PROFORMA FOR ANNUAL REPORT OF KVKS, 2019 (January to December)

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, Nagaland University, Lumami, P.O. Lumami PIN-798627	(0369)2268255 (0369)2268256	(0369)2268255 (FAX)	kvkzunheboto@gmail.com

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

Address	Telephone		E mail
	Office	FAX	
Vice-chancellor, Nagaland University, Lumami PIN-798627	(0369)2268248	(0369)2268248	vicechancellornu@yahoo.com

1.3. Name of the Sr. Scientist & Head with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Rakesh Kumar Chaurasia		09856072100	rchaurasia_2004@yahoo.co.in

1.4. Year of sanction: 2005

1.5. Staff Position **(As on 31st December 2019)**

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	Sr. Scientist & Head	Dr. Rakesh Kumar Chaurasia	Sr. Scientist & Head	Animal Science	131400	147900	5/10/12	Permanent	OBC
2	Subject Matter Specialist	Wapangtoshi Longkumer	ACTO	Plant Protection	74000	83300	17/04/07	Permanent	ST
3	Subject Matter Specialist	Dr. Kundan Kumar	SMS	Agril. Extension	69000	77700	19/04/07	Permanent	Others
4	Subject Matter Specialist	Edenly Chishi	ACTO	Horticulture	74000	83300	20/04/07	Permanent	ST

5	Subject Matter Specialist	Dr. Visakho Shunyu	ACTO	Agronomy	74000	83300	14/05/07	Permanent	ST
6	Subject Matter Specialist	Sentimenla	SMS	Agril Chemistry & Soil Science	59500	67000	10/10/12	Permanent	ST
7	Subject Matter Specialist	Dr. Z. Nongothung Ezung	SMS	Animal Science	56100	65000	3/3/14	Permanent	ST
8	Programme Assistant	Narola Anichari	Programme Assistant	Home Science	38700	43600	25/10/12	Permanent	ST
9	Computer Programmer	Imnameren	TO (Computer)	IT	50500	56900	02/04/07	Permanent	ST
10	Farm Manager	Naropongla	Farm Manager	Soil and water conservation	38700	43600	17/10/12	Permanent	ST
11	Accountant / Superintendent	Katovi Shohe	Accountant / Superintendent		47600	55200	08/08/07	Permanent	ST
12	Stenographer	Tiarenla	Jr. Steno. Cum Compt Operator		27900	31400	3/10/12	Permanent	ST
13	Driver	Wepretso Marhu	Driver cum mechanic		30500	34300	22/06/07	Permanent	ST
14	Driver	Medongulie	Driver cum mechanic		30500	34300	19/06/07	Permanent	ST
15	Supporting staff	Kekhriengulie	Skilled Supporting staff		23500	27600	2/4/07	Permanent	ST
16	Supporting staff	Shumben Patton	Skilled Supporting staff		23500	27600	01/06/07	Permanent	ST

Note: No column in the table must be left blank

1.6. a. Total land with KVK (in ha) : 20

b. Total cultivable land with KVK (in ha): 17.75

c. Total cultivated land (in ha): 5.34

S. No.	Item	Area (ha)
1	Under Buildings (Administrative building+ Farmers' Hostel+ Staff Quarters)	1
2.	Under Demonstration Units (pl. specify the name)	1
3.	Under Crops (Cereals, pulses, oilseeds etc.) (Pl. specify separately) i. Spices	 0.02ha
4.	Under vegetables (Pl. specify separately) i.Brocolli ii.Colocasia iii. Chinese cabbage iv. Tomato v. Mustard leaves	 0.001ha 0.01ha 0.001ha 0.001ha 0.001ha
5.	Orchard/Agro-forestry	1.5ha
6.	Others (specify)	1.5ha

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	April 2014	550	110.51	2012		
2.	Farmers Hostel							
3.	Staff Quarters (2)	ICAR	April 2014	144		2012		
4.	Demonstration Units							
5	Fencing							

B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero	NL 10 C- 758	2017	750696	35402	Working
Mini Tractor with trolley	NL 07- A2068	2006	369126/-	**150**	Working
Power tiller		2010	296200/-	**160hrs**	Working
Power tiller		2016	197500/-	**New**	Working

C) Equipments& AV Aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
PC	2010	34700/-	Needs replacement

Laptop	2010	43140/-	Needs replacement
LCD Projector	2010	85100/-	Needs replacement
Camera	2010	19999/-	Needs replacement
Camera	2017	51300/-	Working
Photo copier	2010	95000/-	Needs Repairing
Fax machine	2010	16000/-	Needs Replacement
Generator	2012	337000/-	Working
PC	2016	43590/-	Working
PC	2016	43590/-	Working
PC	2016	43590/-	Working
Laptop	2016	47590/-	Working
Laptop	2017	76700/-	Working
Scanner	2016	9350/-	Working
Generator	2016	129800/-	Working

1.8. A). Details SAC meeting* conducted in 2019

Date	**Name and Designation of Participants**	**Salient Recommendations**	**Action taken on last SAC recommendation**
12/2/19	1. Dr. Bidyut C. Deka, Director ATARI	Annual Report	1.Collection of Indigenous germplasm in process 2. Supply of quality seeds and planting materials done 3. Supplied seeds in time 4. Soil testing in other parts of the district partially done 5. Supply of 2 nos of cattle under KSHMTA will be done along with Vermi compost Unit. 6.Fishery pond at Litta New Initiated the programme with DFO 7. Turkey birds OFT has been initiated 8.Agri. & Allied dept, ATMA and KVK Working together by participation in meetings, formulation of action plans, exhibitions,
	2. Prof. Pradeshi Lal, Vice Chancellor, NU	1. Certification of seeds 2. Database of Doubling farmers income – village/ individual farmer profile for benchmark data. 3. Inclusion of 2 new villages per year	
	3. Dr. Abemo, Registrar, NU		
	4. Anatoli, Farmer		
	5. Shiqheli, Farmer	Annual Action Pan	
	6. Kakuto, Farmer	Inclusion of 2 Nos. Of OFT Under Extension discipline	
	7. Vikishe, Farmer	Seedling produced by KVK should be of good quality/ from certified source.	
	8. K. Inavi Chishi, Project Officer DRDA	Vermicompost production to increase upto 1000 kg/year	
	9. A.K. Sahu, Ast. Professor, NU	Arrangement of Coffee roasting/ grinder machine at Litta New Village	
	10. L. Daiho, Professor, NU	Organic certification of farmers' produce	
	11. Lhokiye Sema, DESO	Creation of Demonstration unit at KVK Farm	

	12. V. Vikugha Sema, DPO, LRD	Development of Vegetable village under protected cultivation	demonstrations etc.
	13. I. Chubatoshi, DHO	Progressive farmers meet in May (2 villages from each block) to discuss various problems and issue faced by farmers of otherblock.	
	14. Dr. Meyatoshi Aier, CVO &PD	Soil testing in other blocks to study the soil nutrient status	
	15. Dr. Kundan Kumar, SMS	Identification of suitable crops for each block	
	16. Ms. Edenly Chishi, ACTO	Updates regarding technology provided by SASRD to KVK	
	17. Dr. Visakho, ACTO	To study disease occurrence in Colocassia after paddy mulching (if any)	
	18. Kaiho Achumi, ATM	Pre SAC meeting at SASRD to finalise Action Plan to be chaired by Dean, SASRD	
	19. Chubatsur Jamir, BTM, ATMA	Introduction of linseed	
	20. AolemlaKichu, BTM, Zunheboto	DONER HUB STINER – SPOC/SASRD	
	21. Tongpangkokba Jamir, AFI		
	22. Gukhevi, Farmer		
	23. Abner, Farmer		
	24. Prof. B. Kilangla, Dean RDC		
	25. Vinato, Farmer		
	26. Akavi Maru, AFA		
	27. K. Kikato Zhimomi, AI		
	28. Dr. Rakesh Kumar Chaurasia. Sr. Scientist & Head		
	29. Dr. Z. Nongothung Ezung, SMS		

**** Attach a copy of SAC proceedings along with list of participants***

Proceedings of 10th SAC meeting of KVK, Zunheboto, Nagaland University

The 10th Scientific Advisory Committee Meeting of Krishi Vigyan Kendra, Zunheboto Nagaland University was held on 12th February 2019 at Conference Hall, Nagaland University at 11:30 am under the Chairmanship of Prof. P. Lal, Vice Chancellor Nagaland University. The meeting was attended by Director, ATARI, Zone – VII Dr. Bidyut C. Deka as the special guest along with Dean Incharge, Dr. L. Daiho, Professor & Head, Plant Pathology, Dr. A.K. Sahu, Asstt. Professor, Agril statistics, Dean RDC, Prof. B. Kilangla Jamir, HoDs and representatives of Agri & Allied departments of Zunheboto, PD ATMA and his team and farmers. Dr. L. Daiho, Professor & Head, Plant Pathology, SASRD, Nagaland University welcomed all the members. The agenda items included the presentation of Annual Report 2018-19 and Annual Action Plan 2019-20 of KVK to SAC members for their valuable suggestions/ recommendations which can be taken up by the KVK for improving the Agri. and allied sectors in the district.

Agenda	Subject	Resolution/ Recommendations	Actions
KVK/LUM/10th SAC /12-02-19/ 1	Annual Report	Annual Report for the year 2018-19 was presented by Dr. Rakesh Kumar Chaurasia, Sr. Scientist & Head, KVK. All the activities carried out by SMS's and Programme Assistant of different discipline was presented in detail to the SAC members. The following resolutions/recommendations were made:	
		Certification of seeds	DAO to initiate the process of seed certification.
		Database of Doubling farmers income – village/ individual farmer profile for benchmark data.	SMS, Extension (KVK)
		Inclusion of 2 new villages per year	Sr. Scientist & Head & SMS/ ACTO (KVK)
KVK/LUM/10th SAC /12-02-19/ 2	Annual Action Plan	Annual Action Plan for the year 2019-20 was presented by Mrs. Edenly Chishi, ACTO (Horticulture), KVK Zunheboto	
		Inclusion of 2 Nos. Of OFT Under Extension discipline	SMS, Extension (KVK)
		Seedling produced by KVK should be of good quality/ from certified source.	Farm Manager, SMS/ ACTO (KVK)
		Vermicompost production to increase upto 1000 kg/year	Farm Manager (KVK)
		Arrangement of Coffee roasting/ grinder machine at Litta New Village	PD, LRD
		Organic certification of farmers' produce	Agril. Extn. To study the feasibility and linkage with farmers.
		Creation of Demonstration unit at KVK Farm	Agri & Allied, ATMA under convergence programme (RKVY)
		Development of Vegetable village under protected cultivation	DHO, Mr. Kakuto,Farmer, Litta New, ACTO (Horti.) KVK to initiate the development of vegetable village.

		Progressive farmers meet in May (2 villages from each block) to discuss various problems and issue faced by farmers of other block.	KVK, Agri & Allied, ATMA
		Soil testing in other blocks to study the soil nutrient status	ACTO (Horti) and (Plant protection)
		Identification of suitable crops for each block	All SMS/ ACTO (KVK), ATMA
		Updates regarding technology provided by SASRD to KVK	Sr. Scientist & Head (KVK)
		To study disease occurrence in Colocassia after paddy mulching (if any)	ACTO (Plant Protection) KVK
		Pre SAC meeting at SASRD to finalize Action Plan to be chaired by Dean, SASRD	Sr. Scientist & Head, KVK, Dean SASRD.
		Introduction of linseed	Farm Manager
		DONER HUB STINER – SPOC/SASRD	Sr. Scientist & Head (KVK) to discuss with Dean SASRD about the technology available under STINER.

List of participants

Name and Designation of Participants
1. Dr. Bidyut C. Deka, Director ATARI
2. Prof. Pradeshi Lal, Vice Chancellor, NU
3. Dr. Abemo, Registrar, NU
4. Anatoli, Farmer
5. Shiqheli, Farmer
6. Kakuto, Farmer
7. Vikishe, Farmer
8. K. InaviChishi, Project Officer DRDA
9. A.K. Sahu, Ast. Professor, NU
10. L. Daiho, Professor, NU
11. Lhokiye Sema, DESO
12. V. Vikugha Sema, DPO, LRD
13. I. Chubatoshi, DHO
14. Dr. Meyatoshi Aier, CVO &PD
15. Dr. Kundan Kumar, SMS
16. Ms. Edenly Chishi, ACTO
17. Dr. Visakho, ACTO
18. Kaiho Achumi, ATM
19. Chubatsur Jamir, BTM, ATMA
20. AolemlaKichu, BTM, Zunheboto
21. Tongpangkokba Jamir, AFI
22. Gukhevi, Farmer
23. Abner, Farmer
24. Prof. B. Kilangla, Dean RDC
25. Vinato, Farmer
26. Akavi Maru, AFA
27. K. Kikato Zhimomi, AI
28. Dr. Rakesh Kumar Chaurasia. Sr. Scientist & Head
29. Dr. Z. Nongothung Ezung, SMS

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
2	Agri + horti + Animal husbandry
3	Agri + Animal husbandry

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

Sl. No	Agro-climatic Zone	Characteristics
1	Agro Ecological Sub Region (ICAR)	Warm to hot moist (humid to per humid eco sub region), Tropical to sub-tropical (D2 A9)
2	Agro-Climatic Zone (Planning Commission)	Eastern Himalayan Region
3	Agro Climatic Zone (NARP)	Upper Brahmaputra Valley zone, Sub tropical hill zone (2,3)

2.3 Soil type/s

Sl. No	Soil type	Characteristics	Area in ha
1	Deep sandy loam to loamy soils	Akhuhuta series, Fine, mixed, thermic, typic Dystrudepts	36600
		Langposeries , Fine loamy, mixed, thermic, Dystric Eutrudeps	2040

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

Sl. No	**Crop**	**Area (ha)**	**Production (ton)**	**Productivity (Qtl /ha)**
1.	Jhum paddy	9410	18510	19.6
2.	T.T.C/W.R.C Paddy	4210	11500	27.3
3.	Maize	10100	19940	19.7
4.	Jowar	40	40	10
5.	Small Millet	810	910	11.2
6.	**Arhar**	280	250	8.9
7.	Jobstear	120	120	10
8.	Urd/ Moong	30	30	10
9.	Nagadal	460	530	11.5
10.	Rajma (kholar)	740	940	12.7
11.	Beans	200	260	13
12.	Horse gram	40	40	10
13.	Pea	600	660	11.1
14.	Groundnut	120	120	10
15.	Soyabean	7610	9760	12.8
16.	Sesamum	150	90	6
17.	Perilla	210	130	6.2
18.	Castor	30	20	6.6
19.	Rapeseed/Mustard	2120	2150	10.1

Source: Statistical handbook of Nagaland 2017

2.5. Weather data

Month	Average Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
Jan	0.5	20.4	7.5	81.6	33.3
Feb	1.5	21.9	9.6	83.5	43.4
Mar	2.2	24.9	12.7	80.0	33.1
April	9.2	27.5	15.3	88.0	43.5

May	8.4	29.2	19.5	87.6	46.9
June	19.8	29.7	20.1	95.1	74.6
July	23.5	28.0	19.7	93.6	80.5
Aug	22.0	28.5	19.0	92.3	71.9
Sept	14.6	28.5	21.4	93.0	76.7
Oct	3.1	27.8	19.0	91.8	60.4
Nov	0.9	26.0	14.9	90.7	48.2
Dec	0.4	21.3	8.7	87.2	42.2

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

3. Category	Population	Production	Productivity
Cattle			
Crossbred	11485		
Indigenous	27292		
Buffalo	14		
Sheep			
Crossbred	0		
Indigenous	0		
Goats	9678		
Pigs			
Crossbred	39631		
Indigenous	59691		
Rabbits	917		
Poultry			
Hens			
Desi	205112		
Improved			
Ducks	5476		
Turkey and others			

Source: Statistical handbook of Nagaland 2017

Note: Pl. provide the appropriate Unit against each enterprise

2.6 Details of Operational area / Villages (2019)

Sl. No.	**Taluk/ Eleka**	**Name of the block**	**Name of the village**	**Major crops & enterprises**	**Major problem Identified**	**Identified thrust area**

1	Akuluto ,Atoizu, Zunheboto, Suruhoto	Akuluto ,Atoizu, Zunheboto, Suruhoto	Zaphumi, Shichimi, Alaphumi, Lumami Sumi Settsu Lumithsami Sastami Pishumi Litami Old Litami New Aotsakilimi, Phisa, , Phuye Old, Phuye, Ajiqami, Tichipami, Lokobo, Sapotimi, Kholeboto, Zhekuto	Paddy, Orange, Maize, Tomato, Brinjal, Cucumber, Ginger, Chilli, Banana, Pineapple, Colocassia, Tapioca, Tea, Piggery, Poultry. Goattery Strawberry, Rabbitry, Kiwi, large cardamom, soybean	Heavy weed infestation in existing cropping system, lack of post - harvest management facilities, lack of improved breed of pigs and fowl. Lack of financial support. Lack of HYV of crops. Lack of employment opportunities	1. Identification of farming system of Zunheboto District at different altitude and settlement. 2.Collection and identification of available crop germplasm 3.Improvement in existing shifting cultivation by scientific intervention 4.SHG formation for small scale enterprise 5. Improved package of practices for orange cultivation 6. Post harvest management of Horticulture and field crops 7. Piggery, poultry and dairy up-gradation and improved management

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2019

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	2	2	4	4	3	3	90	125
Horticulture	2	2	7	7	2	1	10	5
Plant Protection	2	2	6	3	2	2	6	6
Home science	2	2			2	2		55
Animal Science	4	3	30	25	6	4	57	37
Total	**12**	**11**	**47**	**39**	**15**	**12**	**163**	**228**

Note: Target set during last Annual Zonal Workshop

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	**Targets**	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**
Farmers					15	24		245
Rural youth								
Extn. Functionaries								
Total								

Seed Production (ton.)		Planting material (Nos. in lakh)	
Target	**Achievement**	**Target**	**Achievement**
	7.2		

Note: Target set during last Annual Zonal Workshop

4. B. Abstract of interventions undertaken during 2019

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 evaluation	Soybean	Low yield	HYV of Soybean		Package and practices of soybean		Field visit	5kg
2	Integrated crop management	Maize + Beans	Low cropping intensity	Intercropping of maize and beans				Field visit	10Kg

3	Crop production	Soybean	Low yield		FLD on Soybean JS 9560		Package and practices of soybean	Field visit	450kg
4	Crop production	Field pea	Low yield		FLD on Field Pea Aman		Package and practices of field pea	Field visit, Field day	500kg
5	Crop production	Maize	Low yield		FLD on Maize HQPM 1		Package and practices of maize	Field visit	125kg
6	Vegetable production	French beans	Low yield due to non availability of high yielding variety	Evaluation of French beans variety Arka Sharath		Organic French beans cultivation.			8 kg seeds
7	Organic nutrient management	Okra	Low yield due to low soil fertility	Cultivation of Okra by using Organic sources of nutrients		Organic cultivation of okra			8 kg seeds, biofertilizers, rock phosphate, vermicompost
8	Spice production	chilli	Low yield and short keeping quality in local variety		Demonstration on package of practices of Chilli var. Arka Harita	Package of practice for chilli			0.3 kg

9	IPM	Brinjal(Arka Neem soap)	Incidence of fruit and shoot borer infestation	Assessment of Application of Arka Neem Soap to reduce Incidence of Fruit and shoot borer infestation in Brinjal					Arka Neem soap
10	IDM	Ginger (Storage)	Incidence of ginger rhizome in storage	Assessment of storage technology for ginger rhizome rot		IDM on ginger storage		Method Demonstration	Ginger, *Trichodermma*
11	IPM	Jhum paddy (Yellow sticky trap)	Leaf folder infestation in jhum paddy		Popularization of yellow sticky trap for leaf folder management in jhum paddy	Importance of yellow sticky trap in pest management in jhum rice field		Methd Demonstration	Yellow Sticky Trap
12	Mushroom	Oyster mushroom	Non-cultivation		Popularisation of Oyster mushroom	Mushroom cultivation		Methd Demonstration	Mushroom spawn
13	Small Scale income generating enterprises	Processing & value addition of Bamboosh oot	Lack of knowledge on processing and value addition	Preservation techniques of Bamboosh oot		Preparation of bamboosh oot pickle Preparation of Tapioca cake			
14	Value addition	Fruits & Vegetables	No technology on post harvest management		Preservation of locally available vegetables n fruits by drying method Carrot Radish Banana Gooseberry				

15	Value addition	Processing & Value addition of Tapioca	Lack of knowledge on processing and value addition	Cake preparation from tapioca flour		Training on different methods of flower drying			
16	Drying Techniques	Flowers	No technology on post harvest management		Different techniques of flower drying. Cocks comb Zinnias Chrysanthemum Wild marigold Euphorbia				
17	Poultry	Vanaraja	Poor performance by local indigenous birds	Performance of Vanaraja birds at different locations		Poultry production and management		Trainings	
18	Poultry	Turkey	Poor performance by local indigenous birds	Performance evaluation of Turkey (Broad breasted Bronze)		Poultry production and management		Trainings	
19	Piggery	Hampshire cross pigs	Poor performance by local indigenous Pigs	Assessment of Growth Performance of Crossbreed Pigs (Hampshire cross) under local feeding		Piggery rearing and management		Trainings	

20	Poultry	Vanaraja	Non availability of good quality breeds of chickens		FLD on Vanaraja Birds	Poultry production and management		Trainings	
21	Feeding management	Pig	Poor swine feeding practices		Popularization of Computed pig ration	Swine production and management		Trainings	
22	Feeding management	Dairy/Cattle	Non availability of good quality fodder		Popularization of Plantation of Hybrid Napier	Dairy production		Trainings	
23	Health management	Pig	Poor health care practices		Demonstration on Management of Swine Fever in Pigs Under Farmers Field Condition	Swine production and management		Trainings	

3.1 Achievements on technologies assessed and refined during 2019

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		1			2					3
Seed / Plant production	1	1	1							3
Weed Management										
Integrated Crop Management	1									1
Integrated Nutrient Management					1					1

Integrated Farming System										
Mushroom cultivation				1						1
Drudgery reduction										
Farm machineries										
Value addition						1			2	3
Integrated Pest Management	1				1					2
Integrated Disease Management				1						1
Resource conservation technology										
Small Scale income generating enterprises							1			1
Drying techniques										
Nutrition garden										
TOTAL	**3**	**2**	**1**	**2**	**4**	**1**	**1**		**2**	**16**

* *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

Thematic areas	**Cereals**	**Oilseeds**	**Pulses**	**Commercial Crops**	**Vegetables**	**Fruits**	**Flower**	**Plantation crops**	**Tuber Crops**	**TOTAL**
Varietal										

Evaluation										
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient Management										
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Post Harvest Technology										
Integrated Pest Management										
Integrated Disease Management										
Resource conservation technology										
Small Scale income generating enterprises										
TOTAL										

*** *Technology that is refined in collaboration with ICAR/SAU Scientists for improving its effectiveness.*

A.3. Abstract of the number of technologies **assessed** in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitery	Fisheries	TOTAL
Evaluation of Breeds		3			1			4
Nutrition Management					1			1
Disease of Management					1			1
Value Addition								
Production and Management								
Feed and Fodder	1							1
Small Scale income generating enterprises								
TOTAL	1	3			3			7

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								
TOTAL								

A.5. Results of On Farm Testing (OFT)

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	OFT on Soybean VL 63	Low yield	VL 63	Rainfed	2	Enclosed in annexure B (1)	Want to replace the old variety		3.9
2	Intercropping of Maize & Beans	Low cropping intensity	Maize + Beans	Rainfed	2	Enclosed in Annexure B (2)	Want to continue for the next season		3
3	Evaluation of French beans var. Arka Sharath	Low yield due to non-availability of high yielding variety	Arka Sharath	Rainfed	4	Enclosed in annexure A (1)			2.76 (Technology) 1.91 (Farmers practice)
4	Cultivation of Okra by using organic sources of nutrients	Low yield due to low soil fertility	Seed treatment of biofertilizer AZB &PSB@ 7.5/100g seeds. Application of rock phosphate 313kg/ha, FYM 5t/ha and	Rainfed	3	Enclosed in annexure A (2)			Technology : 3.25 Farmers practice- 2.07

			vermicompost 1t/ha at the final land preparation						
5	Assessment of Application of Arka Neem Soap to reduce Incidence of Fruit and shoot borer infestation in Brinjal	Incidence of fruit and shoot borer infestation	Arka Neem Soap	Brinjal	3	Failure due to poor germination of seeds in the first attempt at Nursery			
6	Assessment of storage technology for ginger rhizome rot	Incidence of ginger rhizome in storage	a)Pit Size-1X2m b sand c) *Trichoderma*	Ginger	3	On-going			
7	Preservation techniques of Bamboo shoot	Lack of knowledge on processing and value addition	Processing & value addition	Processing & value addition	2	Shelf life i. Dried bamboo shoot- > 1 year ii. Bamboo shoot pickle- > 6 months iii. Fermented bamboo shoot- > 1 year iv. Bamboo shoot in acid brine- 8 months			
8	Cake preparation from tapioca flour	Lack of knowledge on processing and value addition	Processing & value addition	Processing & value addition	3	According to the sensory evaluation it was found that Banana tapioca cake was more acceptable than plain tapioca cake and also scored higher points over			

						plain cake in terms of its taste and aroma. The consistency/ texture of both the cake was judged equally and well accepted			
9	Performance of Vanaraja birds at different locations	Poor performance by local indigenous birds	Vanaraja	Vanaraja	5	Technology 1. Average Body Weight gain till 24th week of age(M= 3.0 kg, F=2.6 kg) 2. Average daily body weight gain till 24th week of age (M= 16 g/day, F= 14g/day) 3. Age at first egg laying (24th-25th week) 4. Mortality rate and disease incidence rate(5.7% and 0% resp) 5. Average egg production per bird/month (10-11 nos.) 6. BC ratio (3.4)	Satisfactory	Successful	3.4
						Farmers practice 1. Average Body Weight gain till 24th week of age(M=1.4 kg, F=0.8 kg) 2. Average daily body weight gain till 24th week of age (M= 7 g/day, F=4g /day) 3. Age at first egg laying (26th -27th week) 4. Mortality rate and disease incidence rate(8%			1.7

						and 8% resp 5. Average egg production per bird/month (8-10 nos.) 6. BC ratio (1.7)			
10	Performance evaluation of Turkey (Broad breasted Bronze)	Poor performance by local indigenous birds	Turkey	Turkey	10	Technology 1. Average Body Weight gain till 28th week of age(M= 8.09 kg, F= 6.56 kg) 2. Average daily body weight gain till 28th week of age (M= 41.27 g/day, F= 33.45 g/day) 3. Age at first egg laying (24th-25th week) 4. Mortality rate and disease incidence rate(8% and 0% respectively) 5. Average egg production per bird/month (7-8 nos.) 6. BC ratio (32.9)	Satisfactory	Successful	2.9
11	Assessment of Growth Performance of Crossbreed Pigs (Hampshire cross) under local feeding	Poor performance by local indigenous Pigs	Hampshire cross Pig	Pig	10	Technology 1. Average Body Weight gained till 28th week of age (M=27.52 kg, F=26.95 kg) 2. Average daily body weight gain till 28th week of age.(M=139.14 g/d, F=138.08g/d) 3.Mortality rate and disease incidence rate (2% and 0% respectively) 4. Litter size, Age at first farrowing : 5. BC ratio			ongoing

						Farmers practice 1. Average Body Weight gained till 28th week of age (M=20 kg, F=17 kg) 2. Average daily body weight gain till 28th week of age.(M=102.04 g/d, F=86.73g/d) 3.Mortality rate and disease incidence rate (6-7% and 4 % resp,) 4. Litter size, Age at first farrowing : 5. BC ratio			

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***

Annexures

Annexure	Results of Assessment/ Refined (Data on the parameter should be provided)	Feedback from the farmer	Feedback to the Researcher	B:C Ratio (if applicable)
Annexure A (1)	Technology: Length of pod(cm)-14.7, No.of pods/plant-35, Yield of pod/ha(t)-7.5, Net return(Rs/ha)- 1,91,500	Satisfied with technology provided as the yield is high and the cost of cultivation is lesser than farmers practice (pole type)	Result is higher in technology provided so it can be taken up for FLD	BC ratio-2.76(Technology) BC ratio-1.91(Farmers practice)

	Farmers practice: Length of pod(cm)-12.5, No.of pods/plant-15, Yield of pod/ha(t)-5.2, Net return(Rs/ha)- 1,01,100			
Annexure A (2)	Technology: Date of sowing-2/4/19 ,Days of 50% flowering-65,Crop duration-120 days, Plant height (cm)-90.5, Length of fruit(cm)-17.9, No.of fruits/plant-12, Weight of single fruit(g)-18.16 Yield/ha(t)-8.7, Net return(Rs/ha)- 1,81,168 Farmers practice: Date of sowing-2/4/19 ,Days of 50% flowering-75, Crop duration-100 days, Plant height (cm)-80, Length of fruit(cm)-14.8, No. of fruits/plant-10, Weight of single fruit(g)-13.5 Yield/ha(t)-5.4, Net return/ha-84000	Satisfied with technology as all the parameters were found higher than the control	It can be taken up for large scale adoption	Technology : BC ratio-3.25 Farmers practice; BC ratio-2.07

Annexure B (1)

Parametres:	
No. Of days to maturity	: 135 days
Highest yield	: 2480 kg/h
Lowest yield	: 2285 kg/h
Average yield	: 2382.5 kg/h

Cost of cultivation for 1h	: Rs. 38850.00
Gross return	: Rs. 154,895.00
Net return	: Rs. 116,045.00
B.C. ratio	: 3.9
Local Check JS 335	
Increase in %	: 36%

Annexure B (2)

Annexure B (2)	
Results of Maize	
PARAMETRES:	
Plant height	: 178 cm
Days to 50 % Tasseling	: 57
No. of cob/plant	: 3
No. of grain/cob	: 286
Seed yield/plant	: 84g
Seed yield/h	: 5.4t/h
Result of Beans	
PARAMETRES:	
Plant height	: 38.7 cm
Days to 50% flowering	: 60 days
Crop duration	: 130 days
Seed yield/plant	: 20g
Seed yield/h	: 1.3 t/h
B.C. Ratio	: 3

3.2 Achievements of Frontline Demonstrations during 2019

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

List of technologies demonstrated during previous years and popularized during 2019 and recommended for large scale adoption in the district

Sl. No	Crop and Variety/ Enterprise	Technology demonstrated	Horizontal spread of technology		
1	Soybean	JS9560	Litta new, Phushumi, Sastami, Lumami, Alaphumi		
2	Maize	HQPM1	Aotsakilimi, Phuyo old, Phuyu New, Lokobo, Atoizu		

**** 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)**		
												N	**P**	**K**
					Proposed	**Actual**	**SC/ST**	**Others**	**Total**					
1.	Maize	Crop production	HQPM1	Kharif 2019	5	5	53		53		Rainfed			
2.	Soybean	Crop	JS9560	Kharif	10	10	35		3		Rainfed			

		production		2019					5					
3	Field pea	Crop production	Aman	Rabi	10	10	32		32		Rainfed			
4	Chilli	Varietal trail	Arka Harita	April 2019	0.3	0.3	5		5	Germinated well but plants were damaged due to heavy rainfall accompanied by storm				
5.	Jhum paddy	IPM	Yellow sticky trap	Kharif 2019	1	1	20		20		Rainfed			

c. Performance of FLD on Crops during 2018-19

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*	Demo	Local	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR
1	Maize	Crop produ	5	72	55	31	76	68			38850	108000	69150	2.7	38850	82500	43650	2.1

		ction															
2	Soybean	Crop production	10	18.5	17.5	6	18.8	18.3			38850	111300	72450	2.8	38850	105000	66150	2.7
3	Field Pea	Crop production	10	13.3	10.5	27.5	13.9	12.8			29750	93730	63980	3.1	29750	73500	43750	2.4
4	Chili	Varietal trail	**0.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Jhum paddy	IPM	1	23.4	18.3	27.8%	25.5	21.4	% infestation= 5	% infestation = 16	31000	46800	15800	1.5	30500	36600	6100	1.2

***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 organized	Date	Number of participants			Remarks
				Gen	SC/ST	Total	
1	Field visit	7	22/5/19, 23/5/19, 5/6/19, 11/9/19,		120	120	

			13/9/19, 14/10/19, 28/10/l19				
2	Field day	1	3/6/19		22	22	
3	Training	7	17/5/19, 10/7/19, 22/5/19, 21/8/19, 20/6/19, 29/11/19		144	144	
4	Method demonstration	2	20/6/19, 29/11/19		52	52	

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

1	Poultry	Breed introduction	Vanaraja	20	20	500	1. Average Body Weight gain till 28th week of age(M= 3.194 kg, f= 2.820kg) 2. Average daily body weight gain till 28th week of age (M =15.2 g/day, F =13.4 g/day) 3. Age at first egg laying (7-8 months) 4. Mortality rate and disease incidence rate(12% and 0% resp) 5. Average egg production per bird/month (10-11.)	1. Average Body Weight gain till 28th week of age(M= 1.920 kg, f= 1.590kg) 2. Average daily body weight gain till 28th week of age (M = 9.1 g/day, F = 7.5g/day) F =13.4 g/day) 3. Age at first egg laying (9 months) 4. Mortality rate and	1. Average Body Weight gain till 28th week of age (M=60.11 %, F=56.38%) 2. Average daily body weight gain till 28th week of age (M =59.8			Rs. 290 per bird	Rs. 897 per bird	Rs. 607/- per bird	3.09	Rs.270 per bird	Rs. 491 per bird	Rs. 221 per bird	1.82	

								disease incidence rate(15% and 10% resp) 5. Average egg production per bird/month (8-10.)	0%, F =55.97%) 3. Age at first egg laying (106.67%) 4. Mortality rate and disease incidence rate(80% and 100 % resp) 5. Average egg production per											

									bird/ month (81.81%.)										
2	Piggery	Feeding management	Popularization of Computed pig ration	5	5	5(100 kg per unit)	1. Average Body Weight gain till 12 months of age (M= 82.74kgF= 74.49kgkg) 2. Average daily body weight gain(M=226 g/day,F=204 g/day) 3. Age at first heat of gilt(8 months)	1. Average Body Weight gain till 12 months of age (F)=56.00 kg 2. Average daily body weight gain(C=153g/day) 3. Age at first heat of gilt(9-10 months)	1. Average Body Weight gain till 12 months of age(71.24 %) 2. Average daily body weight gain(71.24 %) 3. Age at											NA

									first heat of gilt(80%)											
3	Dairy	Feeding management	Plantation of Hybrid napier	2	2	0.25 ha per farmer	1.No of cuttings done(3) 2. Average Yield per cutting(2584.00q/ha)	--	--											Ongoing
4	Piggery	Disease management	Demonstration on Management of Swine Fever in Pigs Under Farmers Field Condition	10	10	20	1. Susceptibility rate (%) 2. Survivability rate (%) 3.Mortality rate (%)	1. Susceptibility rate (%) 2. Survivability rate (%) 3.Mortality rate (%)													Ongoing

**** 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.	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	

***** 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.	Category/ Enterpri	Thematic	Name of Techn	No. of farmer	No. of	Major Performance parameters /	% change in	Other parameters (if any)	Econ. of demo. (Rs./Ha.)	Econ. of check (Rs./Ha.)	Remarks

	se, e.g., mushroom, vermicompost, apiculture etc.	**area**	**ology**		**units**	**indicators**		**the parameter**	**Demo**	**Check**	**GC****	**GR****	**NR****	**BCR****	**GC**	**GR**	**NR**	**BCR**	
						Demo	**Check**												
1	Mushroom	Mushroom production	Oyster mushroom	30	3	1.Yield/bag = 1.5kg/bag	-				4000	2025 0	1625 0	5.06					
2	Drying techniques	Drying techniques	Different techniques of flower drying	32 farmers	1														Enclosed in annexure A
3	Drying Techniques	Drying techniques	Preservation Techniques of fruits and vegetables by	23 farmers	1														Enclosed in annexure B

			drying method															

Annexure A

Different Techniques of flower drying

Techniques	Observation days	Drying %	Color of petals	Keeping quality
Air drying	4	62%	Color changed	>5 months
Silica gel	4	66%	Natural color retained	>6 months
Sand drying	6	63%	Color changed	>5 months
Press drying	7	64%	Color changed	>5 months

Annexure B

	Observation days	Drying %	Color of petals	Taste	Keeping quality
Carrot	3	58%	Light orange	Sweet	>3 months
Radish	3	62%	Light brown	Sweet	>4 months
Banana	5	56%	Dark Brown	Sweet	>4 months
Gooseberry	5	62%	Dark brown	Sour	>6 months

***** 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 demonstr**	**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**	**Remarks**

			ated			Demo	Check			unit etc.)	
1						•					

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.)			
					Demo.	Check		H*	L*	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR

**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.

3.3. Achievements on Training during 2019

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)

Thematic area	No. of Trainings (Courses)			Participants			
	On-	Spon	Tot	General	SC/ST	Total	Gr

	Campus (1)	On* (2)	al (1+2)	Male		Female		Total		Male		Female		Total		Male		Female		Total		and Total (x+y)
				On (4)	Sp. On (5)	On (6)	Sp. On (7)	On (a=4+6)	Sp. On (b=5+7)	On (8)	Sp. On (9)	On (10)	Sp. On (11)	On (c=8+10)	Sp. On (d=9+11)	On (4+8)	Sp. On (5+9)	On (6+10)	Sp. On (7+11)	On (x=a+c)	Sp. On (y=b+d)	
I. Crop Production																						
Weed management																						
Resource Management																						
Nutrient Management																						
Soil and water conservation																						
Soil management																						
Organic grower																						

Seed production																						
Nursery management																						
Integrated Crop Management																						
Fodder production																						
Production of organic inputs																						
II. Horticulture																						
a) Vegetable Crops																						
Production of low volume and high value crops																						
Off-season vegetables																						
Nursery																						

raising																					
Exotic vegetables like Broccoli																					
Export potential vegetables																					
Grading and standardization																					
Protective cultivation (Green Houses, Shade Net etc.)																					
b) Fruits																					
Training and Pruning																					
Layout and																					

Management of Orchards																					
Cultivation of Fruit																					
Management of young plants/orchards																					
Rejuvenation of old orchards																					
Export potential fruits																					
Micro irrigation systems of orchard																					
Plant propaga																					

tion techniques																				
c) Ornamental Plants																				
Nursery Management																				
Management of potted plants																				
Export potential of ornamental plants																				
Propagation techniques of Ornamental Plants																				
d) Plantation crops																				
Production and Manage																				

ment technology																					
Processing and value addition																					
e) Tuber crops																					
Production and Management technology																					
Processing and value addition																					
f) Spices																					
Production and Management technology																					
Processing and value																					

addition																					
g) Medicinal and Aromatic Plants																					
Nursery management																					
Production and management technology																					
Post harvest technology and value addition																					
III Soil Health and Fertility Management																					
Soil fertility management																					
Soil and Water Conservation																					

Integrated Nutrient Management																					
Production and use of organic inputs																					
Management of Problematic soils																					
Micro nutrient deficiency in crops																					
Nutrient Use Efficiency																					
Soil and Water Testing																					
IV Livestock Production and Management																					

Dairy Management																					
Piggery	1	PF	1							2	0	13	0	15	0	2	0	13	0	15	0	15
Poultry	1	PF	1							2	0	14	0	16	0	2	0	14	0	16	0	16
Rabbit Management																					
Disease Management																					
Feed management																					
Production of quality animal products																					
V Home Science/Women empowerment																					
Household food security by kitchen gardeni																					

ng and nutrition gardening																				
Design and development of low/minimum cost diet																				
Designing and development for high nutrient efficiency diet																				
Minimization of nutrient loss in processing																				
Gender mainstreaming through																				

SHGs																					
Storage loss minimization techniques																					
Income generation activities for empowerment of rural Women																					
Location specific drudgery reduction technologies																					
Rural Crafts																					
Women and child																					

care																					
Value Addition	4	FW	4							0	0	70	0	70	0	0	0	70	0	70	0	70
Drying Techniques	2	FW	2							0	0	20	0	20	0	0	0	20	0	20	0	20
VI Agril. Engineering																						
Installation and maintenance of micro irrigation systems																						
Use of Plastics in farming practices																						
Production of small tools and implem																						

ents																					
Repair and maintenance of farm machinery and implements																					
Small scale processing and value addition																					
Post Harvest Technology																					
VII Plant Protection																					
Integrated Pest Management																					
Integrated Disease																					

Management																					
Bio-control of pests and diseases																					
Production of bio control agents and bio pesticides																					
VIII Fisheries																					
Integrated fish farming																					
Carp breeding and hatchery management																					
Carp fry and																					

fingerling rearing																					
Composite fish culture																					
Hatchery management and culture of freshwater prawn																					
Breeding and culture of ornamental fishes																					
Portable plastic carp hatchery																					

Pen culture of fish and prawn																					
Shrimp farming																					
Edible oyster farming																					
Pearl culture																					
Fish processing and value addition																					
IX Production of Inputs at site																					
Seed Production																					
Planting material production																					
Bio-agents																					

production																					
Bio-pesticides production																					
Bio-fertilizer production																					
Vermicomposting		1	1							0	1	0	15	0	16	0	1	0	15	0	16	16
Organic manures production																					
Production of fry and fingerlings																					
Production of Bee-colonies																					

and wax sheets																					
Small tools and implements																					
Production of livestock feed and fodder																					
Production of Fish feed																					
X Capacity Building and Group Dynamics																					
Leadership development																					
Group dynamics																					
Formation and Manage																					

ment of SHGs																					
Mobilization of social capital																					
Entrepreneurial development of farmers /youths																					
WTO and IPR issues																					
XI Agro-forestry																					
Production technologies																					
Nursery management																					
Integrated Farming																					

Systems																					
TOTAL																					

3.3.2. Achievements on Training of Farmers and Farm Women in Off Campus including Sponsored Off Campus Training Programmes (*Sp. Off means Off Campus training programmes sponsored by external agencies)

Thematic area	**No. of Trainings (Courses)**			**Participants**																		**Grand Total**
				General						**SC/ST**						**Total**						
				Male		**Female**		**Total**		**Male**		**Female**		**Total**		**Male**		**Female**		**Total**		
	Off	**Sp Off***	**Total**	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	
I. Crop Production																						
Crop production	7		7							49	0	92	0	141	0	49	0	92	0	141	0	141
Weed management	2		2							12	0	47	0	59	0	12	0	47	0	59	0	59
Cropping																						

Systems																					
Crop Diversification																					
Integrated Farming																					
Water management																					
Seed production																					
Nursery management																					
Integrated Crop Management																					
Fodder production																					
Production of organic																					

inputs																						
II. Horticulture																						
a) Vegetable Crops																						
Vegetable production	3		3							0	0	57	0	57	0	0	0	57	0	57	0	57
Off-season vegetables																						
Nursery raising																						
Exotic vegetables like Broccoli																						
Export potential vegetables																						
Grading and standardization																						

Protective cultivation (Green Houses, Shade Net etc.)																					
b) Fruits																					
Training and Pruning																					
Layout and Management of Orchards																					
Cultivation of Fruit																					
Management of young plants/orchards																					
Rejuvenation of																					

old orchards																					
Export potential fruits																					
Micro irrigation systems of orchards																					
Plant propagation techniques																					
c) Ornamental Plants																					
Nursery Management																					
Management of potted plants																					
Export																					

potential of ornamental plants																					
Propagation techniques of Ornamental Plants																					
d) Plantation crops																					
Production and Management technology																					
Processing and value addition																					
e) Tuber crops																					
Production and Management																					

technology																					
Processing and value addition																					
f) Spices																					
Production and Management technology																					
Processing and value addition																					
g) Medicinal and Aromatic Plants																					
Nursery management																					
Production and management technology																					

Post harvest technology and value addition																					
III Soil Health and Fertility Management																					
Soil fertility management																					
Soil and Water Conservation																					
Integrated Nutrient Management																					
Production and use of organic inputs																					
Management of Problem																					

atic soils																						
Micro nutrient deficiency in crops																						
Nutrient Use Efficiency																						
Soil and Water Testing																						
IV Livestock Production and Management																						
Dairy Management																						
Poultry	3	PF	3							25	0	49	0	74	0	25	0	49	0	74	0	74
Piggery	3	PF	3							25	0	49	0	74	0	25	0	49	0	74	0	74
Rabbit Management																						
Disease Management																						

Feed management																					
Production of quality animal products																					
V Home Science/Women empowerment																					
Household food security by kitchen gardening and nutrition gardening																					
Design and development of low/minimum cost diet																					

Designing and development for high nutrient efficiency diet																					
Minimization of nutrient loss in processing																					
Gender mainstreaming through SHGs																					
Storage loss minimization techniques																					
Value Addition	17	FW	17							40	0	306	0	346	0	40	0	306	0	346	0	346

Income generation activities for empowerment of rural Women																					
Location specific drudgery reduction technologies																					
Rural Crafts																					
Women and child care																					
Drudgery reduction																					
Drying techniq																					

ues																					
VI Agril. Engineering																					
Installation and maintenance of micro irrigation systems																					
Use of Plastics in farming practices																					
Production of small tools and implements																					
Repair and maintenance of farm machine																					

ry and implements																					
Small scale processing and value addition																					
Post Harvest Technology																					
VII Plant Protection																					
Integrated Pest Management	3		3							36		31		67		36		31		67		67
Integrated Disease Management																					
Bio-control of pests and diseases																					

Production of bio control agents and bio pesticides																					
VIII Fisheries																					
Integrated fish farming																					
Carp breeding and hatchery management																					
Carp fry and fingerling rearing																					
Composite fish culture																					

Hatchery management and culture of freshwater prawn																					
Breeding and culture of ornamental fishes																					
Portable plastic carp hatchery																					
Pen culture of fish and prawn																					
Shrimp farming																					

Edible oyster farming																					
Pearl culture																					
Fish processing and value addition																					
IX Production of Inputs at site																					
Seed Production																					
Planting material production																					
Bio-agents production																					
Bio-pesticides production																					

Bio-fertilizer production																					
Vermi-compost production																					
Organic manures production																					
Production of fry and fingerlings																					
Production of Bee-colonies and wax sheets																					
Mushroom Production	2		2							0		60		60		0		60		60		60

Production of livestock feed and fodder																					
Production of Fish feed																					
X Capacity Building and Group Dynamics																					
Leadership development																					
Group dynamics																					
Formation and Management of SHG	2		2	PF						13	0	21	0	34	0	13	0	21	0	34	0	34
Mobilization of Social Capital	1		1	PF						10	0	15	0	25	0	10	0	15	0	25	0	25

Entrepreneurial development of farmers /youths																					
ICT																					
XI Agro-forestry																					
Production technologies																					
Nursery management																					
Integrated Farming Systems																					
TOTAL																					
(B) RURAL YOUTH																					
3.3.3. Achievements on Training <u>Rural Youth</u> in <u>On Campus</u> including <u>Sponsored On Campus</u> Training Programmes **(*Sp. On means On Campus training programmes sponsored by external agencies)**																					

Thematic area	No. of Trainings (Courses)			Participants																		Grand Total (x + y)
				General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
	On (1)	SpOn* (2)	Total (1+2)	On (4)	Sp. On (5)	On (6)	Sp. On (7)	On (a= 4+6)	Sp. On (b= 5+7)	On (8)	Sp. On (9)	On (10)	Sp. On (11)	On (c= 8+10)	Sp. On (d= 9+11)	On (4+8)	Sp. On (5+9)	On (6+10)	Sp. On (7+11)	On (x= a +c)	Sp. On (y= b +d)	
Weed management	1		1							4	0	16	0	20	0	4	0	16	0	20	0	20
Resource Management	1		1							2	0	16	0	18	0	2	0	16	0	18	0	18
Nutrient Management	1		1							2	0	16	0	18	0	2	0	16	0	18	0	18
Soil and water	1		1							8	0	3	0	11	0	8	0	3	0	11	0	11

conservation																					
Soil management	1		1							8	0	3	0	11	0	8	0	3	0	11	0	11
Organic grower	0	1	1							0	2	0	18	0	20	0	2	0	18	0	20	20
Post harvest management.	1		1							3	0	17	0	20	0	3	0	17	0	20	0	20
Floriculture		1	1							0	5	0	10	0	15	0	5	0	10	0	15	15
Mushroom Production	1		1							3		17		20		3		17		20		20
IPM	2		2							6		34		40		6		34		40		40
Production of organic inputs																						

Organic farming																					
Integrated Farming																					
Planting material production																					
Vermi-culture																					
Sericulture																					
Protected cultivation of vegetable crops																					
Commercial fruit production																					
Post harvest technology																					

Nursery Management of Horticulture crops																					
Training and pruning of orchards																					
Value Addition	2	RY	2							0	0	52	0	52	0	0	0	52	0	52	0	52
Rural Crafts	1	RY	1							0	0	13	0	13	0	0	0	13	0	13	0	13
Dairying																					
Sheep and goat rearing																					
Quail farming																					
Dairy	1	RY	1							3	0	17	0	20	0	3	0	17	0	20	0	20

Poultry	1	RY	1							0	2	0	13	0	15	0	2	0	13	0	15	15
Piggery	1	RY	1							0	2	0	14	0	16	0	2	0	14	0	16	16
Ornamental fisheries																						
Para vets																						
Para extension workers																						
Composite fish culture																						
Freshwater prawn culture																						
Shrimp farming																						
Pearl culture																						
Cold water fisheries																						

Fish harvest and processing technology																					
Fry and fingerling rearing																					
Small scale processing																					
Post Harvest Technology																					
Tailoring and Stitching																					
IPM																					
Sociometry technique																					

PRA																					
Formation and Management of SHG	1		1	RY						3	0	17	0	20	0	3	0	17	0	20	0	20
Entrepreneurship Development		2	2	RY						0	78	0	129	0	207	0	78	0	129	0	207	207
Methods of selection of sample																					
PERT & CPM																					
TOTAL																					

3.3.4. Achievements on Training of <u>Rural Youth</u> in <u>Off Campus</u> including <u>Sponsored Off Campus</u> Training Programmes

(*Sp. Off means Off Campus training programmes sponsored by external agencies)

Thematic area	**No. of Trainings (Courses)**			**Participants**			**Grand Total**
	O	**Sp**	**Tota**	**General**	**SC/ST**	**Total**	

	ff	Off	l	Male		Female		Total		Male		Female		Total		Male		Female		Total		
				Off	Sp Off*	Off	Sp Off*	Off	SpOff*	Off	Sp Off*	Off	Sp Off*	Off	SpOff*	Off	SpOff*	Off	SpOff*	Off	Sp Off*	
Mushroom Production																						
Bee-keeping																						
Rodent Management	1		1							3		17		20		3		17		20		20
Seed production																						
Production of organic inputs																						
Integrated Farming																						

Planting material production																					
Vermi-culture																					
Sericulture																					
Protected cultivation of vegetable crops																					
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																					
Sheep and goat rearing																					
Quail farming																					
Piggery																					

Rabbit farming																					
Poultry production																					
Ornamental fisheries																					
Para vets																					
Para extension workers																					
Composite fish culture																					
Freshwater prawn culture																					
Shrimp farming																					
Pearl culture																					

Cold water fisheries																					
Fish harvest and processing technology																					
Fry and fingerling rearing																					
Small scale processing																					
Post Harvest Technology																					
Tailoring and Stitching																					
Rural Crafts																					

TOTAL																						

C. Extension Personnel

3.3.5. Achievements on Training of Extension Personnel in On Campus including Sponsored On Campus Training Programmes

(*Sp. On means On Campus training programmes sponsored by external agencies)

Thematic area	No. of Trainings (Courses)			Participants																		Grand Total (x + y)
				General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
	On (1)	SpOn* (2)	Total (1+2)	On (4)	Sp. On (5)	On (6)	Sp. On (7)	On (a= 4+6)	Sp. On (b= 5+7)	On (8)	Sp. On (9)	On (10)	Sp. On (11)	On (c= 8+10)	Sp. On (d= 9+11)	On (4+8)	Sp. On (5+9)	On (6+10)	Sp. On (7+11)	On (x= a +c)	Sp. On (y= b +d)	
Productivity enhancement in field crops																						
Integrated Pest																						

Management																					
Integrated Nutrient management																					
Rejuvenation of old orchards																					
Protected cultivation technology																					
Formation and Management of SHGs																					
Group Dynamics and farmers organiza																					

tion																					
Information networking among farmers																					
Capacity building for ICT application																					
Care and maintenance of farm machinery and implements																					
WTO and IPR issues																					
Management in farm animals																					

Livestock feed and 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																					

3.3.6. Achievements on Training of Extension Personnel in Off Campus including Sponsored Off Campus Training Programmes

(*Sp. Off means Off Campus training programmes sponsored by external agencies)

Thematic area	**No. of Trainings (Courses)**			**Participants**																		**Grand Total**
				General						**SC/ST**						**Total**						
				Male		**Female**		**Total**		**Male**		**Female**		**Total**		**Male**		**Female**		**Total**		
	Off	**Sp Off***	**Total**	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	
Productivity enhancement in field crops																						
Integrated Pest Management																						
Integrated																						

Nutrient management																					
Rejuvenation of old orchards																					
Protected cultivation technology																					
Formation and Management of SHGs																					
Group Dynamics and farmers organization																					
Information networking																					

among farmers																					
Capacity building for ICT application																					
Care and maintenance of farm machinery and implements																					
WTO and IPR issues																					
Management in farm animals																					
Livestock feed and fodder producti																					

on																					
Household food security																					
Women and Child care																					
Low cost and nutrient efficient diet designing																					
Production and use of organic inputs																					
Gender mainstreaming through SHGs																					
TOTAL																					

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
Agronomy	Organic Grower	Organic Grower (asci)	21/2/19 to 27/3/19	35	On	RY				2	18	20	2	18	20
Agronomy	Resource Management	Resource management through organic Farming	22/2/2019	1	On	RY				2	16	18	2	16	18
Agronomy	Nutrient Management	Alder based Farming system	27/2/2019	1	On	RY				2	16	18	2	16	18
Agronomy	Weed management	Weed Management in Field crop	14/3/2019	1	On	RY				4	16	20	4	16	20
Agronomy	Soil and water conservation	Soil and water conservation measures	21/7/2019	1	On	RY				8	3	11	8	3	11

Agronomy	Soil management	Role of IFS practices for improving soil health	22/7/2019	1	On	RY				8	3	11	8	3	11
Horticulture	Post harvest management.	Optimum harvesting stage of horticultural crops	25/2/19	1	On campus	R Y				3	17	20	3	17	20
Horticulture	Floriculture	High value floriculture	11 -16th /3/19	6	On campus	R Y (STRY)				5	10	15	5	10	15
Plant protection	Mushroom production	Mushroom cultivation and production	25/2/19	1	KVK	RY				3	17	20	3	17	20
Plant protection	IPM	Insect pests of crops available at Zunheboto and its management	27/02/19	1	KVK	RY				3	17	20	3	17	20
Plant protection	IPM	Concept of IPM and INM	26/03/19	1	KVK	RY				3	17	20	3	17	20
Home Science	Value Addition	Preparation of Yongchak Pickle	18-06-19	1	On	FW					25	25		25	25
Home Science	Value Addition	Preparation of Green Leaves Pakora	18-06-19	1	On	FW					25	25		25	25

Home Science	Value Addition	Preparation of Banana Chips	19-06-19	1	On	RY					26	26		26	26
Home Science	Value Addition	Preparation of Banana Chips	19-06-19	1	On	RY					26	26		26	26
Home Science	Rural Crafts	Jewelry Making	20-06-19	1	On	RY					13	13		13	13
Home Science	Value Addition	Preparation of Radish Pickle	28-11-19	1	On	FW					10	10		10	10
Home Science	Drying Techniques	Different techniques of flower drying	28-11-19	1	On	FW					10	10		10	10
Home Science	Value Addition	Preparation of Radish Pickle	29-11-19	1	On	FW					10	10		10	10
Home Science	Drying Techniques	Different techniques of flower drying	29-11-19	1	On	FW					10	10		10	10
Animal Science	Dairy	Dairy production	27-02-2019	1	On	RY				3	17	20	3	17	20
Animal Science	Piggery	Piggery rearing and management	15-03-2019	1	On	PF/FW				2	13	15	2	13	15
Animal Science	Poultry	Poultry rearing and management	22-03-2019	1	On	PF/FW				2	14	16	2	14	16
Animal Science	Poultry	Poultry rearing and management	11-03-2019 to 16-03-	6	On	RY				2	13	15	2	13	15

			2019												
Animal Science	Piggery	Piggery rearing and management	18-03-2019 to 23-03-2019	6	On	RY				2	14	16	2	14	16
Agril Extn.	Formation and Management of SHG	Formation and Function of SHG	27/02/2019	1	On	RY				03	17	20	03	17	20
Agril Extn.	Entrepreneurship Development	Marketing Strategies on organically cultivated spices for Doubling Farmers Income	29/03/2019	2	On	RY				61	71	132	61	71	132
Agril Extn.	Entrepreneurship Development	Organic cultivation of ginger and turmeric	30/03/2019	2	On	RY				17	58	75	17	58	75
Others	Vermicomposting	Vermicomposting	14 to 19 Oct 2019	6	On	PF				1	15	16	1	15	16

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 –**	**Durat ion in**	**Venue**	**Please specify**	**General participants**		**SC/ST**		**Grand Total**	

			to)	days		Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	M	F	T	M	F	T	M	F	T
Agronomy	Crop production	Package and practices of Potato	23/1/2019	1	Litta new Village	PF				11	16	27	11	16	27
Agronomy	Crop production	Package and practices of Maize	17/5/2019	1	Litta new village	PF				5	7	12	5	7	12
Agronomy	Crop production	Package and practices of Maize	22/5/2019	1	Aotsakili Village	PF				9	11	20	9	11	20
Agronomy	Weed management	Weed management	23/5/2019	1	Aotsakili Village	PF				12	13	25	12	13	25
Agronomy	Weed management	Weed management	9/7/2019	1	Lokobo Village	FW				0	34	34	0	34	34
Agronomy	Crop production	Package and practices of Soybean	10/7/2019	1	Philimi Village	PF				13	8	21	13	8	21
Agronomy	Crop production	Package and practices of Field Pea	21/8/2019	1	Zaphumi Village	FW				0	20	20	0	20	20
Agronomy	Crop	Package and practices	18/9/20	1	Phushumi	PF				6	14	20	6	14	20

	production	of Field Pea	19		Village											
Agronomy	Crop production	Winter crop production inn Jhum fallow land	21/11/2019	1	Phishumi Village	PF				5	16	21	5	16	21
Horticulture	Vegetable production	1 .Organic French beans cultivation.	2/4/19	1	Shichimi	Farm women				0	19	19	0	19	19
Horticulture	Vegetable production	2. Organic nutrients for Okra cultivation.	2/4/19	1	Shichimi	Farm women				0	19	19	0	19	19
Horticulture	Vegetable production	3. Package of practices for chilli.	2/4/19	1	Shichimi	Farm women				0	19	19	0	19	19
Plant protection	Rodent Management	Rodent management	15/03/19	1	Alaphumi village	RY				3	17	20	3	17	20
Plant protection	IPM	Fall Army worm on maize and its management	22/05/19	1	Aotsakili	PF				9	11	20	9	11	20
Plant protection	IPM	IPM on maize	23/05/19	1	Aotsakili	PF				13	12	25	13	12	25
Plant protection	IPM	Importance of yellow sticky trap in pest management in jhum rice field	20/06/19	1	Zaphumi	PF				14	8	22	14	8	22
Plant protection	Mushroom production	Economic importance of mushroom cultivation for DFI	29/11/19	1	Zaphumi	FW				0	30	30	0	30	30

Plant protection	Mushroom production	Mushroom cultivation	29/11/19	1	Zaphumi	FW				0	30	30	0	30	30
Home Science	Value Addition	Preparation of Plum Jam	09-07-19	1	Lokobo	FW					34	34		34	34
Home Science	Value Addition	Preparation of Plum Squash	09-07-19	1	Lokobo	FW					34	34		34	34
Home Science	Value Addition	Preparation of Yongchak pickle	10-07-19	1	Philimi	PF				13	8	21	13	8	21
Home Science	Value Addition	Preparation of green chilly pickle	10-07-19	1	Philimi	PF				13	8	21	13	8	21
Home Science	Value Addition	Preparation of Banana cake	20-08-19	1	Zaphumi	FW					21	21		21	21
Home Science	Value Addition	Preparation of Bamboo shoot Pickle	21-08-19	1	Zaphumi	FW					17	17		17	17
Home Science	Value Addition	Preparation of soy nut chutney	28-08-19	1	Zaphumi	FW					18	18		18	18
Home Science	Value Addition	Preparation of Pancake	29-08-19	1	Zaphumi old	PF				1	17	18	1	17	18
Home Science	Value Addition	Preparation of Green Chilly Pickle	30-08-19	1	Zaphumi old	PF				3	17	20	3	17	20
Home Science	Value Addition	Preparation of Bamboo shoot Pickle	25-10-19	1	Akuluto Town	FW					11	11		11	11

Home Science	Value Addition	Preparation of Pancake	25-10-19	1	Akuluto Town	FW					11	11		11	11
Home Science	Value Addition	Preparation of Soynut	21-11-19	1	Phishumi	PF				5	16	21	5	16	21
Home Science	Value Addition	Preparation of Soynut powder chutney	21-11-19	1	Phishumi	PF				5	16	21	5	16	21
Home Science	Value Addition	Preparation of Radish Pickle	04-12-19	1	Shichimi	FW					19	19		19	19
Home Science	Value Addition	Preparation of Tapioca Banana cake	04-12-19	1	Shichimi	FW					19	19		19	19
Home Science	Value Addition	Preparation of Banana leather	05-12-19	1	Litta New	FW					20	20		20	20
Home Science	Value Addition	Preparation of Tapioca Banana cake	05-12-19	1	Litta New	FW					20	20		20	20
Animal Science	Poultry	Poultry production and management	15-01-2019	1	Littami Old	PF/FW				20	4	24	20	4	24
Animal Science	Piggery	Swine production and management	15-01-2019	1	Littami Old	PF/FW				20	4	24	20	4	24
Animal Science	Poultry	Poultry production and management	16-01-2019	1	Littami New	PF/FW				3	22	25	3	22	25
Animal Science	Piggery	Swine production and management	16-01-2019	1	Littami New	PF/FW				3	22	25	3	22	25

Animal Science	Piggery	Piggery rearing and management	09-09-2019	1	Aotsakilimi	PF/FW				2	23	25	2	23	25
Animal Science	Poultry	Poultry rearing and management	09-09-2019	1	Aotsakilimi	PF/FW				2	23	25	2	23	25
Agril. Extn.	Formation and Management of SHG	Formation and Function of SHG	15/01/2019	1	Litta New	PF				10	14	24	10	14	24
Agril. Extn.	Formation and Management of SHG	Formation and Function of SHG	16/01/2019	1	Litta Old	PF				3	7	10	3	7	10
Agril. Extn.	Mobilization of Social Capital	Mobilization of Social Capital for Livelihood Generation	16/01/2019	1	Litta New	PF				10	15	25	10	15	25

(D) Vocational training programmes for Rural Youth 1

Crop /	**Date**	**D**	**Area of**	**Training title***	**No. of Participants**	**Impact of training in terms of Self**	**Whether**

Enterprise	(From – To)	uration (days	training		General			SC/ST			Total			employment after training				Sponsored by external funding agencies (Please Specify with amount of fund in Rs.)
					M	F	T	M	F	T	M	F	T	Type of enterprise ventured into	Number of units	Number of persons employed	Avg. Annual income in Rs. generated through the enterprise	
Flower		3	Flower production	Production and post harvest management of cut flowers				10	15	25	10	15	25	Flower nursery	1(Small scale)	1	84,000	
Processing & Value addition	7th-11th November 2019	4 days	Akulut o Town	Empowering women through Skill Based					25	25		25	25					

				Tranings													

*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)	Duration (days)	Discipline	Area of training	Title	No. of Participants									Sponsoring Agency	Amount of fund received (Rs.)
							General			SC/ST			Total				
							M	F	T	M	F	T	M	F	T		
On	RY	21/2/19 to 27/3/19	35	Agronomy	Organic Grower	Organic Grower (asci)				2	18	20	2	18	20	ASCI	180000
On	R Y (STRY)	11-16th /3/19	6	Horticulture	Flower	Skill Training of Rural youth on High value floriculture				5	10	15	5	10	15	MANAGE ,Hyderabad	42,000
On	R Y (STRY)	11-03-2019 to 16-03-2019	6	Animal Science	Poultry	Poultry rearing and management				2	13	15	2	13	15	MANAGE ,Hyderabad	42,000
On	R Y (STRY)	18-03-2019 to 23-03-2019	6	Animal Science	Piggery	piggery rearing and management				2	14	16	2	14	16	MANAGE ,Hyderabad	42,000

On	PF (STRY)	14- 19 Oct 2019	6		Vermicomposting	Vermicomposting				1	15	16	1	15	16	MANAGE ,Hyderabad	42,000
On	RY	29-30/3/19	2	Agril Extn.	Entrepreneurship Development	Marketing Strategies on organically cultivated spices for Doubling Farmers Income				61	71	132	61	71	132	DASD	Rs.1.50 Lakhs
On	RY	29-30/3/19	2	Agril Extn.	Entrepreneurship Development	Organic cultivation of ginger and turmeric				17	58	75	17	58	75	-do-	-do-

3.4.Extension Activities (including activities of FLD programmes) (Please mention specific Extension Activity conducted by the KVK such as Field Day, Kisan Mela, Exhibition, Diagnostic Visit, etc) during 2019

Sl. No.	Extension Activity	Topic	Date and duration	No. of activities	Participants											
					General (1)			SC/ST (2)			Extension Officials (3)			Grand Total (1+2)		
					M	F	T	M	F	T	M	F	T	M	F	T
1.	Field dys			1				26	0	26				26	0	26

2.	Diagnostic visit			21				20	5	25				20	5	25
3.	Scientist visit to farmer`s field			38				107	96	203				107	96	203
4.	Method demonstration			15				31	153	184				31	153	184
	Farmers scientist interaction			4				37	45	82				37	45	82
5.	Field visit			35				37	6	43				37	6	43
6.	Advisory /helpline service			3				4		4				4		4
7.	Extension literatures developed															
8.	i. Technical bulletin															
9.	ii. Research Publication			1												
10.	iii. Popular article															
11.	iv. Folders															
12.	v. Leaflets															
13.	vi. Training Manual															
14.	Soil testing			57												
15.	PRA															
16.	News paper coverage			7												
17.	HRD			10												
18.	Film Show			2				4	27	31				4	27	31

19.	Lecture delivered as resource person			12												
20.	Distribution and supply			11				143	137	280				143	137	280
21.	Plant health camp			1				11	26	37				11	26	37
22.	Animal health camp			1				12	25	37				12	25	37
23.	Vaccination camp			1				21	18	39				21	18	39
24.	Animal Treatment			50				38	12	50				38	12	50
25.	Exhibition			1												
26.	KMAS			11						1203						1203
27.	Celebration of important days			6												
28.	Benchmark survey			3												
29.	Live TV programme			3												
30.	Swachtta pakhwada			1												
Grand Total				**295**				**491**	**550**	**2244**				**491**	**550**	**2244**

3.5 Production and supply of Technological products during 2019

A. SEED MATERIALS

Major group/class	**Crop**	**Variety**	**Quantity (qt)**	**Value (Rs.)**	**Number of recipient/ beneficiaries**		
					General	**SC/ST**	**Total**
Cereals	Maize	HQPM1	72	345750		53	53

Oilseeds	Soybean	JS9560	18.5	120000		35	35
Pulse	Field pea	Aman	13	91000		32	32
Vegetables	French beans	Arka sharath	0.08	3200		4	4
	Chilli	Arka harita	0.003	1500		5	5
	Okra	Anamika	0.08	3200		3	3

A1. SUMMARY of Production and supply of Seed Materials during 2019

Sl. No.	Major group/class	Quantity (q) produced	Quantity (q) supplied	Value (Rs.) of quantity produced	Number of recipient/ beneficiaries		
					General	SC/ST	Total
1	CEREALS	72	1	345750		53	53
2	OILSEEDS	18.5	5	120000		35	35
3	PULSES	13	5	91000		32	32
4	VEGETABLES	0.015	0.163	600		12	12
5	FLOWER CROPS						
6	OTHERS						
TOTAL		**103.515**	**11.163**	**557350**		**132**	**132**

B. Production and supply of Planting Materials(Nos. in No.) during 2019

Major group/class	Crop	Variety	Quantity (In No.) produced	Quantity (In No.) suppliedced	Value (Rs.) of quantity produced	Number of recipient/ beneficiaries		
						General	SC/ST	Total
Fruits	Pineapple	Giant kew	2000 suckers	2000			2	2
	Passionfruit	Yellow	100 seedlings	100			2	2
	Banana	Grand naine	200	200			1	1
Spices	Turmeric	Megha 1	254 kg	254 kg			2	2
Ornamental Plants								
VEGETABLES	cabbage	Rare ball	1000 seedling	1000 seedling			33	33
	Onion	Nasik red	1000 seedling	1000			12	12

				seedling				
	Pakchoi	Pusa pride	300 seedling	300 seedling			23	23
	King chilli	Local	200 seedling	200 seedling			23	23
	Chinese cabbage	Hybrid	200 seedling	200 seedling			23	23

C. Production of Bio-Products during 2019

Major group/class	Product Name	Species	produced Quantity		Value (Rs.)	Number of Recipient /beneficiaries		
			No	(qt)		General	SC/ST	Total
BIOAGENTS	Vermi	Eisenia fetida	5500				36	36
BIOFERTILIZERS								
BIO PESTICIDES								

D. Production of livestock during 2019

Sl. No.	Type/ category of livestock	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		
			(Nos)	Kgs		General	SC/ST	Total
1	Cattle/ Dairy							
2	Goat							
3	Piggery							
4	Poultry							
5	Fisheries							
	Total							

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

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.):KVK Newsletter Vol. III, Issue 8 (January to December 2019)

(B) Articles/ Literature developed/published

Item	Title /and Name of Journal	Authors name	Number of copies	
			Produced/ published	Supplied/ distributed
Research papers				
1.	Development of Scale to measure Attitude of Farmers towards Plant protection Measures: International Journal of Current Microbiology and Applied Sciences (IJCMAS) (NAAS Rating-5.38)	Dr. Kundan Kumar & Mr. Wapangtoshi Longkumer Volume: 8(7)2229-2233, Year 2019		
Training manuals				
Technical Report				
Book				
Book Chapter				
Popular articles				
Technical bulletins				
Extension bulletins				
Newsletter	KVK Newsletter Vol. III, Issue 8 (January to December 2019)			
Conference/ workshop proceedings				
Leaflets/folders				

e-publications	KVK- e Newsletter Vol. III, Issue 8 (January to December 2019)			

N.B. Please enclose a copy of each. In case of literature prepared in local language, please indicate thetitle 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)

Success story on use of Tapioca for Chips and Cake

Profile of the women farmer

1. Name: Mrs.Aholi
2. Age:33
3. Education: Class v
4. Occupation: Housewife

About innovation/ enterprise

Manihot esculenta, commonly called as cassava, is a woody shrub native to South America of the spurge family, Euphorbiaceae. Nagaland is one of the main producers of Cassava in India. It is also popularly known as Tapioca. The cassava plant gives the highest yield of food energy per cultivated area per day among crop plants and the roots are very rich in starch, and contain significant amounts of calcium (500mg/ 100gm), phosphorus (40mg/100gm), vitamin C (25mg/100gm).

In Zunheboto District, cassava is abundantly available. But it has been observed that this abundantly available cassava is not properly utilized. . It has been found that the people generally utilized the cassava as fodder for domestic animals and less as food.

This is partly due to the fact that cassava cannot be stored for long periods of time and people usually consume it as a secondary food. Thus most of the people do not generally preserve it for future consumption.

KVK interventions

Considering the importance of Tapioca in human diet and non utilisation of Tapioca for human feed, KVK conducted training and demonstration programme on preparation of Tapioca Cake and chips. The programme was based on "Learning by doing" where farmers were trained to utilise the underutilised Tapioca roots for income generating sources. Farmers were provided with necessary inputs for preparation of Tapioca Chips and Cake.

Economic analysis

Sl .no	Item	Expenditure	Gross Income	Net Profit/batch
1.	Tapioca chips	Rs.500.00	Rs.3000.00	Rs.2500.00
2.	Tapioca cake	Rs.750.00	Rs. 3040.00	Rs. 2290.00
Total profit				Rs.4590.00

Marketing

Marketing has never been a problem for Mrs. Aholi. The Tapioca Chips and Cakes were really a good substitute against the available items in the market. Moreover, the selling price of these locally made chips and cakes were lesser which created a demand for her products.

Benefit, outcome and impact

Mrs. Aholi was able to generate an income of Rs. 4590.00 x 3 batches in a single season i,e Rs.13,770.00 by selling of Tapioca Chips and Cakes which provided and additional increase in her daily income. The direct impact of this technology was that the farmers came to about the various uses of Tapioca and how to utilize it for income generation.

Horizontal spread within the social system

After successful intervention by KVK and adoption by this lady, the technology has been widely accepted by the farm women/women SHGs and she has made it possible by participating as local resource persons in other villages. Now 5 villages have started adopting this technology which has helped them to improve their socio-economic conditions.

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 : 7

ii. No. of farm families selected : 200

iii. No. of survey/PRA conducted : 4 villages

3.12. Activities of Soil and Water Testing

Status of establishment of Lab :

1. Year of establishment :NA

2. List of equipments purchased with amount :

Sl. No	Name of the Equipment			Qty.	Cost
	S&WT lab	Mini lab/ Mridaparikshak	Manufacturer		
		PUSA STFR	WS telematics	1	19500 (kit cost)
Total				1	19500 (kit cost)

3. Details of samples analyzed (20119) :

Details	No. of Samples analyzed	No. of Farmers	No. of Villages	Amount(In Rupees) realized
Soil Samples	55	550	7	
Water Samples				
Plant Samples				
Petiole Samples				
Total	55	550	7	

1. Details of Soil Health Cards (SHCs) (2019)

a. **No. of SHCs prepared: 550**
b. **No. of farmers to whom SHCs were distributed: 550**
c. **Name of the Major and Minor nutrients analyzed:** NPK and Zinc and Boron
d. **No. of villages covered:** 7

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	5	815	4		653				2	327			11	1795
Voice only														

Voice and Text both														
Total	5	815	4		653				2	327			11	1795

3.14 Contingency planning for 2019

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				
Drought	Distribution of seeds and planting materials	100		200	200
Insects infestation outbreak	Distribution of pesticides & IPM kits	100		200	200

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**
Poultry	500	1	1	50		25	25
Piggery	30	1	1	15		25	25

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):

Litta new village is located under Akuluto block of Zunheboto District pf Nagaland. There are 68 household and everyone is dependent on agri and allied activities.

Before Litta new was adopted under doubling of farmer's income (DFI) jhum paddy used to be the major crop and occupies more than 80% of the total jhum land. However, after KVK has brought this village under DFI, farmer's were trained on the package of practices on soybean whereby, OFT and FLD's were also conducted in this village. A comparative study on the income generated by jhum paddy and soybean per hectare was also done with the participation from farmers representatives. Results of the comparative study has shown that, jhum paddy has generated a net return of Rs.40/h where as soybean has given a net return of Rs. 72,000/h, which reveals that jhum paddy and soybean which takes about 4 months from the date of sowing till harvest is giving a net return of Rs.10/h for paddy grower and Rs.18,000/h for soybean growers per month for four months in a year. Today farmers have changed their main crop ie., from jhum paddy to soybean and this new pattern of farming is fast spreading to Litta old, Sasthami, Ajiqami and Phishumi villages.

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 established during 2018-19

Name of organization	Nature of linkage
1.Nagaland University	Scientific & Administrative
2.ICAR , NRC on Mithun	Scientific, participation in meeting,. Administrative and

	financial
3.SARS	Scientific
4. ATMA, DAO, DVO, DHO, DRDA, DFO, DSCO, DPO	Scientific, participation in meeting, financial and joint implementation
5. NABARD	Scientific and joint implementation
6. Directorate of Arecanut and Spices Development, Ministry of Agriculture, Department of Agriculture	Training, Demonstration and production of planting material
7. ASCI	Skill Training
8. MANAGE hyderabad	Skill Training

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

Name of the scheme/ special programme	Activity	Date/ Month of initiation	Funding agency	Amount (Rs.)
Skill development	Skill development training programme for organic grower	21/2/19 to 27/3/19	ASCI	180000.00
Knowledge system and homestead agriculture management in tribal areas	Mushroom cultivation and production	29/10/18	KSHAMTA(ICAR)	10,000.00
STRY	High value floriculture	11-16 /3/19	MANAGE, Hyderabad	42,000.00
STRY	Piggery rearing and management	11-03-19 to 16/03/19	MANAGE, Hyderabad	42,000.00

STRY	Poultry rearing and management	18-03-19 to 23/03/19	MANAGE, Hyderabad	42,000.00

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district : Yes

Sl. No.	Programme	Nature of linkage	Remarks
1	Farmers scientist interaction	Scientific	
2	Field visit	Scientific	
3	Farmers school	Scientific	
4	Exhibition and demonstration	Scientific	

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 2019

6.1 Performance of demonstration units (other than instructional farm) : NA

Sl. No.	Demo Unit (Name and No.)	Year of estd.	Area	Details of production			Amount (Rs.)		Remarks
				Variety/ species/ breed	Type of Produce	Qty.	Cost of inputs	Gross income	

1									

6.2 Performance of instructional farm (Crops) including seed production during 2019

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	
Cereals									
Rice									
Wheat									
Maize									
Any other									
Pulses									
Green gram									
Black gram									
Arhar									
Beans									
Cow pea									
Oilseeds									
Mustard									

Soy bean									
Groundnut									
Any other									
Fibers									
i.									
Spices & Plantation crops									
i. Turmeric	24/4/19	24/1/20	0.01ha	Megha turmeric	Powder	20kg	5000.00	7000.00	
					Mother rhizome	66.6kg			
Floriculture									
i.									
Fruits									
i. Pineapple	13/8/15	8/8/19	0.02ha	Giant kew	Ripe fruit	100nos	3000.00	2000.00	
ii. Lime	18/5/17	14/8/19	0.001ha	Kagzi lime	Ripe fruit	150 nos	1000.00	750.00	
Iii, Passion fruit	6/5/19	28/10/19	0.01ha	Yellow	Ripe fruit	148 nos	1000.00	600.00	
Vegetables									
i. Chinese cabbage	17/10/19	3/2/20	0.001ha	F1 Hybrid	Leaves	195 nos	1000.00	9750.00	
ii. Broccoli	17/10/19	4/2/20	0.001ha	F1 Hybrid	Flowers	33kg	1000.00	1980.00	

iii. Colocasia	25/4/19	17/1/20	0.01ha	Local	Corms	1604	3000.00	4000.00	
iv. Tomato	8/5/19	5/7/19	0.001ha	Rocky	Ripe fruits	20kg	800.00	600.00	
v. Mustard leaves	17/10/19	13/12/19	0.001ha	Lali	Leaves	254	800.00	500.00	
a. Others (specify)									
i. King chilli									
ii. Turmeric powder									

6.3 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.) during 2019

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Vermicompost	215kg	2000.00	4300.00	
2	Earthworm	5500nos	1000.00	5500.00	

6.4 Performance of instructional farm (livestock and fisheries production) during 2018-19

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	

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Unit/ structure during 2019

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

6.6. Utilization of hostel facilities (Month-Wise) during 2019

Accommodation available (No. of beds): NA

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					

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 KVK	SBI	Lumami	32196734473

Revolving fund	SBI	Lumami	31674931931
Revolving fund	SBI	Lumami	36448639134 (POS)

7.2 Utilization of funds under CFLD on Oilseeds and Pulses (Rs. In Lakhs) if applicable during 2019

Item	Released by ICAR/ATARI (in lakh)		Expenditure (in lakh)		Unspent balance as on 31st March, 2019
	Amount (Oilseeds)	Amount (Pulses)	Amount (Oilseeds)	Amount (Pulses)	
Inputs	0.47	0.67	0.75	0.67	(-)0.28
Extension activities					
TA/DA/POL etc.					
TOTAL					

7.3 Utilization of KVK funds during the year 2019 (as on March 2019)

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
A. Recurring Contingencies				
1	**Pay & Allowances**	173.00	173.00	173.00
2	**Traveling allowances**	3.50	3.50	2.60
3	**Contingencies**	19.25	19.25	19.26

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			
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			
TOTAL (A)		**195.75**	**195.75**	**194.86**
B. Non-Recurring Contingencies				
1	**Works**			
2	**Equipments including SWTL & Furniture**	0.30	0.30	0.30
3	**Vehicle** (Four wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)			

TOTAL (B)	**0.30**	**0.30**	**0.30**
C. REVOLVING FUND			
GRAND TOTAL (A+B+C)	**196.05**	**196.05**	**195.16**

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance with KVK (in lakh)
April 2016 to March 2017	0.77	0.35	0	1.15
April 2017 to March 2018	1.15	4.40	3.75	1.81
April 2018 to March 2019	1.93	1.90	1.40	2.43

Note: No KVK must leave this table blank

8.0 Please include information which has not been reflected above.: in detail

8.1 Constraints and Suggestion (Provide point-wise if any, for recommendation)

(a) Administrative

(b) Financial

(c) Technical

(Signature)
Sr. Scientist cum Head