight flooding, associated with deep well drained fine soils on gently sloping side slopes of hills with slight erosion.	6251
4.	Very fine, mollic haplaquepts	Deep ,very poorly drained, very fine soils on nearly valleys having clayey surface with very slight erosion ground water level between one meter of the surface and severe flooding associated with deep, poorly drained fine soils on very gently sloping valleys with slight erosion ground water table between one to two meters of the surface and slight flooding.	22,373.8
5.	Fine, Typic Hapludalfs, Fine Silty Tropic Haplumbrepts	Deep, somewhat excessively drained, fine soils on sloping side slopes of hillocks having clayey surface with moderate to severe erosion associated with well drained fine silty soils on moderately sloping side slopes of hillocks with moderate erosion.	4572

#### 2.4. Area, Production and Productivity of major crops cultivated in the district

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1.	Paddy			
	i) Pre kharif	6235	2,18,225	35.00
	ii) Kharif	24850	10,43,700	42.00
	iii) Improved	10,570	2,43,110	23.00
	iv) Local paddy	1200	19200	16.00
2.	Maize	310	7440	24.00
3.	Kharif pulses	190	1482	7.80
4.	Kharif oilseeds	150	11700	7.80
5.	Sugarcane	830	12,45,000	1,500.00
6.	Rabi pulses	2325	27900	12.00
7.	Rabi oilseeds	3050	51850	17.00
8.	Potato	905	89595	99.00
9.	Cole crops	2246	87,000	112.9

10	Chilli	350	2,800	8.00
11.	Pineapple	2,530	16, 00,000	800.00
12.	Wheat	50	1100	22.00

### 2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April,2015	29.7	35.0	12.0	77.5
May,2015	177.0	34.0	16.0	76
June,2015	180.6	35.0	21.0	74
July,2015	116.4	34.0	19.0	77
August,2015	152.6	33.0	21.0	76
Sep,2015	55.8	33.0	19.0	84
Oct,2015	84.2	33.0	10.0	74
Nov,2015		24.0	8.0	78
Dec,2015		25.0	5.0	75
Jan,2016	77.0	25.0	5.0	71.5
Feb,2016	16.0	25.0	3.0	63
March,2016	9.6	32.0	8.0	55.5

### 2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	14166	47584lit/d	18lit/d
<i>Indigenous</i>	69784	37832lit/d	4lit/d
<b>Buffalo</b>	6079	2961lit/d	3lit/d

<b>Sheep</b>			
Crossbred			
<i>Indigenous</i>	318	2845kg	11kg/sheep
<b>Goats</b>	2540	18,650kg	12kg/goat
<b>Pigs</b>			
<i>Crossbred</i>	35184	925tonnes	75kg/pig
<i>Indigenous</i>	3760	57.8tonnes	52kg/pig
<b>Rabbits</b>			
<b>Poultry</b>			
Hens	62383	26,49,840eggs/year	120eggs/year/hen
<i>Desi</i>	122865	40,36,340eggs/year	220eggs/year
<i>Improved</i>	94500	47,12,780eggs/year	130eggs/year
Ducks	94371	12,220kg	20kg/turkey
Turkey and others	611		

<b>Category</b>	<b>Area</b>	<b>Production</b>	<b>Productivity</b>
Fish	<b>504</b>	<b>3.84</b>	<b>200 kg / ha</b>
<i>Marine</i>			
<i>Inland</i>			
Prawn			

Scampi			
Shrimp			

Note: Pl. provide the appropriate Unit against each enterprise

## 2.6 Details of Operational area / Villages (2015-16)

Sl.No.	Taluk/ Eleka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
		Thoubal	Yairipok	Paddy	Lack of suitable cultivation practice, fertilizer use and pest management	ICM, SRI, Hybrid Rice, INM, Balanced Fertilizer and IPM
				Goat farming	No vaccination, castration and improper feeding and housing	Goat farming with less input and vaccination
				Fishery	Lack of knowledge of scientific fish farming	Composite fish culture
			Maibam	Paddy	Varietal admixture, improper cultivation methods	ICM, SRI, Hybrid Rice, INM, Balanced Fertilizer and IPM
				Horticulture (Cole crops)	Lack of proper variety and pest management	Winter vegetables like cabbage cauliflower, Broccoli and IPM

			Charangpat	Paddy	Varietal admixture, improper cultivation methods	ICM,SRI,Hybrid Rice, INM,Balanced Fertilizer and IPM
				Horticulture (Green chilli)	Lack of knowledge of summer vegetable varieties and pest management	Summer vegetable, Corm Cultivation and IPM
				Pig farming	No, vaccination, improper feeding and breed	Vaccination, Castration and Housing
			Uyan	Paddy	Varietal Admixture, improper cultivation technique and pest management	ICM,SRI,Hybrid Rice, INM,Balanced Fertilizer and IPM
				Oilseeds & Pulses	Limited area under oilseed and pulses	Pulses and oilseed cultivation
				Poultry Farming	Lack of scientific knowledge of poultry farming	Broiler farming, vaccination
				Piggery	No vaccination, castration and improper housing	Pig rearing, vaccination
			Uchiwa	Paddy	Injudicious use of fertilizers, Pest and diseases problem, Varietal admixture, failure of crop due to error in planting season	Integrated pest management, Integrated nutrient management, Balance fertilization, Seed prodn. of paddy.
				Fishery	Lack of knowledge for Scientific fish farming.	Scientific fish farming.

				Pig farming	Lack of knowledge for Integrated fish cum pig farming.	Integrated fish cum pig farming
			Sangai yumpham	Paddy	Injudicious use of fertilizers, pest and diseases problem, Varietal admixture, failure of crop due to error in planting season	Integrated pest management, Integrated nutrient management, Balance fertilization, Seed prodn. of paddy.
				Poultry farming	Problems in feeding readymade feeds.	Feeding management with locally available feeds.
			Wanging	Paddy	Injudicious use of fertilizers, Pest and diseases problem, Varietal admixture, failure of crop due to error in planting season	Integrated pest management, Integrated nutrient management, Balance fertilization, Seed prodn. Of paddy.
				Poultry farming	Problems in feeding readymade feeds.	Feeding management with locally available feeds.
				Horticulture (Green chilli)	Die Back, fruit rot.	Integrated pest management.
			Lilong	Vegetable crops (Cabbage, cauliflower, onion, broad bean)	Selection of variety, Lack of knowledge of cultivation techniques.	Varietal demonstration & new cultivation techniques.
			Nongpok Sekmai	Paddy	Injudicious fertilizers used,lack of suitable cultivation technique	ICM,SRI,Hybrid Rice, INM,Balanced Fertilizer and IPM
				Oilseed & pulses	Not grown	Pulses & oilseed cultivtaion

		Kakching	Thongjao	Paddy	Injudicious use of fertilizers, Pest and diseases problem, Varietal admixture, failure of crop due to error in planting season	Integrated pest management, Integrated nutrient management, Balance fertilization, Seed prodn. Of paddy, varietal trails.
				Fishery	Lack of Knowledge of Disease management	Fish Health management.
				Pig farming	Reduce body weight, preweaning mortality.	Piggery management.
			Umathel	Paddy	Injudicious use of fertilizer,pesticides & lack of proper cultivation method	SRI,INM,Intercropping of paddy with pulses & oilseed crops
				Oilseeds & pulses	Lack of knowledge of oilseed & pulses cultivation	Scientific pulse & oilseed cultivation
			Waikhong	Paddy	Injudicious use of fertilizer,pesticides & lack of proper cultivation method	SRI,INM,Intercropping of paddy with pulses & oilseed crops
				Pig farming	No vaccination & castration	Vaccination & castration
			Serou	Maize	Lack of suitable maize varieties & its cultivation technique	Proper composite & hybrid varieties,intercropping of maize with pulses & oilseeds

			Wangoo	Paddy	Injudicious use of fertilizer,pesticides & lack of proper cultivation method	SRI,INM,Intercropping of paddy with pulses & oilseed crops
				Fishery	Lack of scientific fish culture	Composite fish culture
			Wabagai	Paddy	Lack of suitable cultivation technique	ICM,SRI,hybrid rice cultivation
				Horticulture (Chilli, cole crops)	Lack of relay cropping & pest management	Relay cropping with beans and cucurbits,IPM
				Fishery	Lack of scientific fish culture	Composite fish culture,integrated fish farming
				Potato	Improper variety & lack of nutrient & pest management	Kufri varieties,IPM,INM
				Tomato	Improper variety & lack of nutrient & pest management	IPM,INM,Hybrid varieties
			Sekmai jin	Paddy	Injudicious use of fertilizer,pesticides & lack of proper cultivation method	SRI,INM,Intercropping of paddy with pulses & oilseed crops
				Fish	Lack of scientific fish culture	Composite fish culture,integrated fish farming

			Tokpaching	Paddy	Lack of deep water rice varieties,nutrient & pest management	Deep water rice varieties,nutrient & pest management
				Horticulture	Lack of knowledge of summer veg. crops & its cultivation techniques in upland areas.	Crops of summer season,growing of crops across the slopes & proper irrigation techniques

### **3. TECHNICAL ACHIEVEMENTS**

#### **3. A. Details of target and achievements of mandatory activities by KVK during 2015-16**

Discipline	OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Maize, Other Crops/Enterprises)			
	Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Agronomy					5	5	25	25
PBG					2	2	10	10
Plant protection	2	2	16	16	2	2	20	20
Horticulture	2	2	10	10	2	2	10	10

<b>Vety &amp; A.H</b>	<b>3</b>	<b>3</b>	<b>15</b>	<b>15</b>	<b>2</b>	<b>2</b>	<b>20</b>	<b>20</b>
<b>Fishery</b>	<b>2</b>	<b>2</b>	<b>11</b>	<b>11</b>	<b>2</b>	<b>2</b>	<b>14</b>	<b>14</b>
<b>Home Science</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>6</b>
<b>Total</b>	<b>10</b>	<b>10</b>	<b>57</b>	<b>57</b>	<b>17</b>	<b>17</b>	<b>105</b>	<b>105</b>

Note: Target must be as set during last Action Plan Workshop

<b>Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)</b>					<b>Extension Activities</b>			
<b>3</b>					<b>4</b>			
<b>Number of Courses</b>			<b>Number of Participants</b>		<b>Number of activities</b>		<b>Number of participants</b>	
<b>Clientele</b>	<b>Targets</b>	<b>Achievement</b>	<b>Targets</b>	<b>Achievement</b>	<b>Targets</b>	<b>Achievement</b>	<b>Targets</b>	<b>Achievement</b>
Farmers					3	3	200	220
Rural youth					1	1	50	55
Extn. Functionaries								
Total					4	4	250	275
<b>Seed Production (ton.)</b>					<b>Planting material (Nos. in lakh)</b>			
<b>5</b>					<b>6</b>			
<b>Target</b>		<b>Achievement</b>			<b>Target</b>		<b>Achievement</b>	


Note: Target must be as set during last Action Plan Workshop

### 3. B. Abstract of interventions undertaken during 2015-16

Sl. No	Thrust area	Crop/ Enterprise	Identified problems	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
1	Varietal trial of Pusa Shree	Garden pea	Farmers are unaware of high yield & production	Varietal trial of Pusa Shree		Varietal trial of Pusa Shree		Field visit, TV programme, exposure visits	
2	Varietal trial of cabbage	Cabbage	Farmers are unaware of production in short duration	Varietal trial of cabbage		Varietal trial of cabbage		Field visit, TV programme, exposure visits	
3	IPM	Sugarcane	Shoot and borer termites	Shoot and borer termite mgmt		Shoot and borer termite mgmt		Field visit, TV programme, exposure visits	

4	Disease management	Onion	Purple blotch	Management of purple blotch of onion with		Management of purple blotch of onion with		Field visit, TV programme, exposure visits	
5	Poultry mgmt	broiler	Mortality % high during starter period	Growth performance of broiler by feeding <i>coriandrum sativum</i> seed power		Growth performance of broiler by feeding <i>coriandrum sativum</i> seed power		Field visit, TV programme, exposure visits	
6	IFS	Duck-paddy	Practice of monoculture	Integrated duck cum paddy culture		Integrated duck cum paddy culture		Field visit, TV programme, exposure visits	
7	Piggery management	Pig	Most common diseases of sow at post partum leading to mortality of piglet and sow	Treatment of Mastitis metritis Agalactia complex syndrome in post partum sow by using Benzathine penicillin-48 lakh unit		Treatment of Mastitis metritis Agalactia complex syndrome in post partum sow by using Benzathine penicillin-48 lakh unit		Field visit, TV programme, exposure visits	
8	Seed production	Bangana devdevi	Unavailability of seed due to low survival of seed leading to low B.C ratio	Seed production of Bangana devdevi(khabak)		Seed production of Bangana devdevi(khabak)		Field visit, TV programme, exposure visits	Seed

9	Culture of endemic carp	Osteobrama belangeri	Low B.C ratio due to unawareness of stocking density and their ratios	Stocking of 10000 fingerlings per ha in the ratio of 40:30:30 (pengba:grasscarp: silvercarp)		Stocking of 10000 fingerlings per ha in the ratio of 40:30:30 (pengba:grasscarp: silvercarp)		Field visit, TV programme, exposure visits	
10	Dyeing	Organic dye	Not aware of locally available mordant	Improving colour fastness of cotton fabric with naural dye		Improving colour fastness of cotton fabric with naural dye		Field visit, TV programme, exposure visits	
11	Seed production	CAU R1	Yield of rice under wet sowing and normal transplanting is not satisfactory		Seed prodn. of rice through SRI	Seed prodn. of rice through SRI		Field visit, TV programme, exposure visits	Seed
12	Cereal production	Maize	Large scale popularization of lentil is not yet practice in the district		Cultivation of maize for green cob purpose	Cultivation of maize for green cob purpose		Field visit, TV programme, exposure visits	Seed
13	Oilseed production	Mustard	Large scale popularization of lentil is not yet practice in the district		Zero tillage mustard cultivation	Zero tillage mustard cultivation		Field visit, TV programme, exposure visits	Seed
14	Pulse production	Lentil	Large scale popularization of lentil is not yet practice in the district		Zero tillage lentil cultivation	Zero tillage lentil cultivation		Field visit, TV programme, exposure visits	Seed

15	Pulse production	Chickpea	Large scale popularization of lentil is not yet practice in the district		Varietal demonstration of chick pea var JG- 16	Varietal demonstration of chick pea var JG- 16		Field visit, TV programme, exposure visits	Seed
16	IPM	ladiesFinger	Problem of white flies and viral diseases		Insect pest mgmt. with Cyantraniliprole(HGW 8610% OD) at 90 gm a.i/ha	Insect pest mgmt. with Cyantraniliprole(HGW 8610% OD) at 90 gm a.i/ha		Field visit, TV programme, exposure visits	
17	IPM	Tomato	Problem of white flies and mites in tomato		Insect pest mgmt. with Spiromesifen(white flies & mites)	Insect pest mgmt. with Spiromesifen(white flies & mites)		Field visit, TV programme, exposure visits	
18	Poultry production	Broiler	Mortality percentage is high during early stage		Feeding of probiotic in broiler	Feeding of probiotic in broiler		Field visit, TV programme, exposure visits	
19	Poultry production	Geese	Improper feeding management		Performance of geese by feeding locally available feed supplemented with vitamin and mineral	Performance of geese by feeding locally available feed supplemented with vitamin and mineral		Field visit, TV programme, exposure visits	
19	Seed production	Fish Cum paddy	Low availability of grass carp seed		Seed production of grass carp in paddy field	Seed production of grass carp in paddy field		Field visit, TV programme, exposure visits	seed

20	Seed production	Barb	Unavailability of barb seed		Seed production of barb	Seed production of barb		Field visit, TV programme, exposure visits	seed
21	Storage technique grains	Seed Storage	Seed viability seed storage and insect pest infestation		Demonstration on seed storage technique using RC seed bean	Demonstration on seed storage technique using RC seed bean		Field visit, TV programme, exposure visits	
22	Energy saving devices/ tools	Solar cooker	Cost of fuel for cooking is very high		Demonstration on solar cooker	Demonstration on solar cooker		Field visit, TV programme, exposure visits	
23	Varietal evaluation	onion	Low productivity and high flowering in existing variety		Cultivation of Onion ( Var. Bhima Shakti)	Cultivation of Onion ( Var. Bhima Shakti)		Field visit, TV programme, exposure visits	
24	Varietal evaluation	cauliflower	Low productivity in existing variety		Cultivation of Cauliflower(Pusa Snowball KT-25)	Cultivation of Cauliflower(Pusa Snowball KT-25)		Field visit, TV programme, exposure visits	

### 3.1 Achievements on technologies assessed and refined during 2015-16

#### A.1 Abstract of the number of technologies assessed\* in respect of crops/enterprises

Thematic areas	Cereals	Oilseeds	Pulses	Commercial	Vegetables	Fruits	Flower	Plantation	Tuber	TOTAL
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				<b>Crops</b>				<b>crops</b>	<b>Crops</b>	
Varietal Evaluation	1	1			4					6
Seed / Plant production										
Integrated Crop Management										
Integrated Nutrient Management										
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Value addition										
Integrated Pest Management				1						1
Integrated Disease Management					1					1
Resource conservation technology										
Small Scale income generating enterprises										
<b>TOTAL</b>	1	1		1	5					8





Nutrition Management								
Disease of Management								
Value Addition								
Production and Management		1						1
Feed and Fodder								
Small Scale income generating enterprises								
<b>Total</b>		1						1

## A.5. Results of On Farm Testing

Sl. No.	Title of OFT	Problem Diagnosed	Name of Technology Assessed	Crop/Cropping system/ Enterprise	No. of Trials	Results of Assessment/ Refined (Data on the parameter should be provided)	Feedback from the farmer	Feedback to the Researcher	B.C . Ratio (if applicable)
1	Varietal Trial of Pusa Shree	Farmers are unaware of high yield & prodn. in short duration	Varietal trial of garden pea pusa shree  Spacing : 30 x 10 cm  NPK kg/ha: 30:60:60  As basal dose	Garden pea	5	i)Plant ht.-75 cm  ii)No. of branch/plant- 7-10  iii)Pod length- 6.3 cm  iv)No. of pods/pl. 45-50  v)Days to maturity- 50-55 days	Satisfied, ready to adopt this technology in future	Suitable in the region. Ready for large scale demonstration	3.3
2	Varietal trail of cabbage	Farmers are unaware of prodn. In short duration	Varietal trial of Pusa Cabbage Hybrid 1  Spacing : 45 x 30 cm  NPK kg/ha: 120:60:60	cabbage	5	1. Head wt- 0.985 gm  2. Days to maturity -50-60	Satisfied, ready to adopt this technology in future	Suitable in the region. Ready for large scale demonstration	4.7

			<p>Full dose P &amp; K as basal dose</p> <p>Half dose of N at 20 days after transplanting</p> <p>Remaining half at 45days</p>						
3	Shoot borer and termite mgnt	Shoot and borer termites	<p>Shoot borer and termite mgmt. with Thiametoxam @ 200gm a.i/ha and Metarhizium anisopliae @ 500gm/ha (ctu 109/gm</p>	sugarcane	8	<p>Perct early shoot borer damaged</p> <p>30 DAP =</p> <p>60 DAP =</p> <p>90 DAP=</p> <p>Termite mound</p> <p>30 DAP =</p> <p>60 DAP =</p> <p>90 DAP =</p> <p>,Yield =</p> <p>Farmers Imidachloprid</p> <p>70 % wa @ 200gm a.i/ha</p> <p>Termite mound</p>			2.93

						30 DAP = 60 DAP = 90 DAP = ,Yield =			
4			Mgmt. of purple blotch of onion with Hexaconazole 0.005%						
5	Growth performance of broiler by feeding <i>coriandrum sativum</i> seed powder	Mortality % is high especially during starter period	<i>Coriandrum sativum</i> seed powder are given @ 2% of feed in broiler	broiler	5	<p><b>Technology</b></p> <ul style="list-style-type: none"> <li>i. Body weight of broiler at 6 wks -2.4 kg</li> <li>ii. Feed conversion efficiency – 1.79</li> <li>iii. Survivability% - 97.33</li> </ul>	At first farmers not readily accepted but when the performance increases they were very much satisfied	With the addition of <i>Coriandrum sativum</i> seed powder performance of the bird is very good	1.45
6	Treatment of Mastitis Metritis Agalactia complex	Most common disease of sow at post parturition leading to mortality of piglet and	48 lakh unit of Benzathine Penicillin is injected one week ahead of parturition to sow	Sow/ pig	5	<ul style="list-style-type: none"> <li>i. <b>Litter size at birth (13.8)</b></li> <li>ii. <b>Litter size at weaning</b></li> </ul>	Farmers readily accepted the technology	Occurrence of this diseases is minimum when sows were injected with medicine	3.6:1

	syndrome in post partum Sow by using Benzathine Penicillin-48 lakh unit	sow				(12.2) iii. Litter weight at birth (450g) iv. Litter weight at weaning (4800g)			
7	Integrated duck cum paddy culture	Practice of monoculture	300ducks per ha rice field	Duck and rice	5	<b>A.Effect on yield on rice</b> <b>i. no.of tiller/hill-11</b> <b>ii.No. of grain/panicle -150</b> <b>B.Effect on insect population -90% reduction</b> <b>C. Effect on weed population – 95%</b> <b>D. Growth performance of duck at 6mth-1.7(1.7kg)</b>	Farmers readily accepted this technology	Ready for large scale demonstration	2.33:1
8	Seed production of <i>Bangana devdevi</i>	Unavailability of seed due to low survival of seed leading to low B:C ratio	Stocking at the rate of 20,00000 spawn/ha	<i>Bangana devdevi</i> (endemic minor carp)	5	i) Survivability of seed (30%) ii) Growth of seed (107mm in 3 months) iii) B:C ratio (5.27)	Farmers readily accepted the technology	Success of the seed production of <i>Bangana devdevi</i> is one of the breakthrough in aquaculture which enables the	5.27

	(Khabak							farmers to include one of the potential candidate spp in diversified aquaculture to production as well as socio economic status of the farmer	
9	Culture of <i>Osteobrama belangeri</i> along with Chinese carps	Low B:C ratio due to unawareness of stocking densities and their ratios	Stocking of 10000 fingerlings per ha in the ratio of 40:30:30 (Pengba: Grass carp: Silver carp)	<i>Osteobrama belangeri</i> (Endemic minor carp)	6	<p><b>1. Growth of fish in 11 months</b></p> <p><b>Pengba – 187mm</b></p> <p><b>Grass carp – 480mm</b></p> <p><b>Silver carp - 415 mm</b></p> <p><b>2. B:C ratio – 5.4</b></p>	Farmers readily accepted the technology	<i>O. belangeri</i> is the state fish of Manipur and one of the potential candidate spp for aquaculture which can increase production as well as benefit cost ratio	5.4
10	Improving colour fastness of cotton fabric with natural	Not aware of locally available mordant	Natural dyeing 1.5kg cucuma longa with 2 litre of water	Organic dye	5	<p><b>1. Acidic medium (Alpinia nigra + dye (250gm)) = reddish brown</b></p> <p><b>2. Alkaline medium (Dye + citrus hystrix (heiribop) = golden brown</b></p>	Weavers of the district want to adopt this technology as this material is easily available and also improves the colour fastness of	By using a mordant a number of different shades of colours can be obtained from a single dye source.	

	dye					3.Neutral medium (Dye + water) =pale yellow  Colour fastnes to washing-negligible change	the fabric		
--	-----	--	--	--	--	--	------------	--	--

*\*Field crops – ton/ha, \* for horticultural crops – kg/t/ha, \* milk and meat – litres or kg/animal, \* for mushroom and vermi compost kg/unit area.*

**\*\* Give details of the technology assessed or refined and farmer's practice**

### 3.2 Achievements of Frontline Demonstrations during 2015-16

a. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous year and popularized during 2015-16 and recommended for large scale adoption in the district

Sl. No	Crop/ Enterprise	Technology demonstrated	Horizontal spread of technology		
			No. of villages	No. of farmers	Area in ha
1	Rice	Seed production of rice through ICM	5	5	1.25
2	Maize	Sping maize	5	5	1.25
3	Cauliflower	INM in cauliflower using	5	5	0.5
4	Tomato	INM in tomato using vermicompost	5	5	0.5
5	Watermelon	Cultivation of water melon variety NS-295	5	5	0.75

6	Rice	Hopper management with Ethiprol 40% + Emidaclorpid 40%	5	5	1.25
7	Bitter gourd	Management of fruit fly with chlorantriniprole	5	5	0.75
8	Onion	Mgmt of thrifts using maize as trap crop	5	5	0.50
9	Rice	Seed production of rice through SRI var Tampha	10	10	2.5

**\* Thematic areas as given in Table 3.1 (A1 and A2)**

- b. Details of FLDs conducted during reporting period (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.**)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement	Farming situation (Rainfed/ Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
					Proposed	Actual	SC/ST	Others	Total			N	P	K
1.	Rice	Seed production	Seed prodn. of rice through SRI	Kharif 2015	5	5	1	9	10	NA	irrigated			
2.	Maize	Cob and grain production	Cultivation of maize for green cob purpose	Kharif 2015	2.5	2.5	1	4	5	NA	Rainfed			

3	Lentil	Pulse production	Zero tillage cultivation of lentil var. HUL -57 seed rate 50 kg/ ha sowing 4 days after harvesting rice	Rabi 2015	5	5	2	8	10	NA	Rainfed			
4	Mustard	Oilseed production	Zero tillage cultivation of lentil var. NRCHB-101 seed rate 15 kg/ ha sowing 4 days after harvesting rice	Rabi 2015	5	5		10	10	NA	Rainfed			
5	Chickpea	Pulse production	Demonstration of chickpea cultivation seed rate 60kg/ha var. JG-16	Rabi 2015	1.25	1.25	1	4	5	NA	Rainfed			
6	Lady finger	IPM	Insect pest mgmt. with Cyantraniliprole(HGW 8610% OD) at 90 gm a.i/ha	Summer 2015	1.25	1.25	2	8	10	NA	Irrigated			

7	Tomato	IPM	Insect pest mgmt. with Spiromesifen (white flies & mites)	Summer 2015	1.25	1.25	1	9	10		Irrigated			
8	Rice	Seed production	Spring season seed production under SRI	Spring 2015										
9	Rice	Seed production	Spring season seed production under SRI	Spring 2015										

### c. Performance of FLD on Crops

Sl. No.	Crop	Thematic area	Area (ha.)	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Data on parameters other than yield, e.g., disease incidence, pest incidence etc.	Econ. of demo. (Rs./ha.)				Econ. of check (Rs./Ha.)				
				Demo.	Check		H*	L*		GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	
										Demo	Local							
1	Rice	Seed production	5	81.4	45	44.71	88.8	75			55,000	122100	67100	2.22				
2	Maize	Cob and	2.5	101859	84800	16.75	109696	96800			31223	254647	223424	8.15				

		grain produ ction		nos	nos		nos	nos										
3	Lentil	Pulse produ ction	5	5.0	-		6.0	4.3			11800	30000	18200	2.54				
4	Mustar d	Oilseed productio n	5	7.7	7.2	6	9.2	6.4			8000	19250	11250	2.4				
5	chickpe a	Pulse produ ction	1.25	6.36			7.0	6.36			20750	38160	17410	1.83				
6	Ladies finger	IPM	1.25	8.0	7.4	8.1	9.02	7.56			58500	20300	144500	3.47				
7	Tomato	IPM	1.25	2.17	2.01	7.96	7.56	1.93			77230	434030	356800	5.62				
8	Rice	Seed productio n		45	36	25	46	42			45000	99000	54000	2.2				
9	Rice	Seed productio n		79	54	46.3	82	78			55000	173800	118800	3.16				
10	Onion																	
11	cauliflo wer																	

**\*H-Highest recorded yield, L- Lowest recorded yield**

**\*\* GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio**

**Produce Sale Price must be as per MSP or Registered Marketing Society**

**Pl. apply the formula: Net Return= Gross Return-Gross Cost, BCR= GR/GC**

**Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.**

**d. Extension and Training activities under FLD on Crops**

Sl.No.	Activity	No. of activities organised	Date	Number of participants			Remarks
				Gen	SC/ST	Total	
1	Field days						
2	Farmers Training						
3	Media coverage						
4	Training for extension functionaries						
5	Any other (Pl. specify)						
	<b>Total</b>						

**e. Details of FLD on Enterprises**

(i) Farm Implements

Name of the implement	Crop	No. of farmers	Area (ha)	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		

\* Field efficiency, labour saving etc.

## (ii) Livestock Enterprises

Sl. No.	Enterprise/ Category (e.g., Dairy, Poultry etc.)	Thematic area	Name of Technology	No. of farmers	No. of units	No. of animals, poultry birds etc.	Major Performance parameters / indicators		% change in the parameter	Other parameters (if any)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)				Remarks
							Demo	Check		Demo	Check	G C **	G R **	N R **	B C R **	GC	GR	N R	B C R	
1	Poultry	Feeding management	Feeding of probiotic in broiler	10	10	200	iBody weight at 6 wks (2.23kg) ii. Feed conversion efficiency (1.72) iii. Survivability (98%)	iBody weight at 6 wks (1.85kg) ii. Feed conversion efficiency (1.45) iii. Survivability (84%)	iBody weight at 6 wks (17) ii. Feed conversion efficiency (15.6) iii. Survivability (14.28%)			15.036	24.058	90.181	1.6	13149.23	17097	39.477	1.3	
2	Poultry	Feeding management	Performance of geese by feeding locally available	10	10	70	iBody wt at 8mth (4.6kg) ii. survivability	iBody wt at 8mth (4.0kg) ii. survivability	iBody wt at 8mth (13) ii. survivability %			11.750	24.300	12.550	2.4	10750	16500	57.50	1.54	

			feed supplemented with vitamins and minerals				% (99)	% (86)	(13) iii.Hatchability% (46)										
							iii.Hatchability% (79)	iii.Hatchability% (42)											

\*\* GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio

Produce Sale Price must be as per MSP or Registered Marketing Society

Pl. apply the formula: Net Return= Gross Return-Gross Cost, BCR= GR/GC

**Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.**

### (iii) Fisheries

Sl. No.	Category, e.g. Common carp, ornamental fish etc.	The matric area	Name of Technology	No. of farmers	No. of units	No. of fish/fingerlings	Major Performance parameters / indicators		% change in the parameter	Other parameters (if any)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)				Remarks
							Dem o	Chec k		Dem o	Chec k	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	
1	Grass carp+pa	Seed production	7	7	7	140000	i) Survivability	i) Survivability	i) Survivability			25000	50250	2052	2012					

	ddy	n					lity of seed 30- 35%	lity of seed 20- 25%	lity of seed 10			8 1	0 0	1 9	8			5 0	
							ii) Gro wth of seed 246 mm wt- 165g min 5 mont hs	ii) Gro wth of seed 245 mm wt16 6gm in 5 mnth s	ii) Gro wth of seed 0.4,0 .6										
							iii) Yield of rice 3.57t on/h a	iii) Yield of rice3 .51to n/ha	iv) B:C ratio 19.7										
							iv) B:C ratio 2.08	iv) B:C ratio 2.01											
2	barb	Seed prod uctio n	7	7	7	140000 0spawn	i) Surv ivabi lity of	i) Surv ivabi lity of	i) Surv ivabi lity of			8 0 0 0	3 8 4 0	3 0 4 0	4. 8	800 0	320 80	2 4 0 8	4. 01






*\*H-Highest recorded yield, L- Lowest recorded yield*

*\*\* GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio*

*Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.*



















<b>IX Production of Inputs at site</b>																					
Seed Production																					
Planting material production																					
Bio-agents production																					
Bio-pesticides production																					
Bio-fertilizer production																					
Production of Fish feed																					
<b>X Capacity Building and Group Dynamics</b>																					
Leadership development																					
Entrepreneurial development of farmers/youths																					
WTO and IPR issues																					
<b>TOTAL</b>																					



























Vermi-culture			1		19				19						19				19	19
Sericulture																				
Protected cultivation of vegetable crops	1		1	15		3		18						15			3		18	18
Commercial fruit production																				
Repair and maintenance of farm machinery and implements																				
Nursery Management of Horticulture crops																				
Training and pruning of orchards																				
Value addition																				
Production of quality animal products																				
Dairying		1	1		23		8		41						20		8		41	41













orchards																						
Protected cultivation technology																						
Formation and Management of SHGs																						
Production and use of organic inputs																						
Gender mainstreaming through SHGs																						
<b>TOTAL</b>																						

**Note: Please furnish the details of above training programmes as Annexure in the proforma given below**

**Annexure 1: Details of Training Programme (On Campus including Sponsored On Campus) for Farmers, Farm Women, Rural Youth and Extension Personnel**

Discipline	Area of training	Title of the training programme	Date (From – to)	Duration in days	Venue	Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	General participants			SC/ST			Grand Total		
							M	F	T	M	F	T	M	F	T
Vety &AH	Fodder production	Fodder production round the year	4.5.15	1	On campus	farmers	23	8	31				23	8	31
Vety & AH	Poultry management	Scientific poultry farming	15.2.15	1	On campus	farmers	19	4	23				19	4	23
PBG	Cereal crops	1)Situation specific rice varieties of Manipur	30.3.16	1	On	PF,sponsored	30	10	40	3		3	33	10	43
		2) Description of crop varieties	17-6-15	1				13	3	16				13	3
Plant protectio	Vermicom	Vermicom	28.3.16	1		PF sponsored	19	0	19				19	0	19



**Annexure 2: Details of Training Programme (Off Campus including Sponsored Off Campus) for Farmers, Farm Women, Rural Youth and Extension Personnel**

Discipline	Area of training	Title of the training programme	Date (From – to)	Duration in days	Venue	Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	General participants			SC/ST			Grand Total		
							M	F	T	M	F	T	M	F	T
Vety & AH	Piggery mgmt	Scientific pig farming	7.5.15	1	Salungpham mamang leikai	Farmer	7	12	19				7	12	19
Vety & AH	-do-	Common diseases of pig and their treatment	22.6.15	1	Salungpham maning leikai	Farmer	18	2	20				18	2	20
Vety & AH	Poultry mgmt	Scientific broiler farming	2.7.15	1	Thongjao	Farm women				4	24	28	4	24	28
Vety & A.H	Dairy mgmt	Profitable dairy farming	2.8.15	1	Tentha	Farmer	8	10	21	3	2	5	11	12	23
Vety & AH	Piggery mgmt	Chemical castration of piglet	5.8.15	1	tekcham	Farmer	18	9	27				18	9	27

Vety & AH	IFS	Integrated farming system	17.10.15	1	langmeidong	RY	25		25				25		25
Vety & AH	Poultry mgmt	Scientific broiler farming	8.11.15	1	Khongjom	Farmer	12	11	23				12	11	23
Vety & AH	Piggery mgmt	Scientific Pig farming	8.12.15	1	komnao	Farmer	16	3	19				16	3	19
Vety & AH	Poultry mgmt	Scientific broiler farming	19.1.16	1	langathel	RY	4	19	23				4	19	23
Vety & AH	Poultry mgmt	Scientific broiler farming	9.2.16	1	tentha	RY	1	21	22				1	21	22
Vety & AH	Poultry mgmt	<b>backyard poultry farming</b>	14.3.16	1	sangaiyupham	RY	16	18	34				16	18	34
Vety & AH	Disease mgmt	Diseases management of dairy cattle	17.3.16	1	tekcham	Farmer	16	4	20				16	4	20

PBG	Seed prod n.	Rogueing in rice seed prodn.	25.5.15	1	Wabagai( Keithel macha)	RY	13	11	24				13	11	24
		Spring rice cultivation of Rice var. RCM-13	23.4.15	1	Sekmai jin Mamang Leikai	PF	15	6	21				15	6	21
	Oilseed crop	Zero tillage mustard	28.11.15	1	Sekmai jin Mamang leikai	PF	32	4	36				32	4	36
	Integrated farming system	Integration of vegetable with fish	12.1.15	1	Tentha	PF	20		20				20		20
	Cereals crop	Raising nursery for hybrid rice	22.6.15	1	Thongjao	PF				27	3	30	27	3	30
		Cultivation of hybrid rice	12.8.15	1	Kakching	PF				23	7	30	23	7	30
		Harvesting of hybrid rice	10.10.15	1	Uchiwa	PF	26	4	30			26	4	30	30
	Spices	Cultivation of King Chilli	13.1.16	1	Leiphrakpam	PF	20	0	20			20	0	20	20
	Mushroom Cultiv	Mushroom cultivation	4.4.15	1	Sabaltongba	RY	4	16	20				4	16	20

Plant Protection	ation		6.4.15	1	Sabaltong ba Mamang		15	4	19				15	4	19
	Pest Management	1)Pest management of maize	7.4.15	1	Serou	PF	14	6	20				14	6	20
		2) Pest management of rice	10.6.15	1	Khekman	PF	3	30	33				3	30	33
	Organic farming	Organic farming	10.10.15	1	Hayen Hangoon	RY	32	0	32				32	0	32
Pest management	Hopper management of rice	10.10.15	1	Samran Khunou,	PF	17	9	26				17	9	26	
		Pest mngt. of sugarcane	10.10.15	1	Laipham Khunou	PF				21	6	27	21	6	27
		Pest mngt. of mango	10.10.15	1	Kakching					26	7	33	26	7	33
		Pest mngt. of potato	10.10.15	1	Sikhong		13	6	19				13	6	19
	Organic farming	Organic farming	10.10.15	1	HayenHangoon	PF	16	0	16				16	0	16

	ng														
	Pest mngt.	Pest mngt. of potato	8.3.16	1	Loushi loukol	PF				26	7	33	26	7	33
			19.3.16	1	Kakching	PF				4	13	17	4	13	17
	Agric ultur al mark eting	Agricultural marketing	28.12.15	1	Kakching, Laipham loknung	PF				19	8	27	19	8	27
Home Sc.	Value additi on	Value addition of tamarind	24.4.15	1	Wangjing	PF	8	9	17				8	9	17
		Value addition of fish	4.8.15	1	Laphupat	PF	4	20	24				4	20	24
		Preparation of guava	24.9.15	1	Kakching	PF	5	15	20				5	15	20
		Preparation of value added tomato products	23.10.15	1	Wangjing	PF		11	11					11	11
		Value added products of fish	1.3.16	1	Laipham Loknung	PF	4	11	15				4	11	15
		Salt curing of fish	18.3.16	1	Yangdong	PF	4	11	15				4	11	15
	Stora	Seed storage	16.5.15	1	Wabagai	PF		12	12					12	12

	ge techn ique														
	Post harve st	Post harvest mngt. of cereals	29.6.15	1	Wangjing Hodamba	PF	6	11	17				6	11	17
	Dyein g	Mordanting of organic dye	17.2.16	1	Kiyam	PF		11	11					11	11
Agronom y	Rice cultiv ation	SRI	4-2-16	1	Elangkhan gpokpi	<b>Farmer &amp; Farm women</b>	16	4	20				16	4	20
	Rice	Cultivation of rice	16-3-16	1	Langmeit hek	-do-	11	8	19				11	8	19
	Rice	Mgt.of pre- kharif rice	22-3-16	1	Waithou	-do-	18	7	25				18	7	25
Horticultu re	Post harve st	Post harvest technology of bulb crops.	29-4-15	1	Keirak	-do-	9	13	22				9	13	22
	Nutri ent mgm t	Use of micro nutrient	26-6-15	1	Kakching	-do-				1 3	5	18	13	5	18
	Veget able prod uctio n	Improved package of practices of garden pea n	24-9-15	1	-do-	-do-				8	22	30	8	22	30

	Fruit production	Propagation techniques of fruits	23-10-15	1	Wangjing	-do-	20	5	25				20	5	25
	Vegetable production	Scientific cultivation of early cauliflower	24-11-15	1	Charangpat	-do-	12	7	19				12	7	19
	Tuber crops	Scientific cultivation of potato	9-12-15	1	Yangdong	-do-	13	12	25				13	12	25
	Vegetable crops	Method cultivation in vegetable crop	23-1-16	1	Kakching	-do-				21	17	38	21	17	38
	INM	INM in cole crops	30-1-16	1	Wangjing	-do-	15	5	20				15	5	20
	Spice crop	Cultivation of chilli	19-2-16	1	Heirolk	-do-	8	12	20				8	12	20
	Vegetable production	Cultivation of bean	22-2-16	1	Phouden	-do-	11	9	20				11	9	20
	-do-	Improved cultivation of cucurbit	15-3-16	1	Tejpur	-do-	24	2	26				24	2	26

	-do-	-do-	21-3-16	1	Phouden	-do-	2	16	18				2	16	18
Fishery	Fish	Seed production of carps	5-5-15	2	Arong, Tentha	-do-	22	2	24	6	1	7	24	7	31
	Fish	Water quality mgmt	17-7-15	1	Langmeid ong	-do-	15	6	21				15	6	21
	Fish	Fish health mgmt	20-9-15	1	Sekmaijin g	-do-	29	9	38				29	9	38
	Fish	Seed production of climbing perch	13-10-15	1	Oinam	-do-	16	2	18				16	2	18
	Fish	Scientific fish farming	29-1-16	3	Sekmaijin g, Wabagai, On cam, pus	-do-	55	17	72				55	17	72





8.	Exhibition			1	70	10	80	10	5	15				80	15	95
9.	Scientists visit to farmers fields			70	30	15	45	20	5	25				125	25	150
10.	Plant/ Animal Health camp															
11.	Farm science club															
12.	Ex-trainee Sammelan															
13.	Farmers seminar/ workshop															
14.	Method demonstration															
15.	Celebration of important days															
16.	Exposure visits															
17.	Electronic media (CD/DVD)															
18.	Extension literature			8												
19.	Newspaper coverage			12												
20.	Popular articles			48												
21.	Radio talk			22												
22.	TV talk			20												
23.	Training manual															
24.	Soil health camp															
25.	Awareness camp															
26.	Lecture delivered as resource person			52												
27.	PRA															
28.	Farmer-Scientist interaction			2	10	4	14	5	7	12				14	12	26
29.	Soil test campaign			5	50	5	55	10	10	20				55	20	75









	<b>Fisheries</b>	<b>Carp</b>	<b>0.1 lakh</b>	<b>10kg</b>	<b>0.05lakh</b>			
		<b>Barp</b>	<b>0.1lakh</b>	<b>10kg</b>	<b>0.05lakh</b>			
	<b>Others (Specify)</b>							

**D1. SUMMARY of production of livestock during 2015-16**

Sl. No.	Livestock category	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		Total number of Recipient beneficiaries
			Nos	(kg)		General	SC/ST	
1	CATTLE	Non descript local	2	280	40000	Not yet sale		
2	SHEEP & GOAT	Non descript	39	585	1,170,000	Not yet sale		
3	POULTRY	geese	8	32	8000	Not yet sale		
4.	PIGGERY							
5	FISHERIES	Carp	0.1 lakh	10kg	0.05 lakh			
		Barp	0.1 lakh	10kg	0.05lakh			
6	OTHERS (Pl. specify)							
	<b>TOTAL</b>							

### 3.6. Literature Developed/Published (with full title, author & reference) during 2015-16

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.): \_\_\_\_\_)

(B) Articles/ Literature developed/published

Item	Title /and Name of Journal	Authors name	Number of copies
Research papers			
1.	Captive breeding of air breathing loach, <i>Lepidocephalichthys beromorei</i> for conservation of species and sustainable utilization in Journal of applied Zoological Research	Y. Bedajit	1000
2.	Comparative studies in different stocking densities of Duck in Duck cum fish culture in Thoubal District, Manipur in Advances in life science	S. Zeshmarani & Y. Bedajit	1000
3.			
Training manuals			
Technical Report			
1.			
2.			
3.			
Book/ Book Chapter	1.	i.	
Popular articles	A.Swine Fever Management of dairy cattle Turkey farming	S.Zeshmarani	1000

	<p>Transportation of pig</p> <p>Breeding of rabbits</p> <p>Dystocia in cattle</p> <p>Probiotic feeding in dairy cattle</p> <p>Summer management of broiler</p> <p>Calf scour</p> <p>B. Used of weedicide</p> <p>Cultivation of ladies finger</p> <p>Bakana disease of rice</p> <p>Timely used of weedicide</p> <p>C.Baby corn</p> <p>Scientific cultivation of Ginger</p> <p>Scientific cultivation of Broccoli</p>	<p>M.Thoithoi Singh</p> <p>S.Sumangal Singh</p>	
Technical bulletins			
Extension bulletins			
Newsletter			
Conference/ workshop proceedings			
Leaflets/folders			
Any other (Pl. specify)			
<b>TOTAL</b>			

N.B. Please enclose a copy of each. In case of literature prepared in local language, please indicate the title in English

**(C) Details of Electronic Media Produced**

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number produced

**3.7. Success stories/Case studies, if any (two or three pages write-up on each case with suitable action photographs)**

**3.8 Give details of innovative methodology/technology developed and used for Transfer of Technology during the year**

**3.9 Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)**

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK

**3.10 Indicate the specific training need analysis tools/methodology followed for**

- Identification of courses for farmers/farm women
- Rural Youth
- Extension personnel

**3.11 Field activities**

- i. Number of villages adopted
- ii. No. of farm families selected
- iii. No. of survey/PRA conducted



only														
Voice only														
Voice and Text both														
<b>Total</b>			<b>24</b>	<b>2079</b>										

### 3.14 Contingency planning for 2015-16

#### a. Crop based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Proposed Measure	Proposed Area (In ha.) to be covered	Number of beneficiaries proposed to be covered		
			General	SC/ST	Total
	<b>Introduction of new variety or crop</b>				
	<b>Introduction of Resource Conservation Technologies</b>				
	<b>Distribution of seeds and planting materials</b>				
	<b>Any other (Please specify)</b>				

#### a. Livestock based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Any	Number of birds/ animals to	No. of programmes to be	No. of camps to be organized	Proposed number of animals/ birds to be covered through camps	Number of beneficiaries proposed to be covered

other please specify)	be distributed	undertaken			General	SC/ST	Total

**4.0. IMPACT**

**4.1. Impact of KVK activities (Not to be restricted for reporting period only)**

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)

**NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.**

**4.2. Cases of large scale adoption**

1. Hybrid rice: The introduction of hybrid rice : PAC-801, PAC-807, Arise-^\$\$\$, Arise 6444 (gold) and Prima has enabled the farmers to increase their income. It is now spread to all the valley district of Manipur. The Department of Agriculture Manipur also distributed these hybrid seeds at free of cost to the farmers through RKVY scheme. Use of Hybrid seeds enabled farmers to adopt new technologies of rice cultivation and increase their income to the tune of Rs. 45,000 against 35,000 by using local HYVs

2. Zero tillage mustard cultivation has been adopted by the farmers since long time back using local mustard varieties with the introduction of new mustard and rapeseed varieties like M-27, TS-36, TS-38,NRCHB -101, Pusa boldetc. Farmers are now using these varieties in zero tillage cultivation during rabi season in rice fallows

3. With the introduction of new hybrids of pumpkin and watermelon by the KVK, several farmers adopted these crops in large scale in rice fallows during spring season getting extra income of Rs.3,20,000/ha with little investment from rice fields increasing the cropping intensity in rice areas

4. The introduction of Chemical castration of pig by the KVK encourage the farmers to take up chemical castration instead of open method of castration as it reduces the cost of castration and injury to the piglets

#### 4.3 Details of impact analysis of KVK activities carried out during the reporting period

### 5.0. LINKAGES ESTABLISHED

#### 5.1 Functional linkage with different organizations

Name of organization	Nature of linkage
1.	
2.	
3.	

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

#### 5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies during 2015-16

Name of the scheme	Activity	Date/ Month of initiation	Funding agency	Amount (Rs.)

#### 5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes/No

Sl. No.	Programme	Nature of linkage	Remarks

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#### 5.4 Give details of programmes implemented under National Horticultural Mission

S. No.	Programme	Nature of linkage	Constraints if any

#### 5.5 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks

### 6. PERFORMANCE OF INFRASTRUCTURE IN KVK DURING 2015-16

#### 6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of estd.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	

#### 6.2 Performance of instructional farm (Crops) including seed production



--	--	--	--	--	--	--	--

## 6.5 Rainwater Harvesting

### Training programmes conducted by using Rainwater Harvesting Demonstration Unit

Date	Title of the training course	Client (PF/RV/EF)	No. of Courses	No. of Participants including SC/ST			No. of SC/ST Participants		
				Male	Female	Total	Male	Female	Total

## 6.6. Utilization of hostel facilities (Month-Wise) during 2015-16

Accommodation available (No. of beds) :

Months	Title of the training course/Purpose of stay	Duration of Training	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
Total					
<b>Grand total</b>					

Note: (Duration of the training course X No. of trainees)=Trainee days

## 7. FINANCIAL PERFORMANCE

### 7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location/ Branch	Account Number
With Host Institute	State Bank of India	Thoubal	11746667259
With KVK	State Bank of India	Thoubal	11746667259
Revolving Fund	State Bank of India	Thoubal	11746667260

### 7.2 Utilization of funds under FLD on Maize (*Rs. In Lakhs*) if applicable

Item	Released by ICAR/ZPD		Expenditure		Unspent balance as on 31 <sup>st</sup> March, 2015
	Year	Year	Year	Year	
Inputs					
TA/DA/POL etc.					
<b>TOTAL</b>					

### 7.3 Utilization of KVK funds during the year 2014 -15

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	87	87	87
2	<b>Traveling allowances</b>	2.20	2.20	1.64641
3	<b>Contingencies</b>	<b>15.20</b>	<b>15.20</b>	<b>15.14039</b>
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			

J	Library			
<b>TOTAL (A)</b>		<b>104.40</b>	<b>104.40</b>	<b>103.7868</b>
<b>B. Non-Recurring Contingencies</b>				
1	<b>Works</b>			
2	<b>Equipments including SWTL &amp; Furniture</b>	4.00	4.00	4.00
3	<b>Vehicle</b> (Four wheeler/Two wheeler, please specify)			
4	<b>Library</b> (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>		<b>4.00</b>	<b>4.00</b>	<b>4.00</b>
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>108.40</b>	<b>108.40</b>	<b>108.40</b>

#### 7.4 Status of Revolving Fund (Rs. in lakhs) for last three years

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2013 to March 2014	3,759	163391		169150
April 2014 to March 2015	169150	58990		188140
April 2015 to March 2016	188140	190748		378888

**Note: No KVK must leave this table blank**

**(Signature)**  
**Programme Coordinator**

## Annexure

**Proceedings of the 11<sup>th</sup> Scientific Advisory Committee Meeting of  
Krishi Vigyan Kendra Thoubal held on 9<sup>th</sup> Feb.,2016 at 11.30 a.m in the conference hall of KVK,Centre with  
Director,Agri.Manipur in the chair.**

The following members were present in the meeting.

- |                             |  |
|-----------------------------|--|
| 1. Shri Louis Ngasainao     | Director,Agriculture Manipur( Chairman)        |
| 2. Dr.P.Gojendro Singh      | Jt. Director , DVO Thoubal                     |
| 3. Shri Y.Shanti Singh      | DFO, Thoubal                                   |
| 4. Shri L.Dhaneshor Singh   | Manager SBI,Thoubal                            |
| 5. Shri R.K.Biswajit Singh  | Supdt. i/c District Sericulture office,Thoubal |
| 6. Shri S.Ranjitkumar Singh | D.O Hort & SC,Thoubal                          |
| 7. Shri K.Sanaton Sharma    | Rice Breeder, RRS,Wangbal                      |
| 8. Shri M.Sarat Singh       | DAO,Thoubal                                    |
| 9. Shri Md.Hifjur Rahman    | P.D. ATMA, Thoubal                             |
| 10. Shri Md.Riyajuddin Khan | ATM, ATMA Thoubal                              |
| 11. Smt. W.Bimola Devi      | Waikhong Female Farmer Representative          |
| 12. Smt. M. Ibechaobi Leima | Umathel, Female Farmer Representative          |
| 13. Shri Maibam James Singh | Tentha , Male Farmer Representative            |
| 14. Shri L.Rajen Singh      | Thoubal Wangmataba, Male Farmer Representative |
| 15. Dr.M.Thoithoi Singh     | Member Secy.                                   |

At the very outset, all the members present were welcomed by the Director Agri./Chairman KVK,Thoubal, and spelt out the need and purpose of holding the 11<sup>th</sup> SAC meeting.

Shri S.Sumangal Singh SMS(PBG) presented the action taken report of last SAC meeting and annual report of the previous year .Further all the SMS in charge of different disciplines undertaken by each SMS/PA were also presented and explained in detail the achievement made in their activities.

Regarding the work on fisheries Chairman suggested to adopt paddy cum fish wherever possible to increase farm income.

Regarding On Farm tesating on piggery, Jt. Director DVO Thoubal suggested to indicate the suitable breed for the region.

Shri K.Sanaton Sharma,Rice Breeder RRS Wangbal also suggested to include some of the state released var. in trial & demonstration.

During the presentation of member secy. management of mites by using Cyantraniliprol ,Shri. Ratan Singh of Chandrakhong, enquired about the type of mite which will be controlled by the Cyantraniliprol . In response to which Dr.M.Thoithoi P.C, KVK,Thoubal replied that all kind of mite will be controlled by Cyantraniliprol.

Smt. M.Ibechaobi Devi of Umathel and Female farmer representative ,KVK,Thoubal also enquired about the availability and facilities for water harvesting structure in response to which Chairman replied that he will instruct to include the activities in RKVY scheme of Thoubal district.

After all the discussion were over the session ended with thanks from chair.

-sd-

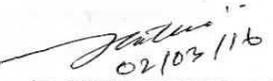
(Louis Ngasainao)  
Chairman,KVK,Thoubal

Dated:- 2/03/2016

Memo No.3/KVK/THBL/SAC/2007

Copy to:-

1. Director ,ATARI,Umiam
2. Members of 11<sup>th</sup> SAC,KVK,Thoubal

  
02/03/16  
(Dr.M.THOITHOI SINGH)  
Member Secretary  
KVK,Thoubal