

PROFORMA FOR ANNUAL REPORT OF KVKs, 2017-18

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
	Office	FAX	
Krishi Vigyan Kendra, AAU, Kokrajhar, Telipara, Gossaigaon, Dist.- Kokrajhar, Pin.: 783360, Assam	03669- 292704	-	kvk_kokrajhar@aau.ac.in

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

Address	Telephone		E mail
	Office	FAX	
Assam Agricultural University, Jorhat- 785013, Assam	0376- 2340029	-	kvk.aau@gmail.com dee@aau.ac.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Manoj Kumar Bhuyan	-	9435084843	pcmkbhuyan@gmail.com

1.4. Year of sanction: 1985

1.5. Staff Position (**As on 31st March, 2018**)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr. Manoj K Bhuyan	Programme Coordinator	Soil Science	37400/- 67000/- G.P. 9000/-	60600/-	11-08-2011	Permanent	Gen
2	Subject Matter Specialist	Mrs Sanchita Brahma	Subject Matter Specialist	Horticulture	15600/- 39,100/- G.P. 6000/-	30190/-	07-11-08	Permanent	ST
3	Subject Matter Specialist	Mr. Mahadev Uzir Basumatary	Subject Matter Specialist	Agronomy	15600/- 39,100/- G.P. 6000/-	30190/-	29-07-09	Permanent	ST
4	Subject Matter	Mr. Goutom	Subject Matter	Plant Protection	15600/- 39,100/- G.P. 6000/-	22950/-	03.02.2014	Permanent	Gen

	Specialist	Bhagawati	Specialist	on	39,100/- G.P. 5400/-				
5	Subject Matter Specialist	Mr. Ankur Rajbongshi	Subject Matter Specialist	Fishery Science	15600/- - 39,100/- G.P. 5400/-	22280/-	19.10.2015	Permanent	OBC
6	Subject Matter Specialist	Mr. Bhupen Kumar Baishya	Subject Matter Specialist	Soil Science	15600/- - 39,100/- G.P. 5400/-	22280/-	19.10.2015	Permanent	Gen
7	Subject Matter Specialist	Mrs. Porna Sarmah	Subject Matter Specialist	Community Science (Home Science)	15600/- - 39,100/- G.P. 5400/-	22280/-	31/10/2015	Permanent	Gen
8	Programme Assistant	-	-	-	-	-	-	-	-
9	Computer Programmer	Mr. Mridul Kumar Haloi	Programme Assistant	Computer Application	8000/- - 35000/- G.P. 4900/-	15430/-	13-09-11	Permanent	SC
10	Farm Manager	Mr. Poran Kishore Dutta	Farm Manager	Soil Science	8000/- - 35000/- G.P. 4900/-	13290/-	09-08-2016	Permanent	Gen
11	Accountant / Superintendent	Mr. Akhil Roy Choudhury	Accountant / Superintendent	Accountancy	8000/- - 35000/- G.P. 4900/-	14110/-	10-11-14	Permanent	Gen
12	Stenographer	-	-	-	-	-	-	-	-
13	Driver	Mr. Sabed Ali Sheikh	Driver cum Mechanic	-	5200/- - 20200/- G.P. 2200/-	9680/-	22-02-12	Permanent	Gen
14	Driver	Mr. Sikandar Basumatary	Driver cum Mechanic	-	5200/- - 20200/- G.P. 2200/-	7940/-	28-11-2016	Permanent	ST

15	Supporting staff	Mr. Robindra Nath Narzary	Watchman	-	5200/- - 20200 /- G.P 2200/-	1489 0/-	01-11-85	Permanent	ST
16	Supporting staff	-	-	-	-	-	-	-	-
	Total	13							

- 1.6. a. Total land with KVK (in ha) : 11
b. Total cultivable land with KVK (in ha) : 7.5
c. Total cultivated land (in ha) : 6.0

S. No.	Item	Area (ha)
1	Under Buildings (Administrative building+ Farmers' Hostel+ Staff Quarters)	1.5
2.	Under Demonstration Units	0.50
3.	Under Crops (Cereals, pulses, oilseeds etc.)	7.5
4.	Under vegetables	-
5.	Orchard/Agro-forestry	1.5
6.	Others (specify)	-

- 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. A	Administrative Building (Old)	ICAR	1987-88	157.45	2.00 lakh	-	-	-
B	Administrative Building (New)	ICAR	2015	332	86.73 lakh	-	-	Completed
2.	Farmers Hostel	ICAR	1987-88	910.10	14.00 lakh	-	-	Damaged, need major repairing
3.	Staff Quarters (1)	ICAR	2003	132.76	5.98 lakh	-	-	Working
4.	Demonstration Units							
A	Poultry unit	RKVY	2010	45.00	2.19 lakh			Working
B	Piggery unit	RKVY	2010	145.00	6.06 lakh			Working
C	Goatery Unit	RKVY	2010	18.0	1.32 lakh			Working
D	Display & demonstration unit	RKVY	-	6 m in hexagonal shape	4.48 lakh			Working
E	Rice-fish vegetable farming unit	RKVY	2010	224 running meter	2.0 lakh			Working
F	Polyhouse	ATMA	2011		1.0 lakh			Working
G	Vermicompost unit	RKVY	2010	50.0	1.12 lakh			Working

H	IFS (Poultry-Fish- Horticulture farming)	RKVY	2012	2600msq	5.95 lakh			Working
I	Azolla	RKVY	2012		2.72 lakh			Working
J	Compost & Vermicompost	RKVY	2012		2.20 lakh			Working
5	Fencing	ICAR	1995	0.80km	4.92 lakh	-	-	Need repairing
		ICAR	2015	300 rm	13.24 lakh			Working

B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep	AS-03E-0023	2006	490503.00/-	159294	Running
Tractor	AS-16C-0706	2003	Transferred from RARS, Diphu	1242	Not running
	AS-16D-0010	2013	570925.00	4339	Running

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Amplifier	1988	3202.00	Repairable
Black Board	1987	150.00	Damaged
Calculator Machine	1986	252.00	Damaged
Camera	1987	5544.00	Repairable
Desktop Computer	2005	46206.00	Damaged
Digital Camera	2006	15080.00	Damaged
Digital Camera (Sony)	2010	19000.00	Damaged
Duplicating Machine (Manual)	1986	6708.26	Damaged
Duplicating Machine (Automatic)	1995	39050.00	Repairable
Fax Machine (Brother)	2010	15,190.00	Working
Film Rewinder	1988	179.20	Repairable
Flash Gun	1988	570.00	Damaged
Generator	1987	17360.00	Damaged
Horn	1988	358.00	Working
Line Connecting Transformer	1988	616.00	Damaged
Microphone	1988	1891.00	Repairable
Microphone Stand	1988	276.00	Working
Photophone OHP	1988	4256.00	Damaged
Photophone Superlite Sound Projector	1988	12152.00	Repairable
Projection Screen	1988	856.80	Working
Projector Roll (Cinema)	1988	196.00	Damaged
Projector Screen	1988	442.90	Working
Slide Projector	1988	4256.00	Damaged
Television Set	1988	10145.00	Damaged
Xerox Machine (KM – 1635 MFP Printer)	2007	50440.00	Working
Xerox Machine (Kilburn)	2010	101920.00	Working
Digital Inverter (Electra – EEDI	2007	13540.00	Battery damaged

800)			
LCD Projector	2010	98331.00	Damaged
UPS (Uniline-800VA FBLI UPS)	2010	5964.00	Damaged
Mechanized Grass Cutter	2009	28000.00	Working
Multipurpose power weeder	2009	42078.00	Working
Power paddy weeder	2009	36254.00	Working
Rice transplanter	2009	188198.00	Working
Earth Augar	2009	56749.00	Working
Water pumps (3 nos.)	2009 & 2010	30,000.00	Working
Seed cleaner	2009	311012.00	Working
Rotavator (2 nos.)	2009	95805.00	Working
Puddler	2009	25896.00	Working
Chaff cutter	2009	15496.00	Working
Voltage stabilizer	2007	3999.00	Working
Poly Sealing Machine	2012	2838.00	Damaged
Desktop Computer	2010	27547.00	Working
Balance	2011	9591.00	Working
BOD Incubator	2011	-	Working
Horizontal Leminar Flow	2011	-	Working
Ph meter	2011	2270.00	Working
Autoclave	2011	93638.00	Working
Hot Air Oven	2011	36888.00	Working
Incubator	2012	-	Working
Laminar Flow	2012	-	Working
Refrigerator	2012	15990.00	Working
Bharat paddy thresher (2)	2013	390001.50	Working
Front mounted vertical conveyance reaper	2013	260001.00	Working
Projector	2013	-	Working
Motorized screen with remote	2013	-	Working
Dehumidifier	2013	-	Working
Digital pH = temperature metre	2013	-	Working
Portable FRP carp Hatchery	2014	-	Working
Hatchery pool	2014	-	Working
Egg/ Spawn collection tank	2014	-	Working
Composite feed mill	2014	-	Working
Egg incubator	2014	-	Not working
Maize shaller	2014	-	Working
Maize dehusker cum sheller	2016	-	Working

1.8. A). Details SAC meeting* conducted in the year 2017-18

Sl. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken on last SAC recommendation
1.	05.02.18	1.Dr. H. C. Bhattacharyya, DEE, AAU, Jorhat 2. Dr. Apurba Kr. Bhattacharyya, Director of Research (Vety), Khanapara 3. Dr. Ranjit. Sarma, SCS College of Agriculture , AAU, Dhubri 4. Dr. C. Ramesha, IFS, DFO,	1. Testing of strawberry variety having high yield, marketability, processing & shelf-life. 2. The OFT on Avocado & Dragon fruit should be included. 3. Linking up of beneficiary with banks for financial	1. FLD on Toria (TS-67) 2. CFLD on Oilseed & pulse on Rice fallow soil 3. Training on Oilseed & Pulse conducted 4. Soil Health

	<p>Parbatjora</p> <p>5. Sri Pranjit Kr. Wary, PD, DRDA, Kokrajhar</p> <p>6. Sri Bimal Kr. Barua, Assistant Executive Engineer (Irrigation)</p> <p>7. Sri Ajay Kr. Kishore, Assistant Engineer, Kokrajhar</p> <p>8. Dr. S. K. Paul, Chief Scientist, RARS, Gossaigaon</p> <p>9. Sri M. M. Swaragairi, District Agriculture Officer, Kokrajhar</p> <p>10. Dr. Dilip Kr. Bhuyan, Director, A & H Veterinary, Kokrajhar</p> <p>11. Dr. Manoj Kr. Bhuyan, Senior Scientist & Head, KVK, Kokrajhar</p> <p>12. Sri Uday Kr. Basumatary, District Fishery Development Officer, LDM, Kokrajhar</p> <p>13. Sri. G. Basumatary, DDM, NABARD, Kokrajhar,</p> <p>14. Sri Ratan Mani Soram, , DPM, NRLM, Kokrajhar</p> <p>15. Sri Bichitra Narzary, Farmers representative</p> <p>16. Mr. Hemkanta Narzary, Farmers representative</p> <p>17. Mr. Dibakar, Roy, Farmers representative</p> <p>18. Mr. Bipul Brahma, Farmers representative</p> <p>19. Mrs. Minoty Roy, Farmers representative</p> <p>20. Mrs. Hamida Khatun, Farmers representative</p> <p>21. Mrs. Suchitra Ray, Farmers representative</p>	<p>help at the end of training programme.</p> <p>4. For improved processing & packaging the farmers should be linked up with the packaging deptt. Of CIT, Kokrajhar.</p> <p>5. Collaboration with DIC & CIT, Kokrajhar for improved skill development training on mushroom.</p> <p>6. Concentration on doubling the income of farmers through utilization of rice fallows and take up the matter with PD, DRDA, Kokrajhar.</p> <p>7. Livelihood Training programme for farmers at VCDC level.</p> <p>8. Awareness & mass vaccination of poultry against Ranikhet disease along with deptt. Of A & H and Veterinary.</p> <p>9. Training programme on vermicompost, citronella, vetiver, stevia.</p> <p>10. Skill development training on mushroom cultivation, packaging and design</p> <p>11. Skill development training on apparel design</p> <p>12. Preparation of webpage for uploading database of farmer beneficiaries of the training programme.</p> <p>13. Triple cropping in agriculture & horticulture in existing command area.</p>	<p>Card distributed in World Soil Day</p> <p>5. In training programme farmers are awarded on Prime Minister Fasal Bima Yojna.</p> <p>6. FLD on TTB 404 conducted. Seed of the variety produced in the farm and 255 kg sold</p> <p>7. Most of the training conducted during 2017-18 are 3-6 days duration.</p> <p>8. OFT on management of Granoderma disease of Arecanut & Panama disease of Banana (Malbhog) conducted.</p> <p>9. Suitable area for organic cultivation is identified with the Dept. of Agriculture.</p>
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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 + Dairy Cow + Goatery + Poultry + Duckery
2	Agri + Horti + Dairy Cow + Goatery + Piggery + Poultry + Duckery + Pigeon + Fishery
3	Agri + Horti + Dairy Cow + Piggery + Poultry
4	Agri + Horti + Dairy Cow + Buffalo + Piggery + Poultry + Duckery + Pigeon
5	Agri + Horti + Dairy Cow + Goatery + Poultry + Duckery + Fishery

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

Sl. No	Agro-climatic Zone	Characteristics
1.	Lower Brahmaputra Valley Zone (LBVZ) of Assam	The climate is humid sub-tropical in nature characterised by warm – humid summer cool – dry winter. The monsoon months (June-September) are wet receiving 65-70% of the total rainfall while the winter months (December-February) remain virtually dry. The mean maximum and minimum temperature varies from 33-38°C and 8-10°C respectively.
	Agro ecological situation	
a.	Foot hills old mountain valley	Foot hills of Bhutan in northern part of the district. The soil is loamy to clay, rich in organic matter
b.	Flood free riverine old alluvial plain	Plain areas, sandy to sandy loam soil free from flood
c.	Flood prone riverine alluvial plain	Flood prone areas affected by river Champabati, Gaurang, Saralbhang and Sankosh
d.	Hills and hillocks	Hills and Hillocks areas, red clay soil
e.	Beels	Marshy/Swampy land, water logging, low lying areas and covered with water hyacinth

2.3 Soil type(s)

Sl. No	Soil type	Characteristics	Area in ha
1	Alfisols (mountain valley)	Soil is loamy to clay and built up alluvial materials washed down from the hills slope. Medium to heavy textured soil	93658
2	Inceptisols (old alluvium)	Soils are old riverine alluvial type. Sandy loam to loamy soil and free from flood	162962
3	Entisols (recent alluvium)	Soils are recent riverine alluvial plain. Sandy or loamy sand and light textured soil	20758
4	Ultisols (laterised red)	Old alluvial soils are found. The surface soils are generally red to reddish brown and acidic in nature	37824

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

Sl. No	Crop	Area (ha)	Production (M ton)	Productivity (Qtl /ha)
1	Autumn Rice	52514	164.081.15	31.25
2	Winter Rice	250561	973587.16	38.86
3	Summer Rice	19745	82178.78	41.62
4	Wheat	3504	6286.22	17.94
5	Other Cereals & small Millets	715	1627.365	22.76
6	Gram	1613	4954.978	30.38
7	Maize	3808	9050.99	23.77
8	Total Rabi pulse	23071	18410.658	7.98
9	Mesta	1595	2479.429	15.55
10	Cotton	19	92.08	48.46
11	Jute	10170	21051.90	20.70
12	Black Pepper	726	3136.664	43.20
13	Chillies	3552	17638.74	49.66
14	Turmeric	2527	36696.354	145.22
15	Onion	1067	11506.402	107.84
16	Ginger	2496	9774.275	39.16
17	Rapeseed & mustard	53820	53820	10.00

18	Coriander	2933	9954.275	33.94
19	Linseed	1195	2922.939	24.46
20	Sesamum	2087	1352.092	6.48
21	Banana	11719	189847.8	162.00
22	Garlic	1714	9349.398	54.55
23	Tea	1672	35814.24	214.20
24	Arecanut	14069	176636.295	125.55
25	Coconut	3117	19481.25	62.50
26	Sugarcane	1709	76905	450.00
27	Castor	73	250.78	34.35
28	Tobacco	72	32.832	4.56
29	Potato	23228	224423.2	96.62
30	Kharif Vegetable	15392	119080.41	77.37
31	Rabi Vegetables	19426	286454.91	147.46
32	Tur	1819	1794.806	9.87

Source: Statistical Handbook of BTC (2015-2016)

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)	
		Maximum	Minimum	Morning	Evening
April, 2017	284.60	29.40	19.80	89.20	67.20
May, 2017	283.10	31.60	22.20	90.90	69.80
June, 2017	467.50	32.60	24.30	93.40	77.40
July, 2017	638.20	32.90	25.00	94.20	77.70
August, 2017	1497.70	32.60	25.30	95.30	78.90
Sept, 2017	672.70	32.50	24.70	95.70	77.20
Oct, 2017	323.60	30.80	21.80	92.00	72.60
Nov, 2017	0.40	29.20	14.90	87.30	56.50
Dec, 2017	0.00	27.10	11.10	91.90	54.80
Jan, 2018	0.00	23.50	8.60	96.20	60.50
Feb, 2018	11.00	26.20	11.70	91.60	55.10
March, 2018	45.60	29.96	16.18	87.97	49.23

Source: Agro meteorological Observatory, RARS, Gossaigaon

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

Category	Population	Production	Productivity
Cattle			
Crossbred	536	15,22,156 ltrs (Milk)	6 ltrs/day/ Animal
Indigenous	353253		750 ml/day/Animal
Buffalo	14983		1.5 ltrs/day/Animal
Sheep			
Crossbred	-	-	-
Indigenous	13686	14,84,350 kgs (Meat)	8 kg/ Animal
Goats	159979		5 kg /animal
Pigs	98970		
Crossbred	32927		60 kg /Animal
Indigenous	66043		30 kg / Animal
Poultry			
Hens	189999	4,51,800 Nos.	160 Nos./ year/Bird
Desi			
Improved			
Ducks	132610		120 Nos. /year/ Bird
Turkey and others	-	-	-

Category	Area (Ha)	Productivity (Kg/ha)	Production (Ton)
River Fisheries	4289.70		75.22
Beel Fisheries			
Registered Beel	1499.00	1500	508.93
Unregistered Beel	567.50	300	
Forest fisheries	35	300	234.80
Community pond and tank	105		-
Ponds and tanks	1700.64	2500	528.44
Swamp and waste land (Low lying area)	371.00	300	108.62
Reservoir Fisheries	-	190	53.92
Paddy field /cannel	-	238	249.36

Source: Joint Director cum CHD, Fisheries Department, BTC, Kokrajhar, BTC (2015-16)

2.6 Details of Operational area / Villages (2017-18)

Sl. No.	Taluk/ Eleka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
1	Gossaigaon	Gossaigaon	Matiajuri, Rangapara, Padmabil, Joyma, Kusumbil, Bhumka, Chakma, Bashbari, Babubil, Thuribari, Bhawraguri, Natunpara, Guwabari, Sagunhara, Choto Binnyakhata, Gambaribil, Kamalsing Dhauliguri Singimari Kandanpara Mallikpur	Boro Rice and early Ahu, Lentil, Pea, Linseed, Rapeseed, Vegetables, Potato, Flowers	i. Low productivity of Oilseeds and Pulses due to non-adoption of recommended varieties ii. Production problem in Potato	i. Popularisation of HYV of Summer and Boro rice ii. Introduction of high yielding Pulse and Oilseed varieties iii. Commercial potato and fruit production

		Hatidhura	Jacobpur, Fwilaguri, Majadabri, Kamandanga , Haripur, Tamahat, Simaltapu, Grahampur, Srirampur, Palashkandi	Rice, Maize, Rapeseed, Niger, Wheat, Vegetables, Goatery	i. Poor yield in Oilseeds and Pulses ii. Pest and Disease problem iii. Low productivity due to rearing of local breed of goat iv. Sandy and light textured soil	i. Popularisation of improved varieties of Oilseed and Pulse ii. Integrated Pest and Disease management iii. Improvement of productivity of Goatery iv. Soil health and fertility management
		Kachugaon	Ballamguri, Malaguri, Bhadiaguri, Ballimari, Jaymaguri, Dawaguri, Goladangi, Bajugaon, Jaraguri, Maktaigaon, Bhomrabil, Saraibil, Mothambil, Nasrabil, Borobadha, Burichattam, Haoriapet, Hashraobari, Hatigarh, Garufella, Sapkata, Gakulkata, Polashguri, Kachugaon Batabari Chengmari Jambuguri Jiaguri Samdasguri Katribari Khagrabari Gaon chulka Raimona Raikhanbari Modati	Rice, Maize, Vegetables, Rapeseed, Lentil, Pea, Buckwheat, Niger Beekeeping	i. Pre and Post Production problem in Vegetables ii. Poor fertility status of soil iii. Lack of scientific knowledge and skills about rearing of honey bee	i. Low volume – high value Vegetables ii. Soil health and fertility management iii. Commercial fruit production and processing iv. Popularisation of Beekeeping

2	Kokrajhar	Titaguri	Debargaon, Narabari, Gendrabil, Kunthaibari, Titaguri, Kumguri, Sukanjhara, Chandrapara, Simborgaon, Uttar Patgaon, Amlaguri, Jharbari, Ghoramari, Bhumki, Dakhin Karigaon, Dawkibari, Kakrighola, Nayekgaon, Bandarmari, Harighola, Harigaon, Bamungaon, Diplaibil, Salakati, Bandarchara, Chautaki, Bangaldoba, Diajhajuri, Kalugaon, Janagaon Maoriagaon Bhaoraguja	Piggery, Poultry, Aqua-farming, Sericulture, Agro- forestry, Winter vegetables,	i. Low production of meat and egg ii. Fish seed formulation, feeding technology and pond management iii. Poor quality and low yield of worm due to traditional rearing method iv. Dearth of scientific knowledge regarding agro- forestry plantation	i. Rearing of Pig and Poultry ii. Integrated Fish farming iii. Rearing of Eri, Muga and Silk worm iv. Agro- forestry plantation technology v. Spice production and value addition
		Dotma	Angthihara, Simlaguri, Batabari, Dotma, Barshijhora, Umanagar, Baldiapathan, Fakiragram, Saktiashram, Chithilaghob, Athiabari, Ghoshkata, Sikargaon, Laudanga, Dangarkuti, Bhalukmari, Puthimari, Lakhnabari, Ramfalbil, Serfanguri, Medhipara, Pratapkahata	Dairy, Piggery, Mushroom, Fruit preservation, Tailor ing and Stitching	i. Low productivity and management problem in Dairy and Piggery ii. Lack of scientific knowledge about mushroom production iii. Storage problem of fruit iv. Lack of technical knowledge and skills regarding tailoring, stitching and knitting	i. Improvement of productivity of Dairy ii. Rearing of Pig iii. Production techniques of Mushroom iv. Processing of fruit v. Tailoring, Knitting and Embroidery techniques for women

3	Parbatjhora	Rupsi	Kajigaon, Manglajhora, Tipkai, Molandubi, Kurshakati Belbari Hatibandha Bamunipara	Ahu, Boro rice, Rapeseed, Potato, Summer vegetables	i. Low yield of Rice due to growing of local varieties ii. Production and management problem of vegetables and spices iii. Pest and Disease problem	i. Popularisation of HYV of Summer, Sali and Boro rice ii. Low volume – high value Vegetables iii. Spice production and value addition iv. Integrated Pest and Disease management
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3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2017-18

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	1	6	3	3	2	15	10
Soil Science	2	2	6	6	2	2	10	10
Horticulture	1	1	6	6	2	1	10	5
Fisheries Science	2	2	6	6	3	3	15	15
Home science	2	2	7	7	3	3	28	28
Plant Protection	3	3	15	15	2	2	11	11
Total	12	11	46	43	15	13	89	79

Note: Target set during last Annual Zonal Workshop

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Target s	Achieveme nt	Targets	Achieveme nt	Targets	Achieveme nt	Target s	Achieveme nt
Farmers	20	21	345	345	474	474	5431	5431
Rural youth	18	18	440	440				
Extn. Functionari es	6	6	140	140				
Total	44	45	925	925	474	474	5431	5431
Seed Production (ton.)					Planting material (Nos. in lakh)			
5					6			
Target		Achievement			Target		Achievement	
12.0		76.467			13030		20600	

3. B. Abstract of interventions undertaken during 2017-18

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	Soil management	Rice-Linseed	Low availability of phosphorus due to fixation by acidic soil condition	OFT on Phosphorus management in Rice-Linseed sequence	FLD on biofertilizer seed treatment in toria var. Ts-36	1. Use of sulphur & borax for productivity enhancement of oilseed crop 2. Management of Soil acidity for oilseed & pulse crops		Field visit, group meeting etc.	Seed, Biofertilizer
2		Rice	Poor availability of nutrient which lead to reduction of yield	OFT on Effect of foliar application of urea in Lentil				Field visit, group meeting etc.	Seed, Fertilizer
3	Soil Health	Vermicompost			FLD on fabrication of low cost vermicomposting structure	Vocational training on Vermicompost and enrich compost production technology		Field visit, group meeting etc.	Bamboo, Polythene, Seed
4	Tillage Management	Rice-Pea (relay)	Sowing of rabi crop is delayed due to long duration	Rice based relay cropping of pea		-	-	Field visit, group meeting etc.	Seed, Fertilizer etc.
5	Varietal evaluation	Rice	Long duration variety of existing variety	-	Medium duration variety of Sali rice (var.TTB-404)	-		Field visit, Field day, group meeting etc.	Seed, Fertilizer etc.
6	Varietal evaluation	Toria	Lack of suitable late sowing varieties of toria		FLD on Toria (var. 67)			Field visit, Field Day, group meeting etc.	Seed, Fertilizer etc.

7	IDM	Strawberry	Diseases	Biological management methods of grey mould, leaf spot and phythophthora crown rot disease in strawberry.	-	-	-	Diagnostic visit, group discussion	Planting materials, Biopesticides
8	IDM	Banana	Panama disease	Management of panama disease in banana.	-	-	-	Diagnostic visit, group discussion	Planting materials, Biopesticides, Inorganic pesticides
9		Arecanut	Basal Stem rot disease	Management of basal stem rot (Ganoderma) disease in arecanut	-	-	-	Diagnostic visit, group discussion	Biopesticides, Inorganic pesticides, Neem cake
10	IPM	Brinjal	Shoot and fruit borer	-	IPM in Brinjal	IPM & IDM in Rabi vegetables	-	Diagnostic visit, group discussion	Seed, Biopesticides, pheromone trap, wood ash
11	IPM	Paddy	YSB, Gundhi bug etc	-	FLD On Light Traps For Managing Insects In Boro Paddy	IPM & IDM in kharif crops	-	Diagnostic visit, group discussion	Light trap
12		Tomato	Low yield of local varieties	Varietal performance of tomato variety Arka Rakshak	-	-	-	Field visit, Monitoring	Seed
13	Varietal performance	Broccoli		-	Varietal Performance Of Hybrid Broccoli Variety Everest	-	-	Field visit, Monitoring	Seed

14	Pond Management	Fish	Poor Water retention capacity of soil	Performance evaluation of in situ grown Dhainchan (<i>Sesbania rostrata</i>) in highly erodible light textured soil of homestead pond	-	Management of Composite fish Culture	-	Field visit & monitoring	Distribution of Dhainchan among the farmer
15	Fish processing and value addition	Fish	Off odor and flavor	Effect of Tulsi (<i>Ocimum tenuiflorum</i>) treatment on sensory quality of dry fish	-	Value added fish products	-	Field visit & monitoring	Distribution of Solar tent drier with small indigenous fish among the farmer
16	Pond Management	Fish	Unscientific management of fish culture	Fertilizer Management of Composite fish culture	-	Management of Composite fish Culture	-	Field visit & monitoring	Distribution of fertilizer and Lime as per recommended by FRC, AAU, Jorhat
17	Composite fish culture	Fish Catla, Rohu, Mrigal and Silver carp, Grass carp and Common carp	Inappropriate stocking with incompatible species	Scientific species combination and ratio in composite fish culture	-	Management of Composite fish Culture	-	Field visit & monitoring	Distribution of Fish fingerling as per recommended by FRC, AAU, Jorhat
18	Pond management	Fish Catla, Rohu, Mrigal and Silver carp, Grass carp and Common carp	Low production and income	Multiple stocking and multiple harvesting of fish	-	Seed production	-	Field visit & monitoring	Distribution of Fish fingerling as per recommended by FRC, AAU, Jorhat

19	Weaving ,product diversification and drudgery reduction.	Handwoven fabric	Multi-coloured and raised Bodo design in <i>Dokhona</i> is limited to tribal Bodo Community only.	Product diversification of hand-woven <i>dokhona</i> to single bed spread.	-	4 days skill development training on 'carpet and table mate weaving.' 4 days Vocational training on "value addition of fabric through embroidery".	-	-	Cotton yarn (coloured and white.
20	Value addition	Prawn fish	Non acceptance of dry prawn fish by non-tribal community due to its off odour	Effect of Tulsi leaves and curry leaves treatment on sensory quality of dry Prawn fish	-	-	-	-	Wire sieve-3 no.s, Fish 4 kg ,and spices and cooking oil.
21	Drudgery Reduction	Maize sheller	Swelling or pain in finger and wrist.	Maize sheller (Rotatory Type) – a women friendly tool.	Ergonomically designed weaving chair for fly shuttle weaver	-	-	-	Maize sheller-16 no.s Wooden ergonomically designed weaving chair.= 3 no.s
22	Organic dye		No use of locally available dye and high cost of synthetic dye..	Application of natural dyes on cotton yarn		5 days vocational training on value addition of fabric through dying and printing	-	-	Cotton yarn- 9 kg Dye Alum-4.5 kg Chemical (washing Soda)

3.1 Achievements on technologies assessed and refined during 2017-18

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

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	-	-	-	-	1
Seed / Plant production	-	-	-	-	-	-	-	-	-	-
Weed Management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	1	-	-	-	-	-	-	-	-	1
Integrated Nutrient Management	-	-	-	-	-	-	-	-	-	-
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction	-	-	-	-	-	-	-	-	-	-
Farm machineries	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
Integrated Disease Management	-	-	-	1	-	2	-	-	-	3
Resource conservation technology	-	-	-	-	-	-	-	-	-	-
Soil Management	2	-	-	-	-	-	-	-	-	2
TOTAL	3	-	-	1	1	2	-	-	-	7

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

[illegible]

cultivation										
Drudgery reduction	-	-	-	-	-	-	-	-	-	-
Farm machineries	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
Integrated Disease Management	-	-	-	-	-	-	-	-	-	-
Resource conservation technology	-	-	--	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Home Science	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-	-	-
Disease of Management	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	1	1
Production and Management	-	-	-	-	-	-	1	1
Feed and Fodder	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-
Drudgery reduction	-	-	-	-	-	1	-	1
Value addition	-	-	-	-	-	1	-	1
TOTAL	-	-	-	-	-	2	2	4

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitry	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

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	Rice based relay cropping of pea	Delayed sowing due to prolonged duration of existing rice variety	Application of 6 kg DAP to the relay crop (pea) and cutting of stubble height of rice at 20 cm	Rice-Pea	3	1.Av.Plant height- 85 cm 2. Av. No.of branches/plant-5 3. Av. no. seeds/pod- 8.4 4. Grain yield- 9.5 q/ha	Farmers were impressed upon the good yield of pea at zero tillage.	Timely sowing of relay crop under optimum moisture condition is prerequisite	Technology :1.9
2	Management of basal stem rot (Ganoderma) disease in arecanut	Large mortality of arecanut plants because of the stem rot disease (up to 65 %).	T ₁ - 1. Soil drenching with Calixin (Tridemorph) (0.3%) @ 10 L/palm at quarterly interval, 2. Application of neem cake (2 kg/palm/ year) fortified with Trichoderma viridae (100g/palm/ year) T ₂ -Farmers	Arecanut	5	Technology Leaf wilting- 1 out of 30 treated trees Dull brownish patch Appearance - 3 out of 30 treated trees Nut yield - 220 nuts per tree Net return (Rs./ha) - 2,35,000.00 B:C ratio – 5.9 Farmers Practice Leaf wilting- 6 out of 30 treated trees Dull brownish patch Appearance – 10 out of 30 treated trees	Farmers are satisfied with the technology	Alternative of Calixin may be recommended	Technology- 5.9 Farmers practice- 3.4

			practice T3- Without treatment			Nut yield - 140 nuts per tree Net return (Rs./ha) – 1,65,000.00 B:C ratio – 3.4			
3	Biologic al manage ment methods of grey mould, leaf spot and Phythop thora crown rot disease in strawber ry	The occurrence of leaf spots, grey mould and crown rot detected in some pockets is seen as problems that needs immediate attention.	T ₁ -Application of Bio-Time (Combination of <i>Pseudomonas fluorescens</i> , <i>T. viride</i> and <i>Metarhizium anisopliae</i>) • Seedli ng root dip treatm ent, Soil application T ₂ -Farmers Practice T ₃ - Control	Strawberr y	3	Leaf spot count Treatment - 2 Control – 7 Grey mould infected fruit Treatment - 1 Control –5 Rot infected plants Treatment - 0 Control –6 Yield Treatment – 1.5 kg per plant Control –600 gms per plant Net return: Treatment- 110700/- Control-21000/-	Excellent	-	Treatment- 5.5 Control- 1.9

4	Management of panama disease in banana.	High damage to banana plantation at all stages	T ₁ - 1.Disease free suckers from disease free field, 2. Dipping of suckers in carbendazim (0.2%) for 30 minutes, 3. Application of neem cake @ 250 grams/plant, 4.Carbendazim drenching with 0.2% solution (2nd, 4th and 6th months after planting) 5. Carbendazim injection @ 3ml of 0.2% solution (3rd/5th/7th months after planting) T ₂ -Farmers practice	Banana	7	Yellowing of leaves Treatment -1 plant Control- 3 plants Wilting Treatment -Nil Control- 2 plants Yellowish/reddish streaks appearance in pseudostem Treatment -1 plant Control- 3 plants	-	-	Yet to harvest
5	Performance assessment of triple	Low yield of local varieties susceptible to bacterial wilt and leaf curl	Triple disease resistant tomato variety	Tomato/ medium land/sandy loam/ irrigated	6	Demo Avg. frt. wt=70-80g Yield/plant=10 kg Yield/ha=400q/ha	Farmers were highly satisfied with the variety	-	1:4.8

	disease resistant tomato variety	disease				Farmers variety Av. Frt. Wt.=40-50g Yield/plant=3 kg Yield/ha=150 q/ha	which have good cooking property , also good for salad tolerant to leaf curl & wilt, with medium fruit size		1:2.0
6	Effect of Tulsi(<i>Ocimum tenuiflorum</i>) treatment on sensory quality of dry fish	Off odor and flavor.	T ₁ : Dip treatment of dry fish of 55% moisture content in 5% Tulsi Solution and again drying up to final moisture content of 10% T ₂ : Control (without treatment)	Fish	3	T ₁ : Color - 7.66, Odor - 7.50 Taste- 7.33, Shape- 7.16 Texture - 7.00 T ₂ : Color – 5.33, Odor -5.50 Taste- 6, Shape- 5.66 Texture – 5.16	In the present study the sensory score of all the attributes of solar tent dried fish was found better than open sun dried samples.	The technology can be adopted due to low moisture content, homogenous drying, maintenance of optimum temperature , air velocity and relative humidity, low filth content, less insect, bird and animal attack inside the drier.	Net return (Rs./unit) & B:C T ₁ : Rs-20,000/- B.C- 2.4 T ₂ :Rs-5,300/- B.C- 1.3

7	Performance evaluation of in situ grown Dhaincha (<i>Sesbania rostrata</i>) in highly erodible light textured soil of homestead pond	Poor Water retention capacity of soil	T ₁ : Sowing of Dhaincha @ 50-60 kg/ha at the pond bottom T ₂ : Farmer Practice (Without treatment)	Dhaincha	3	Average Water storage capacity T ₁ : Monsoon-5.40 lakh litres Post monsoon-3.12 lakh liter Fish Production (t/ha)-2.5 T ₂ : Farmer Practice Average Water storage capacity- Monsoon-5.13 lakh litres Post monsoon-2000 liter Fish Production (t/ha)-1.7	a) Effective storage of harvested water by hindering seepage losses c) Farmers are used pond for fish culture up to December during off season.	a) The technology can be adopted for higher fish production as well as irrigation and drinking water. b) Research on effect of water quality parameter on fish growth.	Net return (Rs./ha) & B:C T ₁ : Rs-2.25 Lakh/- B:C-2.4:1 T ₂ : Rs-1.30 Lakh/- B:C-1.4:1
8	Product diversification of hand-woven dokhona to single bed spread.	Multi-coloured and raised Bodo design in <i>Dokhona</i> is limited to tribal Bodo Community only.	T ₁ - Multi-coloured Bodo design in Single bed Spread. T ₂ - Control	Handwoven fabric	4 unit	Size of bed spread is - 1.8 mts wide & 2.5 mts length while Bodo dokhona is 1.5 m wide and 2.25 m long. 88.8 % customer prefer diversified hand-woven bed spread in 9 point hedonic scale. Percent Change in income is 37.5 %.	100% weavers are self satisfied with their final product in terms of principle and elements of design and colour.	Good response from customers. More market demand of hand-woven cotton bed spread with unique Bodo motif.	
9	Effect of Tulsi leaves and	Non acceptance of dry prawn fish by non-	T ₁ - Treatment with 10 % <i>tulsi</i> leaves solution.	Dry prawn fish	3 unit	1 kg of fresh prawn gives 418 gm of dry prawn fish when dried under fire.	They prefer to add fried curry leaves than	Value added product of dry prawn	

	curry leaves treatment on sensory quality of dry Prawn fish	tribal community due to its off odour	T ₂ - Treatment with fried curry leaves to dry prawn.			77.7 % prefer dried prawn fish treated with Curry leaves in 9 point hedonic scale. 55.5 % prefer dried prawn fish treated with 10% <i>tulsi</i> Solution.		<i>Tulsi</i> leaves due to ritual belief.	treated with fried curry leaves add more value than treated with <i>Tulsi</i> leaves.	
10	OFT on Phosphorus management in Rice-Linseed sequence	Low availability of phosphorus due to fixation by acidic soil condition.	In Rice T ₁ : 75%of RDF P ₂ O ₅ +PSB In Linseed T ₁ : 75%of RD of P ₂ O ₅ T ₂ : Recommended dose of NPK in Rice, Linseed T ₃ : Farmers practice (Control)	Rice-Linseed	3	Initial Kg/ha N=475 P ₂ O ₅ =18 K ₂ O=290 Rice T ₁ = 5.4t/ha T ₂ = 4.7 t/ha T ₃ = 3.0 t/ha Yield Rice = 5.4 t/ha Rice eq. of Linseed= 1.77 t/ha	Final Kg/ha N= 433 P ₂ O ₅ = 16 K ₂ O= 276 Linseed T ₁ = 0.9 t/ha T ₂ = 0.7 t/ha T ₃ = 0.5 t/ha	Farmers expressed willingness to uses of PSB as crop yield in PSB applied plot was 28.23% (Rice) and 25.16 % (linseed) more than the farmers practice	. Non availability of good quality bio fertilizer in the market	Technology= 1.85:1 Farmers practices= 1.55:1
11	OFT on Effect of foliar application of urea in Lentil	Poor availability of nutrient which lead to reduction of yield	T ₁ - RD of NPK+2% urea spray at 35 & 75 days after sowing T ₂ - Recommended dose of NPK T ₃ - Farmers practice (Control)	Rice	3	Initial Kg/ha N= 490 P ₂ O ₅ =27 K ₂ O=310 Parameters Plant height (cm) Pod/Plant	Final Kg/ha N= 462 P ₂ O ₅ = 23 K ₂ O= 270 Technology 37 125	Farmer expressed to apply foliar application of urea to the crop	During the pod filling stage, a light irrigation is necessary for the crop	2.08:1

						Seed/Pod	1.62			
						Yield (q/ha)	9.26			
						Date of sowing= 1 st week November,2017 Date of harvest : 1 st week of Feb,2018 Yield = 9.2 q/ha				

3.2 Achievements of Frontline Demonstrations during 2017-18

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

List of technologies demonstrated during previous year and popularized during 2017-18 and recommended for large scale adoption in the district

Sl. No	Crop/ Enterprise	Technology demonstrated	Horizontal spread of technology		
			No. villages	No. of farmers	Area
1	Broccoli	Broccoli variety Everest	4	5	0.13
2	Fish (Pond Management)	Fertilizer Management of Composite fish culture	4	5	0.65 ha
3	Fish Composite fish culture	Scientific species combination and ratio in composite fish culture	5	5	0.65 ha
4	Pond management	Multiple stocking and multiple harvesting of fish	5	5	0.65 ha
5	Maize	Maize sheller (Rotatory type) – a women friendly tool	8	16	16 unit
6	Weaving	Ergonomically designed weaving chair- for fly shuttle weaver	3	3	3 unit
7	Vermicompost	Low cost bamboo and polythene vermicomposting structure with dimension of 2.5 m (L) X 0.91 m (B) X 0.91 m (D)	5	5	5 unit
8	Rapeseed	75% RD of N and P fertilizer along with seed treatment of biofertilizers (Azotobacter & PSB @ 40 g/kg seed) and RD of K fertilizer	5	5	1.5

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

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement	Farming situation (Rainfed/ Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
					Proposed	Actual	SC/ST	Others	Total			N	P	K
1	Rice	Varietal evaluation	Crop- Sali rice Variety: TTB-404 (Shraboni) Seed rate: 40 kg/ha Fertilizer : 60:20:40 kg N:P ₂ O ₅ : K ₂ O	Kharif, 2017	1.0	1.0	-	5	5	-	Rainfed	L	M	L
2	Toria	Varietal evaluation	Crop-Toria Variety -TS -46 Seed rate: 10 kg/ha Fertilizer: 40: 35: 15 kg N:P ₂ O ₅ :K ₂ O	Rabi, 2017-18	1.0	1.0	5	-	5	-	Rainfed	L	M	L
3	Broccoli	Varietal performance	Broccoli variety, Everest	Rabi, 2018	0.13	0.13	3	2	5	-	Irrigated, sandy soil, medium land	M	L	L
4.	Brinjal	IPM	1. <i>T. chilonis</i> @ 50000/ha 2. wood ash @ 200 kg/ha 3. Clippings of infested shoot 4. Destruction of infested shoots 5. Application of need based insecticides	Rabi, 2017	0.5	0.5	2	2	4	-	Irrigated, sandy soil, medium land	M	L	L
5	Boro paddy	IPM	1. Mass trapping of population of phototrophic insects in the crop fields. 2. The mass trapping of both the sexes may reduce the insect pest population in the fields	Rabi 2017	0.8	0.8	2	1	3	-	Irrigated, sandy soil, medium land	M	L	L
6	Rapes	Soil	75% RD of N and P	Rabi,	1.5	1.5			5	-	Rainfed	M	M	M

	eed	management	fertilizer along with seed treatment of biofertilizers (Azotobacter & PSB @ 40 g/kg seed) and RD of K fertilizer	2017										
7	Rapeseed (CFLD)	Soil management	Recommended doses of NPK (AAU package) + Borax @ 10 kg/ha + Organic matter @ 10 t/ha	Rabi, 17	50	50			125		Rainfed	M	M	M
8	Linseed (CFLD)	Soil management	Recommended doses of NPK (AAU package) + Organic matter @ 10 t/ha	Rabi, 17	20	10			25		Rainfed	M	M	M
9	Summer sesames (CFLD)	Soil management	Recommended technology of AAU, Jorhat.	Summer, 17	-	10	25	-	25		Rainfed	M	M	M
10	Blackgram (CFLD)	Crop management	1. Seed treatment with Rhizobium @ 50 gm 3-4 kg of seed 2. Application of Organic manure	Kharif, 17	10	10	30	-	30	-	Rainfed	M	M	M
11	Sesamum (CFLD)	Crop management	Seed treatment with Trichoderma @ 5g /kg of seeds and application of organic manure 150 kg /ha and seed rate @ 4kg/ha	Kharif, 17	20	20	40	10	50		Rainfed	M	M	M
12	Lentil (CFLD)	Crop management	WBL-77 Variety Press mud application Rhizobium Seed treatment	Rabi, 17	20	20	-	50	50		Rainfed	M	M	M
13	Lathyrus (CFLD)	Crop management	Ratan- Variety Press mud application	Rabi, 17	10	10	-	27	27		Rainfed	M	M	M

c. Performance of FLD on Crops

Sl. No.	Crop	Thematic area	Area (ha.)	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Data on parameters other than yield, e.g., disease incidence, pest incidence etc.		Econ. of demo. (Rs./ha.)				Econ. of check (Rs./Ha.)			
				Dem o.	Che ck		H*	L*			GC**	GR**	NR**	BCR**	GC	GR	NR	BC R
				Demo	Local													
1	Rice	Varietal evaluation	1.0	48	35.0	37	60	30	Minor incidence of pest & Diseases	Minor incidence of pest & Diseases	19710	48710	29000	1.47	15700	35000	19300	1.22
2	Toria	Varietal evaluation	1.0	9.0	6.8	32	11.0	5.5	No incidence of pest & diseases	No incidence of pest & diseases	15000	36000	21000	1.4	12500	27200	14700	1.17
3	Broccoli	Varietal performance	0.13	200	150	33.3	250	150	-	-	25000	170000	145000	5.8	15000	70000	55000	3.6
4	Brinjal	IPM	0.5	107	85	25.88	125	90	Low incidence of Shoot & fruit borer	Moderate incidence of Shoot & fruit borer	55000	192600	137600	2.5	38000	106000	68000	1.78
5	Boro paddy	IPM	0.8	-	21	-	-	-	-	-	22000	-	-	-	18000	-	-	-
6	Rapeseed	Soil management	1.5	10.25	8.5	17.07	11.50	9.00	Aphid attack	Aphid attack	14934	30750	15816	2.06	13971.8	25500	11528.2	1.8
7	Rapeseed CFLD	Soil management	50	9.0	7.2	20	10.5	7.5	Aphid attack	Aphid attack	15102	27000	11898	1.79	14041.4	21600	7558.6	1.5
8	Linseed CFLD	Soil management	10	9.2	7.5	18.47	10.12	8.28	No incidence of insect-pest and disease	No incidence of insect-pest and disease	14732.2	27600	12867.8	1.87	133918	21000	7608.2	1.57
9	Summer sesame CFLD	Soil management	10	-	-	-	-	-	Minor incidence of insect-pest	Minor incidence of insect-pest	-	-	-	-	-	-	-	
10	Blackgram CFLD	Crop management	10	7.3	6.0	21	10.0	6.0	No incidence of pest & diseases	No incidence of pest & diseases	16000	43800	27800	1.73	14000	36000	22000	1.57

Sl.No.	Activity	No. of activities organised	Date	Number of participants			Remarks
				Gen	SC/ST	Total	
1	Field days	1	6.11.17	13	17	35	
2	Farmers Training	22	-	221	329	550	
3	Media coverage						
4	Training for extension functionaries	-	-	-	-	-	
5	Any other (Pl. specify)						
	Total	23	-	234	346	580	

(i) Farm Implements

(ii) Livestock Enterprises

[illegible]

(iii) Fisheries

Sl. No.	Category	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	
1.	Fish	Pond Management	Fertilizer Management of Composite fish culture	5	5	5500/ha	Production - 2.5t/ha	Production - 1.6t/ha	100	No Diseases incidence	Few cases of disease attack reported.	78000/-	272400/-	194400/-	2.5	50000/-	110000/-	60000/-	1.2	Increase fish Productivity due to application of lime ,organic and inorganic fertilization
2.	Fish	Composite fish culture	Scientific species combination and ratio in composite fish culture	5	5	5500/ha	Mortality- 15% Production (t/ha)- 2.7	Mortality- 65% Production – (t/ha) 1.8	100	Mortality rate less only- 15%	Mortality rate High 65% . and some fish disease reported	85000/-	307600/-	222600/-	2.6	101000/-	226000/-	125000/-	1.3	Mortality rate was more in farmer practice due to over stocking

3.	Fish	Pond management Pond management	Multiple stocking and multiple harvesting of fish	5	5	12000 /ha	Mortality-25% Production (t/ha)-3.3	Mortality-40% Production – (t/ha) 1.8	100	Mortality rate less only-25%	Mortality rate less only-40% . and Dissolved oxygen problem reported	85000/-	307600/-	222600/-	2.6	101000/-	226000/-	125000/-	1.3	Mortality rate was higher due to low dissolved oxygen
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(iv) Other enterprises

[illegible]

3	Weaving chair	Drudgery reduction	Ergonomically designed weaving chair	4	4	T ₁ -Drudgery reduction Tool.	T ₂ -Farers practice	50%	88.8 weavers highly satisfied with the comfort level of weaving chair in 9 point hedonic Scale. - In Built Drawer reduce the drudgery of weaver upto 50 %.	Comfort level is zero as weaving is done in bench/normal chair. Frequent movement during weaving increase drudgery.	-	-	-	-	-	-	-	-	-
4	Vermicomposting	Soil health	Low cost bamboo and polythene vermicomposting structure with dimension of 2.5 m (L) X 0.91 m (B) X 0.91 m D	5	5	248	-	-	-	-	1500	2976	1476	1.98:1	-	-	-	-	-

(v) Farm Implements and Machinery

[illegible]

f. Performance of FLD on Crop Hybrids

[illegible]

WTO and IPR issues																						
XI Agro-forestry																						
Production technologies																						
Nursery management																						
Integrated Farming Systems																						
TOTAL	5	0	5	57	0	9	0	66	0	38	0	21	0	50	0	95	0	30	0	100	0	125
3.3.2. Achievements on Training of <u>Farmers and Farm Women</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 Courses/ prg.			Participants																		Grand Total
	Off	Sp Off*	Total	General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		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*	
				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																						
Weed Management																						
Resource Conservation Technologies																						
Cropping Systems																						
Crop Diversification	2	-	2	-	-	-	-	-	-	34	-	16	-	50	-	34	-	16	-	50	-	50
Integrated Farming																						
Water management																						
Seed production	1	-	1	16	-	9	-	25	-	-	-	-	-	-	-	16	-	9	-	25	-	25

[illegible]

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 production																						
Household food security																						
Women and Child care	2	0	2	0	0	18	0	18	0	0	0	32	0	32	0	0	0	50	0	50	0	50
Low cost and nutrient efficient diet designing																						
Production and use of organic inputs	1	-	1	11	-	-	-	11	-	14	-	-	-	14	-	25	-	-	-	25	-	25

Gender mainstreaming through SHGs																						
TOTAL	6	-	6	23	0	24	0	47	0	40	0	35	0	75	0	63	0	59	0	122	0	122

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	Date (From – To)	Duration (days)	Area of training	Training title*	No. of Participants									Impact of training in terms of Self employment after training				Whether Sponsored by external funding agencies (Please Specify with amount of fund in Rs.)
					General			SC/ST			Total			Type of enterprise ventured into	Number of units	Number of persons employed	Avg. Annual income in Rs. generated through the enterprise	
					M	F	T	M	F	T	M	F	T					
Vermicompost	09-15 Nov, 2017	6 days	Production technology of Organic inputs	Vocational training on Vermicompost and enrich compost production technology	15	-	15	6	-	6	21	-	21	-	-	-	-	No
Organic input	28-31 March , 2018	4 Days	Production technology of Organic inputs	Production technology of Organic inputs	10	-	10	15	-	15	5	-	25	-	-	-	-	-
Value addition	6-9 Nov, 17	4 days	Embroidery	4 days Vocational training on Value addition of Fabric through Embroidery	-	23	23	-	2	2		25	25	Embroidery	4	4	-	No

	13-17 Nov, 17	5 Days	Dyeing and printing	5 days Vocational training on Value addition of Fabric through dyeing & printing	-	24	24	-	1	1	-	25	25	Dyeing	5	7	-	No
Rural craft	8-12 March, 2018	4 days	Weaving	4 days skill development training on carpet weaving & table mate making	-	21	21	-	4	4	-	25	25		4	4	-	No
Value Addition	24-29 March, 2018	6 days	Processing of fruits & vegetables	Skill enhancement training on Processing of fruits & vegetables for different value added products	-	-	-	3	17	20	3	17	20	-	-	-	-	No
Fish	9/10/2017 to 14/10/2017	6 days	Integrated Fish Farming	Integrated Fish Farming System (IFS)	10	1	11	9	-	9	19	1	20	-	-	-	-	No
Mushroom	17, 23, 24, 25, 27, 28 Oct, 2017	6 Days	Other beneficial organisms	Scientific production technology of oyster mushroom	8	-	8	10	8	18	18	8	26	Mushroom production	2	2	7000/-	No
Honey bee keeping	6, 7, 8, 28 Dec, 2017	4 days		Honey production technology	21	-	21	4	-	4	25	-	25	-	-	-	-	No

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 2017-18

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.	Advisory services	-	April- 17 to March 18	135	36	24	60	149	33	182	-	-	-	185	57	242
2.	Diagnostic visit	-		92	128	24	152	141	20	161	-	-	-	269	44	313
3.	Field day	-		6	54	17	71	146	33	179	-	-	-	200	50	250
4.	Group Discussion	-		23	92	35	127	202	45	247	-	-	-	294	80	374
5.	Scientists visit to farmers fields	-	April- 17 to March 18	145	131	40	171	243	100	343	-	-	-	374	140	514
6.	Method demonstration	-	April- 17 to March 18	18	19	134	153	62	21	83	-	-	-	81	155	236
7.	Celebration of important days	-	15 Aug, 17, 26 Jan, 18	2	15	2	17	2	1	3	-	-	-	17	3	20
8.	Electronic media (CD/DVD)	-		1												
9.	Newspaper coverage	-	April- 17 to March 18	5												
10.	Lecture delivered as resource person	-	April- 17 to March 18	30	128	181	309	318	143	461	-	-	-	446	324	770
11.	Celebration of Foundation Day	-	May, 2017	1	30	28	58	35	9	44	8	-	8	65	37	102
12.	Celebration of World Environment day	-	June 2017	1	0	0	0	68	32	100	6	-	6	68	32	100
13.	Celebration of National Fish farmers day	-		1	10	10	20	30	0	30	-	-	-	40	10	50
14.	Celebration of World Honey Bee Day	-	August, 2017	1	0	0	0	28	8	36	1	-	1	28	8	36
15.	Programme on New	-		1	189	92	281	314	129	443	10	-	10	503	221	724

	India Manthan-Sankalp se siddhi															
16.	Swachhta Hi Seva	-	Sep-Oct, 2017	4	67	15	82	10	7	17	-	-	-	77	22	99
17.	Mahila Kisan Diwas	-	Oct, 2017	1	0	60	60	0	0	0	1	4	5	0	60	60
18.	World Food day	-	2017	1	0	37	37	5	1	6	2	-	2	5	38	43
19.	Celebration of World Fisheries Day	-	July, 2017	1	21	7	28	2	0	2	2	-	2	23	7	30
20.	Celebration of World Soil Day	-	Dec, 2017	1	172	55	227	413	89	502	7	-	7	585	144	729
21.	Celebration of National Science Day	-	February, 2018	1	18	8	26	32	6	38	-	-	-	50	14	64
22.	Any other – Webcasting of Hon'ble Prime minister speech	-	March, 2017	1	93	50	143	277	89	366	6	-	6	370	139	509
23.	Awareness programme of Post Flood agriculture	-	March, 2017	3	65	1	66	65	18	83	2	-	2	130	19	149
24.	Distribution of Piglet, Pigfeed & Awareness programme in collaboration with ICAR- IVRI Eastern region, Kolkata	-	March, 2017	1	0	0	0	33	7	40	6	-	6	33	7	40
Grand Total				474	1253	818	2071	2573	790	3363	51	4	55	3826	1608	5434

3.5 Production and supply of Technological products during 2017-18

A. SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qt)	Value (Rs.)	Number of recipient/ beneficiaries		
					General	SC/ST	Total
CEREALS	Paddy	TTB 404	23.52	-	-	-	-
		Gitesh	8.4	-	-	-	-
		Ranjit Sub 1	25.0	-	-	-	-
	Buckwheat	Local	8.0	-	-	-	-
	Finger millet	Local	1.5	-	-	-	-
OILSEEDS	Sesamum	Koliabor Til	0.45	-	-	-	-
	Niger	NG-1	1.8	-	-	-	-
	Rapeseed (CFLD)	TS-46	500.0	-	-	-	-
	Sesamum (CFLD)	Koliabor Til	122.0	-	-	-	-
PULSES	Blackgram (CFLD)	PU-31	73.0	-	-	-	-
VEGETABLES							
FLOWER CROPS							
Fibre crops	Mesta Seed	HC-583	1.0	-	-	-	-

A1. SUMMARY of Production and supply of Seed Materials during 2017-18

Sl. No.	Major group/class	Quantity (ton.)	Value (Rs.)	Number of recipient/ beneficiaries		
				General	SC/ST	Total
1	CEREALS	6.642	-	-	-	-
2	OILSEEDS	62.425	-	-	-	-
3	PULSES	7.3	-	-	-	-
4	VEGETABLES					
5	FLOWER CROPS					
6	Fibre crops	0.10				
TOTAL		76.467	-	-	-	-

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

Major group/class	Crop	Variety	Numbers (In Lakh)	Value (Rs.)	Number of recipient beneficiaries		
					General	SC/ST	Total
Fruits	Lemon	Assam Lemon	0.003	-	-	-	-
	Banana	Malbhog	0.003	-	-	-	-
Spices							
Ornamental Plants							
VEGETABLES	Cabbage	-	0.03	-	10	17	17
	Cauliflower	-	0.03	-	9	14	23
	Knolkhol	-	0.03	-	12	10	22
	Broccoli	-	0.03	-	10	21	31

	Chilli	-	0.025	-	11	7	18
	Tomato	-	0.03	-	10	24	34
	Brinjal	-	0.025	-	13	12	25
Forest Spp.							
Plantation crops							
Medicinal plants							
OTHERS (Pl. Specify)							

B1. SUMMARY of Production and supply of Planting Materials (In Lakh) during 2017-18

Sl. No.	Major group/class	Numbers (In Lakh)	Value (Rs.)	Number of recipient beneficiaries		
				General	SC/ST	Total
1	Fruits	0.006	-	-	-	-
2	Spices	-	-	-	-	-
3	Ornamental Plants	-	-	-	-	-
4	VEGETABLES	0.20	-	75	105	180
5	Forest Spp.					
6	Medicinal plants					
7	Plantation crops					
8	OTHERS (Specify)					
TOTAL		0.206				

C. Production of Bio-Products during 2017-18

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Number of Recipient /beneficiaries		
			No	(qt)		General	SC/ST	Total
BIOAGENTS								
BIOFERTILIZERS	Vermicompost	-	-	4.6	5526.00	2	1	3
BIO PESTICIDES								

C1. SUMMARY of production of bio-products during 2017-18

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Number of Recipient beneficiaries		Total number of Recipient beneficiaries
			Nos	(kg)		General	SC/ST	
1	BIOAGENTS							
2	BIO FERTILIZERS	-	-	460	5526	2	1	3
3	BIO PESTICIDE							
	TOTAL	-	-	460	5526	2	1	3

D. Production of livestock during 2017-18

Sl. No.	Type of livestock	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		
			(Nos)	Kgs		General	SC/ST	Total
1	Cattle/ Dairy							
2	Goat	Beetel	4	-	10000	2	-	2
3	Piggery	Hampshire	1	-	12500	-	1	1
4	Poultry							
5	Fisheries							
6	Others (Specify)							

D1. SUMMARY of production of livestock during 2017-18

Sl. No.	Livestock category	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		Total number of Recipient beneficiaries
			Nos	(kg)		General	SC/ST	
1	CATTLE							
2	SHEEP & GOAT	Beetel	4	-	10000	2	-	2
3	POULTRY							
4.	PIGGERY	Hampshire	1	-	12500	-	1	1
5	FISHERIES							
6	OTHERS (Pl. specify)							
	TOTAL		5	-	22500	2	1	3

3.6. Literature Developed/Published (with full title, author & reference) during 2017-18

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

(B) Articles/ Literature developed/published : Nil

Item	Title /and Name of Journal	Authors name	Number of copies
Research papers			
1.			
2.			
3.			
Training manuals			
Technical Report			
1.			
2.			
3.			
Book/ Book Chapter			
Popular articles			
Technical bulletins			
Extension bulletins			
Newsletter			
Conference/ workshop			

proceedings			
Leaflets/folders			
e-publications			
Any other (Pl. specify)			
TOTAL			

(C) Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number produced
1	CD	Video on Tie & Dye	1

3.7. Success stories on horizontal spread of the technologies/Case studies,

Model farmer – Md. Abdul Haque Talukdar

Md. Abdul Haque Talukdar, 44 Years of age, S/o Md. Chan Talukdar, of village Bhomrabil No. 2 under Gossaigaon Dev. Block in Kokrajhar district is a progressive farmer who does farming by heart. He belonged to a very poor land less family. From his childhood he was interested in farming activities and worked as waged labour in and around his village. Slowly and slowly he learned all the agricultural practices and purchased his own cultivated land. From the villagers he heard about the activities of Krishi Vigyan Kendra, Kokrajhar and came in contact with KVK in the year 2008. He attended many training programmes organized by Krishi Vigyan Kendra, Kokrajhar and other line departments for the improved practices of agriculture and allied areas. Presently he had 25 bighas of own land and take lease land if necessary in his own village. He learned SRI technique of rice cultivation, he came to know about improved jute variety Tarun, high yielding rapeseed, buck wheat, improved banana cultivation including Malbhog and tissue culture one -Grand Naine variety, scientific cultivation of kharif vegetables specially sponge gourd, bottle gourd, pumpkin, ridge gourd etc. ,dolichos bean, improved potato cultivation including TPS technology, brinjal both *rabi* and *kharif* , chilli both *rabi* and *kharif*, sugarcane cultivation, melon cultivation and also vermicomposting and compost preparation.

He frequently visited KVK, Kokrajhar as KVK office is in the way from his home to the market. He take his produce daily in the evening himself to sell in the market near to KVK, office. Whenever he face some problem in his field he invites the KVK scientists to visit his land and request to help him for scientific advice and giving tips of scientific cultivation practices. Seeing his enthusiasm, and keen interest in agricultural activities a team of KVK scientists visited his land and decided to intervene. Subsequently from 2008 till date, many OFTs and FLDs in various discipline including CFLDs were taken up in his farm by KVK, Kokrajhar. many OFT & FLD under different discipline like FLD on rice (var. Ranjit, Swarna Mahsuri) including SRI, OFT on blackgram (PU-19), OFT on jute (var.Tarun) OFT on brinjal (var. RCMB 1 & 2), OFT on low cost vermi-composting, OFT on Biofertilizers in Rice and Biological control in Brinjal, FLD on potato including TPS, FLD on tissue culture banana (var. Grand Naine), CFLD on rapeseed var TS 46 etc. He has also started composting of the bio-wastes generated from his farm, which he used in his own land. The results were encouraging and Md. Abdul Haque Talukdar also participated in various extension activities. Getting himself well trained, he started integrated farming in his land and shifted completely to scientific farming instead of traditional farming.

Particulars	Area (Bigha)	Cost of (Rs.)	Production (Qt)	Income (Rs.)	Profit (Rs.)
1. Field Crop					
a) Rice (Ranjit)	6	10000/-	40	70200.00	60,500.00
b) Blackgram	5	15000/-	12	60,000.00	45,000.00
a) Jute	4	8000/-	24	48,000.00	40,000.00
b) Sugarcane	1	10,000/-	250	80,000.00	70,000.00
2. Vegetables					
a) Brinjal	1	7,000/-	15	60,000.00	53,000.00
b) Chilli	1	10,000/-	10	80,000.00	70,000.00
c) Tomato	0.5	12,000/-	40	80,000.00	68,000.00
d) Sponge gourd	1.5	5000/-	20	60,000.00	55,000.00
e) Ridge gourd	1.0	5000	15	45,000.00	40,000.00
f) Cowpea	0.5	1500/-	1.5	7500.00	6000.00
g) Okra	0.5	5000/-	3	18,000.00	13,000.00
h) Bittergourd	0.5	5000/-	5	30,000.00	25,000.00
i) Pumpkin	1.0	5000/-	7	28000.00	28000.00
j) Potato	2.0	8000/-	16	32000.00	24,000.00
k) Colocasia	0.5	5000/-	10	40,000.00	35,000.00
l) Melon	0.5	5000/-	10	40,000.00	35,000.00
m) Dolichos bean	0.5	5000/-	5	25,000.00	20,000.00
3. Fruit Crop					
a) Banana	3.0	35,000/-	250	2,40,000.00	2,05,000.00
4. Livestock					
a) Cow (local)	6 nos.	-	30 lit milk	2000.00	2000.00
5. Agro-Forestry (Wood land)	3.5	2000/-		55000.00	52000.00
c) Segun	30 nos. of tree				
d) Jackfruit	30 nos. of tree				
e) Gomari	23 nos. of tree				
6. Bamboo Garden	5	4000/-	-	50000.00	46000.00
Total					9,32,000.00

Mr. Talukdar is now a very popular progressive farmer in Gossaigaon Subdivision of Kokrajhar District. He has received many helps from the Dept. of Agriculture, Kokrajhar in the form of inputs for increasing his agricultural production.

Model farmer – Mr. Biren Boro

Mr. Biren Boro aged 60 Years, S/o Late Gabao Boro of village Gardenpur under Kochugaon Dev. Block in Kokrajhar district is a progressive farmer. He inherited 6.9 ha of cultivable land as paternal property. He observed that his father's income was meager from the land he was cultivating. His income was not adequate to meet both ends of the family. From his student life he was observing that it was very difficult to manage a white collar job. Under such circumstances, after passing H.S (Arts.) from Shillong College, he decided to engage himself in scientific agriculture. Instead of his father's traditional cultivation, he thought of modern cultivation. One day he visited KVK office which is 20 km away from his village and sought suggestions from KVK scientist for enhancing income by utilizing his vast land. For the first time with the suggestion of KVK scientist, he started growing of HYV varieties of Toria, lentil and Blackgram. This

first venture earned him a good profit and since then, he did not have to look back. Later on, he started growing of vegetables such as hybrid tomato, cabbage, cauliflower etc. and earned a good profit. Incidentally, he got a chance to visit in Alipurduar area in the neighbouring state of west Bengal and observed how the improved farming by farmers there.

The KVK, Kokrajhar undertook front line demonstration in the field of Mr. Boro on HYV of rice (Var. Ranjit, TTB-404) and HYV of rape seed (var. TS-67, TS-46). Simultaneously several on farm trials like *Utera* cropping of pea with rice, biofertilizers in rice and hybrid varieties of Tomato, Brocoli were conducted in the land of Mr. Boro under the direct supervision of KVK, scientists. The results were encouraging and Mr Boro also participated in various training programmes conducted by KVK, Kokrajhar. Getting himself well trained, he started integrated farming in his land and shifted completely to scientific farming instead of his father's traditional farming. He started cultivation and *kharif* rice in 5.3 ha of land. Moreover, he cultivates rapeseed and lentil in 4.0 ha of land. From this also, he could earn a lot. Since then, he is running an Integrated farming with horticultural crops, rice, Agro-forestry, poultry, fisheries, cattle, goat and piggery etc.

The rice varieties which he is cultivating are Ranjit, local Joha rice, Phulpakhri, Parimal etc. In 0.4 ha fishery, he is rearing Rohu, common carp, Mrigal, Catla, Grass carp, Chinese carp etc. Moreover, he is running a piggery farm of 12 nos capacity, 5 nos. of local goat and 4 nos. of cattle. He is managing 2.93 ha of agro-forestry including Wood land plantation, 0.4 ha arecanut, and 0.26 ha bamboo plantation. In addition to this, he owns a 2 tractor, one power pump set and a spray machine. He is now a torch bearer of modern agricultural technology. Annual income of Mr. Biren Boro from his Integrated Farming System is shown as follows;

SL. No.	Crop/ Enterprize	Area/ nos.	Annual Income (Rs.)
1.	Rice (<i>Kharif</i> and <i>Ahu</i> rice)	5.3 ha	2,00,000.00
2.	Rape seed	2.0 ha	80,000.00
3.	Lentil	2.0 ha	50,000.00
4.	Fishery	0.4 ha	50,000.00
5	Livestock (piggery, goat, poultry)	-	50,000.00
6	Agro- forestry including wood land plantation, Areca nut and bamboo plantation	3.59 ha	90,000.00
	Total Annual income		5,20,000.00

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

- Use of Short duration high yielding variety of Toria like (TS-67). It can be grown under late condition after harvesting of Sali rice. The productivity is high. This variety was introduced among the farmers under FLD programme and highly accepted by the farmers.
- Triple cross tomato hybrid variety Arka Rashak was introduced under OFT programme among the farmers. Significant performance in terms of yield and disease resistance (leaf curl & bacterial wilt) were observed & farmers are highly satisfied with the variety.
- Under Integrated fish farming, pig- fish- horticulture farming system was popularized in Kokrajhar district.

- iv) Value addition in fish through Tulsi leaf was popularized for off odour and hygienic dry fish using solar drier system.

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
1	Maize/paddy	<p><u>Kakee (Cane spine trap)</u></p> <p>It is an indigenous rodent trap made from spines of mature cane. It is made in such a way that while entering the trap the spines make way for the rodent but block the way for returning. Advantages of the device -</p> <ol style="list-style-type: none"> 1. Eco friendly rodent control device, 2. Economical and helps reduction of chemicals, 3. Made of locally available cane and bamboo, 	Rodents

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

- PRA techniques,
- SAC meeting,
- ZREAC meeting,
- Interaction with extension functionaries, Farmers organization, NGOs, SHGs etc
- Pre & post training evaluation through questionnaires, schedule etc.

3.11 Field activities

- Number of villages adopted : 7
- No. of farm families selected : 350
- No. of survey/PRA conducted : 1

3.12. Activities of Soil and Water Testing

- Status of establishment of Lab : Working
- Year of establishment : 2009
 - List of equipments purchased with amount :

Sl. No	Name of the Equipment			Qty.	Cost
	S&WT lab	Mini lab/ Mridaparikshak	Manufacturer		
1	-	2 nos	Nagarjuna Agro Chemical Pvt. Ltd, Hyderabad	2 nos	180,600.00
Total			2 nos	180,600.00	

3. Details of samples analyzed (2017-18):

Details	No. of Samples analysed	No. of Farmers	No. of Villages	Amount (In Rupees) realized
Soil Samples	500	500	25	-
Water Samples	-	-	-	-
Plant Samples	-	-	-	-
Petiole Samples	-	-	-	-
Total	500	500	25	-

5. Details of Soil Health Cards (SHCs) (2017-18)

- No. of SHCs prepared: 500
- No. of farmers to whom SHCs were distributed: 500
- Name of the Major and Minor nutrients analysed: N, P, K, S, Zinc & Boron
- No. of villages covered: 25
- Soil health card based nutrient management in different crops (pl. submit in brief in separate page)

Sl.No	Crop	Nutrient management					Remarks
		FYM (t/ha)	Lime (kg/high a)	Nutrient			
				status			
				Low	Medium	High	
1	Paddy (Sali)	10	-	25% more than recommended doses of fertilizer	Recommended doses of fertilizer	25% less than recommended doses of fertilizer	Recommended doses of fertilizer for different crops as per AAU, Jorhat
2	Rapeseed	2-3	65.5				
	Linseed	-	65.5				
3	Mesta	7-8	-				
4	Blackgram (Kharif)	1	-				
5	Maize(Rabi)	4.5	-				
7	Potato	10	-				

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

Mess age type	Crop		Livestock		Weather		Marketin g		Awareness		Other Ent.		Total	
	No. of Mes sage	No. of Ben eficiary	No. of Mes sage	No. of Benef iciary	No. of Mes sage	No. of Benef iciary	N o. of Mes sage	No. of Be neficiar y	No. of Mes sage	No. of Benef iciary	No. of Mes sage	No. of Bene ficiary	No. of Mes sage	No. of Benefi ciary
Text only	66	79662	12	14484	18	21726	-	-	1	1207	3	3621	100	120700
Voice only	1	500	-	-	-	-	-	-	-	-	-	-	1	500
Voice and Text both	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	67	80162	12	14484	18	21726	0	0	1	1207	3	3621	101	121200

3.14 Contingency planning for 2017-18

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
Flood	Introduction of new short duration and flood tolerant variety or crop	6	15	20	35
	Distribution of seeds and planting materials	15	35	60	95
Resource conservation (Zero tillage)	Relay cropping of pulses (Lentil, Lathyrus) with Sali rice	5.0	10	25	35

a. Livestock based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Number of birds/ animals to be distribut ed	No. of program mes to be undertake n	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
Disease Outbreak (Livestock)	200 chicks	4	Health camp :2 Awareness camp:2	Animal: 500 Bird: 500	70	130	200
Fish disease (EUS)	5500 fingerling / ha	3	Awareness camp- 2	5500 fingerling/ ha	10	20	30
Cage culture	3 nos of cage	3	Awareness camp-1	3	3	-	3

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)
Oyster mushroom production technology – scientific chemical less production process.	80 (During different times of the year)	20	Rs.500.00	Rs. 2000.00
Production technology of <i>Panchagavya</i>	25	50	Rs. 600.00	Rs. 1200.00
Introduction of submergence tolerance rice variety (Ranjit Sub-1)	150	80	Rs.40000.00/ha	Rs. 50000.00/ ha
Introduction of mid duration rice variety (TTB 404)	100	70	Rs.35000.00/ha	Rs. 40000.00/ ha
Introduction of Thailand / apple ber	80	50	Rs. 50000.00/ha	Rs. 300000.00/ha
Introduction of Strawberry	50	30	Rs.40000.00/ ha	Rs. 100000.00/ ha
Scientific Bee keeping	70	40	Rs. 30000.00 /ha	Rs. 40000.00/ ha
Keseru plantation as food for eri worm	100	40	Rs. 40000.00/ unit	Rs. 56000.00/ unit

4.2. Cases of large scale adoption

Ranjit sub-1, a submergence tolerance variety of paddy was adopted by farmers of the area based on the performance in experimental field and in farmers' field. The quality of rice is almost similar with Ranjit. The variety can tolerate submergence condition for 10-12 days.

Turmeric variety Megha Turmeric-1 was adopted by farmers under TSP programme. The variety was preferred by farmers for high yield and high curcumin content. From TSP programme the variety was spread to the nearby villages.

Under animal science Kamrupa birds was adopted by the farmers, popularized in FLD programmes. The eggs are used by the nearby farmers for hatching purpose.

Eri culture has been adopted by the farmers for raising farm income through improved eri culture which has been popularized through training, demonstration and improved eri food plant cultivation.

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

Technological benefits:

i) Crop Area: Due to introduction of new mid duration variety of Sali rice(TTB-404), area under double cropping was increased. After harvesting of Sali rice new varieties of pulses & oilseed such as toria, lentil etc can be successfully grown. Some old varieties were replaced by new varieties giving higher yield. It was mainly due to the training programme, FLD and OFT programme undertaken in the farmers field by KVK Kokrajhar.

ii) Livestock : The number of improved breed of livestock mainly poultry, piggery increased over the time.

Sl. No.	Items	Breeds introduced	No. of farmer benefitted
1.	Poultry	Kamrupa	10
2.	Pig	Hemshire & Ghungroo	40

iii) Use of farm machinery & tool: Use of farm machinery and tool were markedly influenced by the various interventions taken up by KVK, Kokrajhar

iv) Changes in Production and productivity: Both production and productivity markedly influenced by the introduction of various HYV of paddy, oilseeds, pulses & vegetables. The productivity of rice was increased by 35 percent which was realized after the large block demonstration in rice.

v) Organic cultivation: Area under organic production of fruits, vegetables, spices etc. have remarkably increased during the period due to increase in awareness of the famers through various KVK activities like training, demonstration, group discussion etc..Organic demonstration plot is demarcated at KVK farm and production technology of tomato was demonstrated.

5.0. LINKAGES ESTABLISHED

5.1 Functional linkage with different organizations

Name of organization	Nature of linkage
1. Department of Agriculture, Kokrajhar	Training, Diagnostics visit, Reviewing departmental projects, Beneficiary selection
2. Department of AH & Vety., Kokrajhar	Training organization, selection of cluster of farmers
3. Dept. of Fishery, Kokrajhar	Training, Diagnostics visit, Reviewing departmental projects, Beneficiary selection
4. Department of Soil Conservation, Kokrajhar	Integrated Water shed management Project, Training
5. NABARD, Kokrajhar	Training, Farmers group formation
6. SIRD, Assam	Backyard rearing of Chara Chembelli ducks for women empowerment, Exposure visit
7. UCO Bank, Kokrajhar	Lead bank activities related to farmers.

8. Green leaf NGO	Livelihood promotion through turmeric cultivation
9. LWS, Gossaigaon	Resource person
10. NERSWN, Kokrajhar	Guidance, resource person, preparation of work plan
11. Socio Economic Development, Haraputa	Guidance, resource person, preparation of work plan
12. UCORSETTI, Kokrajhar	Action plan formulation resource person
13. ATMA, Kokrajhar	Action plan formulation resource person
14. Department of Sericulture, Kokrajhar	Training organization, selection of cluster of farmers
15. Department of Agricultural Engineering, Kokrajhar	Reviewing departmental projects, Beneficiary selection
16. District Rural Development Agency (DRDA), Kokrajhar	Reviewing departmental projects, Beneficiary selection
17. Assam State Rural Livelihood Mission, Kokrajhar	Training to their beneficiary
18. District Industries of Commerce Centre (DICC), Kokrajhar	Reviewing departmental projects, Beneficiary selection
19. Bodoland University, Kokrajhar	Mushroom seed

5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies during 2017-18

Name of the scheme	Activity	Date/ Month of initiation	Funding agency	Amount (Rs.)
Agricultural Workshop on Conservation on Petroleum Products	Awareness cum training programme	23-11-2017	Petroleum Conservation Research Association (PCRA), Guwahati	7500.00
World Soil Health Day	SHC Distribution	05.12-17	ICAR	80000.00
Sanlap Se Siddhi		23.08.17	ICAR	80000.00
Livelihood Security of Tribal Farmer of Kokrajhar district	Training, Demonstration	28.04.17	AAU	527000.00

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

Sl. No.	Programme	Nature of linkage	Remarks
1	Joint field visit – paddy, rapeseed, pulse (Lentil)	Collaborative training programme on scientific production technology, Expert service	Successfully conducted.

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 2017-18

6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of estd .	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1.	Piggery	2010	145 sq m	Hampshire & T & D	Pig	1		12500.00	
2.	Poultry	2010	45 sq m	Kamrupa					
3.	Goat	2010	-	Bottle cross	Goat	4		10000.00	
4.	Vermicomposting	2010	50 sq m		Vermi compost	460.5 kg		5526.00	
5.	Rice fish vegetable	2010	224 r m						

6.2 Performance of instructional farm (Crops) including seed production

Performance of instructional farm (Crops) including seed production									
Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Pulses									
Oilseeds									
Fibers									
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
a. Others (specify)									

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

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

6.4 Performance of instructional farm (livestock and fisheries production)

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

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Demonstration Unit

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

6.6. Utilization of hostel facilities (Month-Wise) during 2017-18

Accommodation available (No. of beds) :

Months	Title of the training course/Purpose of stay	Duration of Training	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
-	-	-	-	-	-
Total	-	-	-	-	-
Grand 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 Host Institute	-	-	-
With KVK	SBI	Gossaigaon	11378641024
Revolving Fund	SBI	Gossaigaon	11378660228

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

Item	Released by ICAR/ZPD		Expenditure		Unspent balance as on 31 st March, 2015
	Year	Year	Year	Year	
Inputs	-	-	-	-	-
Extension activities	-	-	-	-	-
TA/DA/POL etc.	-	-	-	-	-
TOTAL	-	-	-	-	-

7.3 Utilization of KVK funds during the year 2017 -18

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
A. Recurring Contingencies				
1	Pay & Allowances	97.00	97.00	97.00
2	Traveling allowances	2.00	1.96	1.96
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	15.50	15.48	15.23

<i>F</i>	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
<i>G</i>	Training of extension functionaries			
<i>H</i>	Maintenance of buildings			
<i>I</i>	Establishment of Soil, Plant & Water Testing Laboratory			
<i>J</i>	Library			
TOTAL (A)		114.50	114.44	114.19
B. Non-Recurring Contingencies				
1	Works	0.00	0.00	0.00
2	Equipments including SWTL & Furniture	0.00	0.00	0.00
3	Vehicle (Four wheeler/Two wheeler, please specify)	0.00	0.00	0.00
4	Library (Purchase of assets like books & journals)	0.00	0.00	0.00
TOTAL (B)		0.00	0.00	0.00
C. REVOLVING FUND		0.00	0.00	0.00
GRAND TOTAL (A+B+C)		114.50	114.44	114.18

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2015 to March 2016	2.48	1.49	2.73	1.24
April 2016 to March 2017	1.24	2.83	1.73	2.34
April 2017 to March 2018	2.34823	2.55375	1.90342	2.99856

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

8.1 Constraints

(a) Administrative
1. Manpower Shortage –The post Stenographer , Programme Assistant, is vacant
2. Farmers hostel, staff quarter are required
b) Financial
1. Timely release of fund for smooth functioning of KVK,. CFLD fund may be released well advance
(c) Technical
1. Library facility in KVK of far-flung areas from may be upgraded to state of art standard.
2. Supporting technical staff is deeply felt

(Signature)
Sr. Scientist cum Head