

## ANNUAL REPORT OF KVK LOHIT IN NAMSAI DISTRICT, 2019-20

### 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	
KVK , Namsai District, Momong (ICAR) Arunachal Pradesh Pin.- 792 102	03806-200100	03806-222381	<a href="mailto:headkvknamsai@gmail.com">headkvknamsai@gmail.com</a> pckvklohit@gmail.com

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

Address	Telephone		E mail
	Office	FAX	
ICAR RC - NEH Region. Umroi Road, Umiam, Meghalaya. Pin - 793103	0364-2570257	0364- 2570355	icarneh@gmail.com

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Manish Kanwat	Namsai	09378123049	Kanwatmanish@gmail.com

#### 1.4. Year of sanction: 2007

1.5. Staff Position (As on 31<sup>st</sup> March, 2020)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/Others)
1	Programme Coordinator	Dr. Manish Kanwat	Sr. Scientist & Head (i/c)	Agri. Extension			02.06.2018	Permanent	ST
2	Subject Matter Specialist	Dr. Debasis Sasmal	ACTO (Fishery Science)	Fishery Science	15,600-39,100	83,300/-	12.10.2007	Permanent	General
3	Subject Matter Specialist	Dr. Binod K. Dutta Borah	ACTO (Animal Science-Production)	Animal Reproduction	15,600-39,100	29540/- (GP+NPA)	12.10.2007	Permanent	General
4	Subject Matter Specialist	Vacant	SMS (Animal Science)	Livestock Production & Management	15,600-39,100	-	-	-	-
5	Subject Matter Specialist	Vacant	SMS (Agronomy)	Agronomy	15,600-39,100	-	-	-	General
6	Subject Matter Specialist	Dr. Madhumita Sonowal Bora	ACTO (Plant Protection)	Plant Protection	15,600-39,100	83,300/-	08.11.2007	Permanent	ST
7	Subject Matter Specialist		ACTO (Horticulture)	Horticulture	15,600-39,100				
8	Subject Matter Specialist	Ms. Bidyapati Ngangom	SMS (Agrometeorology)	Agronomy	15,600-39,100	56,100	18.03.2019	Temporary	General
9	Programme Assistant	Chow Inchen Namchoom	Programme Assistant, T-5	Engineering	13,500	15210/-	24.10.2007	Permanent	ST
10	Computer Programmer	Md. Ziaur Rahman	Programme Assistant (Computer), T-5	M.Sc. (IT), (Computer)	9,300-34,800	15210/-	29.10.2007	Permanent	General



1.	Administrative Building	ICAR	April-2013	550	88 Lakh	2011, Nov.	-	Completed
2.	Farmers Hostel	-	-	-	-	-	-	-
3.	Staff Quarters (6)	ICAR	August, 2013	400	35.46 Lakh	Oct., 2012	-	completed
4.	Demonstration Units (2)	ICAR	April-2013	160	12 Lakh	Nov., 2011	-	Completed
5	Fencing	ICAR	April, 2012	957	20 Lakhs	Nov., 2011	-	completed

## B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero	AR04 3415	17.04.2009	6,00,000	1,25,000 KM	Out of Order
Tractor	AR11 5874	22.03.2010	4,95,433	202.4	Good Condition

## C) Equipments &amp; AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Xerox machine	30.03.2010	1,00,000.00	Not working
Laptop	30.03.2010	37,055.00	Not working
Digital camera	30.03.2010	20,000.00	Good
Computer	30.03.2010	45,900.00	Good
Fax machine	30.03.2010	25,000.00	Not working
Projector	30.03.2010	1,00,000.00	Not Working
Projector	Newly purchase	50,000.00	Good

## 1.8. A). Details SAC meeting\* conducted in the year 2019-20

Sl. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken on last SAC recommendation
1.	18.03.2020	<ol style="list-style-type: none"> <li>1. Dr. B. K. Kandpal, Chief Guest, Director, ICAR for NEH Region, Barapani</li> <li>2. Dr. H. Kalita, Joint Director, ICAR AP Centre, Basar, Arunachal Pradesh</li> <li>3. Dr. Monalisa, Senior Veterinary Officer, Chowkham Circle, Namsai District</li> <li>4. Mrs. Rupa Mannow, Assistant Director of Agriculture, Namsai District</li> <li>5. Chow Athina Chouhai, FPC Spice, Namsai</li> <li>6. Mr. Rituporna Deori, FPO Mahadepur, Namsai District</li> <li>7. Chow Lachit Thamung, Progressive Farmer, Juna-IV, Namsai District</li> <li>8. Nang Anu Wailong, Juna-IV, Namsai District</li> </ol>	-	-

\* 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)

Sl. No	Farming system/enterprises
1.	Agri-Horti-Animal Husbandry
2.	Agri-Horti-Animal Husbandry-Fishery
3.	

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

Sl. No	Agro-climatic Zone	Characteristics
	Sub tropical hill zone	The climate of the district varies from place to place. Rainfall varies from 110-3645 mm, temperature 5 to 36°C. The district consists of plain flood prone area, foot and mid hill areas.

### 2.3 Soil type/s

Sl. No	Soil type	Characteristics	Area in ha
	Alluvial soils	Deep to medium deep, Well drain soil	20700 ha
	Sandy soils	Deep to medium deep, well drain soil, high erosion hazard	365880 ha
	Black soils	Deep to medium deep, well drain soil, medium erosion hazard	145620 ha
	Acid soils	Deep to medium deep, well drain soil, high erosion hazard acidic in reaction	518200 ha

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

Sl. No	Crop	Area (ha)	Production (ton)	Productivity (Qtl /ha)
	Rice	11654	3,039950	26.0
	Maize	9960	121140	12.1
	Wheat	475	7840	16.5
	Pulse	2110	21950	10.4
	Potato	732	68,810	94.22
	Oilseed	10,547	78,920	7.40
	Ginger	985	88260	94.22
	Turmeric	120	6000	50.0
	Vegetable	4450	180220	40.50
	Sugarcane	31	2020	65.0

### 2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April, 2019	90.8	24.33	14.56	78.70

May, 2019	148.8	27.06	20.05	88.45
June, 2019	119.0	30.56	25.03	80.36
July, 2019	133.8	31.24	26.32	84.45
August, 2019	40.3	32.54	24.95	91.48
Sept, 2019	61.2	29.16	26.05	81.26
Oct, 2019	21.2	28.88	23.33	67.80
Nov, 2019	1.00	24.98	19.56	68.63
Dec, 2019	0.00	23.43	9.57	63.07
Jan, 2020	10.0	22.57	10.06	67.07
Feb, 2020	8.90	25.89	14.10	63.29
March, 2020	11.80	28.60	17.19	56.21

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

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	912	Milk : 350 MT	95.89 ml per capita/day
<i>Indigenous</i>	42,055		
<b>Buffalo</b>	1988		
<b>Sheep</b>			
<i>Crossbred</i>	Nil		
<i>Indigenous</i>			
<b>Goats</b>	11696	911 MT	
<b>Pigs</b>			
<i>Crossbred</i>	915		
<i>Indigenous</i>	10781		
<b>Rabbits</b>	40		
<b>Poultry</b>			
Hens		Meat: 56.26MT Egg: 2730400 Nos.	29 Egg/day
<i>Desi</i>	119054		
<i>Improved</i>	18536		
Ducks	13518		
Turkey and others			

Category	Area	Production	Productivity
Fish	73.5 hac	63.5 ton (pond)	
<i>Marine</i>			
<i>Inland</i>	73.5 hac	85.0 ton (total)	

Prawn			
Scampi			
Shrimp			

Note: Pl. provide the appropriate Unit against each enterprise

## 2.6 Details of Operational area / Villages (2019-20)

Sl. No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
1	Chongkham	Chongkham, Momong, Nalung, Napatia, Alubari-Nepali Basti, Namliang, Manmow Tissue, Pangkhao, Marua, Empong.	Paddy, Mustard, Potato, Ginger, Muhroom, Vermicompost, Poultry, Cow, Goat, Fishery.	<b>Agriculture :</b> 1. Lack of knowledge about scientific agronomic practices of different crops 2. Poor soil fertility 3. Stem borer, gall midge , Gandhi bug, leaf folder, and leaf roller attack in paddy 4. Poor yield of local varieties of paddy, pulses and oilseed 5. Non adoption of fertility management practices in all crops 6. Attack of stem borer/ top borer in maize 7. Lack of irrigation facility, erratic rainfall 8. Lack of knowledge regarding production and use of organic manures 9. Lack of knowledge about IPM/ INM of different crops 10. Traditional cropping without scientific management practices <b>Horticulture:</b> 1. Poor performance of local cultivars of fruits and Vegetable 2. Lack of availability of quality planting material in fruits and vegetables 3. Lack of knowledge about propagation technique of banana, citrus, litchi & other fruits 4. Lack of knowledge about scientific orchard management technology of citrus , pineapple.		
2	Lathao	Lathao, Solungtoo, Juna I, Juna III, Juna IV	Paddy, Mustard, Potato, Ginger, Pineapple, Lentil, Mushroom, Poultry, Cow, Goat, Fishery			
3.	Namsai	Nanam Khampti Habigaon, Namsai	Cauliflower, Bittergourd, Bottlegourd, Brinjal, Maize, Bhindi, Groundnut, Mushroom			

4.	Mahadepur	Mahadepur (I, II and III)	Fieldpea, Maize, Groundnut, Duck, Poultry			
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### **3. TECHNICAL ACHIEVEMENTS**

#### **3. A. Details of target and achievements of mandatory activities by KVK during 2019-20**

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
Plant Protection	-	1	-	5	-	2	-	43
Animal Sciences	2	2	20	20	5	5	40	64
Fishery Science	1	1	5	3	3	3	30	30
Agrometeorology	2	2	4	4	-	-	-	-
Ag. Engg	-	-	-	-	1	1	5	5
<b>Total</b>	<b>5</b>	<b>6</b>	<b>29</b>	<b>32</b>	<b>9</b>	<b>11</b>	<b>75</b>	<b>142</b>

Note: Target set during last Annual Zonal Workshop

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
<b>Plant Protection</b>								
Farmers	03	08	90	276	-	3	60	58
Rural youth	-	01	-	32				
Extn. Functionaries	-	-	-	-				

<b>Total</b>	<b>03</b>	<b>09</b>	<b>90</b>	<b>308</b>	<b>-</b>	<b>3</b>	<b>60</b>	<b>58</b>
<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>		

<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>
<b>Animal Science</b>								
Farmers	08	08	240	375	1	1	50	60
Rural youth	02	02	60	61				
Extn. Functionaries	01	01	10	12				
<b>Total</b>	<b>11</b>	<b>11</b>	<b>310</b>	<b>448</b>	<b>1</b>	<b>1</b>	<b>50</b>	<b>60</b>
<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>		

<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>
<b>Animal Science</b>								
Farmers	-	2	-	59				
Rural youth	-	1	-	18				
Extn. Functionaries	-	-	-	-				
<b>Total</b>		<b>3</b>	<b>-</b>	<b>77</b>				

Seed Production (ton.)		Planting material (Nos. in lakh)	
5		6	
Target	Achievement	Target	Achievement

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
<b>Fishery Science</b>								
Farmers	10	11	300	412				
Rural youth	01	03	30	113				
Extn. Functionaries	-	-	-	-				
<b>Total</b>	<b>11</b>	<b>14</b>	<b>330</b>	<b>525</b>				
Seed Production (ton.)					Planting material (Nos. in lakh)			
5					6			
Target	Achievement				Target	Achievement		

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
<b>Agrometeorology</b>								
Farmers	03	07	90	445				
Rural youth	-	-	-	-				
Extn. Functionaries	-	-	-	-				
<b>Total</b>	<b>03</b>	<b>07</b>	<b>90</b>	<b>445</b>				
Seed Production (ton.)					Planting material (Nos. in lakh)			
5					6			
Target	Achievement				Target	Achievement		

Training (including sponsored, vocational and other trainings carried under Rainwater	Extension Activities
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Harvesting Unit)								
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
<b>Agri. Engg.</b>								
Farmers	06	05	180	150				
Rural youth	01	01	30	42				
Extn. Functionaries	-	-	-					
<b>Total</b>	<b>07</b>	<b>06</b>	<b>210</b>	<b>192</b>				
Seed Production (ton.)					Planting material (Nos. in lakh)			
5					6			
Target		Achievement			Target		Achievement	

Note: Target set during last Annual Zonal Workshop

### 3. B. Abstract of interventions undertaken during 2019-20

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	Extensi on activitie s	Supply of seeds, planting materials etc.
1	Varietal Evaluation	Rapeseed, Field pea, Lentil	Low yield	Varietal evaluation of Rapeseed var. TS-46	1. CFLD on Field pea Var. Aman 2. CFLD on Lentil Var. WBL-77		-	-	Seed

2	Waste management	Mushroom	Agricultural waste		1. Oyster Mushroom Production Technology  2. Vermicompost Production Technology	Vermicompost Production Technology			1. Mushroom spawn, polythene bag  2. Vermicompost bag, Earthworm
3	Feeding Management	Fishery	Varietal evaluation		Rearing of Carassius auratus (gold fish), for beginners	Rearing of Carassius auratus (gold fish), for beginners		Demonstration	Fish Seeds, feed
4	IFS module	Fishery	Slow growth due to no feeding		1, duck cum fish culture 2. Pig cum fish culture	Integrated farming system		Demonstration	Fish Seeds, Lime, ducklings, piglets, feed, medicine
5	Breed evaluation	Goat	Small body size of local goat		Up gradation of Local breed of goat with Jhakarana, Sirohi and Assam hill goat	Scientific Goat farming			Male and female kid of Jhakarana, Sirohi and Assam hill goat (Continue.)
6	Feeding Management	Pig	Improper feeding in pregnant & lactating Sow		Balance feeding Trial 1 month prior to farrowing in pregnant sow and continue upto weaning	Feeding Management of Pregnant & Lactating Sow		Field day	Balance concentrated feed

7	Breed Introduction	Duck	Poor performance of local bird	Introduction of Vigova Super M Duck	Demonstration of Kalinga Brown bird	Backyard poultry farming		Vaccination against ranikhet disease	Duckling, Chicks, feed, medicine etc.
8	Nutrition Management	Dairy cattle	Not proper utilization of roughages/paddy straw leads to low milk yield		Urea treatment to paddy straw	Feeding management to dairy cattle		Field day	Urea, watering cane, polythene bag
9	Varietal Evaluation	Fodder Rice bean	Lack of improve variety and low fodder yield		Demonstration of legume fodder crop Ricebean var Bidhan – 2	Package and Practices of Green fodder crop: Rice bean and Maize			Seed
10	Varietal Evaluation	Fodder Maize			Demonstration of high yielding fodder crop Maize var J-1006	Package and Practices of Green fodder crop: Rice bean and Maize			Seed
11	Varietal Evaluation	Black rice	Newly introduced	Varietal evaluation Black rice var. Poireiton	-	-	-	-	Seed
12	Varietal Evaluation	Tomato	Low yield	Assessment of tomato Variety “Arka Aheb (H-397)” in Namsai District	-	-	-	-	Seedling
13	Drudgery reduction	Maize Sheller	Time saving		Maize Sheller	-	-	-	Maize Sheller

### 3.1 Achievements on technologies assessed and refined during 2019-20

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	2	1	3	-	1	-	-	-	-	5
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient Management										
Integrated Farming System										
Mushroom cultivation	-	-	-	1	-	-	-	-	-	1
Drudgery reduction										
Farm machineries										
Value addition										
Integrated Pest Management										
Integrated Disease Management										
Resource conservation technology										
Small Scale income generating enterprises	-	-	-	1	-	-	-	-	-	1
<b>TOTAL</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9</b>

\* Any new technology, which may offer solution to a location specific problem but not tested earlier in a given micro farming situation.

#### A.2. Abstract of the number of technologies **refined**\* in respect of crops/enterprises



<b>TOTAL</b>								
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A.4. Abstract on the number of technologies **refined** in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitery	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management								
Disease of Management								
Value Addition								
Production and Management								
Feed and Fodder								
Small Scale income generating enterprises								
<b>TOTAL</b>								

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 evaluation of Rapeseed var. TS-46	Low yield	Varietal Evaluation	Rapeseed	05	Average yield 5.85 q/ha (Technology) 2.28 q/ha (Farmer Practice)	Satisfactory	-	2.05
2	Intro'on of Tilapia sp. (mono culture)	Low yield due to short duration of culture period	Rearing of fish spawn to fry stage	Variety introduced- Tilapia nilotica fish), for beginners	05	1.Temp- 2. Mortality- 3. cult.period 4. pH-  5.Prodn- (Average wt.)	32-39 C 20% 5-6 m 4. 7.1-8.0  5. 2.7q /0.1ha (185gm)		-

3	Introduction of Vigova Super - M Duck	Poor body wt gain of local variety , high mortality.	Breed introduction	Vigova Super - M Duck	10	Attained 2.32kg (Avg.) at 9 wks. ( Total 69.6kg from 30 birds),	Satisfactory		3.3
4	Introduction of improved goat breed	Local unproductive breed Non availability of quality goat breed	Breed Introduction	Sirohi, Jhakrana, Assam hill goat	17	Continuing			
5	Varietal evaluation Black rice var. Poireiton	Newly introduced	Varietal Evaluation	Black rice	01	Grain yield(t/ha)-1.4 Straw yield(t/ha)-5.6	Satisfactory	-	-
6	Assessment of tomato Variety "Arka Aheb (H-397)" in Namsai District	Low yield	Varietal Evaluation	Tomato	03	Ongoing			

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

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

### 3.2 Achievements of Frontline Demonstrations during 2018-19

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

List of technologies demonstrated during previous year and popularized during 2018-19 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.	Poultry (Vanaraja)	05	05	05	150

*\* 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. **horticultural crops 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	Field Pea	Varietal Evaluation	CFLD on Field Pea Var. Aman	Rabi, 2019	05	05	03	07	10	-	Rainfed, Sandy loam soil	-	-	-
2	Lentil	Varietal Evaluation	CFLD on Lentil Var. WBL-77	Rabi, 2019	05	05	02	03	05	-	Rainfed, Sandy loam soil	-	-	-
3	Fodder Rice bean Var Bidhan-2	Varietal Evaluation	Demonstration of legume fodder crop Ricebean var Bidhan – 2	2019	04	04	03	07	10			-	-	-
4	Fodder Maize var. J 1006	Varietal Evaluation	Demonstration of high yielding fodder crop Maize var J-1006	2019	04	04	02	03	05			-	-	-

### 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	Field Pea	Varietal Evaluation	05	15.22	10.10	50.69	15.22	15.22	-	-	44,000	60,900	16,900	1.38	38,500	40,400	1,900	1.05
2	Lentil	Varietal Evaluation	05	2.05	1.20	70.83	2.5	1.5	-	-	46,800	1,23,000	76,200	2.63	40,500	72,000	31,500	1.78
3	Fodder Rice bean Var Bidhan-2	Varietal Evaluation	04	246	135	82.22	256	176	No any Major disease and insect reported	No any Major disease and insect reported	9525	24600	15075	2.58	8900	13500	4600	1.52
4	Fodder Maize var. J 1006	Varietal Evaluation	04	321.75	216	48.95	340	210	No any Major disease and insect reported	No any Major disease and insect reported	11100	24131.25	13031.25	2.17	9700	16200	6500	1.6

\*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 (Fodder Production)	02	21.06.19 22.06.19	-	59	59	
3	Media coverage						
4	Training for extension functionaries						
5	Any other (Pl. specify)						
	<b>Total</b>	<b>02</b>		<b>-</b>	<b>59</b>	<b>29</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		
Maize Sheller	Maize	05	-	Labour saved	Labour reduction (Man days) =0.5	-	47.6	Time saving

\* 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	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	

1	Poultry	Breed introduction	Introduction of Kalinga brown	13	13	400	Growth rate and egg laying capacity	Low body wt gain and egg laying	112 % increase in body weight			460	1310	850	2.8	250	480	230	1.9	
2	Pig	Feeding Management	Balance feeding Trial 1 month prior to farrowing in pregnant sow and continue upto weaning	5	5	5	Body Wt. of piglet at birth & weaning	Low body Wt. of piglet at birth & weaning	66.66 %			6000	2000	1400	3.3	400	10800	6800	2.7	
3	Dairy cattle	Feeding management	Urea treatment to paddy straw	10	10	20	Increase milk production	Poor milk yield				1500	4950	3450	3.3	140	420	2800	3.0	

\*\* 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	Thematic 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
							Demo	Check		Demo	Check	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	

	<b>entral fish etc.</b>																				
1	Fisher y	Varieta l evaluation	Reari ng of Caras sius aurat us (gold fish), for begin ers	05	03	Fish seed 25/m <sup>2</sup>	1.Fish rearing 2.Water Ph 3. Temp. 4. Mortality 5. Natural breeding, economics		1. Goi ng on 2. 7.1-7.8 3. 9-36 4. 1% 5. Matu ring (on going )	-	-	-	-	-	-	-	-	-	-	-	Farmer satisfied and technolo gy ongoing
2	Fisher y	IFS mod ule	Pig cum fish cultur e	10	10	Fish seed 10000/ha	Duration Av. Wt pH Total Prodn (kg)	Durat ion Av. Wt pH Total Prodn (kg)	7.5m 210g 6.5-8 225/ 0.1ha Pig has attain ed growt h-55kg/7m (gro wing stage )	8m 140g 6.5-7.0 135/ 0.1ha	-	-	-	-	-	-	-	-	3.6	satisfied and technolo gy adopted	

	Fisher y	IFS module	Duck cum fish cultur e	10	10	Fish seed 10000/h a	Duration Av. Wt pH Total Prodn (kg)	No com merci al practi ce	470g m	-	-	-	-	-	-	-	-	-	3.4	satisfied and technolo gy adopted
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**\*\* 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.**

**(iv) Other enterprises**

Sl. No.	Categor y/ Enterpri se, e.g., mushro om, vermico mpost, apicultu re etc.	Them atic area	Name of Techn ology	No. of farme rs	No. of unit s	Major Performance parameters / indicators		% chan ge in the para meter	Other parameters (if any)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)				Remark s
						Demo	Check		GC* *	GR* *	NR **	BC R**	G C	GR	N R	BC R			
1	Mushro om	Waste Mana geme nt	Oyster Mushr oom Produ ction Techn ology	10	3	Averag e yield 4.18q/6 0bag	Avera ge yield	-	Farmer reaction	-	24,7 00.0 0	1,04, 400. 00	79, 70 0.0 0	4.23	-	-	-	-	Farmer Satisfied

2	Vermicompost	Waste Management	Vermicompost Production Technology	33	3	Average yield 0.31q/5 bed (Vermicompost) 0.07q/5 bed (Earthworm)	Average yield	-	Farmer reaction	-	97,500.00	2,27,640.00	1,30,140.00	2.33	-	-	-	-	Farmer Satisfied
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**\*\* 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.**

**(v) Farm Implements and Machinery**

Sl. No.	Name of implement	Crop	Name of Technology demonstrated	No. of farmers	Area (In ha.)	Field observation (Output/ man-hours)		% change in the parameter	Labour reduction (Man days)	Cost reduction (Rs. per ha. or Rs. per unit etc.)	Remarks
						Demo	Check				
1	Maize sheller	maize	Demonstration of maize sheller	05	-	Labour reduction (Man days) =0.5	-	47.6	0.5	150	-

**f. Performance of FLD on Crop Hybrids**

Sl. No.	Crop	Name of hybrids	Area (ha.)	No. of farmers	Avg. yield (Q/ha.)	% increase in Avg. yield	Additional data on demo. yield (Q/ha.)	Econ. of demo. (Rs./Ha.)	Econ. of check (Rs./Ha.)
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managem nt																						
Soil and Water Conservati on	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Managem nt	-	01	01	-	23	-	18	-	41	-	11	-	31	-	42	-	34	-	49	-	63	63
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Managem nt of Problematic soils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soil and Water Testing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>IV Livestock Production and Management</b>																						
Scientific goat farming	01		01	9		19		28		03		01		04		12		20		32		32
Integrated farming system.	01		01	15		0		15		07		20		20		22		20		42		42
Poultry egg hatching & Vaccination	02		02	03		01		04		12		27		39		15		33		44		48
Piggery Managem nt	01		01	06		0		06		29		0		29		35		0		35		35
Poultry managem nt		01	01		48		10		01		11		28		18		19		37		48	48

















systems of orchards																						
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>c) Ornamental Plants</b>																						
Nursery Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Management of potted plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Export potential of ornamental plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Propagation techniques of Ornamental Plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>d) Plantation crops</b>																						
Production and Management technology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>e) Tuber crops</b>																						



managem ent																							
Soil and Water Conserva tion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Managem ent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Productio n and use of organic inputs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Managem ent of Problema tic soils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soil and Water Testing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>IV Livestock Production and Management</b>																							
Scientific goat farming	01		01	09		19		28		03		01		04		12		20		32		32	
Integrated farming system.	01		01	15		0		15		07		20		20		22		20		42		42	
Poultry egg hatching & Vaccinati on	02		02	03		01		04		12		27		39		15		33		44		48	











and wax sheets																						
Small tools and implements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Production of livestock feed and fodder	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Production of Fish feed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>X Capacity Building and Group Dynamics</b>																						
Leadership development	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Group dynamics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Formation and Management of SHGs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers/youths	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WTO and IPR issues	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>XI Agro-forestry</b>																						





















fodder production																						
Household food security	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Women and Child care	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Low cost and nutrient efficient diet designing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>01</b>	<b>-</b>	<b>01</b>	<b>05</b>	<b>-</b>	<b>5</b>	<b>-</b>	<b>05</b>	<b>06</b>	<b>01</b>	<b>07</b>	<b>11</b>	<b>01</b>	<b>-</b>	<b>11</b>	<b>01</b>	<b>12</b>	<b>12</b>				

### 3.3. Achievements on Training

#### 3.3.1. Farmers and Farm Women in On Campus including Sponsored On Campus Training Programmes (\*Sp. On means On Campus training programmes sponsored by external agencies)

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	Date (From – to)	Duration in	Venue	Please specify Beneficiary group (Farmer & Farm	General participants	SC/ST	Grand Total
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		<b>training program me</b>		<b>days</b>		<b>women/ RY/ EP and NGO Personnel)</b>	<b>M</b>	<b>F</b>	<b>T</b>	<b>M</b>	<b>F</b>	<b>T</b>	<b>M</b>	<b>F</b>	<b>T</b>
Plant Protection	Vermicompost	Vermicompost Production Technology	11.09.19	01	KVK office premises	Farmer & Farm women	21	-	21	-	11	11	21	11	32
Plant Protection	IDM and IPM	IDM and IPM of Potato	01.10.19	01	KVK office premises	Farmer & Farm women	02	12	14	06	07	13	08	19	27
Plant Protection	IDM and IPM	IDM and IPM of Rice	17.10.19	01	KVK office premises	Farmer & Farm women	-	-	-	01	28	26	01	28	29
Plant Protection and Agrometeorology	Awarness Programme	Fertilizer application awareness programme	22.10.19	01	KVK office premises	Farmer & Farm women	23	18	41	11	31	42	34	49	83
Plant Protection	Aromatic plant	Training cum demonstration on Aromatic Plant	18.01.2020	01	KVK office premises	Farmer & Farm women	12	06	18	06	17	23	18	23	41
Plant Protection	Seed Production	Training on seed production on ICAR- Seed Project (TSP)	26.02.19	01	KVK office premises	Farmer & Farm women	28	01	29	17	12	29	45	13	58

Animal Science	Pig/duck/fish	Integrated Framing System	12.09.19	01	KVK	PF & FW	15	0	15	07	20	27	22	20	42
Animal Science	Piggery	Scientific Pig Farming	8.11.19 & 11.11.19	02	KVK/Kung seng	RY	06	0	06	29	0	29	35	0	35
Animal Science	Poultry (SP)	Rearing of Kalinga brown in backyard	18.11.19	01	KVK	PF & FW	10	01	11	18	19	37	28	20	48
Animal Science	Poultry/pig/fish (Sp)	Integrated Farming System	3.2.20-4.2.20	01	KVK	PF & FW	42	07	49	13	12	25	55	19	74
Fishery Sc	IFS	IFS	4.2.20219 27.06.2019 10.07.2019 24.07.2019 10-11.01.2020	06	KVK office premises	RY/PF				166	167	166	167	333	333
Fishery Sc	Fresh water aquaculture farmer	Fresh water aquaculture farmer	11.02.2020-07.03.2020	01	KVK office premises	RY				19	01	20	19	01	20
Fishery Sc	Fish breeding	Carp breeding and hatchery management	24.08.2019	01	KVK office premises	Farmer & Farm women				16	14	30	16	14	30
Fishery Sc	Fish seed rearing	Carp fry and fingerling rearing	06.09.19 12.09.19	02	KVK office premises	Farmer & Farm women				18	11	29	18	11	29
Fishery Sc	Fish culture	Composite fish culture	18.11.2019 12-13.02.2020	03	KVK office premises	Farmer & Farm women				65	18	83	65	18	83
Fishery Sc	Fish breeding	Breeding of	30.01.2020	01	KVK office	Farmer & Farm women				16	14	30	16	14	30

		ornamenta l fishes			premises											
Agrometeo rology	Advisori es	Agromet advisories service	06.06.19	01	KVK office premises	Farmer & Farm women/Ry	41	47	88				41	47	88	
Agrometeo rology	Awarne ss	Promotion of less water consuming Nutri Cereals crop, Promotion of Jaikkheti portal for sale of organic farming and Jal Shakti Abhigyan	02.10.19	01	KVK office premises	Farmer & Farm women/Ry	10	21	31				10	21	31	
Agrometeo rology	Meghdoo t app	Populariza tion of Meghdoot app	05.03.20	01	KVK office premises	Farmer & Farm women/Ry	21	15	36	7	5	12	28	20	48	
Ag. Engg.	Use of Plastics in farming practices	Use of Plastics in farming practices	02.10.19	01	KVK office premises	Farmer & Farm women				10	22	32	10	22	32	
Ag. Engg.	Use of Plastics in farming practices	Use of Plastics in farming practices	04.10.19	01	KVK office premises	Farmer & Farm women				16	20	36	16	23	36	

**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 –	Duration in days	Venue	Please specify	General participants	SC/ST	Grand Total
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			to)			Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	M	F	T	M	F	T	M	F	T
Plant Protection	Citrus decline	Scientific Management of citrus decline	14.07.19	01	Wakro	Farmer & Farm women	-	-	-	38	44	82	38	44	82
Plant Protection	Cultivation Practices	Scientific Cultivation of Blackgram	16.09.19	01	Juna-III	RY	13	19	32	-	-	-	13	19	32
Plant Protection	Organic Farming	Organic farming of Field pea	02.11.19	01	Mahadepur	Farmer & Farm women	-	-	-	-	-	-	34	26	60
Animal Science	Fodder Production	Package and Practices of Green fodder crop: Rice bean and Maize	21.06.19	01	OFF	Farmer & Farm women	-	-	-	15	14	29	15	14	29
Animal Science	Fodder Production	Package and Practices of Green fodder crop: Rice bean and Maize	22.06.19	01	OFF	Farmer & Farm women	-	-	-	14	16	30	14	16	30
Animal Science	Disease Management	Prevention and control of poultry disease	25.04.19	01	OFF	RY	-	-	-	11	7	18	11	7	18
Animal science	Goatery	Scientific Goat farming	07.9.19	01	Jona-3	PF & FW	09	19	28	03	01	04	12	20	32
Animal science	Poultry	Training & demonstration egg hatching	26.09.19	01	Mohadepur-3	RY	03	01	04	08	14	22	11	15	26
Animal	Piggery	Scientific Pig Farming	8.11.19 &	02	KVK/Kung	RY	06	0	06	29	0	29	35	0	35

science			11.11.19		seng										
Animal science	Poultry management	Backyard poultry farming	13-14.07.2018	02	Alubari-II	Farmer & Farm women	21	02	23	05	02	07	26	04	30
Animal science	Poultry	Hands on training on poultry vaccination	19.11.19	01	Mahadevpur-1	PF & FW	0	0	0	04	13	04	13	17	17
Animal science	Dairy animal	Scientific Dairy Farming	10.01.20	01	Kaupatani	PF & FW	08	02	10	07	02	09	15	04	19
Agrometeorology	Awareness	Jal Shakti Abhigyan and Awareness on AAS	03.09.19	01	Mohaloni	Farmer & Farm women	07	01	08	09	14	23	16	15	31
Agrometeorology	Awareness	Jal Shakti Abhigyan and Awareness on AAS	07.09.19	01	Juna-III	Farmer & Farm women	06	04	10	08	12	20	14	16	30
Agrometeorology	Organic Farming	Organic Farming	01.11.19	01	Mahadevpur	Farmer & Farm women	-	-	-	-	-	-	34	26	60
Agrometeorology	Meghdoot app	Popularization of Meghdoot app	10.02.19	01	Tezu	Farmer & Farm women	19	17	36	8	1	9	27	18	45
Ag. Engg	Repair and maintenance of farm machinery and implements	Repair and maintenance of farm machinery and implements	03.03.19	01	New Mohong	PF & FW	14	08	22	15	06	21	29	14	43
Ag. Engg	Repair and maintenance of farm machinery	Repair and maintenance of farm machinery and	04.03.19	01	Khamti nongtow	PF & FW	09	07	16	10	08	18	19	15	34

	and implements	implements													
Ag. Engg	Post Harvest Technology	Post Harvest Technology	05.03.19	01	Namgok model	PF & FW				20	15	35	20	15	35
Ag. Engg	Repair and maintenance of farm machinery and implements	Repair and maintenance of farm machinery and implements	04.03.19	01	Juna-IV	RY				20	27	47	20	27	47

**(D) Vocational training programmes for Rural Youth**

Crop / Enterprise	Date (From – To)	Duration (days)	Area of training	Training title*	No. of Participants									Impact of training in terms of Self employment after training				Whether Sponsored by external funding agencies (Please Specify with amount of fund in Rs.)
					General			SC/ST			Total			Type of enterprise ventured into	Number of units	Number of persons employed	Avg. Annual income in Rs. generated through the enterprise	
					M	F	T	M	F	T	M	F	T					
Fishery	11.02.2020 to 07.03.2020	25	Fishery	Fresh water Aquaculture Farmer	-	-	-	19	01	20	19	01	20	Fishery	20	20	Started	Agriculture Skill Council of India
Poultry	12.02.20 to 12.03.20	30	Poultry farming	Small Poultry Farmer	07	03	10	04	06	10	11	09	20	Poultry farming	20	20	Started	Agriculture Skill Council of India
Quality Seed Grower	10.02.20 to 05.03.20	25	Quality Seed Grower	Quality Seed Grower	15	-	15	03	02	05	18	02	20	Quality Seed Grower	20	20	Started	Agriculture Skill Council of India

\*training title should specify the major technology /skill transferred

## Annexure 3: Only Sponsored Training Programmes (On, Off and Vocational)

On/ Off/ Vocational	Beneficiary group (F/ FW/ RY/ EP)	Date (From- To)	Durati on (days)	Disciplin e	Area of training	Title	No. of Participants									Spon soring Agy ncy	Amou nt of fund recei ved (Rs.)
							General			SC/ST			Total				
							M	F	T	M	F	T	M	F	T		
On	RY	11.02.20 20 to 07.03.20 20	25	Fishery Science	Fishery	Fresh water Aquaculture Farmer				19	01	20	19	01	20	AS CI	2,29,0 00/
On	RY	12.02.20t to 12.03.20	30	Animal Science	Poultry farming	Small Poultry Farmer	07	03	10	04	06	10	11	09	20	AS CI	2,31,2 00/
On	RY	10.02.20 to 05.03.20	25	PBG	Quality Seed Grower	Quality Seed Grower	15	-	15	03	02	05	18	02	20	AS CI	1,96,0 00/
On	Farmers and Farm women	26.02.19	01	Plant Protectio n	Seed Productio n	Training on seed production on ICAR-Seed Project (TSP)	28	1	29	17	12	29	45	13	58	AA U, Jor hat	20,00 0/
Off	Farmers and Farm women	01.11.19- 02.11.19	02	Plant Protectio n and Agromete orology	Organic Farming	Training on organic farming under PKVY	8	1	9	26	25	51	34	26	60	Gov t. of Indi a	20,00 0/
On	Farmers and Farm women	22.10.19	01	Plant Protectio n and Agromete orology	Awarne s Program me	Fertilizer application awarness programme	23	18	41	11	31	42	34	49	53	Gov t. of Indi a	10,00 0/







30.	Mahila Mandal Convener meet															
31.	Any other Farmers visit to KVK Office			71	21	8	29	32	20	52				53	28	81
	Soil Testing			93	11		11	78	4	82				89	4	93
<b>Grand Total</b>				<b>343</b>	<b>4748</b>	<b>3086</b>	<b>7834</b>	<b>4202</b>	<b>2935</b>	<b>7137</b>	<b>12</b>	<b>1</b>	<b>13</b>	<b>8960</b>	<b>6023</b>	<b>14983</b>

### 3.5 Production and supply of Technological products during 2019-20

#### A. SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qt)	Value (Rs.)	Number of recipient/ beneficiaries		
					General	SC/ST	Total
<b>CEREALS</b>	Black Rice	Poireiton	1(Stock)				
	Maize	HQPM	3(Stock)				
<b>OILSEEDS</b>	Rapeseed	TS-46	2.2	7600.00	1	2	3
<b>PULSES</b>							
<b>VEGETABLES</b>	Pumpkin	Hybrid	4.33	3280.00	1	-	1
<b>FRUIT CROPS</b>							
<b>Spices</b>							
<b>Tuber crops</b>	Potato	Kufri Lalima	8	10,000.00	-	6	6
<b>OTHERS (Specify)</b>	-	-	0.9	1050.00	-	4	4

#### A1. SUMMARY of Production and supply of Seed Materials during 2019-20

Sl. No.	Major group/class	Quantity (ton.)	Value (Rs.)	Number of recipient/ beneficiaries
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				General	SC/ST	Total
1	CEREALS	0.4	-			
2	OILSEEDS	0.22	7600.00	1	2	3
3	PULSES					
4	VEGETABLES	0.433	3280.00	1	-	1
5	FRUIT CROPS					
6	SPICES					
7	TUBER CROPS	0.8	10,000.00	-	6	6
8	OTHERS (MUSHROOM)	0.009	1050.00	-	4	4

**B. Production of Planting Materials (Nos. in lakh)**

Major group/class	Crop	Variety	Numbers (In Lakh)	Value (Rs.)	Number of recipient beneficiaries		
					General	SC/ST	Total
<b>Fruits</b>							
<b>Spices</b>							
<b>Ornamental Plants</b>							
<b>VEGETABLES</b>	Cabbage	Rearball	0.20	10,000.00	7	13	20
	cauliflower	Swati	0.10	5,000.00	3	5	8
<b>Forest Spp.</b>							
<b>Plantation crops</b>							
<b>Medicinal plants</b>							
<b>OTHERS (Pl. Specify)</b>							

**B1. SUMMARY of Production and supply of Planting Materials (In Lakh) during 2019-20**

Sl. No.	Major group/class	Numbers (In Lakh)	Value (Rs.)	Number of recipient beneficiaries		
				General	SC/ST	Total
1	<b>Fruits</b>					
2	<b>Spices</b>					
3	<b>Ornamental Plants</b>					
4	<b>VEGETABLES</b>	0.30	15,000.00	10	18	28
5	<b>Forest Spp.</b>					
6	<b>Medicinal plants</b>					

7	Plantation crops					
8	OTHERS (Specify)					
<b>TOTAL</b>		<b>0.30</b>	<b>15,000.00</b>	<b>10</b>	<b>18</b>	<b>28</b>

**C. Production of Bio-Products during 2019-20**

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Number of Recipient /beneficiaries		
			No	(qt)		General	SC/ST	Total
<b>BIOAGENTS</b>								
<b>BIOFERTILIZERS</b>								
1								
2								
<b>BIO PESTICIDES</b>								
1								
2								

**C1. SUMMARY of production of bio-products during 2019-20**

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Number of Recipient beneficiaries		Total number of Recipient beneficiaries
			Nos	(kg)		General	SC/ST	
1	BIOAGENTS							
2	BIO FERTILIZERS							
3	BIO PESTICIDE							
	<b>TOTAL</b>							

**D. Production of livestock during 2019-20**

Sl. No.	Type of livestock	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries
			(Nos)	Kgs		

						General	SC/ST	Total
	<b>Cattle/ Dairy</b>							
	<b>Goat</b>							
	<b>Piggery</b>	Yorkshire	4	-	35,5000.00	1	-	1
	<b>Poultry</b>	Quail/kalinga brown/Kad aknath/duc k	364	-	41,654.00	12	14	26
	<b>Vanaraja</b>							
	<b>Fisheries (Fingerlings)</b>							
	<b>Others (Specify) (Quail eggs)</b>	Kadaknath/ Kalinga Brown	551		5510.00	23	6	29

#### D1. SUMMARY of production of livestock during 2019-20

Sl. No.	Livestock category	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		Total number of Recipient beneficiaries
			Nos	(kg)		General	SC/ST	
1	CATTLE							
2	SHEEP & GOAT							
3	POULTRY	Quail/kalinga brown/Kadaknath/duck	364	-	41,654.00	12	14	26
4.	PIGGERY	Yorkshire	4		35,500.00	1	-	1
5	FISHERIES							
6	OTHERS (Quail eggs)	Kadaknath/Kalinga Brown	551		5510.00	23	6	29
	<b>TOTAL</b>		-	-	82,664.00	36	20	56

#### 3.6. Literature Developed/Published (with full title, author & reference) during 2019-20

(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		-	-
Training manuals	Backyard poultry farming	BKD Borah, Santosh Kumar, D.Sasmal	30

		and M. Kanwat	
Technical Report			
Book/ Book Chapter			
Popular articles			
Technical bulletins			
Extension bulletins			
Newsletter	July-December, 2018 and January-June, 2019	Dr. Manish Kanwat, Dr. Madhumita Sonowal Bora, Dr. Binod Dutta Borah, Dr. Debasis Sasmal and Mr. Azizur Rahman	-
Conference/ workshop proceedings			
Leaflets/folders			
e-publications			
Any other			
1. Agromet Advisory Service	Biweekly Tuesday & Friday	Ms. Bidyapati Ngangom and Mr. Narang Laling	
2. Lockdown Advisory	Aarogya Setu App KVK Namsai	Dr. Manish Kanwat, Ms. Bidyapati Ngangom and Dr. Madhumita Sonowal Bora	

	General advisory for farmers and farming sectors during lockdown due to COVID-19	Dr. Manish Kanwat, Ms. Bidyapati Ngangom and Dr. Madhumita Sonowal Bora	
	Immunity boosting foods to consider during COVID-19 lockdown period	Dr. Manish Kanwat, Ms. Bidyapati Ngangom, Dr. Madhumita Sonowal Bora and Mr. Narang Laling	
	Advisory of mushroom grower during lockdown and after lockdown due to COVID-19	Dr. Manish Kanwat, Ms. Bidyapati Ngangom and Dr. Madhumita Sonowal Bora	
	Advisory of mushroom grower	Dr. Manish Kanwat, Ms. Bidyapati Ngangom and Dr. Madhumita Sonowal Bora	
	Advisory of poultry and pig during lockdown period	Dr. Manish Kanwat, Ms. Bidyapati Ngangom and Dr. Binod Dutta Borah	
	Advisory of cucumber pickle during lockdown period	Dr. Manish Kanwat, Ms. Bidyapati Ngangom and Dr. Madhumita Sonowal Bora	
	Advisory of Fall armyworm ( <i>Spodoptera frugiperda</i> ) in maize plant	Dr. Manish Kanwat, Dr. Madhumita Sonowal Bora and Ms. Bidyapati Ngangom	
<b>Total</b>	<b>11</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**

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

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

## **1. Livestock based system farming is an way for achievements of Doubling the Farmers Income (DFI) ICAR-KVK Namsai, Arunachal Pradesh**

### **Background Profile**

Chow Lachit Thamung (45 years old) of Juna-IV Village, Lathao circle, Dist: Namsai, Arunachal Pradesh was involved in traditional way of agricultural farming with an area of 1 ha in 2018-19. He mostly cultivated local paddy var. Khampti rice and vegetables in open condition. He also cultivated leafy vegetables, rapeseed (Var. local), ginger (Var. local) and turmeric (Var. local). He had 10 desi chickens with an average egg production 38-40 eggs per hen per year. From all the activities in 2018-19 he earned a total net income of Rs. 58,782.00 which was not sufficient to meet his family requirements.

### **Technology, Implementation and Support**

Chow Lachit Thamung came in touch with progressive farmers and they suggested visiting KVK once and after he came and visited KVK Office at momong and interested with KVK Scientists and seen the demonstration units including KVK instructional farm and impressed with the way of scientific profitable farming is going on at KVK premises. He highly motivated and shown his keen interest to establish livestock based farming system at their farm by getting the technical and input support form KVK. In this context, Krishi Vigyan Kendra, Namsai district in 2019-20 and as per the guidance, support, training, demonstration from the scientists of the KVK, he integrated all the components like livestock (backyard poultry vis. Kalinga Brown, pigs, vegetables, mushrooms and king chilli) as per suggestion of KVK scientists nicely with this objective to use the waste materials will further for making organic compost scientifically. Moreover, he started cultivation of king chilli in an area of 0.25 ha and earned a net income of Rs. 34,586.00. Further from the training he learned to cultivation of oyster mushroom (Var. *Pleurotus ostreatus*). He started with 5 kg spawn in the beginning and after getting the profit he opted Mushroom as a viable option presently he produced 500 bags in his units and producing around the year. Mushroom was distributed from KVK Namsai promoting him as a Mushroom man in the District to promote the Venture as successful entrepreneurship among the unemployment youth and earned a net income of Rs. 64,850.00. He cultivated improved varieties of Garden pea (Var. Arkel), Cabbage (Var. Rear ball), Tomato (Var RCT-09), Broccoli

(Var. Fiesta) and paddy (Var. Ranjit) in 0.75 ha after harvesting and earned a net income of 28,263.00. Consequently, he started rearing of Backyard poultry: Kalinga Brown (30 nos.) with profit of Rs. 38, 526.00 and Scientific Pig Farming: 1 unit Hampshire Crossbred (Two female and one male) have been developed under scientific pig farming with profit of 42,586.00. He also started cultivation of Pineapple 200 nos. (Var. Kew) and also producing vermicompost by recycling the farm waste in his 1 nos. of vermibed (Size 8X4X2) given by KVK Namsai. So from all the integrated and adopted technology Chow Lachit Thamung earned Rs. 2,08,811.00 as a total net income in 2019-20 which is 71.8% more than the previous year and now he is able to meet her family requirement.



FIG 3 : Input distribution programme

## 2. Skill training on “Artificial Insemination Technician”

A 50 days (400 hours) Skill Training on “Artificial Insemination Technician” programme organized by ICAR-KVK Namsai during the year 2018-19 and concluded successfully on 28<sup>th</sup> February, 2019. The training programme was funded by Deptt. of Agriculture cooperation and farmers welfare under Ministry of Agriculture and farmers welfare, Govt. of India guided by Agriculture Skill Council of India under Ministry of Skill Development and Entrepreneurship, Govt. of India. The training programme was mainly imparted by Dr. Binod Kr. Dutta Borah, SMS (Anim. Sci) cum skill trainer on “A.I. Technician” and helped by other specialist of the

institute and state A.H. & Vety. Department, govt. of Arunachal Pradesh. The trainees were taught mainly on implementation of bovine breeding services, Assisting in Veterinary Extension Services and Development programme implementation and marketing in livestock sector. The training covered both theoretical (150 hours) and practical (250 hours ) aspects with different topics of the course and maximum emphasis was given on practical aspect. Apart from the main courses, the trainees were also taught about basic veterinary aids of different livestock & poultry so that they may render effective services to the farmer's field. Out of 20 participated trainees, 19 trainees had successfully passed after evaluation made by third party and distributed certificates to them accordingly. Just after completion of training, all the trainees had engaged themselves in various breeding cum treatment related activities in livestock's and renders services at their own as well as the neighboring villages covering all together around 70 villages of the district. The district A.H. & Vety. Department and ICAR-KVK, Namsai has also engaged them in various related activities as and when requires. The A.I. in Cattle during "Krishi Kalyan Abhiyan" in Namsai district, the only aspirational district of Arunachal Pradesh was one of the important activity in development of farm animal sector; these skilled trainees played a major role in conducting pregnancy diagnosis and A.I. services at various level. By seeing the performance of the trainees, the State A.H. & Vety. Department had appointed some of them as Contingency and Private A.I. worker to render services at village level for betterment of farmers community. Few of trained Technicians also engaged themselves as Private A.I. worker and provide veterinary services viz. A.I. in Cattle, pregnancy diagnosis in cattle, castration in pig & goat, various vety. aids etc. to the needy farmers at their door steps and also employed themselves by earning handsome amount. Now some of the trainees initiated livestock & poultry farming apart from their regular veterinary service to enhance their annual income. The present status of few training was mentioned in Table-1.

Table-1.Trainees information of “A.I. Technician”

Sl. No.	Name & Address of Trainee	Skilling areas /year	Interventions made by KVK	Collaboration/ assistance/ finance (Organisations), etc.,	Net income/ Month/BC ratio	Employment generated (number)	Any specific point
1.	Name: Chow Willia Thaomomglong Village: Nampong District: Namsai State: Arunachal Pradesh	Animal Reproduction (Livestock Health management)	Imparted 400hrs skill training on “A.I. Technician” & distributed A.I. & Vety. Aid Kits.	Dist. A.H. & Vety. Officer, Namsai dist., Arunachal Pradesh	Rs 4000 per month	Nil	Private Worker
2.	Name: Sri Ranjit Konwar Village: Mahaloni District: Namsai State: Arunachal Pradesh	Animal Reproduction (Livestock Health management)	Imparted 400hrs skill training on “A.I. Technician” & distributed A.I. & Vety. Aid Kits.	Dist. A.H. & Vety. Officer, Namsai dist., Arunachal Pradesh	Rs 6000 per month	Nil	Appointed by State A.H. & Vety. Dept., Govt. of A.P. as Private A.I.Worker

3.	Name: Sri. Bhabajit Moran Village: Kaupatani District: Namsai State: Arunachal Pradesh	Animal Reproduction (Livestock Health management)	Imparted 400hrs skill training on "A.I. Technician" & distributed A.I. & Vety. Aid Kits.	Dist. A.H. & Vety. Officer, Namsai dist., Arunachal Pradesh	Rs 5000 per month	Nil	Appointed by State A.H. & Vety. Dept., Govt. of A.P. as Private A.I.Worker
4.	Name: Sri. Deepu Hazarika Village: Waisali District: Namsai State: Arunachal Pradesh	Animal Reproduction (Livestock Health management)	Imparted 400hrs skill training on "A.I. Technician" & distributed A.I. & Vety. Aid Kits.	Dist. A.H. & Vety. Officer, Namsai dist., Arunachal Pradesh	Rs 4500 per month	Nil	Private Worker
5.	Name: Sri. Hemanta Das Village: New Mohong District: Namsai State: Arunachal Pradesh	Animal Reproduction (Livestock Health management)	Imparted 400hrs skill training on "A.I. Technician" & distributed A.I. & Vety. Aid Kits.	Dist. A.H. & Vety. Officer, Namsai dist., Arunachal Pradesh	Rs 10000 per month	Nil	Appointed by State A.H. & Vety. Dept., Govt. of A.P. as Contingency Worker

6.	Name: Chow Panna Thaman Village: Lathao District: Namsai State: Arunachal Pradesh	Animal Reproduction (Livestock Health management)	Imparted 400hrs skill training on "A.I. Technician" & distributed A.I. & Vety. Aid Kits.	Dist. A.H. & Vety. Officer, Namsai dist., Arunachal Pradesh	Rs 10000 per month	Nil	Appointed by State A.H. & Vety. Dept., Govt. of A.P. as Contingency Worker
7.	Name: Sri. Krish Doley Village: Adi Ningro District: Namsai State: Arunachal Pradesh	Animal Reproduction (Livestock Health management)	Imparted 400hrs skill training on "A.I. Technician" & distributed A.I. & Vety. Aid Kits.	Dist. A.H. & Vety. Officer, Namsai dist., Arunachal Pradesh	Rs 10000 per month	Nil	Appointed by State A.H. & Vety. Dept., Govt. of A.P. as Contingency Worker

**GOVERNMENT OF ARUNACHAL PRADESH OFFICE OF THE  
DISTRICT ANIMAL HUSBANDRY & VETERINARY OFFICER  
NAMSAL DISTRICT: NAMSAL (A.P.)**

DAHV/NMS/D-75/2019-20/ Dated Namsal, the 6<sup>th</sup> Sept 2019.

To  
Sr. Scientist cum Head  
KVK  
Momong  
Namsal Dist.

Sub:- Information regarding engagement of trained person in A.I/ Vety. Aid.

Ref:- Your letter NO. 14 (2) KVK/19-20/345 of 6.9.19.

Dear Sir,  
In reference to your letter no. cited above it is to inform you that following private A.I. workers have been engaged in A.I work and Veterinary Aid after getting 400 hrs skill development training from your end.

Sl No.	Name of Incumbent	Address
1.	Chow Wilba Thamong	Nampong
2.	Sri Ranjit Konwar	Mahaloni
3.	Sri Bhabajit Moran	Kaupatani
4.	Sri Hemant Das	New Mohong
5.	Chow Panna Thaman	Lathao
6.	Sri Krish Doley	Adi Ningro

This is for favour of your information please.


Yours faithfully,  
  
(Dr. R.D. Dindal)  
Dist. A.H. & Vety Officer  
Namsal District: Namsal

FIG 2: Engagement Letter of DVO, Namsai District



FIG 3 : Field Activity Performed by “A.I. Technician”

### 3. Rural Poultry Production: A suitable option of Livelihood and Nutritional Security of tribal farmers of Arunachal Pradesh

#### INTRODUCTION:

Namsai is one of the most potential districts for poultry production in Arunachal Pradesh and last few years' poultry farming has gained enormous potential particularly in and around Namsai towns due to increasing population of non-vegetarian. Since the time of immemorial, peoples of Namsai, mostly rural and tribal masses have been keeping poultry by tradition for their livelihood and nutritional security. Majority of the farmers are still keeping 10-20 numbers of low input indigenous fowls at their backyard for both egg and meat production to meet their day to day petty expenses and nutritional security. However, the productivity of native indigenous fowls is very low due to their inherent low genetic potential. As per 18th Livestock Census, the total poultry meat and egg production in the district as 56.26 MT (against 911MT total meat production) and 280 0000 nos. respectively against the requirement of 1170MT and 18500000nos respectively (; NDVD 2030). Hence there is a huge gap to be filled up in terms of protein supplements to the population of 95950 numbers with male female ratio of 984.19 per thousand ( as per 2011 Population census) in the district.

Partially the demand is filled up by import of these items across the border which costs crores of rupees in every month. The Government of India through ICAR-KVK and State Directorates of Animal Husbandry and Veterinary Services has been giving thrust on and incentives for the development of poultry industry along with technical inputs. Introduction of improved poultry variety which have innate capacity of faster growth, higher feed conversion efficiency, low mortality and well acclimatize at existing climatic condition may play a role to accelerate the poultry production in the district. Development of poultry industries may further be accelerated, if improved varieties are made available to the poultry farmers since the quality chicks are not generally available at Namsai and farmer has to depend from outer sourcing and that drains extra money in the form of transportation. Therefore, it is essential to set up hatchery for production of quality chicks, so that poultry farmers may get chicks at their doorstep. Non availability and high market cost of balance feed for poultry is another constraint for poultry growers in the district. Therefore, formulation of poultry feed with locally available feed materials is essentially require to increase the poultry production with minimum cost.

#### **SELECTION OF TARGET BENEFICIARIES:**

The poultry farmers of Namsai district are mostly unorganized and they are being exploited at various stages of the value chain. On the other hand, Joint venture always helps to any enterprise to grow faster, increase productivity, generates greater profits, creation of new market opportunity with better market linkage. Keeping in view, a livestock grower association was created under the banner of FPO - NOSAPP (Namsai Organic Spices and Agricultural Products Producer Ltd.) to promote poultry production in an organized way. The members of the livestock group is belongs to FPO-NOSAAP inhabited different villages of the district. Initially 34 farmers having the experience of previous poultry farming as traditional were selected and distributed improved variety day old chicks (Kalinga brown).

#### **CAPACITY BUILDING PROGRAMME:**

KVK Namsai conducted training programme at various aspects of the poultry farming to selected beneficiaries before and after distributions of day old chicks (DOC).

### a. Training on Scientific Poultry Farming:

A two days on campus training was initially imparted at KVK office premises on improved variety birds and taught about their rearing system at rural including housing, brooding, feeding, breeding, health care and preventive measures ( News published: <http://www.eggchi.com/poultry-news/aranachal-training-on-scientific-poultry-and-duck-farming-organised>).

### b. Training-cum-demonstration of poultry egg hatching in incubator:

A day long programme of “Training-cum-demonstration of poultry egg hatching in incubator” was organized for production of DOC of improved variety birds since quality chicks are not available in the district and always have to depend from outer sourcing. Earlier, the KVK had provided 3 numbers of hatchery units with the production capacity of 500 chicks per unit to the livestock growers’ association under the tribal sub-plan project funded by the ICAR-RC for NER Region, Barapani (News Published: [https://aranachaltimes.in/index.php/2019/09/27/training-prog-on-](https://aranachaltimes.in/index.php/2019/09/27/training-prog-on-poultry-organised/)

[poultry-organised/](https://aranachaltimes.in/index.php/2019/09/27/training-prog-on-poultry-organised/)).



FIG-4. Training on Egg Hatching in Incubator

### c. Hands-on training on poultry vaccination:

Hands on training on poultry vaccination were also conducted to the needy beneficiaries against various seasonal diseases. They were also taught how to diagnose the disease birds and its management & treatment aspects at the initial stage to prevent spreading of disease. (NewsPublished:<https://arunachaltimes.in/index.php/2019/11/21/training-held-on-poultry-vaccination/>)

Furthermore, frequent visits by subject matter specialists to their units inspired confidence in them and gave them practical orientation in every aspect of management. Department of Animal Husbandry, Govt. of Arunachal Pradesh always offers their helpful hand to treat the birds as and when requires. Moreover, veterinary services were assured to them over a phone call.



FIG-5. Poultry Vaccination

## INPUT DISTRIBUTION AND ITS MANAGEMENT:

### a. Day Old Chick:

A total of 1700 DOC of kalinga brown variety were distributed to 34 beneficiary of livestock grower association comprising 30 – 200 numbers of chicks in each unit depending upon their rearing feasibility.

### Management aspect:

The chicks were brooded for 4 weeks depending upon the environmental temperature under standard hover brooder and provided commercial broiler starter feed *ad libitum*. The chicks were then let loose in the backyard or raised as intensive and semi intensive

system of rearing. A small amount of supplemented feed comprises mainly on locally available feed material viz. crush maize and broken rice etc. incorporated with vitamins and minerals was provided to the birds reared as backyard and semi intensive system of rearing. The birds reared at intensive system provide 60-120g/day/bird of broiler or layer feed depending upon the age or stage of bird. Supplementation of the feed with leguminous fodders at 150- 200g / 10 birds / day in the hanging method was always encouraged to enrich the nutrition of the birds. Deworming and vaccination of the birds were conducted regular basis by following standard schedules.

**b. Hatching machine/incubator:**

Three numbers of hatchery units with the production capacity of 500 chicks per unit were supplied by the KVK, Namsai to the livestock growers' association for production and make available of quality chicks at farmers doorstep. The units were established in three different locations/ villages of the district namely Mahaloni, Mahadevpur-III and Nalung and runs by Mr. Ranjit Konwar, Mr. Rituparna Deori and Chow Ontimang Choupoo respectively. The fertile eggs were collected from the unit holders and produce chicks after average 21 days of incubation period.

**ACHIEVEMENT/ OUTCOME:**

**a. Egg production:**

Kalinga brown has shown excellent performance as a layer bird and can be raised at all type of rearing system at rural environment. The performance of Kalinga brown in egg production was ranging from 180 – 210 eggs/ bird/year with an average production of 191eggs/bird/year ( up to 72 weeks). For production of fertile eggs, male and female ration was maintained at 1 : 5-10 depending upon the folk size and system of rearing. The egg sells at local markets @Rs. 10/egg and some of them are utilized for chick production.

### b. Day Old Chick production:

The production of chicks in small scale through hatching units is now a days the routine activity of livestock association to meet the demand of farmers to get quality improved chicks. The fertile eggs of 5-7 days old were collected from the units and incubated for 21 days. The average hatchability were recorded as 75-80 percent producing 350-400 chicks per batch. The chicks are then sold at locally or adjoining areas of Namsai district @Rs. 40/chick generates average net income from the enterprises as 9000– 10000/- per batch of hatching that resulted around 50,000 – 60,000/- profit from each unit annually.

### c. Celebration of egg day/ field day:

After successful implementation of the technology, the KVK, Namsai and FPO – NOSAPP jointly organized field day in the form of celebration of “Egg day” to make aware and popularized the technology amongst the farming community as well as to line departments. In the programme, all the Head of Agri. and Allied department, DDM NABARD, Namsai & Changlang were present and Deputy Commissioner, Namsai acted as chief guest ( New Published: The Arunachal Times, August 10, 2019).



FIG-6. Celebration of Egg Day

**d. Dissemination of technology:**

**Vertical:** The poultry unit holder sells egg generally in the local market or to the hatchery unit for production of chick. There are at least 10 farmers who sell their farm products directly to the weekly market and other sells their product through vendor on supplier. They also utilized some of their fertile eggs for natural hatching since the Kalinga Brown variety has good hatching capability and can produce 10-15 chicks per batch. All most all farmers maintain their folk size of 20 – 30 by replacing unproductive old birds with chicks produce through natural hatching. Moreover, they also allow the folk to cross with local variety which have high market demand.

**Horizontal:** There is huge demand of kalinga brown poultry variety as it is recognized as an excellent layer breed can be reared at backyard with minimal management. The farmers within or outside the village adopt the technology from the unit holders or from nearest hatchery units and more than 50 farmers were adopted this technology till now. Demands are also coming from adjoining district of Namsai namely Lohit. As per the information received from the hatchery units, there are around 41 farmers received chicks (both chicken & Quail) ranging 100-500 nos. from the units coming different parts of the State of Assam namely Bordumsa, Domdoma, Margherita, Sepakhua, Silobari etc and from the State of Arunachal Pradesh namely Tezu, Sunpura, Roing, Pashigath etc. Moreover, DVO, Lohit district also appreciated the joint venture of KVK Namsai & FPO-NOSAPP and distributed fertile eggs of kalinga brown to their farmers for natural hatching.

**e. Significant achievement:**

Mrs. Tarulata Deori, one of the active members of Livestock Grower association residing at village Mahadevpur-II offered 200 nos. of DOC of Kalinga brown variety. Before introducing the chick, she constructed poultry house with the aim to accommodate 400 birds per batch in intensive system of management. Out of 200 birds she received 139 female and 61 male. As per KVKs instruction, she followed all the scientific aspect of poultry management and bird started laying at the age of around 5 month. She sold 46 nos. of male @Rs. 280/kg at age of 5 months (avg. body wt 1.1 kg) keeping 15 male in the folk to maintain the ratio of male/female for production of fertile egg. At peak of laying period, around 110 nos. of eggs were produced per day from 139 laying birds. She sells the eggs at locally @Rs. 10/egg and earns average 18,000.00 - 20,000.00 rupees per month.

## FORMATION OF FPO ON LIVESTOCK (POULTRY/GOATERY/PIGGERY) DEVELOPMENT IN COLLABORATION WITH NABARD :

FPO has emerged as one of the most effective pathways to address the many challenges of farmers related mainly with production, processing, branding, packaging and marketing. In an interactive session organized by KVK, Namsai on 24<sup>th</sup> August 2019, the Honble Lekang MLA Jummum Ete Deori gave emphasis on creation of FPO on Livestock in Namsai district. Sri. Gopa Kumaran G Nair, GM NABARD, Itanagar also shown interest to form FPO on livestock in Namsai district in the same forum ( News Published: Echo of Arunachal, The Arunachal Times on 24/08/2019; <https://arunachaltimes.in/index.php/2019/08/25/farmers-advised-to-adopt-livestock-activities-with-integrated-farming/>). Keeping above fact in view, it is felt form a livestock based FPO to boost the livestock and poultry farmers of the district and the process of formation of first FPO on livestock (poultry/goatery/piggery) is going on with enrolment of 250 farmers of the district. The FPO formation process is initiated by NABARD, Itanagar in collaboration with KVK, Namsai

### Persons involved:

Dr. Binod Kr. Dutta Borah, S.M.S, (Animal Science), Dr. Debasis Sasmal S.M.S. (Fishery Science) and Dr. Manish Kanwat, Sr. Sci. & Head, K.V.K., Namsai.



FIG-7. Interactive programme with MLA, Lekang

**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

**3.12. Activities of Soil and Water Testing**

Status of establishment of Lab :

- 1. Year of establishment :
- 2. List of equipments purchased with amount :

Sl. No	Name of the Equipment			Qty.	Cost
	S&WT lab	Mini lab/ Mridaparikshak	Manufacturer		
1					
2					
3					
Total					

**3. Details of samples analyzed (2019-20):**

Details	No. of Samples analysed	No. of Farmers	No. of Villages	Amount ( In Rupees) realized
Soil Samples	93	93	5	-
Water Samples				
Plant Samples				
Petiole Samples				
Total	93	93	5	-

**1. Details of Soil Health Cards (SHCs) (2019-20)**

- a. No. of SHCs prepared: 93
- b. No. of farmers to whom SHCs were distributed: 93
- c. Name of the Major and Minor nutrients analysed: NPK
- d. No. of villages covered: 80
- e. Soil health card based nutrient management in different crops (pl. submit in brief in separate page)

**3.13. Details of SMS/ Voice Calls sent on various priority areas**

Message type	Crop		Livestock		Weather		Marketing		Awareness		Other Ent.		Total	
	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary
Text only	20	8180	31	5054	-	-	-	-	108	27000	-	-	159	40,234
Voice only														
Voice and Text both														
<b>Total</b>	<b>20</b>	<b>8180</b>	<b>31</b>	<b>5054</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>108</b>	<b>27000</b>	<b>-</b>	<b>-</b>	<b>159</b>	<b>40,234</b>

**3.14 Contingency planning for 2019-20**

**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
	Introduction of new variety or crop				
	Introduction of Resource Conservation Technologies				
	Distribution of seeds and planting materials				
	Any other (Please specify)				

**a. Livestock based Contingency planning**

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Number of birds/ animals to be distributed	No. of programmes to be undertaken	No. of camps to be organized	Proposed number of animals/ birds to be covered through camps	Number of beneficiaries proposed to be covered		
					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**

(Please furnish detailed information for each case)

**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**

<b>Name of organization</b>	<b>Nature of linkage</b>
1.ICAR RC NEH Barapani Meghalaya	Training, demonstration collaboration
2. NABARD, Itanagar	Training, demonstration collaboration
3. ICAR NDRI (ERS), Kalyani, WB	Training, demonstration collaboration
4.AAU, Jorhat, Assam	Training, demonstration collaboration
5. Department of Agriculture, Namsai Dist., AP	Training, demonstration collaboration
6. Govt. of India	Training, demonstration collaboration
7.ICAR-ATARI, Guwahati	Training, demonstration collaboration
8.ATMA, Namsai district	Training, demonstration collaboration
9.ATMA, Lohit district	Training, demonstration collaboration

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 2019-20**

<b>Name of the scheme</b>	<b>Activity</b>	<b>Date/ Month of initiation</b>	<b>Funding agency</b>	<b>Amount (Rs.)</b>
Goat project	Goat project		NABARD, Itanagar	9,75,000
Seed Entrepreneurship Development Among the farmers under the Seed Village at Namsai	Seed Village Project	September, 2019	DDA, Department of Agriculture, Namsai District, Arunachal Pradesh	29,64,000
ICAR RC for NEH Region	SCSP project	September, 2019	ICAR RC for NEH Region	19,24,750
PKVY	PKVY	September, 2019	Govt. of India	3,50,000

ICAR-Seed Project (TSP)	Seed Project	October, 2019	AAU, Jorhat, Assam	44,000
Livestock development cum input distribution	Livestock development	February, 2020	ICAR-NDRI (ERS), Kalyani, West Bengal	Collaboration programme

### 5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

Sl. No.	Programme	Nature of linkage	Remarks
1	Farmers Sc. Interaction/ Demonstration/training	Funding agency	Rs 240000.00
2	Demonstration with agri allied sector	Funding agency	Rs 100000.00
2	Kisan Gosthi/training	Funding agency	Rs 50000.00

### 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 2018-19

### 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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
<b>Cereals</b>									
Rice	20.07.1	25.11.1	0.0	Poireito	Seed	100k	-	-	

	9	9	7	n		g				
Wheat										
Maize	15.04.19	10.08.19	0.07	HQPM	-	300kg	-	-		
Any other										
<b>Pulses</b>										
Green gram										
Black gram										
Arhar										
Lentil										
Ay other										
<b>Oilseeds</b>										
Mustard	25.10.18	20.01.19	0.26	TS-46	seed	220kg	-	7600.00		
Soy bean										
Groundnut										
Any other (Sesamum)										-
<b>Fibers</b>										
i.										
ii.										
<b>Spices &amp; Plantation crops</b>										
i. Ginger										
ii.										
<b>Floriculture</b>										
i.										
ii.										
<b>Fruits</b>										
i. Ber										-
ii. Pineappl e										-
<b>Vegetables</b>										
i. Okra										-
ii. Pea										-
iii. Pumpkin	01.05.19	30.07.19	0.13	Annapurna	-	433kg	-	3280.00		
iv. Ashgourd										
v. Carrot										-
vi. Cabbage										-
vii. Potato	03.10.19	05.01.20.	0.13	Kufri Lalima	Seed	800kg	-	10,000.0 0		-

<b>a. Others (specify)</b>										
i.	Mushroom	-	-	-						-
ii.										

### 6.3 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	

### 6.4 Performance of instructional farm (livestock and fisheries production)

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed/ species	Type of Produce	Qty.	Cost of inputs	Gross income	
01							
02							
03							

### 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 2019-20

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)
<b>Total</b>					
<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	Basar	11877802541
With KVK	State Bank of India	Chowkham	31767776876
Revolving Fund	State Bank of India	Chowkham	34658217049

### 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					
Extension activities					
TA/DA/POL etc.					
<b>TOTAL</b>					

### 7.3 Utilization of KVK funds during the year 2019-20

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	115.00	115.00	115.00
2	<b>Traveling allowances</b>	2.50	2.50	2.50
3	<b>HRD</b>			
4	<b>Contingencies</b>	<b>15.00</b>	<b>11.79</b>	<b>11.79</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>132.5</b>	<b>129.29</b>	<b>129.29</b>
<b>B. Non-Recurring Contingencies</b>				
1	<b>Works</b>			
2	<b>Equipments/Farm implements/Furniture</b>			
	<b>i. GPS Kit</b>			
	<b>ii. Digital Camera</b>			
	<b>iii. LCD Projector</b>			
	<b>iv. Furniture book case for Library</b>			
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>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>				<b>129.29</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 2017 to March 2018	1,36,256	91,619	49,574	1,78,300
April 2018 to March 2019	1,78,300	1,06,553	1,79,212	1,05,641
April 2019 to March 2020	1,05,641	1,19,629	20,234	2,05,036

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

#### 8.0 Please include information which has not been reflected above. (Write in detail)

##### 8.1 Constraints

###### (a) Administrative

- i). Difficulties in communication with Head office due to long distance.
- ii). No electricity facility available in construction site.
- iii). Only one vehicle available and that is out of order
- iv). Office assistant not yet appointed created problem in financial/office management.

###### (b) Financial

- i). Unavailability of fund during need/actual season.
- ii). Irregular funding,

iii). Difficulties even in payment of medical bill/arrear/educational allowances/LTC etc.

**(c) Technical**

- i) Very less information available on technology developed for Namsai Dist./Arunachal Pradesh.
- ii) Damage caused by wild animals(monkey and elephant) at KVK farm.

(Signature)

**Sr. Scientist cum Head**

**Pl. take maximum care while filling up the annual report format as per instructions so that no column is left blank. Pl. note that any incomplete individual KVK report shall not be considered and will be returned.**