ICAR-ATARI, Pune

DETAILS OF ANNUAL PROGRESS REPORT OF KVK NAVSARI DURING 2018-19
(1st April 2018 to 31st March 2019)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
Krishi Vigyan Kendra Navsari Agricultural University Eru Char Rasta Navsari-396 450 Gujarat	Office (02637) 282009	FAX (02637) 282008	kvknavsari@yahoo.com kvknavsari@nau.in	www.kvknavsari.in

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

Address	Telephone		E mail	Website address
	Office	FAX		
Directorate of Extension Education, Navsari Agricultural University Eru Char Rasta Navsari-396 450 Gujarat	(02637) 282706	(02637) 282706	dee@nau.in	www.nau.in

1.3. Name of the Senior Scientist and Head with phone & mobile no.

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. C. K. Timbadia	9825386435	9725006012	cktamreli@yahoo.com

1.4. Year of sanction: 2006

1.5. Staff Position (as on March 31, 2019)

Sr. No.	Sanctioned post	Name of the incumbent	Discipline	If Permanent, Please indicate			If Temporary, pl. indicate the consolidated amount paid (Rs./month)
				Current Pay Band	Current Grade Pay	Date of joining	
1	Senior Scientist and Head	Dr. C. K. Timbadia	Ext. Edu.	37400-67000	9000	03.07.06	-
2	Scientist	Dr. K. A. Shah	Agronomy	15600-39100	7000	06.02.12	-

3	Scientist	Prof. P. P. Patel	Fisheries	15600-39100	7000	01.02.13	-
4	Scientist	Dr. P. H. Nayaka	Plan Protection	15600-39100	7000	23.5.13	-
5	Scientist	Smt. D. N. Soni	Home Science	15600-39100	6000	19.06.10	-
6	Scientist	Prof. R.A. Gurjar	Horticulture	15600-39100	6000	08.01.13	-
7	Scientist	Dr. S. R. Salunkhe	Ext. Edu.	15600-39100	6000	12.08.15	-
8	Programme Assistant	Vacant	-	-	-	-	-
9	Computer Programmer	Mr. C. B. Naik	-	39900-12660	-	14.08.08	-
10	Farm Manager	Mr. A. N. Lad	Soil science	39900-12660	-	20.10.11	-
11	Accountant/ Superintendent	Devendra Rasiklal Rana	Senior Clerk	25500-81100	-	20.03.10	-
12	Stenographer	Vacant	-	-	-	-	-
13	Driver 1	Vacant	-	-	-	-	-
14	Driver 2	Shri. H. Z. Chauhan	-	19900-63200	-	23.8.07	-
15	Supporting staff 1	Vacant	-	-	-	-	-
16	Supporting staff 2	Vacant	-	-	-	-	-

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	550 sq. m.
2.	Under Demonstration Units	-
3.	Under Crops	19.45
4.	Horticulture	-
5.	Pond	1.00 ha
6.	Others if any	-

1.7. Infrastructural Development:

A) Buildings

Sr. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq.m)	Expenditure (Rs.)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	30-11-08 20-7-10	550 sq.m.				
2.	Farmers Hostel	ICAR		-----				
3.	Staff Quarters (6)	ICAR	2012	-				
4.	Demonstration Units (2)	-	-	-				
5	Fencing	-	-	-				

6	Rain Water harvesting system	Under RKVY Project constructed (37000 litre capacity)						
7	Threshing floor	ICAR	-	-	1.44			
8	Farm godown	ICAR	-	-	3.88			
9	ICT lab	RKVY	-	-				
10	Other							
11.	Farm godown	State Plan Scheme	March-14	-	5.00 lakh			
12.	Farmer's urinal	State Plan Scheme	March-17	-	5.00 lakh			
13.	Block Paving	State Plan Scheme	March-17	-	2.00 lakh			
14.	Seed hub godown	ICAR	March 18		35.00 lakh			
15.	Fish Pond	State Plan Scheme	March-18	-	2.25 lakh			
16.	Vehicle Shed	State Plan Scheme	March-18	-	3.80 lakh			
17.	Road Expansion	State Plan Scheme	March-18	-	4.00 lakh			

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero Jeep	2006	4,50,000/-	254639	Replacement is highly needed
Tractor	2006	4,15,000/-	-	Good
Power tiller with all accessories	2011	1,46,475/-	-	Good
Power tiller trailer	2011	26,500/-	-	Good
Bajaj Discover	2011	49,800/-	66184	Good
Tempo Traveler	--	--	-	Good
Qualis	--	--	362539	Good
Mobile soil testing Van	2008	26,30,000/-	--	Replacement is highly needed

C) Equipments & AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
(a) Office equipments			
Under KVK			
Toshiba Xerox machine	2007	60,000/-	Replacement is needed
Printers	2008	21,650/-	Replacement is needed
Summit analytical balance	2011	97,020/-	Good
Precision balance readability	2011	12,128/-	Good
Sonar make Willy grinder	2011	24,236/-	Good
Sonar make laboratory Oven	2011	17,260/-	Good
LG refrigerator	2011	17,295	Good
Laboratory hot plate	2011	15,929/-	Good
Systronics flame photometer	2011	42,525/	Good
Systronics pH system with electrode & temp. prob.	2011	13,800/-	Good
Systronics Conductivity meter	2011	14,800/-	Good
Systronics digital spectrometer	2011	90,100/-	Good
REMI make Rotary shake brusher	2011	50.000/-	Good
Muffle furnace	2011	32,201/-	Good
Photocopier	2017	1,50,000/-	Good
RO water purified (100 li.) with cooler	2017	79,600/-	Good
Nikon copier digital camera (P-900)	2017	29,650/-	Good
Nikon copier digital camera (S-7000)	2017	9,.850/-	Good
Under RKVY project			
Nikon model SLR camera	2009	48,600/-	Replacement is needed
Sony digital camera	2009	19,038/-	Replacement is needed
Sony 45E handy cam	2009	19,991/-	Replacement is needed
Autoclave vertical	2009	89,000/-	Good
B.O.D. incubator	2009	1,35,300/-	Good
Laminar air flow	2009	85,900/-	Good
Sartorius analytical balance	2009	80,000/-	Good
Sartorius top loading balance	2009	21,000/-	Good
REMI make centrifuge	2009	38,800/-	Good
Systronics make flame photometer	2009	41,900/-	Good
Systronics make pH system with electrode	2009	19,100/-	Good
Systronics make conductivity TDS meter	2009	18,900/-	Good
Systronics spectrophotometer	2009	2,90,100/-	Good
Nitrogen distillation unit	2009	2,35,000/-	Replacement is needed
Himedia make colony counter	2009	17,668/-	Good
Himedia make automatic loop sterilizer	2009	12,908/-	Good
MSW-452 “MAC” stone bottle dust cover	2009	44,800/-	Good
Rotary flask shaker	2009	25,800/-	Good

LG A.C.	2009	20,000/-	Good
Automic absorption spectrophotometer	2009	5,75,000/-	Replacement is needed
LG refrigerator (290 lit.)	2009	16,521/-	Replacement is needed
Microscope	2009	9,550/-	Good
Photomicrography	2009	4,500/-	Good
Stereo microscope	2009	4,900/-	Good
Stereo microscope with magnification	2009	4,900/-	Good
R.O. plant (25 LPH) with cooler	2010	38,500/-	Replacement is needed
Generator 15 kva	2010	2,00,000/-	Good
R.O. plant (25 LPH)	2010	15,500/-	Replacement is needed
R.O. plant (25 LPH) with cooler	2010	38,500/-	Replacement is needed
Printer CANON	2010	13,100/-	Replacement is needed
LG A.C. (1.5 ton)	2010	1,05,600/-	Replacement is needed
Milk analyzer	2011	1,50,000/-	Good
Laser printer Canon 3 in 1	2011	13,000/-	Replacement is needed
Weighing scale - 100 kg	2011	7000/-	Replacement is needed
LG refrigerator 548 ysx4	2011	40,947/-	Good
Generator 35 kva	2012	6,06,205/-	Good
(b) Farm Equipments			
Under KVK			
Tractor Trailer	2006	85,000/-	Good
Cultivator (Fixed type)	2006	14,000/-	Good
Submersible pump set	2008	24,474/-	Good
Power Sprayer	2010	23,090/-	Good
Paddy winnower fan	2010	26,500/-	Good
Monoblock electric fan	2011	6,900/-	Good
Multi crop seed cum fertilizer drill	2011	45,000/-	Good
Multi crop thresher	2011	1,40,000/-	Good
Rotavator	2017	85,000/-	Good
Garden tools (cutter)	2017	64,700/-	Good
Under RKVY project			
CHAFF cutter with accessories	2011	2,05,941/-	Good
Feed pellet ting machine	2011	10,51,859/-	Good
Topland Diesel engine	2012	31,900/-	Good
Audio Visual Aids			
Under KVK			
“PROTON Impact 65 T” In built P.A. System with speaker with cordless microphone	2010	17,800/-	Replacement is needed
PROTON Enson EM 310 Boundary mike	2010	4,361/-	Replacement is needed
VIVITEK multimedia DLP projector (No.-2)	2010	99,990/-	Replacement is needed
Lenovo Desk top	2010	50,356/-	Replacement is needed
View sonic multimedia projector	2017	75,050/-	Good
Ahuja portable combo	2017	63,402/-	Good

amplifier with accessories			
Presentation digital podium	2017	1,49,800/-	Good
Under RKVY project			
Sony multimedia projector	2009	1,30,476/-	Replacement is needed
Motorized screen	2009	24,762/-	Good
Samsung LCD TV	2009	54,783/-	Replacement is needed
Dell Laptop	2009	1,57,520/-	Replacement is needed
dB UHF hand held wireless mic	2009	29,700/-	Replacement is needed
dB UHF Tie pin wireless mic	2009	9,850/-	Replacement is needed
Speech reinforcement sound system with accessories	2009	47,619/-	Replacement is needed
Sony EX50 multimedia projector	2009	62,857/-	Replacement is needed
Data processor Note book (Laptop)	2011	23,000/-	Replacement is highly needed

*** Name and Designation of Participants**

Sr. no	Name	Designation	Position
1	Dr. C. J. Dangaria	Hon'ble Vice Chancellor, NAU, Navsari	Chairman
2	Dr. G. R. Patel	Director of Extension Education, NAU, Navsari	Member
3	Dr. V. B. Kharadi	Principal, Collage of veterinary college, NAU, Navsari	Member
4	Dr. J. D. Thanki	Professor & Head (Agronomy), NMCA, NAU, Navsari	Member
5	Dr. C. K. Timbadia	Senior Scientist & Head, KVK, Navsari	Member Secretary
6	Dr. R.V. Borichangar	Associate Professor, College of Fisheries Science, NAU, Navsari	Member
7	Shri B.K. Samatray	AGM,NABARD	Member
8	Dr.B.N.Patel	Principal ASPEE college, NAU, Navsari,	Member
9	Mr. P.C.Patel	District Agriculture Officer, NAU, Navsari	Member
10	Mr. R.M.Patel	Exe. Eng. (Drainage), Ambika division, Dist-Navsari	Member
11	Dr. M.G. Prajapati	Deputy Director of Animal Husbandry, Dist-Navsari	Member
12	Mr. M.K.Shah	Deputy Director of Horticulture, Dist-Navsari	Member
13	Mrs.S.B.Patel	Assistant Director of Fisheries, Dist-Navsari	Member
14	Shri Amitbhai Naik	Secretary, Dhanori Piyat mandali and Seva sahakari Mandali, Village - Dhanori, Ta.Gandevi, Dist : Navsari	Member
15	Shri Kiranbhai M.Patel	Director, Navsari Taluka Sangh, Navsari	Member
16	Mr. C.R.Patel	Project Director, ATMA, Navsari	Member
17	Shri Surajbhai D. Savalia	Agri-entrepreneur, Village : Ganesh Sisodra, Dist : Navsari,	Member
18	Shri. C.K. Patel	Progressive Farmer, Village- Bhinar, Ta.Vansda	Member
19	Smt.Alpanaben M.	Progressive Farm Woman, Village- Vasan,	Member

	Patel	Ta.Gandevi	
20	Smt.Laxmi B.Patel	Progressive Farm women, Village- Aat, Ta. Navsari	Member
21	Dr.K.A.Shah	Scientist (Agronomy). KVK, Navsari	Member
22	Prof P.P.Patel	Scientist (Fisheries). KVK, Navsari	Member
23	Dr.Prabhu Nayaka	Scientist (Plant Protection). KVK, Navsari	Member
24	Dr.Sumit Salunkhe	Scientist (Extension Education). KVK, Navsari	Member
25	Shri R.A.Gurjar	Scientist (Horticulture). KVK, Navsari	Member
26	Smt Dipal N.Soni	Scientist (Home Science). KVK, Navsari	Member

**** Salient Recommendation on 11th SAC meeting held on 20/03/2019**

11.2.1	Impact should be analyzed for training and extension activities.
11.2.2	Use new variety in FLDs
11.2.3	Convergence activities with NABARD
11.2.4	Use Novel plus in FLDs
11.2.5	Plan scheme strengthening proposal should be submitted along with required staff for inland fisheries scheme.

***** Action Taken Report on minutes of 10th SAC meeting held on 19/03/2018**

Action Taken Report on minutes of 10th SAC meeting held on 20/03/2019		
Sr. No	**Suggestions**	**Action taken**
1. During scientific Advisory committee meeting following suggestions are made by the experts		
	During the presentation of activities carried out by KVK Navsari in 10th SAC by KVK, following decisions were taken	
10.1.1	Organize one day training or workshop on script writing and presentation for Scientists and officers of university. (Action :DEE)	• it will be conducted next year
10.1.2	Training should be organize on organic sugarcane cultivation	• Two Training has been conducted on Cultivation and biological control of pest
10.1.3	Organize method demonstration and trainings on silage preparation	• Training and demonstration has been conducted on silage preparation
10.1.4	Organize training on vermin compost production for efficient utilization FYM.	• Five Training program carried out on benefit of Vermi composting & composting.
10.1.5	Organize training on fruit fly traps.	• Conducted training on use of fruit fly trap installation and findings of installation
10.1.6	There should be ornamental fish aquarium unit at KVK, Navsari	• Now ornamental fish aquarium unit is well established
10.1.7	Fish seeds (Fingerlings) should be produced at KVK,Navsari	• Last year about 10000 Nos of fingerling produce of KVK, Navsari
10.1.8	Marketing of organic produced could be done by farmers groups or co-operatives.	• KVK will Help to marketing of organic product through Krishi mela, Gandhimela, Pre Rabi Sambelan
10.1.9	Organize training on the methods of Botanical pesticides preparation.	• Conducted Training on Botanical Pesticide Preparation namly Neemastra, Brahmastra, Agnastra and Dashaparani

2. DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1.	Agri - horticulture system
2.	Agri - horti- silviculture system
3.	Agri - horti- livestock production system
4.	Horti- livestock production system
5.	Horti- livestock - inland aquaculture production system

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

a) Soil type

Sr. No.	Agro-climatic Zone	Characteristics
1	South Gujarat Heavy Rainfall Zone	Rainfall: 2500 mm and more Type of Soil: Deep black with few patches of coastal alluvial, laterite and medium black soils. Soil Characteristics : Most of the area cultivated ,some area non Cultivated under sallow and Past forest Soil fertility: Nitrogen-poor, Phosphorus medium, Potash High.

b)Topography

S. No.	Agro ecological situation	Characteristics
1	AES-I	Undulating, fine textured, shallow to medium depth, high to very high rainfall-rain fed, paddy, hill millet and pulses zone.
2	AES-III	Leveled, fine textured, deep, medium depth, rainfall-partly-irrigated, paddy, pulses, sugarcane, Mango, sapota zone
3	AES-IV	Leveled, fine textured, deep, salt affected, low rainfall, irrigated-paddy, sugarcane-wheat zone

2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Clay, deep	Moderately drained	Navsari
2	Clay, clay loam, moderately deep	Moderately to poorly drained, salt affected	Jalalpore
3	Clay, clay loam, deep	Moderately to poorly drained, salt affected	Gandevi
4	Clay, silty clay, shallow, loamy, deep	Well drained, undulating, erosion affected	Chikhli
5	Clay, silty, loamy, shallow	Well drained, moderate to strong undulating, erosion affected	Vansda

2.4. Area, Production and Productivity of major crops cultivated in the district (2017-18)

S. No	Crop	Area (ha)	Production (M.ton)	Productivity (kg /ha)
Field crops (Kharif Crops)				
1.	Paddy (TP)	17248	54486	3159
2.	Paddy (Irri)	36394	139935	3845
3.	Sorghum	29	36	1226
4.	Ragi	11.99	9.65	804.30
5.	Pigeon pea	1131	1070	946
6.	Black gram	392	284	724
7.	Ground nut	14	11	820
8.	Niger	6	2	318
9.	Green manure	1437	35925	25000
10.	Other pulses	171	137	800
	Total	**56834**	**231896**	**37642**
Field crops (Rabi/Summer Crops)				
11.	Sugarcane	174.19	12615.83	72424.88
12.	Rabi Sorghum	558	624	1118
13.	Gram	174.27	205.50	1179.22
14.	Paddy (Summer)	7059	30671	4350
15.	Green gram (Summer)	428	228	533
16.	Maize	126	179	1420
17.	Wheat	807.13	2378.15	3071
18.	Mustard	15	24	1600
19.	Indian bean	512	413	807
20.	Black gram (summer)	42	28	658
21.	Ground nut (summer)	40	73	1828
	Total	**9936**	**47439**	**88989**
Horticultural crops				
Sr. No	**Crop**	**Area (ha)**	**Production (M.T)**	**Productivity (t/ha)**
Fruit Crops				
1.	Mango	32665	300252	9.19
2.	Sapota	8133	102886.00	12.65
3.	Ber	5	43	8.60
4.	Banana	3161	163076	51.59
5.	Guava	2	25	12.50
6.	Papaya	417	26265	62.99
7.	Cashew Nut	347	347	1.00
8.	Coconut	593	5029	8.48
	Total	**45323**	**597923**	**167**
Vegetable crops				
9.	Onion	200	3485	17.94
10.	Brinjal	3029	59490	19.64
11.	Cabbage	205	4717	23.01

12.	Okra	6448	81564	12.65
13.	Tomato	176	4154	23.60
14.	Cauliflower	133	2601	19.56
15.	Clusterbean	741	7282	9.83
16.	Cowpea	876	7009	8.00
17.	Cucurbits	10800	1965601	18.20
	Total	**22608**	**2135903**	**152.43**
Flower crops				
18.	Rose	98	858	8.76
19.	Mari gold	722	7128	9.87
20.	Spider lily	1338	13487	10.08
	Total	**2158**	**21473**	**28.71**
Medicinal crops				
21.	Alovera	5	75	15.00
22.	Safed nusli	11	44	4.00
23.	Ashwgandha	2	0.1	0.05
24.	Pacholi	6	240	40.0
	Total	**24**	**359.1**	**59.05**
Spices and condiments crops				
25.	Chilli	740	1110	1.50
26.	Garlic	190	1235	6.50
27.	Turmeric	874	19534	22.35
28.	Ginger	132	2643	20.02
	Total	**1936**	**24522**	**50.37**

Source : DAO, Navsari District

2.5. Weather data (2018-19)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
April-18	0.0	35.8	21.9	88.1	48.3
May-18	0.0	35.1	25.7	88.5	57.2
June-18	120.0	33.7	26.3	92.0	74.1
July-18	1282.0	28.8	24.0	96.0	92.7
Aug-18	209.0	29.8	23.9	93.2	81.8
Sep-18	64.0	31.6	21.9	90.7	65.0
Oct-18	0.0	36.6	19.9	82.3	52.4
Nov-18	0.0	35.1	15.2	86.6	55.5
Dec-18	0.0	30.2	11.7	84.2	53.5
Jan-19	-	-	-	-	-
Feb-19	-	-	-	-	-
March-18	-	-	-	-	-
Total	**1675**	-	-	-	-

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

Table: Latest livestock census 2012

Sr. No.	Name of the Livestock	Total No. of livestock as per 2012 census
1	Cattle	232738
2	Buffalo	115032
3	Camels	06
4	Sheep	2089
5	Goats	84519
6	Horses and Ponies	95
7	Donkeys Mule & Dogs	3070
8	Rabbits	824
9	Pigs	443
10	Poultry Birds	874174
11	Others	24
Total		**13,13,014**

(Source: Dy. Director, District Animal Husbandry Office, Navsari)

Category	Population	Production	Productivity
Cattle			
Crossbred	95594	89230 tones	NA
Indigenous	60725	19630 tones	NA
Buffalo	102142	69620 tones	NA
Sheep	3000	4 metric tones	NA
Goats	87207	3390 tones	NA
Pigs	369	NA	NA
Crossbred	NA	NA	NA
Indigenous	NA	NA	NA
Rabbits	NA	NA	NA
Poultry			
Hens	245300	129.72 lakhs	NA
Desi	189800	447.79 lakhs	NA
Fish (Reservoir)			
Marine	53 km	17191 MT	-
Inland	412.06 ha	269 MT	652.8 kg/ha
Prawn	-	-	-
Scampi	735 ha.	65 MT	88.4 kg/ha
Shrimp	845 ha.	796.7 MT	942.8 kg/ha

(Source: Dy. Director, District Animal Husbandry Office, Navsari)

Fisheries Statistics as on 31/03/2015 is as under

No. of Boats to catch fish in the District	
Mechanized Boats	694
Without Mechanized Boats	378
No. of Active Fisherman in the District	19868
Production of Fishes in MT	28596
No. of Primary Fisheries Co-operative Societies	19
No of Membership of Co-operative Societies	6230
Subscribed Share Capital of Co-operative Societies	Rs. 23,51,140
Fishing Nets	21453
Ice Factories	08
Boat Building Yards (70 MT capacity)	03
Frozen Storage	01
Boat Licenses issued	470
Fishing Ponds	630

The Fishermen Population as on 31/03/2014 is as under:

Sr. No.	**Taluka (Nos.)**	**Male (Nos.)**	**Female (Nos.)**	**Children (Nos.)**	**Total (Nos.)**
1	Navsari	394	348	232	974
2	Jalalpore	5604	5553	7675	18832
3	Gandevi	4681	4643	4627	13951
4	Chikhli & Khergam	443	416	439	1298
5	Vansda	704	601	740	2045
TOTAL		**11826**	**11561**	**13713**	**37100**

(Source: Fisheries Department, District Panchayat, Navsari)

2.7. Details of Operational area / Villages

Taluka	Name of the block	Name of the village	Major crops & enterpries	Major problem identified	Identified Thrust Areas
Navsari	Navsari	Adada Kachhol Unn	-Paddy -Sugarcane -Spider lily -Vegetable -Mango -Sapota - Animal Husbandry -Fisheries - Food preservation	1. Injudicious use of fertilizer, pesticides and Irrigation water and other inputs 2. Difficulty for timely availability of certified seed and planting materials 3. Less availability of labours at the time major agricultural operations during crop seasons 4. No seed treatment in any crop 5. Heavy infestations of weeds 6. Traditional Management of animals 7. Aquatic weed infested village ponds availability 8. Lack of knowledge & scientific information regarding fish feeds & nutrition	1. Fertilizer, weed and Irrigation water management. 2. Pests and disease management 3. Soil health conservation 4. Integrated farming 5. Seed production 6. Scientific management of livestock 7. Disease management in animals 8. Composite fish culture 9. Water quality management 10. Value addition

Jalalpore	Jalalpore	Bodali Mandir Pethan	-Paddy -Sugarcane -Wheat -Mango -Sapota -Vegetable -Animal Husbandry -Fish culture -House hold food security	1. Frequent flooding of farms during rainy season. 2. Coastal area salinization. 3. Injudicious use of fertilizer, pesticides and Irrigation water 4. Old orchard of mango and sapota 5. Less knowledge about tuber crops. 6. No Crop rotation. 7. Traditional Method of kitchen garden 8. Nutrition deficiency in animals. 9. No deworming in animal 10. Lack of knowledge & scientific information regarding fish feeds and nutrition	1. Orchard management 2. Soil health conservation. 3. IPDM 4. Integrated farming 5. Water Harvesting and storage 6. Cropping system 7. Production technology 8. Feed management in animals 9. Health management in animals 10. Fish nutrition 11. Fish disease management 12. Value addition 13. Kitchen gardening

Gandevi	Gandevi	Changa Dhanori Vagalvada	-Paddy -Pulses -Mango -Sapota -Sugarcane -Vegetable -Animal Husbandry - Fishing - Drudgery reduction	1. Lack of knowledge of pruning 2. Less availability of labors at the time major agricultural operations during crop seasons. 3. Injudicious use of fertilizer, pesticides and Irrigation water 4. Heavy infestations of weeds. 5. No crop rotation 6. No knowledge on orchard management. 7. Lack knowledge on ornamental crops 5. Mismanagement of calf 8. Lack of knowledge about production of quality animals 9. Lack of skill for conducting fish farming 10. Reduction in quantity of fresh water prawn	1. Soil health conservation 2. Crop diversification 3. Seed Production 4. Nutrient use efficiency 5. Production technology on ornamental crops 6. Pests and disease management 7. Rejuvenation of old orchards 8. Cultivation of fruits 9. Scientific calf rearing 10. Fish culture in village pond 11.Women and child care 12. Methods of prawn culture

Chikhli	Chikhli	Soldhara Bamanvada Golav	-Paddy -Gram -Green gram -Sugarcane -Mango -Sapota -Tubers -Vegetable -Livestock -Fish	1. Injudicious use of fertilizer & pesticides 2. Lacking in production technology of tuber crops 3. Less availability of labours at the time major agricultural operations during crop seasons 4. Heavy infestations of weeds 5. Severe Snail problem during Kharif season 6. Traditional calf rearing 7. Nutritional deficiency in animals 8. Weed infested shallow village ponds	1. Fertilizer, weed and Irrigation water mgmt. 2. Organic farming 3. Mechanization of agricultural operations 4. Production technology 5. Value addition in tuber crops 6. Seed treatment 7. IPDM 8. Soil health conservation 9. Water harvesting & recharge 10. Scientific calf rearing 11. Quality animal products 12. Fish culture method 13. Agriculture marketing

Vansda	Vansda	Nani valzar Unai charvi Kharjai	-Paddy -Pulses -Mango -Sapota -Pointed gourd -Vegetables Animal Husbandry -Fishery	1. Irrigation shortage during summer season 2. Injudicious use of fertilizer, pesticides. 3. High incidence of pests and diseases in vegetable crops. 4. No knowledge about cropping system 5. Lack knowledge on protective cultivation 6. No availability of seed and seedling materials 7.Taditional methods of rearing animals 8. No deworming in animals 9. No awareness on Fish culture species 10. Weed infested village pond	1. Organic farming. 2. Water Harvesting and storage. 3. Integrated farming 4. Pests and disease management 5. Soil health conservation 6. Crop diversification 7. Disease management in animals 8. Feed management in animal 9. Fish stocking & Fish composition rate 10. Pond water quality management
Khergam	Khergam	Naranpur Bahej Bhervi	-Pointed gouard -Vegetables -Animal Husbandry	1. Fragmented land holding 2. Poor financial status of farmers 3. Low productivity of milk animals	1. Mix farming concept (Agri.+Horti.+livestock)

2.8. Priority thrust areas:

Thrust area	
Soil health conservation	Kitchen gardening
Integrated farming	Seed treatment
Seed production	Fish culture method
Scientific management of livestock	Organic farming
Quality feed management for animal	Crop diversification
Value addition	Feed management in calf
IPDM	Disease management in animals
Cropping system	Fish stocking & fish composition

3. TECHNICAL ACHIEVEMENTS

3.1. A. Details of target and achievements of mandatory activities

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
4	4	24	38	242	546.2	1616	2816

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
33	95	825	4450	75	679	4604	37695

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
20.4	135.32	24000	3700

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
Nil	Nil	-	1170

3.1. B. Operational areas details during 2018-19

S. No	Major crops & enterprises being practiced in cluster of villages	Prioritized problems in these crops/ enterprise	Extent of area (ha/No.) affected by the problem in the district	Name of Cluster Villages identified for interventions	Interventions (OFT, FLD, Training, extension activity etc.)*
1	Paddy	Low production variety	1500	Adada Kachhol Unn Bodali Mandir Pethan Changa Dhanori Vagalvada Soldhara Bamanvada Golav Nani valzar Unai charvi Kharjai Naranpur Bahej Bhervi	FLD, Training for farmers & extension personnel and Khedut shibir
2	Paddy	Low production variety	1100		FLD, Training and Khedut shibir
3	Paddy	Low production variety	1600		FLD, Training and Khedut shibir
4	Paddy	Use of local variety	1400		FLD, Training and Khedut shibir
5	Green gram	Use of local variety	250		OFT, FLD, Training and Khedut shibir
6	Chick pea	Use of local variety	710		FLD, Training and Khedut shibir
7	Chick pea	Use of local variety	760		FLD, Training and Khedut shibir
8	Green gram	Use of local variety	300		FLD, Training and Khedut shibir
9	Pigeon pea	Use of local seed and flate sowing	800		FLD, Training and Khedut shibir
10	Chilli	Murda complex in chilly	80		OFT, Training and Khedut shibir
11	Paddy	No awareness about bio control	1300		FLD, Diagnostic visit, Training
12	Mango/Sappota	No use of fruit fly trap	22000/6000		FLD, Diagnostic visit, Training
13	Sapota	Low production wilting	300		FLD, Diagnostic visit, Training
14	Kitchen garden	Haphazardly growing kitchen garden practices	510		FLD, Training and Khedut shibir
15	Mango	Use of local variety	22000		FLD, Training and Khedut shibir
16	Mango	No use of bio fertilizers	22000		FLD, Diagnostic viist, Training
17	Mango	No use of fruit fly trap	22000		FLD, Diagnostic viist, Training

18	Brinjal	Use of local variety	1500		FLD, Training, Field visit
19	Plastic bags	Loss of stored grains	100		FLD, Training and Mahila shibir
20	Fresh water fish farming	1. Low fish yield 2. Non availability of quality fish seeds (yearlings)	60 ha.	Matwad, Onjal, Aat, Soldhara, Ancheli, Mohanpur, Ranverikhurd, Nandarkha, Dandi, Kothamadi, chijgam, Kanera, Pitha, Karadi	1. OFT on stocking density of fish seed for stunted yearlings production in cage culture system. 2. OFT on to assess fish species stocking ratio of Indian major carps and Chinese carps in culture ponds. 3. FLD- Indian major carps seed production from fry to yearlings. 4. FLD- Fresh water fish seed stocking density and species ratio for higher production in village tanks/khet talavadi/ courtyard tanks. 5. Fish nutrition and feeding management for fresh water culture

*** Support with problem-cause and interventions diagram**

3.2. Technology Assessment

A1. Abstract on the number of technologies assessed in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	-	-	1	-	1	-	-	-	-	2
Integrated Pest Management	-	-	-	-	1	-	-	-	-	1
Total			**1**		**2**					**3**

A2. Abstract on the number of technologies assessed in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Production and Management	0	0	0	0	1	1
TOTAL	**0**	**0**	**0**	**0**	**1**	**1**

B. Achievements on technologies Assessed

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Varietal Evaluation	Mung	New Variety in green gram	1	6	1.2
	Okra	New okra variety in Navsari district	1	6	1.2
Integrated Pest Management	Chilli	Sucking pest management in chilli	1	6	1.2
Total			**3**	**18**	**3.6**

B.2. Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Production and management	Fisheries	Stocking density of fingerlings (Catla, Rohu, Mrigal and Grass carp) for production of stunted yearlings in cage culture system	1	20
Total			**1**	**20**

1.Results of Technologies Assessed

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**

Green gram	Irrigated	Yellow vein mosaic virus infestation in mung bean & small seed of green gram	Assessment of new variety of green gram	1	Gujarat Greengram-6	Seed Weight & yield	5.1 gm of 100 seeds	878 kg/ha	New variety is very good yield & seed size is bold & market price is also good as compared to meha	---	---
					Meha		3.5 gm of 100 seeds	727 kg/ha			

Technology Assessed	**Source of Technology**	**Production**	**Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)**	**Net Return (Profit) in Rs. / unit**	**BC Ratio**
13	**14**	**15**	**16**	**17**	**18**
Variety Meha (Farmer's practice)	Navsari Agricultural University technology	727	kg/ha	27001	1.95
Variety GM-6	Navsari Agricultural University technology	878	kg/ha	38483	2.36

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Chilli Green	Irrigated	Due to sucking pests in chilli there will be drastic reduction in chilli yield and also these sucking pests acts as vectors in disease transmission	Sucking pest management in chilli	6	Seedling treatement with trichoderma viridi+ V. lecani + M. anisopliae + B. bassiana@ 5 gm/lit + yellow + blue sticky trap @15/ha + Spinosad @ 0.3 ml/lit	No. of sucking pests and Yield	No.of thrips /leaf: 3.43 No.of mites /leaf: 7.20 No.of Ahids /leaf: 4.70 Leaf curl index :0.43 Note: Observation on first three leaves on top, middle and bottom of the crop	10870 kg/ha	Biopesticides and biorationals are good in managing the suckinng pests and also economical compare to chemical faming	---	---

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Indiscrominate use of pesticide(Cypermethrin +spiromesifen+indoxarb) (Farmer's practice)	Farmers technology	9200	kg/ha	143120	2.07

Seedling treatement with trichoderma viridi+V. lecani + M. anisoplae + B. bassiana@ 5 gm/lit + yellow+ blue sticky trap @15/ha + Spinosad @ 0.3 ml/lit	Navsari Agricultural University technology	10870	kg/ha	203970	2.67

C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

1.	Title of technology assessed.	:	Assessment of new variety of green gram
2.	Problem definition	:	Yellow vein mosaic virus infestation in mung bean & small seed of greengram
3.	Details of technologies selected for assessment	:	Yellow vein mosaic virus resistance new released variety GM-6
4.	Source of technology	:	Navsari Agricultural University, Navsari
5.	Production system and thematic area	:	Varietal Evaluation
6.	Performance of technology with performance indicator	:	Yellow vein mosaic virus resistant variety increase seed yield
7	Feedback, matrix scoring of various technology parameters do techniques.	:	Feedback is good
8	Final recommendation for micro level situation	:	Second year assessment is running
9.	Constraints identified and feedback for research	:	none identified
10	Process of farmers participation and their reaction	:	Good

1.	Title of technology assessed.	:	Assessment of new variety of okra
2.	Problem definition	:	Lack of awareness of new variety.
3.	Details of technologies selected for assessment	:	Gujarat Anand okra
4.	Source of technology	:	Anand Agricultural University, Anand
5.	Production system and thematic area	:	Varietal Evaluation
6.	Performance of technology with	:	Low yield compared to market variety

	performance indicator		
7	Feedback, matrix scoring of various technology parameters do techniques.	:	Lower yield compared to other varieties under south Gujarat condition
8	Final recommendation for micro level situation	:	Farmers are not ready to grow this variety again.
9.	Constraints identified and feedback for research	:	Under south Gujarat condition variety do not perform well in terms of yield.
10	Process of farmers participation and their reaction	:	Difficult to convince to grow again

1.	Title of technology assessed.	:	Sucking pest management in chilli
2.	Problem definition	:	Farmers of south Gujarat are not practicing integrating approach in management of chilli thrips and mites. Many farmers preparing seedling without the seed treatment and transplanting without seedling root dip (either bio or chemical) this results heavy loss of chilli yield in farmer's field.
3.	Details of technologies selected for assessment	:	seed treatment with imidacloprid 70%ws @ 400-600 g/100 seed and foiliar spray of spinosad 45% sc @ 64 ml in 200 lit of water. Before transplanting seedling root dip *trichoderma viridae* 5 gm/lit for 30 minutes and use of Blue and yellow sticky traps
4.	Source of technology	:	SAU
5.	Production system and thematic area	:	Integrated pest & disease management
6.	Performance of technology with performance indicator	:	Performance of the technology goo Perfoamance indictors management of aphids, mites, thrips and leaf curves disease
7	Feedback, matrix scoring of various technology parameters do techniques.	:	Feedback is good
8	Final recommendation for micro level situation	:	Second year assessment is running
9.	Constraints identified and feedback for research	:	none identified
10	Process of farmers participation and their reaction	:	Good

1.	Title of technology assessed.	:	Stunted yearlings of IMC(Catla, Rohu and Mrigal) and Grass carp production in cage culture system
2.	Problem definition	:	Lack of technical knowledge of various

			culture systems and cultivable traits of particular growing organisms
3.	Details of technologies selected for assessment	:	Rearing of IMC (Catla, Rohu and Mrigal) and Grass carps' seeds of size 40mm to 50 mm in net cages of size 3 m x 1m x 1m with 10 mm mesh nylon netting material. The stocking density is 166 number per cubic meter with species ratio 2:4.5:2.5:1 :: catla:Rohu:mrigal:Grass carp.
4.	Source of technology	:	College of Fisheries Science, Navsari Agricultural University, Navsari, Navsari
5.	Production system and thematic area	:	Production system: Nylon netting or plastic cages. Thematic area: Inland Fisheries
6.	Performance of technology with performance indicator	:	Size (Length and weight) and survival (Production of seeds in numbers)
7	Feedback, matrix scoring of various technology parameters do techniques.	:	Although it is under assessing but will be the best to utilize deep water resources such as stone quarry and village tanks along with grow out culture system. This system requires regular checking, maintenance and cleaning of cages.
8	Final recommendation for micro level situation	:	It is under assessing
9.	Constraints identified and feedback for research	:	Identification of specific natural food organisms for particular fin fish and maintain supply chain in fish rearing system.
10	Process of farmers participation and their reaction	:	Constant technical backstopping including personal guiding, FLD arrangement, effective presentation and providing exposure to modern culture units attracts farmers to adopt recently developed modern techniques of aquaculture

3.3. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2018-19 and recommended for large scale adoption in the district

Sr No	Crop/ Enterprise	Thematic Area *	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1.	Paddy	ICM	NAUR-1	Demonstration Training, Field day	12	313	110
2.	Paddy	ICM	GNR-3	Demonstration Training,	8	100	75

				Field day			
3.	Paddy	ICM	GNR-2	Demonstration Training, Field day	1	2	1
4.	Paddy	ICM	GNR-5	Demonstration Training, Field day	5	49	14
5.	Paddy	ICM	GNR-6	Demonstration Training, Field day	2	10	4
6.	Paddy	ICM	Pusha-44	Demonstration Training, Field day	1	2	0.5
7.	Paddy	ICM	S-2511	Demonstration Training, Field day	3	8	2
8.	Paddy	ICM	SRI technology	Demonstration, training, field day	4	14	3
9.	Paddy	IPDM	NAUR-1 GNR-3	Demonstration Training, Field day	5	20	10
10.	Paddy	ICM	NAUR-1 GNR-3	Demonstration Training	5	20	10
11.	Pigeon pea	ICM	BSMR-853	Demonstration Training, KM	20	161	31
12.	Sorghum	ICM	M.P.Chari PC-9	Demonstration Training, Field day	15	30	3
13.	Bajara	ICM	HC-20	Demonstration Training	5	10	1
14.	Chickpea	ICM	GG-3	Demonstration Training, Field day	20	79	10
15.	Chickpea	ICM	GG-5	Demonstration Training, Field day	18	80	10
16.	Green gram	ICM	Co-4	Demonstration Training, Field day	21	144	18.5
17.	Green gram	ICM	Meha	Demonstration Training, Field day	23	194	20
18.	Green gram	ICM	GM-6	Demonstration Training, Field day	15	88	10
19.	Indian bean	ICM	GNIB-21	Demonstration Training	6	47	2
20.	Indian bean	ICM	Guj. Indian bean-2	Demonstration Training	8	71	6.5
21.	Mango	INM	Kesar	Demonstration Training, KM	28	226	90
22.	Sapota	INM	Kalipatti	Demonstration Training, KM	5	25	5
23.	Brinjal	INM	Gulabi	Demonstration Training, KM	4	25	10
24.	Guvar	INM	Pusa navbahar	Demonstration Training, KM	6	35	8
25.	Mango	INM	Sonpari	Demonstration Training, KM	12	100	4
26.	Little gourd	INM	GNLG-1	Demonstration Training, KM	10	40	4

27.	Tamato	INM	GAT-5	Demonstration Training, KM	2	6	2
28.	Mango	INM	Kesar	Demonstra tion Training, KM	3	16	2
29.	Chibhda	INM	Local	Demonstration Training, KM	5	16	2
30.	Pigeon pea	IPDM	Vaishali	Demonstration Training, KM	5	10	5
31.	Mango	Bio control of pest and diseases	Kesar	Demonstration Training, KM	8	20	5
32.	Fresh water fish culture	Inland fisheries	Fish seed stocking density and species ratio	Demonstrated in villages tanks, khet talavadi of farmers and courtyard tanks by giving trainings and inputs such as Fish seeds(Fingerlings, yearlings	10	92	18.75
33.	Fresh water fish culture	Inland fisheries	Fish feed nutrition and feeding methods	Trainings and method demonstration of fish feeding such as bag feeding and broad casting by providing various protein content floating fish feed and sinking feed along with rice bran	18	118	22.45
34.	Cage farming	Inland fisheries	To demonstrate Pungasius fish culture in floating cage	Arranged two floating cages of size 6 m X 4m X 4 m in village tank of Soldhara and trained 5 young persons and demonstrated Pungasius culture by providing seeds and feeds as per requirements	02	10	1.5
35.	Fish seed rearing	Inland fisheries	IMC fish seed production from fry to yearlings	Demonstrated fish seed rearing from fry size to yearling size in khet talavadi.	2	5	1
36.	Plastic bags	Storage of grains	Scientific knowledge about storage of grains	Demonstration Training,	2	30	-
37	Kitchen	House	To introduce	Demonstration Training,	170	600	24

.	gardening	hold food security kitchen garden ning	scientific model for maintaining kitchen gardening in kharif, Rabi and summer				
	Total				**490**	**2816**	**546.2**

B. Details of FLDs implemented during 2018-19 (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops)

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstrations			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1.	Paddy	ICM	NAUR-1	Kharif-18	5	110	150	163	313	
2.	Paddy	ICM	GNR-3	Kharif-18	5	75	75	25	100	
3.	Paddy	ICM	GNR-2	Kharif-18	2.5	1	2	-	2	Due to unavilabity of certified seed
4.	Paddy	ICM	GNR-5	Kharif-18	-	14	24	25	49	
5.	Paddy	ICM	GNR-6	Kharif-18	2.5	4	8	2	10	
6.	Paddy	ICM	Pusha-44	Kharif-18	-	0.5	2	-	2	
7.	Paddy	ICM	S-2511	Kharif-18	-	2	8	-	8	
8.	Paddy	ICM	SRI technology	Kharif-18	-	3	14	-	14	
9.	Paddy	IPDM	NAUR-1 GNR-3	Kharif-18	10	10	10	10	20	
10.	Paddy	ICM	NAUR-1 GNR-3	Kharif-18	10	10	12	8	20	
11.	Pigeon pea	ICM	BSMR-853	Kharif-18		31	86	75	161	
12.	Sorghum	ICM	M.P.Chari PC-9	Rabi-18	-	3	26	4	30	
13.	Bajara	ICM	HC-20	Rabi-18	-	1	10	-	10	
14.	Chickpea	ICM	GG-3	Rabi-18	5	10	79	-	79	
15.	Chickpea	ICM	GG-5	Rabi-18	5	10	65	15	80	
16.	Green gram	ICM	Co-4	Summer-18	5	18.5	134	10	144	
17.	Green gram	ICM	Meha	Rabi-18	-	20	73	15	194	
18.	Green gram	ICM	GM-6	Rabi-18	-	10	175	19	88	
19.	Indian bean	ICM	GNIB-21	Rabi-18	-	2	44	3	47	
20.	Indian bean	ICM	Guj. Indian bean-2	Rabi-18	-	6.5	53	18	71	
21.	Mango	INM	Kesar	Kharif-18	5	90	106	120	226	
22.	Sapota	INM	Kalipatti		5	5	10	15	25	

23.	Brinjal	INM	Gulabi	Rabi-18	5	10	25	-	25	
24.	Guvar	INM	Pusa navbahar	Kharif-18	4	8	14	21	35	
25.	Mango	INM	Sonpari	Kharif-18	4	4	70	30	100	
26.	Little gourd	INM	GNLG-1	Kharif-18	4	4	20	20	40	
27.	Tamato	INM	GAT-5	Kharif-18	4	2	-	6	6	
28.	Mango	INM	Kesar	Kharif-18		2	6	10	16	
29.	Chibhda	INM	Local	Kharif-18	-	2	-	16	16	
30.	Pigeon pea	IPDM	Vaishali	Kharif-18	5	5	10	0	10	
31.	Mango	Bio control of pest and diseases	Kesar	Kharif-18	5	5	10	10	20	
32.	Fish farming IMC & Chinese carp	Inland aquaculture	Fish seed stocking density and species ratio	Kharif-18	20	18.75	42	50	92	
33.	Fish farming	Inland aquaculture	Fish nutrition and feeding rate	Kharif-18	22	22.45	50	68	118	
34.	Cage farming	Inland aquaculture	Pungasino culture in cage farming	Kharif-18	5	1.5	5	5	10	
35.	Fish seed rearing	Inland aquaculture	Fish seed rearing from fish fry to yearlings	Kharif-18	2	1	5	0	5	
36.	Plastic bags	Storage of grains	Scientific knowledge about storage of grains	Kharif-18	-	-	30	0	30	
37.	Kitchen gardening	Household food security kitchen gardening	To introduce scientific model for maintaining kitchen gardening in kharif, Rabi and summer	Rabi-18	2	24	315	285	600	
	Total				**142**	**546.2**	**1763**	**1053**	**2816**	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Paddy	Kharif-18	Rainfed	Black	L	M	H	Mung	July-18	Oct-18	1675	76
Paddy	Kharif-18	Rainfed	Black	L	M	H	Paddy	July-18	Oct-18	1675	76
Paddy	Kharif-18	Rainfed	Black	L	M	H	Paddy	July-18	Oct-18	1675	76
Paddy	Kharif-18	Rainfed	Black	L	M	H	Gram	July-18	Oct-18	1675	76
Paddy	Kharif-18	Rainfed	Black	L	M	H	Paddy	July-18	Oct-18	1675	76
Paddy	Kharif-18	Rainfed	Black	L	M	H	Paddy	July-18	Oct-18	1675	76
Paddy	Kharif-18	Rainfed	Black	L	M	H	Paddy	July-18	Oct-18	1675	76
Paddy	Kharif-18	Rainfed	Black	L	M	H	Paddy	July-18	Oct-18	1675	76
Paddy	Kharif-18	Rainfed	Black	L	M	H	Paddy	July-18	Oct-18	1675	76
Paddy	Kharif-18	Rainfed	Black	L	M	H	Paddy	July-18	Oct-18	1675	76
Pigeon pea	Kharif-18	Rainfed	Black	L	M	H	-	July-18	Oct-18	1675	76
Pigeon pea	Kharif-18	Rainfed	Black	L	M	H	-	July-18	Feb-19	1675	76
Sorghum	Rabi-18	Irrigated	M. Black	L	M	M	Paddy	Oct 18	March-19	1675	76
Bajara	Rabi-18	Irrigated	M. Black	L	M	M	Paddy	Oct 18	Feb-19	1675	76
Chickpea	Rabi-18	Rainfed	Black	L	M	H	Paddy	Nov-18	Feb-19	1675	76
Chickpea	Rabi-18	Rainfed	Black	L	M	H	Paddy	Nov-18	Feb-19	1675	76
Green gram	Summer-18	Irrigated	Black	L	M	H	Paddy	Oct-18	Dec-18	1675	76

Indian bean	Rabi-18	Irrigated	Black	L	M	H	-	Oct-18	Dec-18	1675	76
Indian bean	Rabi-18	Irrigated	Black	L	M	H	Sugarcane	Oct-18	Dec-18	1675	76
Mango	Kharif-18	Rainfed	Black	L	M	H	Mango	-	May-19	1675	76
Sapota	Kharif-18	Rainfed	Black	L	M	H	Sapota	-	Oct-18	1675	76
Brinjal	Rabi-18	Irrigated	Black	L	M	H	paddy	Oct-18	Dec-18	1675	76
Guvar	Kharif-18	Irrigated	Black	L	M	H	-	Oct-18	Feb-19	1675	76
Mango	Kharif-18	Rainfed	Black	L	M	H	Mango	-	May-18	1675	76
Little gourd	Kharif-18	Irrigated	Black	L	M	H	paddy	July-18	Aug-18	1675	76
Tamato	Kharif-18	Irrigated	Black	L	M	H	paddy	July-18	Dec-18	1675	76
Mango	Kharif-18	Rainfed	Black	L	M	H	Mango	-	May-18	1675	76
Chibhda	Kharif-18	Irrigated	sandy loam	L	M	M	paddy	Jan-18	April-19	1675	76
Mango	Kharif-18	Rainfed	Black	L	M	H	Mango	-	May-18	1675	76
Fish farming IMC & Chinese carp	Kharif-18	-	-	-	-	-	Fish	-	Oct-18	1675	76
Fish farming	Kharif-18	-	-	-	-	-	Fish	-	Oct-18	1675	76
Cage farming	Kharif-18	-	-	-	-	-	Fish	-	Oct-18	1675	76
Fish seed rearing	Kharif-18	-	-	-	-	-	Fish	-	Oct-18	1675	76
Plastic bags	Kharif-18	-	-	-	-	-	-	-	-	1675	76

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Experiment on cage culture in big village tanks need to be conducted
2	Preparation and testing of amrutmitti, amrutjal, jivamrut and panchgavya for different crops.
3	Preparation and testing of herbal pesticide for controlling pests and diseases.
4	Testing of cow dung and cow urine for enhancing growth and controlling pests and diseases.
5	Module for pesticide free productions.
6	Availability of country seeds.
7	Develop salt reclamation bio fertilizers.
8	To develop new variety of hybrid vegetables.
9	Develop early maturing and high yielding pigeon pea variety.
10	Branches of mango or sometime mango plant die in month of September-October.
11	Stem cracking or bark splitting was found in mango.
12	Terrace gardening, Box gardening and hanging pot kitchen gardening / availability of vegetables throughout the year on season basis.
13	Cost of feeding animals to be reduced
14	Experiment on amur common carp need to be conducted

Farmers' reactions on specific technologies

Sr. No	Feed Back
1	Banana sap highly performed and gave good results
2	Increase seed availability for newly released varieties at village level timely and in small packing (pulses, vegetables etc.).
3	Introduction of IPDM technology becomes helpful in reducing pests and disease
4	NAUR-1 is found susceptible to false smut & also loading.
5	Grain discoloration was found in GNR-3.
6	Profuse tillering but more pest incidence was found in GNR-4 after penical initiation.
7	The wastage of paddy straw is reduced and milk yield is increased by feeding of urea treated paddy straw.
8	Optimized inter calving period in buffalo
9	More number of complication around parturition in animals.
10	Inland aquaculture variety is good
11	Fish production increased with less expenditure.
12	Improve in the interest and initiation to bring village tanks for fish culture activities.
13	Cage fish farming can be significant component in blue revolution.

Extension and Training activities under FLD

Sr. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	11	18/5,17/10,20/10,22/10,17/12,4/1,17/1,18/1,19/1,24/1, 2/2	890	-
2	Farmers Training	21	May, June, July, Oct, Nov, Dec. Jan,Feb, March	1020	-
3	Media coverage	61	May, June, July,Aug, Sep, Oct, Nov, Dec. Jan,Feb, March	-	-
4	Training for extension functionaries	1	29-30/01/2019	28	-

C. Performance of Frontline Demonstrations

Frontline demonstrations on Oilseed crops - Nil

Frontline Demonstration on Pulse crops

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Pigeon pea	Use of bio pesticides	Use of biopesticide in pest & disease mgt.	Vaishali	10	5	13.35	8.65	11.87	10.98	8.11	22300	53200	30900	2.38	21360	36584	15224	1.71
Greengram	ICM	To increase the productivity of Green gram	Co-4	144	18.5	8.57	5.80	7.88	6.45	22.17	27050	61621.6	34571.6	2.27	18650	-	-	-
Indian bean	ICM	Intro. of new released variety	GNIB-21	47	2	51.25	40.32	49.64	38.47	29.04	41600	225862	184262	5.42	39850	175039	135189	4.39
			Guj.Indian bean-2	71	6.5	10.25	5.63	8.95	7.58	18.07	26050	63545	37495	2.43	26950	57608	30658	2.13

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

**** BCR= GROSS RETURN/GROSS COST**

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average												
Cereals																				
Paddy	To increase the productivity of paddy	Intro. of new released variety	NAUR-1	313	110	50.10	41.13	46.89	41.13	14.00	-	-	36950	86184	49234	2.33	38550	75103	36553	1.95
	To increase the productivity of paddy	Intro. of new released variety	GNR-3	100	75	49.26	42.26	48.34	42.26	14.39	-	-	37150	93103	55953	2.50	38550	81139	42589	2.10
	To popularize the new high yielding bio fortified variety	Intro. of new released variety	GNR-4	2	1	42.25	34.12	38.59	34.12	13.10	-	-	37250	66606	29356	1.79	36350	58891	22541	1.62
	To popularize the new high yielding variety	Intro. of new released variety	GNR-5	49	14	50.32	41.42	45.64	41.42	10.19	-	-	36990	83339	46349	2.25	37750	75384	37634	1.99
	To popularize the new high yielding variety	Intro. of new released variety	GNR-6	10	4	47.81	39.17	42.75	39.17	9.14	-	-	37460	78062	40602	2.08	38640	71524	32884	1.85

	To popularize the new high yielding variety		Pusha-44	2	0.5	70.52	50.81	68.57	44.72	53.33	-	-	46700	127266	80566	2.72	40490	81659	41169	2.01
	To popularize the new high yielding variety		S-2511	8	2	55.32	46.93	53.21	50.81	4.72	-	-	37600	89925	52325	2.39	38380	85869	47489	2.23
	To popularize the sustainable system of paddy production	SRI technology	SRI	14	3	52.22	44.72	49.13	46.93	4.69	-	-	38190	83030	44840	2.17	39270	77904	38634	1.98
	Introduction of IPDM technologies	Introduction of IPDM technologies	GNR-3 NAUR-1	20	10	50.26	44.55	45.25	40.22	12.51	-	-	31950	82561	50611	2.58	34569	72445	37876	2.09
	Use of bio agents	Use of bio agents	GNR-3 NAUR-1	20	10	47.41	45.22	43.12	40.24	7.16	-	-	30951	82532	51581	2.66	34650	72444	37794	2.09
Vegetables																				
Littl e gourd	Production technology	Intro. of new rele. var.	GNLG-1	40	4	**Conti…..**														
Tomato																				
		Intro. of new rele. var.	GAT-5	6	2	**Conti…..**														
Brinjal																				
	Novel	Banana	Gulabi	25	10	215	190	200	185	9.5			6050	220000	1595	3.63	5000	1650	1300	3.3

	liquid	sap											0	0	00		0	00	00	
Vegetable pea																				
Guvar		Intro. of new rele. var.	Pusa navbahar	35	8	**Conti…..**														
Intro. of new rele. var.	Novel spray	Banana sap	Local	16	2	**Conti…..**														
Fruit crops																				
Mango																				
		Use of PSB, KMB, Azto bio fertilizer	Kesar	226	90	115	85	95	82	15.9			35200	196800	161600	5.59	31400	169600	138200	5.40
		Intro. of new rele. var.	Sonpari	100	4	**Conti…..**														
		Trichoderma use	Kesar	16	2	**Conti…..**														
	IPDM	Fruit fly contrl ol	Kesae	20	5	**Conti…..**														
Sapota		Use of PSB, KMB, Azto bio fertilizer	Kalipatti	25	5	**Conti…..**														
Spices & condiments																				
Medicinal & aromatic plants																				

Fodder Crops																				
Sorghum (F)	ICM	To popularize the new released fodder variety	M.P.Chari	20	2	471	419	438	402	**8.96**	-	-	31950	120450	88500	**3.76**	33450	110550	77100	**3.30**
	ICM	To popularize the new released fodder variety	PC-9	10	1	463	386	421	388	8.51	-	-	31950	115775	83825	3.62	34350	106700	72350	3.10
Bajara (F)	ICM	Intro. of new released fodder variety	HC-20	10	1	422	363	398	0	-	-	-	28650	99500	70850	3.47	29900			

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

**** BCR= GROSS RETURN/GROSS COST**

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
NIL																	

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

**** BCR= GROSS RETURN/GROSS COST**

FLD on Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters production (Kg/ha)		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demonstration	Check		Demonstration (Survival)	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Fisheries	Inland Fisheries	Fish seed Stoking density and species ratio	92	16 (18.75 ha)	2195	1680	30.65	78	62	102000	263400	161400	2.58	86800	184800	98000	2.12
Fisheries	Inland fisheries	Fish Seed rearing	5	2(1.0ha)	32000 Yerlings production	18600Yerlings production	72	32	18.6	78000	256000	178000	3.28	62000	148800	86800	2.40
Fisheries	Inland Fisheries	Fish nutrition and feeding management	118	24 (22.45 ha)	2470	1720	43.60	80	64	122000	296400	174400	2.43	106000	189200	83200	1.78
Fisheries	Integrated Fish farming	Inland Fisheries	10	1(1.5 ha)	2832 +400 eggs	1680 + 110	68	80	67	109600	339840	230240	3.10	83800	189420	105620	2.26

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

**** BCR= GROSS RETURN/GROSS COST**

FLD on Other Enterprises

Category	Name of the technology demonstrated	No. of Farmer	No. of farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Plastic bags	Storage loss minimization techniques	To reduce storage loss	30	30	12.5	4.2	66.40	Storage pest decreased		1080	1870	630	1.73	490	750	260	1.53

D. Performance of Cluster Frontline Demonstrations (CFLD)

CFLD on Oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
NIL																		

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

**** BCR= GROSS RETURN/GROSS COST**

FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check
NIL					

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total
NIL																

FLD on Other Enterprises: Kitchen Gardening

Category	Name of the technology demonstrated	No. of Farmer	No. of farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Vegetable kit	Kitchen gardening	To introduce them scientific model for maintaining Kitchen gardening in Rabi and Summer	600	600	20.80	17.00	22.35	Nutritional status is increased.									

FLD on Demonstration details on crop hybrids

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
NIL													

Note : Remove the Enterprises/crops which have not been shown

CFLD on Pulse crops

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Pigeonpea		Introduction new released variety	BSMR-853	161	31	12.18	6.75	10.89	8.56	27.22	27050	60997	33947	2.25	27650	47946	20296	1.73
Greengram		Introduction new released variety	Meha	194	20	8.94	7.11	8.34	5.86	42.32	26450	63384	36934	2.39	27650	44536	16886	1.61
		Introduction new released variety	GM-6	88	10	10.23	7.84	9.12	5.86	55.63	26450	69312	42862	2.62	27650	44536	16886	1.61
Chickpea		Introduction new released variety	GG-3	79	10	13.94	9.84	12.81	10.17	25.96	28480	69942	41462	2.45	26990	55528	28538	2.05
		Introduction new released variety	GG-5	80	10	16.43	12.62	15.32	10.17	50.64	28480	83647	55167	2.93	26990	55528	28538	2.05

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

**** BCR= GROSS RETURN/GROSS CO**

3.4. Training Programmes

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	2	4	-	4	40	47	87	44	47	91
Resource Conservation Technologies	1	7	6	13	27	14	41	34	20	54
Cropping Systems	1	20	14	34	-	-	0	20	14	34
Crop Diversification	2	13	8	21	6	29	35	19	37	56
Integrated Farming	1	8	-	8	70	26	96	78	26	104
Micro Irrigation/irrigation	1	-	-	0	61	48	109	61	48	109
Seed production	2	21	56	77	15	49	64	36	105	141
Nursery management	1	-	-	0	88	-	88	88	0	88
Integrated Crop Management	2	-	2	2	119	85	204	119	87	206
Soil & water conservation	1	19	6	25	-	-	0	19	6	25
Integrated nutrient management	1	1	-	1	18	11	29	19	11	30
Production of organic inputs	1	13	13	26	-	-	0	13	13	26
Others (pl specify)										
Total	16	106	105	211	444	309	753	550	414	964
II Horticulture										
a) Vegetable Crops										
Off-season vegetables	1	20	15	35	0	0	0	20	15	35
Export potential vegetables	1	0	0	0	20	0	20	20	0	20
Others (pl specify)										
Total (a)	**2**	20	15	35	20	0	20	40	15	55
b) Fruits										
Training and Pruning	1	6	113	119	0	0	0	6	113	119
Others (pl specify)										
Total (b)	**1**	**6**	**113**	**119**	**0**	**0**	**0**	**6**	**113**	**119**
c) Ornamental Plants										
Nursery	1	48	16	64	0	0	0	48	16	64

Management										
Others (pl specify)										
Total (c)	1	48	16	64	0	0	0	48	16	64
d) Plantation crops										
e) Tuber crops										
f) Spices **g) Medicinal and Aromatic Plants**										
GT (a-g)	4	74	144	218	20	0	20	94	144	238
III Soil Health and Fertility Management										
Soil fertility management	1	68	9	77	2	15	17	70	24	94
Integrated water management	1	4	4	8	40	0	40	44	4	48
Integrated Nutrient Management	1	0	0	0	41	29	70	41	29	70
Production and use of organic inputs	1	0	1	1	31	13	44	31	14	45
Nutrient Use Efficiency	1	19	6	25	0	0	0	19	6	25
Balance use of fertilizers	1	6	14	20	3	0	3	9	14	23
Soil and Water Testing	1	1	0	1	18	11	29	19	11	30
Others (pl specify)										
Total	7	98	34	132	135	68	203	233	102	335
IV Livestock Production and Management										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	21	21	0	0	0	0	21	21
Designing and development for high nutrient efficiency diet	1	0	50	50	0	0	0	0	50	50
Minimization of nutrient loss in processing	1	1	49	50	0	0	0	1	49	50
Storage loss	1	0	20	20	0	0	0	0	20	20

minimization techniques										
Value addition	1	23	66	89	0	0	0	23	66	89
Women empowerment	1	0	34	34	0	0	0	0	34	34
Women and child care	1	0	27	27	0	0	0	0	27	27
Others (pl specify)										
Total	7	24	267	291	0	0	0	24	267	291
VI Agril. Engineering										
Total										
VII Plant Protection										
Integrated Pest Management	1	0	0	0	12	2	14	12	2	14
Integrated Disease Management	1	18	0	18	0	0	0	18	0	18
Bio-control of pests and diseases	1	0	0	0	62	0	62	62	0	62
Production of bio control agents and bio pesticides	1	29	0	29	0	0	0	29	0	29
Others (pl specify)										
Total	4	47	0	47	74	2	76	121	2	123
VIII Fisheries										
Integrated fish farming	1	66	21	87	15	0	15	81	21	102
Carp fry and fingerling rearing	1	42	25	67	6	1	7	48	26	74
Hatchery management and culture of freshwater prawn	1	6	4	10	5	0	5	11	4	15
Total	3	114	50	164	26	1	27	140	51	191
IX Production of Inputs at site										
Planting material production	1	55	2	57	0	0	0	55	2	57
Bio-pesticides production	1	0	0	0	66	38	104	66	38	104
Bio-fertilizer production	1	4	24	28	0	0	0	4	24	28
Organic manures production	1	0	29	29	0	0	0	0	29	29
Total	4	59	55	114	66	38	104	125	93	218
X										

CapacityBuilding and Group Dynamics										
Leadership development	1	0	29	29	0	0	0	0	29	29
Group dynamics	1	18	2	20	15	4	19	33	6	39
Formation and Management of SHGs	1	52	0	52	0	0	0	52	0	52
Total	3	70	31	101	15	4	19	85	35	120
XI Agro-forestry										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	48	592	686	1278	780	422	1202	1372	1108	2480

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	15	0	15	42	4	46	57	4	61
Integrated Crop Management	1	0	0	0	19	22	41	19	22	41
Soil & water conservatioin	1	0	0	0	0	30	30	0	30	30
Integrated nutrient management	1	3	14	17	12	0	12	15	14	29
Production of organic inputs	1	0	0	0	25	2	27	25	2	27
Others (pl specify)										
Total	5	18	14	32	98	58	156	116	72	188
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	1	0	0	0	51	29	80	51	29	80
Off-season vegetables	1	0	51	51	0	0	0	0	51	51
Nursery raising	1	0	99	99	0	0	0	0	99	99
Exotic vegetables	1	150	0	150	0	0	0	150	0	150
Protective cultivation	1	100	0	100	0	0	0	100	0	100
Others (pl specify)										
Total (a)	5	250	150	400	51	29	80	301	179	480
b) Fruits										
Total (b)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
c) Ornamental Plants										
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										

Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GT (a-g)	5	250	150	400	51	29	80	301	179	480
III Soil Health and Fertility Management										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IV Livestock Production and Management										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
V Home Science/Women empowerment										
Storage loss minimization techniques	1	0	0	0	0	32	32	0	32	32
Value addition	1	0	26	26	0	0	0	0	26	26
Women empowerment	1	0	28	28	0	0	0	0	28	28
Women and child care	1	0	55	55	0	12	12	0	67	67
Total	4	0	109	109	0	44	44	0	153	153
VI Agril. Engineering										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection										
Integrated Pest Management	2	0	0	0	59	26	85	59	26	85
Integrated Disease Management	2	54	0	54	14	0	14	68	0	68
Bio-control of pests and diseases	1	1	40	41	0	0	0	1	40	41
Production of bio control agents and bio pesticides	1	0	0	0	58	11	69	58	11	69
Others (pl specify)										
Total	6	55	40	95	131	37	168	186	77	263
VIII Fisheries										
Integrated fish farming	1	12	9	21	6	5	11	18	14	32
Carp breeding and hatchery management	1	5	5	10	6	2	8	11	7	18
Carp fry and fingerling rearing	1	6	8	14	0	0	0	6	8	14
Composite fish culture	1	11	0	11	0	0	0	11	0	11
Hatchery	1	58	20	78	8	0	8	66	20	86

management and culture of freshwater prawn										
Breeding and culture of ornamental fishes	1	7	3	10	0	0	0	7	3	10
Pen culture of fish and prawn	1	5	0	5	0	0	0	5	0	5
Shrimp farming	1	8	0	8	0	0	0	8	0	8
Pearl culture	1	9	2	11	0	0	0	9	2	11
Fish processing and value addition	1	22	5	27	0	0	0	22	5	27
Total	10	143	52	195	20	7	27	163	59	222
IX Production of Inputs at site										
Seed Production	1	0	0	0	12	48	60	12	48	60
Organic manures production	1	0	0	0	23	0	23	23	0	23
Bio-pesticides production	1	21	8	29	0	0	0	21	8	29
Total	3	21	8	29	35	48	83	56	56	112
X Capacity Building and Group Dynamics										
Leadership development	1	39	40	79	0	0	0	39	40	79
Total	1	39	40	79	0	0	0	39	40	79
XI Agro-forestry										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	34	526	413	939	335	223	558	861	636	1497

Farmers' Training including sponsored training programmes – CONSOLIDATED (On + Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	3	19	0	19	82	51	133	101	51	152
Resource Conservation Technologies	1	7	6	13	27	14	41	34	20	54
Cropping Systems	1	20	14	34	0	0	0	20	14	34
Crop Diversification	2	13	8	21	6	29	35	19	37	56
Integrated Farming	1	8	0	8	70	26	96	78	26	104
Micro Irrigation/irrigation	1	0	0	0	61	48	109	61	48	109
Seed production	2	21	56	77	15	49	64	36	105	141
Nursery management	1	0	0	0	88	0	88	88	0	88
Integrated Crop Management	3	0	2	2	138	107	245	138	109	247
Soil & water conservatioin	2	19	6	25	0	30	30	19	36	55
Integrated nutrient	2	4	14	18	30	11	41	34	25	59

management										
Production of organic inputs	2	13	13	26	25	2	27	38	15	53
Others (pl specify)										
Total	21	124	119	243	542	367	909	666	486	1152
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	1	0	0	0	51	29	80	51	29	80
Off-season vegetables	2	20	66	86	0	0	0	20	66	86
Nursery raising	1	0	99	99	0	0	0	0	99	99
Exotic vegetables	1	150	0	150	0	0	0	150	0	150
Export potential vegetables	1	0	0	0	20	0	20	20	0	20
Protective cultivation	1	100	0	100	0	0	0	100	0	100
Others (pl specify)										
Total (a)	7	270	165	435	71	29	100	341	194	535
b) Fruits										
Training and Pruning	1	6	113	119	0	0	0	6	113	119
Total (b)	1	6	113	119	0	0	0	6	113	119
c) Ornamental Plants										
Nursery Management	1	48	16	64	0	0	0	48	16	64
Total (c)	1	48	16	64	0	0	0	48	16	64
d) Plantation crops										
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GT (a-g)	9	324	294	618	71	29	100	395	323	718
III Soil Health and Fertility Management										
Soil fertility management	1	68	9	77	2	15	17	70	24	94
Integrated water management	1	4	4	8	40	0	40	44	4	48
Integrated Nutrient Management	1	0	0	0	41	29	70	41	29	70
Production and use of organic inputs	1	0	1	1	31	13	44	31	14	45
Nutrient Use Efficiency	1	19	6	25	0	0	0	19	6	25
Balance use of fertilizers	1	6	14	20	3	0	3	9	14	23

Soil and Water Testing	1	1	0	1	18	11	29	19	11	30
Others (pl specify)										
Total	7	98	34	132	135	68	203	233	102	335
IV Livestock Production and Management										
Total										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	21	21	0	0	0	0	21	21
Designing and development for high nutrient efficiency diet	1	0	50	50	0	0	0	0	50	50
Minimization of nutrient loss in processing	1	1	49	50	0	0	0	1	49	50
Storage loss minimization techniques	2	0	20	20	0	32	32	0	52	52
Value addition	2	23	92	115	0	0	0	23	92	115
Women empowerment	2	0	62	62	0	0	0	0	62	62
Women and child care	2	0	82	82	0	12	12	0	94	94
Others (pl specify)										
Total	**11**	**24**	**376**	**400**	**0**	**44**	**44**	**24**	**420**	**444**
VI Agril. Engineering										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection										
Integrated Pest Management	3	0	0	0	71	28	99	71	28	99
Integrated Disease Management	3	72	0	72	14	0	14	86	0	86
Bio-control of pests and diseases	2	1	40	41	62	0	62	63	40	103
Production of bio control agents and bio pesticides	2	29	0	29	58	11	69	87	11	98
Others (pl specify)										
Total	**10**	**102**	**40**	**142**	**205**	**39**	**244**	**307**	**79**	**386**
VIII Fisheries										
Integrated fish farming	2	78	30	108	21	5	26	99	35	134
Carp breeding and hatchery management	1	5	5	10	6	2	8	11	7	18

Carp fry and fingerling rearing	2	48	33	81	6	1	7	54	34	88
Composite fish culture	1	11	0	11	0	0	0	11	0	11
Hatchery management and culture of freshwater prawn	2	64	24	88	13	0	13	77	24	101
Breeding and culture of ornamental fishes	1	7	3	10	0	0	0	7	3	10
Pen culture of fish and prawn	1	5	0	5	0	0	0	5	0	5
Shrimp farming	1	8	0	8	0	0	0	8	0	8
Pearl culture	1	9	2	11	0	0	0	9	2	11
Fish processing and value addition	1	22	5	27	0	0	0	22	5	27
Others (pl specify)										
Total	**13**	**257**	**102**	**359**	**46**	**8**	**54**	**303**	**110**	**413**
IX Production of Inputs at site										
Seed Production	1	0	0	0	12	48	60	12	48	60
Planting material production	1	55	2	57	0	0	0	55	2	57
Bio-pesticides production	2	21	8	29	66	38	104	87	46	133
Bio-fertilizer production	1	4	24	28	0	0	0	4	24	28
Organic manures production	2	0	29	29	23	0	23	23	29	52
Total	**7**	**80**	**63**	**143**	**101**	**86**	**187**	**181**	**149**	**330**
X CapacityBuilding and Group Dynamics										
Leadership development	2	39	69	108	0	0	0	39	69	108
Group dynamics	1	18	2	20	15	4	19	33	6	39
Formation and Management of SHGs	1	52	0	52	0	0	0	52	0	52
Total	**4**	**109**	**71**	**180**	**15**	**4**	**19**	**124**	**75**	**199**
XI Agro-forestry										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**82**	**1118**	**1099**	**2217**	**1115**	**645**	**1760**	**2233**	**1744**	**3977**

Training for Rural Youths including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Integrated farming	1	14	13	27	1	0	1	15	13	28
Seed production	1	28	4	32	6	0	6	34	4	38

Production of organic inputs	1	3	13	16	15	45	60	18	58	76
Shrimp farming	1	32	25	57	16	0	16	48	25	73
TOTAL	4	77	55	132	38	45	83	115	100	215

Training for Rural Youths including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Value addition	1	0	19	19	0	5	5	0	24	24
TOTAL	1	0	19	19	0	5	5	0	24	24

Training for Rural Youths including sponsored training programmes – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Integrated farming	1	14	13	27	1	0	1	15	13	28
Seed production	1	28	4	32	6	0	6	34	4	38
Production of organic inputs	1	3	13	16	15	45	60	18	58	76
Value addition	1	0	19	19	0	5	5	0	24	24
Shrimp farming	1	32	25	57	16	0	16	48	25	73
TOTAL	**5**	**77**	**74**	**151**	**38**	**50**	**88**	**115**	**124**	**239**

Training programmes for Extension Personnel including sponsored training (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Production and use of organic inputs	1	10	5	15	9	4	13	19	9	28
TOTAL	**1**	**10**	**5**	**15**	**9**	**4**	**13**	**19**	**9**	**28**

Training programmes for Extension Personnel including sponsored training (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
TOTAL		**NIL**								

Training programmes for Extension Personnel including sponsored training – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Production and use of organic inputs	1	10	5	15	9	4	13	19	9	28
TOTAL	**1**	**10**	**5**	**15**	**9**	**4**	**13**	**19**	**9**	**28**

Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Increasing production and productivity of crops	1	47	0	47	0	0	0	47	0	47
Soil health and fertility management	1	31	0	31	4	0	4	35	0	35
Total	**2**	**78**	**0**	**78**	**4**	**0**	**4**	**82**	**0**	**82**
Agricultural Extension										
CapacityBuilding and Group Dynamics	1	30	9	39	0	0	0	30	9	39
Total	**1**	**30**	**9**	**39**	**0**	**0**	**0**	**30**	**9**	**39**
GRAND TOTAL	**3**	**108**	**9**	**117**	**4**	**0**	**4**	**112**	**9**	**121**

Details of vocational training programmes carried out by KVKs for rural youth

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Post harvest technology and value addition										
Value addition	1	0	17	17	0	0	0	0	17	17
Others (pl. specify)										
Total	**1**	**0**	**17**	**17**	**0**	**0**	**0**	**0**	**17**	**17**
Income generation activities										
Tailoring, stitching, embroidery, dying etc.	1	0	20	20	0	8	8	0	28	28
Others (pl. specify)										
Total	**1**	**0**	**20**	**20**	**0**	**8**	**8**	**0**	**28**	**28**
Grand Total	**2**	**0**	**37**	**37**	**0**	**8**	**8**	**0**	**45**	**45**

Details of trainings organized under ASCI

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Shrimp Farming	1	16	4	20	0	0	0	16	4	20
Assistant Gardner	1	9	11	20	0	0	0	9	11	20
TOTAL	2	25	15	40	0	0	0	25	15	40

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	1	3516	12	3528
Diagnostic visits	32	98	19	117
Field Day	12	860	26	886
Group discussions	27	1242	31	1273
Kisan Ghosthi	2	319	44	363
Film Show	13	3014	21	3035
Self -help groups	7	132	15	147
Kisan Mela	4	3716	57	3773
Exhibition	11	5467	86	5553
Scientists' visit to farmers field	68	446	34	480
Farmers' seminar/workshop	2	141	15	156
Method Demonstrations	6	106	5	111
Celebration of important days	15	3296	88	3384
Exposure visits	14	449	27	476
Others (pl.specify)				0
Awareness Programme	6	1284	29	1313
Guest lecture	73	2918	68	2986
Field Visit	79	466	19	485
Khedut Shibir/Mahila Shibir	26	4227	36	4263
Farmer’s visit to KVK Farm	169	1444	18	1462
Soil & water sample analysis	1	494	5	499
Educational Tour	2	118	8	126
Workshop/Seminar/Meeting attended	71	0	0	0
Organic farming pak parisanvad	4	393	15	408
Dignitaries visit to KVK	12	0	0	0
Dial out conference	9	414	5	419
Krishi Mahotsav	3	1548	31	1579
Swachhata hi seva	10	861	12	873
Total	**679**	**36969**	**726**	**37695**

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	8
Extension Literature	7
Newspaper coverage	61
Popular articles	8
Radio Talks	5
TV Talks	5
Animal health amps (Number of animals treated)	-
Others (pl. specify)	
Research Paper published	4
E-KVK serviced	45
Total	**143**

3.6. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of Seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Paddy	GNR-3	-	25.25	73906.75	31
		NAUR-1	-	41.70	120596.00	35
Pulses						
	Pigeon pea	Vaishali	-	12.08	108720.00	25
	Green gram	Meha	-	2.5	22500.00	12
	Pigeon pea (Seed hub)	Vaishali	-	38.09	342810.00	47
	Green Gram (Seed hub)	Meha	-	15.70	141300.00	41
Total				**135.32**	**809832.50**	**191**

Production of Planting Materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Vegetable seedlings	Brinjal	Gulabi	-	1030	515.00	16
	Tomato	S-22	-	2670	1335.00	19
Total				**3700**	**1850**	**35**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
Vermicompost	Vermicompost	1170 kg.	6435.00	15
Total		**1170 kg.**	**6435.00**	**15**

Vegetables and other crop produced at KVK, Navsari

Sr. No.	Name of crop	Qty. (kg)	Income generated (Rs.)	Sr. No.	Name of crop	Qty. (kg)	Income generated (Rs.)
1	Brinjal	131.75	2635	15	Onion	85	1020
2	Tomato	92.5	1850	16	Brocoli	5.5	220
3	Chilly	2.5	50	17	Turmeric	154.5	4635
4	Ridge gourd	188.75	3775	18	Red beet	173	432.50
5	Smooth gourd	179.25	3585	19	Cabbage	57	1140
6	Okra	47	940	20	Drum stick	148	172
7	Bitter gourd	74.75	1495	21	Watermelon	569.5	11390
8	cow pea	34	680	22	Raddish	185	462.50
9	Indian bean	40	800	23	Green leafy vegetables	371	1855
10	Bottle gourd	174.5	3490	24	Tur	22.75	455
11	Little gourd	16.25	325	25	Green gram	18.5	1110
12	Pointed gourd	5	100	26	Sweetcorn	1614	32280
13	Cauliflower	8	160	27	Mango	155	5425
14	Chick pea	24	1200				
TOTAL		**1018.25**	**21085**	**TOTAL**		**3558.75**	**60597**
Grand total = 81682.00 i.e. Eighty one thousand six hundred eighty two							

Production of livestock materials:

Live stock / Fishery	Name of the breed	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Fishery	Catla, Rohu, Grass carp	540 kg.	54000.00	108
Total		**540 kg.**	**54000.00**	**108**

4. Literature Developed/Published (with full title, author & reference)

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

B. Literature developed/published

Item	Title	Authors name	Number
Research papers	Knowledge of Brinjal growers (*Solanum Melongea* L.) Production Technologies in Tapi District of Gujarat State	Sumit. R. Salunkhe C.K.Timbadia	international journal of tropical agriculture
	Effect Of FLD On Fish Culturist In Navsari District	Prakash P. Patel Sumit. R. Salunkhe C.K.Timbadia	Guj. J. Ext. Edu. Special Issue on National Seminar
	Effects of phosphorus and potassium on yield attributes and yield of summer sweetcorn under south Gujarat	Dr.K.A.Shah C.K.Timbadia	international journal of tropical agriculture
	Adoption of Fruits & Vegetable Presentation Technology by tribal farm women of Tapi District	Soni A. N., Soni D. N. & Verma P. D.	Guj. J. Ext. Edu. Special Issue on National Seminar
Technical reports	APR, AAP, SAC, ZREAC, MPR, QPR, AGRESCO	-	24
Popular articles	Pila pancharangiya rog same pratikarkta dharvati mag ni aasasapd navi jat-Gujarat Mag-6	Dr.K.A.Shah Dr.Prabhu Nayaka Shri R.A.Gurjar Dr. C.K.Timbadia	Krishi Karma
	RKVY yojana antagrat chiku ni safal varta	Dr. C.K.Timbadia	Swadesh swapan
	Manushy aahar ma machhli nu mahtav	Prof. P.P.Patel Smt.Dipal N. Soni	Krishi Govidha
	Dhanorima jaivik khatar dwara tamatani nafakarak kheti	Dr.K.A.Shah	Sandesh
	Aadhunik kheti khaetre mahilaoni pragati	Dr. C.K.Timbadia	Divya Bhaskar
	Mari-masala vividh banavato	Smt.Dipal N.Sani Dr.Rita R. Patel	
	Fal ane sakabhajinu aaharma ma	Smt.Dipal N.Sani	Varishtham
	Parval ni vaiganik kheti	Dr.K.A.Shah Dr.Prabhu Nayaka Shri R.A.Gurjar Dr. C.K.Timbadia	Krishi Jivan
Extension literature	-	-	7
Others (Pl. specify)			
TOTAL			**43**

C. Details of Electronic Media Produced

Sr. No.	Type of media (CD / VCD / DVD/ Audio-Cassette) and Video Clippings developed	Title of the programme	Number
1	CD / DVD	Farmer's Meet	4
2	CD	Breast Cancer Awareness programme	1
3	CD	Kisan Diwas	2
4	CD	ASCI Training	2
5	CD	Pre rabi sammelan & IWD-2019	2

D. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs:

:Success stories:

1. Success story on Fresh water fish farming in village tanks, khet talavadi, court yard tanks and water harvesting ponds.

Objectives **:**

I. To increase fish production and evolve livelihood and nutritional security sources for rural youth through imparting fish farming technology in village tanks, khet talavadi, courtyard tanks and water harvesting ponds constructed in salt affected coastal area.

II. To create awareness and encourage rural unemployed youth about efficient utilization of unused available water resources for fish culture.

III. To keep the water body clean and free from excess aquatic weeds and algal blooms.

Technology imparted **:**

i. Fish seed stocking density and species ratio.

Fish stocking density range from **3000 -10000** numbers of advanced **fish fingerlings of size 60-70 mm** depending upon productivity of water body, water retain capacity and water quality. **Yearlings size fish seed @ 1500-5000/** ha are being stocked where water remain for a period of 7 to 8 months of the year. **Species ratio for higher production- Catla: Rohu: Mrigal: Grass carp:: 2:4.5:2.5:1.**

ii. Fish feeding methods and nutritional management

Bag feeding and Broadcasting methods are recommended to minimize feed waste. To maintain nutritional requirement and profitable venture of fish farming fish feed include 70% rice bran , 20% floating feeds of protein contents varies from 32-20% and lipid 3-4% and 10% sinking pelleted feeds of 20-22% proteins of total ration requirement are recommended and demonstrated for higher production with attractive FCR 1.2 to 1.5.

FLD arranged in villages of Navsari district **:** Aat, Karadi, Mohanpur, Soldhara, Moti kakarad, Tejlav, Matwad, Machhad, Onjal, Mohanpur, Ancheli.

Total Area of fish farming **:** 14.07 ha.

demonstration

Total demonstrations units	**:**	Total 22 of which 5 village tanks of 1.5 to 2 ha area, 3-khet talavadi , 5 water harvesting structure in coastal area and 5 courtyard tanks of 0.005 to 0.001 ha.
Numbers of farmers benefited	**:**	115 including 89 SEBC and 26 ST of which 28 female and 87 male farmers.
Age of farmers	**:**	22-58 years
Average fish production per unit area.	**:**	2469 kg per ha
Local check (Fish Production)	**:**	1680 kg per ha
Increase in yield	**:**	46.96%
Impact of FLD	**:**	• Before intervention mean annual income of individual was Rs. 46000 per year. • Moreover average Rs. 29000 is being earned by individual from fish culture activities and income increased by 63%. • Nutritional security of household. About 110% fish consumption is increased by individual member of household. Before FLD per capita mean fish consumption was 12 kg per year now it is about 27 kg per year. Fish is the excellent source of nutrition increase in consumption certainly secures nutritional requirements of individual. Thus Fish farming activities in village tanks not only create employment opportunity it also keeps the water body free from infested aquatic weeds and protects from being polluted by organic load. As a result clean water will be available for domestic purpose throughout the year.
Development works in village by fish culture activities	**:**	Yuvak Mandals in many villages such as Motikakarad, Soldhara, Aat (Roopan Talav), Aat (Mandir falia), Mandaria have initiated village development works such as street lighting, Roads, construction and maintenance of cricket play ground, purchase of cricket match kits, Water drinking tanks for cattle with shed and cloth washing platform at village tanks through the income of fish farming.

2. SUCCESS STORY OF YUVAK MANDAL(FISH CULTURISTS) OF MOTI KAKRAD VILLAGE

Moti kakrad (10 members)
Leader of Group: Rajnishbhai Patel
At.& Post: Moti kakrad Ta: Jalalpor
Dist: Navsari
Mobile No. 9725164888

Thematic Area :
Fresh water Aquaculture

Age	**:**	22 to 48
Education	**:**	Most of them are educated engaged with animal Husbandry, agriculture and other jobs.
Land holding	**:**	Few are small land holder and many of them are land less farmers
Farming experience	**:**	Majority of them have experience of agriculture, animal husbandry and welding activities on small scale.
Crops grown	**:**	Fresh water fish Indian Major carps and exotic carps culture in village tank of size 0.40 ha.
Live stock	**:**	two or three(buffalos/goats)

Before contact with KVK.
-Not engaged in fish culture activities, they are engaged with small scale crop cultivation, paddy, kitchen gardening, and animal husbandry and minor industries workers.
Earning of individual members is hardly 72000 per annum. Available village tank was unused and infested of aquatic weeds and algae.

After KVK intervention

1**. Adaption of technology:**

- Manuring and fertilization as per required dose have been done for the natural food production.
- Adopted rate of stocking @ 6000 numbers fingerlings (40 to 60 mm) per ha. in 2:4.5:2.5:1 :: Catla:Rohu: Mrigal:Grass carp ratio.
- Adopted Grass carp introduction in village tanks to keep the pond free from grass and reared about 2 to 3.8 kg of fish with in 14 month.
- Followed fish farming practices as per the guidance of KVK Scientist.
- Used bag feeding method.
- Fish fed with the floating and sinking types of feed containing protein level 18to 32% of 2mm to 4 mm size of pellet as per recommended rate (3% to 1%) after calculating available biomass.
- Adopted natural periphyton production for natural fish food using bundle of paddy straws in village tank.

2. Area of adaptive of technology: 0.40 ha

3. Results to adopt this technology:

Harvested about 1480 Kg fish from 0.40 ha area worth rupees 1.80 lakh. Maximum weight about 3.8 kg of Catla , 3.6 kg of rohu and 3.6 kg of Grass carp have been grown in 14 month of culture period

4. Income from this adoption of technology:

- Gross Income about Rupees 1.80 Lakh.
- Net profit. Rs 1.10 Lakh.
- About Rs. 11000/- net profit earned by each member.
- FCR (Food conversion ratio 1.42 :1:: Food : Fish
- BC ratio 2.57

5. Horizontal spread:

At present Inland aquaculture activities are being carried out through KVK in 42 village tanks of Navsari district. It has encouraged and built up the confidence among farmers of surrounding more than 40 villages and about 43 ponds are actively engaged in fish farming.

3. TRIBALS' RAGI BOOSTS LIVELIHOOD

Name of Farmer women	Asmitaben Ashokbhai Patel
Village	Soldhara
Taluka	Chikhli
District	Navsari, Gujarat
Mobile No	8140686838
Age	38 years
Education	B. A.

- **Before contact with KVK :**

- Ragi commonly used only for *Rotla*preparation in Tribal area.
- Unaware about nutritional value and value addition of Ragi.
- Small scale farming was only source of income.

- **After KVK intervention (Technology and Marketing) :**

- Aware about importance and benefit of Ragi in our diet.
- Being a rich source of calcium, Ragi helps people of different age groups for bone formation and its strength.
- Technology adoption of Ragi's value added products such as Biscuits, Papad, Papadi, etc.
- Benefited by market linkage provided through KVK.

- **Effects of KVK intervention:**

- Fresh and hygienic Ragi products available at low cost.
- Adulterant free product.
- Providing earning skill development of other tribal farm women through guidance.
- Other products like Amala candy, Chiku chips, Pickles, Squash, etc were prepared.
- Improved socio-economic status.
- Honeybee productions along with eco tourism at village level improved her social status.
- Integration of fish farming along with chicks and ducks inspires rural youth for livelihood earning opportunity.
- Multi disciplinary and extra ordinary activities.
- More than 3000 people visit her farm on annual basis.

- **Income generated:**

Rs. 40000/ month




4. ENTREPRENEURSHIP DEVELOPMENT THROUGH VALUE ADDITION IN ROSE : GULKAND

Name of Farmer women	Shamshadbanu Zakirhussain Mulla
Village	Khergam
Taluka	Navsari
District	Navsari, Gujarat
Mobile No	9924897365
Age	40 years
Education	9 Pass

- **Before contact with KVK :**

➢ Selling Roses at lower costs nearest market.
➢ Unaware about value addition in Rose.
➢ Technological lacuna for Gulkand production.
➢ No sustainable income source.

- **After KVK intervention (Technology and Marketing) :**

➢ Technology adoption to use fresh and organically produced rose for Gulkand production and packaging.

➢ Started to use their own agricultural waste and cattle manure to cultivate organic Rose.

➢ Application of home made Panchgavya to prevent pest and diseases.

➢ Provided market platform through various programmes.

- **Effects of KVK intervention:**

➢ Fresh and hygienic Rose cultivation

➢ Adulterant free product.

➢ Entrepreneurial skill of Gulkand also leads her towards other products of rose such as Rose water, Rose syrup, Face pack, Dry rose petals, etc.

➢ This activities improved socio-economic status.

➢ Instead of living on meager income produced by selling just Roses, she earns handsomely from value added products.

- **Income generated:**

Rs. 1.25 lakh/ six month

5 . MICRO ENTERPRISE PROMOTION- JAI AMBE SHG, NAVSARI

Name of self help Group	Jai Ambe KVK SHG
Village	Pathari
Taluka	Gandevi
District	Navsari, Gujarat
Group Leader	Sakuntalaben Bhagubhai Patel
Mobile No	8758662829
Age	52 years
Education	10th pass

- **Before contact with KVK :**

- Unaware of different types of homemade masala
- Lack of Knowledge about how to prepare Masala/receipies
- There was no income for the group

- **After KVK intervention :**

- Adoption of technology by using fresh and hygenic spices and condiments in a proper quantity to prepare masalas
- Started using their own agricultural produce as raw material
- Learnt to prepare different recipes of masala
- Live their life with a sense of self worth, respect and dignity

- **Effects of KVK intervention:**

- Fresh and hygienic masalas.
- Adulterant free spices of better qualities.
- Improved knowledge about preparation of different types of masalas *viz., tea masala, garam masala, pav-bhaji masala, chhole masala, sambhar masala, fruit masala, pulav masala, chat masala, etc.*
- Save the money, time and improved the health of family member.
- Rural farm women are inspired for masala making training.
- Upliftment of financial status of the group.
- Positive effect on social status.

- **Income generated:**

Rs. 25000/ month

6 . CREATIVITY LIGHTS THE LIFE

Name of Farmer women	Alpanaben Maheshbhai Patel
Village	Vasan
Taluka	Gandevi
District	Navsari, Gujarat
Mobile No	9408188115
Age	47 years
Education	Post Graduate

Before contact with KVK:

- Simple *'Diyas'* (a traditional earthen lamp) were used for selling.
- No idea about decorated *'Diyas'*.

❖ **After KVK intervention :**

- Got opportunity to visit at Surat through KVK, Navsari in Agricultura Exhibition and visited one stall of decorated *'Diyas'*.
- Got the idea about creativity in *'Diyas'* from there.

❖ **Effects of KVK intervention:**

- Creativity in simple raw *'Diyas'*.
- Increased knowledge about different colorful *'Diyas'*.
- Supplement the household income.
- Income generation to SHG women.
- Attractive packing increase selling price.
- Foreign countries (China) dumped their products in India which destroyed our market; these types of activities enhance Indian market.

❖ **Income generated :**

- Rs. 30,000 /month

7. RAKHI- A SYMBOL OF LOVE

Name of Farmer women	MadhuribenAshwinbhai Patel
Village	Vasan
Taluka	Gandevi
District	Navsari, Gujarat
Mobile No	9737970717
Age	44 years
Education	10th Pass (S. S. C.)

❖ **Before contact with KVK :**

- She was just an ordinary housewife and farm woman.
- Eager to establish small scale business.
- Lack of knowledge had impended her success.

❖ **After KVK intervention :**

- Provide information about preparation of 'Rakhi' from raw material.
- Development of significant challenge for starting a '*Rakhi*' business.

❖ **Effects of KVK intervention:**

- Enhance creativity in '*Rakhi*'.
- Improve knowledge about preparation of various types of '*Rakhi*' from raw material.
- Supplement the household income.
- Follow-demand driven product.
- Overall benefits to farmers; socio-economic benefit to the rural/farming community.

❖ **Income generated :**

- Rs. 20,000 / months



8. Kitchen gardening on terrace (Roof)

Name Dr. Pallaviben Chiragbhai Gandhi
Occupation Doctor
Village Navsari City
Dist Navsari
Mobile No 9537184134
Age 40 Yrs
Farming Experience 2 Years

Before Contact With KVK

- On the terrace of her hospital she was growing vegetable during kharif season only by following internet facility information.

After KVK Guidance

- Kitchen garden model developed by NAU.
- Biological & Mechanical control of pest.
- Prepared compost from vegetable waste.
- Started kitchen garden in her 3000 sq.ft. back yard during kharif and rabi season.

Results to adopt this technology

- Get fresh organic pesticides free, nutritional vegetables.
- Saves money & improves the health of family member.

9. Integrated Farming system Sustainable approach

Name	Arshaben Arunbhai Patel
Village	Karadi
Tal	Jalalpore
Dist	Navsari
Mobile No	972586741
Age	40 Yrs
Education	Secondary Education
Land Holding	-
Farming Experience	21 Years
Crops Grown	22
Livestock	8
Before Contact With KVK	Years ago she was growing vegetables in her backyard for family consumption and hardly she earned Rs 650-700 Rs from kitchen gardening

After KVK Guidance

Adoption of technology:

- Organic Kitchen gardening NAU model.
- Biological & Mechanical control of pest.
- Prepared compost from live stocks.
- Rainwater harvesting sytem

Kitchen garden Detail

Result to adopt this technology

- Residual Free Vegetables
- Better Utilization of Rain Water.
- Utilization of Spare Time.
- To Get Fresh Vegetables.
- Additional Income.

Kitchen Income in Rs.			
Crops	**15-16**	**16-17**	**17-18**
Vegetables	2102	2210	7500
Fruits	4000	6000	3800
Others	2001	3000	3000
Total	8104	11210	14300

Horizontal spread

About 90 families in the villages have adopted.

10. Use of novel in Cauliflower and Broccoli in Mango intercrop

Name Divyeshbhai Jaydevbhai Patel
Village Vada
Tal Jaalpore
Dist Navsari
Mobile No **9624555016**
Age 22
Education Diploma Horticulture
Land Holding 6 viga
Farming Experience 2 years

Crops Grown Fruits and vegetables
Livestock 0
Before Contact With KVK Earlier he was not growing vegetables in his farm as intercrop in mango

After KVK Guidance

Adoption of technology:

- Vegetables as an intercrop
- Novel Banana Sap,
- Integrated pest control.

Kitchen garden Detail

Result to adopt this technology

- Quality Vegetables
- Additional Income as intercrop.

Intercrop		
Details	**Cauliflower**	**Broccoli**
Area	1.0 Viga	4 Guntha
Yield	18 q	1.6 q
Price (q)	2000	10000
Income	36000	16000
Cost	15000	5000
Profit (4 month)	21000	11000

11. Use of novel in Brinjal

Name Keyurbhai Patel
Village Pinsad
Tal Navsari
Dist Navsari
Mobile No 9824101632
Age 35 Yrs
Education B.A.
Land Holding 4 ha
Farming Experience 5 Years
Crops Grown 7

Livestock 0

Before Contact With KVK Years ago he was growing vegetables in his farm and couldnot get quality produce in Brinjal and chilly.

After KVK Guidance

Adoption of technology:

- Novel Banana Sap,
- Integrated control of pest.

Kitchen garden Detail

Result to adopt this technology

- Quality Vegetables
- Additional Income.

Brinjal		
Details	**Desi Gulabi**	**Private Hybrid**
Area	1.5 Viga	3.5 Viga
Yield	276 q	600 q
Price (q)	1500	1000
Income	414000	600000
Cost	200000	300000
Profit (9 month)	214000	300000

E. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year

Innovative technologies used for Transfer of Technology

1. Group formation a new approach: The expansion of Indian agriculture is depending on 103 million farm families involved in agricultural activities. It is impossible to reach such a huge number of farmers individually. The effective and efficient diffusion of new technologies to the needy farmers is very much essential for increasing the yield. To deal with this problem, KVK have adopted a new approach that is to involve the leader of the farmer in planning and implementation of the activities. Under this approach, groups are formed from the entire village. These groups are varying in size, generally 20 to 30 members in each group. Then after 3 to 5 leaders are identified from the same group and they are given the detail guidance and information, so that they can help to group members in better way.

2. Innovative farmers in extension programme

The farmers those are introducing new ideas and technology to their farming system are innovative farmers, such farmers are being identified and information regarding their ideas, adoptive technology are being documented by this centre. Platform in the

form of Innovative farmers meet is being provided, so that innovative farmers will display and discuss their ideas and adoptive technology and become helpful to common farmers. Thus KVK becomes the linkage between innovative farmers and common farmers in agricultural extension activities.

3. Convergence : There are so many government and non government agencies, those are working in interest of farmers in different subject are being converged and provided platform, so they could reach to the farmers field , fulfill the objectives of their project and ultimately achieve their goals/targets in the form of progressive farmers and higher GDP in Agriculture.

4. Diversification in agriculture crops.

New crops varieties those are suitable in the south Gujarat climate and have more demand in market are being introduced, so farmers can earn higher return. American Sweet corn has good market and consumer preference, so it can fetch high price in market and farmers can earn good return too.

5. TOT through Dial Out Conference: In collaboration with Reliance Foundation, KVK, Navsari organised dial out conference to give the relative subject information to tribal farmers.

6. e- Connectivity at KVK

By using latest information technologies KVK tried to reach to the farmers. KVK has established e-KVK, that enables the farming communities to get regular message regarding different crops, their varieties, climate report, pest and diseases related information. More than 1.5 lakh voice message had been sent and covered about 3200 farmers of the district.

7. Demand driven activities: KVK has started demand driven activities in order to create interest among the farming communities in agriculture through various scheme. KVK has started work for providing marketing facilities of their farm produce. By becoming mediator Several MoU between private companies and farmers have been done for marketing of agricultural produce, so farmers can get assured market and encouraging returns of their farm produce. Thus farmers remain in touch with KVK and get information of latest technologies and new varieties of crops.

8. Felicitation of innovative farmer's: KVK, Navsari identified innovative farmers of the district and they were selected by the scrutinizing committee. They are felicitated during different activities of the KVK. This function brings huge motivation of other farmers. During the function they explain their technology

F. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development.

Sr. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Pulse& Vegetables	Farmers are using fly ash to control sucking pest	To control sucking pest
2	Mango	Farmers apply irrigation in mango during winter	For initiation of flowering
3	Mango	Smoke of chilly and neem leaves in mango orchard	To control disease & pest during winter
4	Mix farming	Banana+chilly+Maize+leafy vegetable	To increase income from per unit ares

5	Vegetable	Spry cow urine and mixture of cow urine and buttermilk in vegetable	To save fertilizer and reduce pest incidences
6	Vegetable	Spry Jethropa Leaves ark to control sucking pest.	To control Jassid thrips and hopper.
7	Animal Science	Farmers fed boiled grains with jiggery	For expulsion of placenta and energy supply
8	Animal Science	Farmers apply used oil on skin of animal	To treat skin diseases
9	Animal Science	Farmers fed fodder as whole	To decrease the wastage of feed

5.1. Indicate the specific training need analysis tools/methodology followed for

A. Practicing Farmers

a) PRA
b) Problem identified from Matrix
c) Field level observations
d) Farmer group discussions
e) ON / OFF campus training

B. Rural Youth

a) PRA
b) Problem identified from Matrix
c) Field level observations
d) Farmer group discussions
e) ON / OFF campus training

C. In-service personnel

a) PRA
b) Problem identified from Matrix
c) Field level observations
d) Farmer group discussions
e) ON / OFF campus training

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT:

i) PRA
ii) Problem identified from Matrix
iii) Field level observations
iv) Farmer group discussions
v) Others if any

For FLD:

i) New variety/technology
ii) Poor yield at farmers level
iii) Existing cropping system
iv) Others if any

5.3. Field activities

i. Name of villages identified/adopted with block name (from which year) -

Sr.No.	Taluka	Village	Village	Village
Intensive operational area				
1.	Jalalpore	Bodali	Mandir	Pethan
2.	Navsari	Adada	Kachhol	Unn
3.	Gandevi	Changa	Dhanori	Vagalvada
4.	Chikhali	Soldhara	Bamanvada	Gholav
5.	Vansada	Nani Valzar	Unai Charvi	Kharjai
6.	Khergam	Naranpur	Bahej	Bhervi

ii. No. of farm families selected per village : 125

iii. No. of survey/PRA conducted : 12

iv. No. of technologies taken to the adopted villages - 20

v. Name of the technologies found suitable by the farmers of the adopted villages:

- Eco-friendly management of pest
- Need based insecticide application
- Introduction of bio-pesticide
- Use of Methyl eugenol trap to control fruit fly
- Urea treatment of paddy straw
- Use of bypass fat during transition period
- Use of chillated minerals and vitamins
- fish seed stocking density and species ration in village tanks
- Composite fish culture in village tank
- Importance of variety , use of bio fertilizer and land configuration
- High yielding variety and balance use of fertilizer
- High yielding variety and balance use of fertilizer
- Recommended spacing & seed rate and recommended dose of fertilizer
- System Rice Intensification
- Introduction of new variety
- Use of Pre emergence herbicide
- Spraying of CaNo3 & Boron at 50% flowering
- Spray novel liquid fertilizer
- Popularized canopy management
- Introduction of Scientific- Economic- Nutritional kitchen garden

vi. Impact (production, income, employment, area/technological– horizontal/vertical)

Specific technology/skill transferred	No. of beneficiaries	Per cent knowledge
Popularize new variety of paddy-NAUR 1 and GNR-3	3123	95
Green manuring	2963	75
New variety of Green gram- Meha	1213	81
Adoption of inter cropping in sugarcane	2912	73
INM in paddy	2689	42
Adoption of new tur variety	2364	74
Replacement of paddy through vegetables	1412	52
Use of bio fertilizer in sapota	2798	70
INM in vegetables	1110	76
New variety in Mango	1032	37
Kitchen gardening	3102	92
Control of fruit fly in mango	4098	93
Awareness regarding pesticide	3712	51

Horizontal spread of technologies

Crop	Technologies	No. of village	No. of farmers	Area in ha.
Paddy	Introduction of New variety	165	6700	2800
	SRI	45	380	160
Pigeon pea	New variety	135	3900	1600
Green gram	New variety	115	2851	898
Gram	New variety	28	1247	174
Sugar cane	Inter cropping	220	5500	3500
Indian bean	New variety	32	225	49
Mango	Fruit fly control	179	7650	3124
	Bio fertilizers	48	1280	482
	New variety	86	1250	892
Sapota	INM	39	4220	1750
Okra	Off Season cultivation	88	1280	550
Vegetable	INM	39	793	351
Brinjal/ Okra	IPDM/ Yellow sticky trap	72	1900	290
Kitchen garden	Nutritional	168	5100	90
Fisheries	Inland aquaculture	54	387	76

vii.Constraints if any in the continued application of these improved technologies - NIL

5.4 . No. and Name of villages adopted for Doubling Farmers Income. Indicate whether benchmark survey of the villages are done or not.

Sr.No.	Name of District	Name of village	No.of Farmers	Whether survey completed
1	Navsari	Chaudha	150	100 % per completed
2	Navsari	Vadi-chaudha	150	100 % per completed
3	Navsari	Bedmal	150	100 % per completed
4	Navsari	Kavdej	150	100 % per completed
5	Navsari	Mankuniya	150	100 % per completed

6. LINKAGES

A. Functional linkage with different organizations

S.N.	Name of the Organization	Nature of Linkage
1.	N.A.U., Navsari	Provides administrative and technical support
2.	Central Government	RKVY Project, Seed village project
3.	Department of Animal Husbandry, Navsari	Collaborative training, extension programmes
4.	Bank of Baroda	Collaborative training programmes
5.	Gandevi Co-operative Multipurpose Society, Gandevi	Organizing Khedut shibirs

6.	Department of Agriculure, Navsari	Collaborative training, extension programmes
7.	Forest Department	Collaborative training programmes on Agro-Forestry
8.	Department of Horticulture, Navsari	Collaborative extension programmes
9.	Department of Fisheries, Navsari	Collaborative training, extension programmes
10.	Veterinary College of Navsari	Collaborative training, extension programmes
11.	State Bank of India	Collaborative extension programmes
12.	Cohesion foundation Navsari, NABARD	Collaborative extension programmes
13.	ATMA, Tapi, Valsad, Surat, Navsari, Chikhali, Jalalpore	Collaborative training and extension programmes
14.	Tribal Sub plan, Vansda	Collaborative extension programmes
15.	Ramkrishna Cheritable Trust, Surat	Kitchen garden kit
16.	P.P.Savani group, Surat	Collaborative extension programmes
17.	Shri D.L.Patel	Meals of labours of KVK
18.	Tarsadiya foundation	Collaborative training and extension programmes
19.	Brahmakumaries, Navsari	Collaborative training and extension programmes
20.	JCI, Navsari	Collaborative training and extension programmes
21.	Lioness club Navsari	Collaborative training and extension programmes
22.	Manav Kalyankari Trust, Navsari	Collaborative training and extension programmes
23.	Lok Seva Trust, Kharel	Collaborative training and extension programmes
24.	Sneh-setu cheritable trust	Collaborative training and extension programmes
25.	Gujarat State Water Shed Management, Gandhinagar	Collaborative training and extension programmes
26.	ASPEE foundation, Mumbai	Collaborative training and extension programmes
27.	JCB, Mumbai	Collaborative training and extension programmes
28.	Gandhi Memorial project, Gujarat Vidyapeeth, Ahmedabad	Collaborative training and extension programmes
29.	FAI, New Delhi	Collaborative training and extension programmes
30.	IFFCO, Surat	Collaborative training and extension programmes
31.	ASCI, New Delhi	Skill training programmes
32.	New Holland FIAT New Delhi	Collaborative training and extension programmes
33.	Samarpan Dhyan Kendra, Navsari	Collaborative training and extension programmes
34.	Senior Citizen Trust, Navsari	Collaborative training and extension programmes
35.	Anavil Sanskar Trust, Navsari	Collaborative training and extension programmes
36.	Gender Resource Center, Gandhinagar	Collaborative training and extension programmes
37.	Navsari Jilla Panchayat, Navsari	Collaborative programmes
38	Rotary club of Navsari	Collaborative programmes

B. List of special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Establishment of demonstration-cum-training center for inland fisheries	12943	State Govt.	23.25
TSP, Vansda	18914-A	State Govt.	4.30
Strengthening and testing of universities technologies on farmer's field through adoptive trials, Phase-II	12306-A	State Govt.	12.00
Cluster frontline demonstrations of Rabi pulses 2017-18	2105/00	Central Govt.	12.37
Development,Demonstration and awareness programme of Organic farming in South Gujarat region	18172-2	State Govt.	20.10
Pre rabi Campaign	2118/00	Central Govt.	0.80
Unnat Bharat Abhiyan	18174	Central Govt.	0.50
Creation of seed hub for increasing indigenous production of pulses in India Seed Hubs	2704-02-A	Central Govt.	34.00
RKVY-Skill development	02113/02	Central Govt.	3.88
Turmeric	18930-B	Central Govt.	0.30
Mega seed project	2068/C	Central Govt.	0.35
Minor & original works at campus/zones, KVK, Navsari	1534	State Govt.	3.80
Classified works, KVK, Navsari	12600/N	Central Govt.	4.00
ARYA Project	18191/00	Central Govt.	6.84
Scheme for providing support for organic farming	18192	State Govt.	44.10
Swachh Bharat	18190/01	Central Govt.	0.22

C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

If yes, role of KVK in preparation of SREP of the district?

Coordination activities between KVK and ATMA

Sr. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
1	Meetings	5	5		
2	Research projects	**NIL**			
3	Training programmes	3	121	3	
4	Demonstrations	**NIL**			
5	Extension Programmes				
6	Kisan Mela	3	2394	3	
7	Exposure visit	3	134	3	
8	Exhibition	1	1465	1	
9	Farmers Field School	2	30	2	
10	Publications	**NIL**			
11	Other Activities (Pl.specify)	**NIL**			

D. Give details of programmes implemented under National Horticultural Mission

Sr. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Constraints if any
NIL					

E. Nature of linkage with National Fisheries Development Board

Sr. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
NIL					

F. Details of linkage with RKVY

Sr. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
NIL					

7. Convergence with other agencies and departments: Activities may be specified under DAESI, YCMOU study centres and others

8. Innovator Farmer's Meet

Sr.No.	Particulars	Details
1	Have you conducted Farm Innovators meet in your district?	Yes
2	Brief report in this regard	

9. Farmers Field School (FFS)

Sr. No	Thematic area	Title of the FFS	Budget proposed in Rs.	Brief report
NIL				

10.1. Technical Feedback of the farmers about the technologies demonstrated and assessed: Farmers' reactions on specific technologies

Sr. No	Feed Back
1	Banana sap highly performed and gave good results
2	Increase seed availability for newly released varieties at village level timely and in small packing (pulses, vegetables etc.).
3	Introduction of IPDM technology becomes helpful in reducing pests and disease
4	NAUR-1 is found susceptible to false smut & also loading.
5	Grain discoloration was found in GNR-3.
6	Profuse tillering but more pest incidence was found in GNR-4 after penical initiation.
7	The wastage of paddy straw is reduced and milk yield is increased by feeding of urea treated paddy straw.
8	Optimized inter calving period in buffalo
9	More number of complication around parturition in animals.
10	Inland aquaculture variety is good
11	Fish production increased with less expenditure.
12	Improve in the interest and initiation to bring village tanks for fish culture activities.

10.2. Technical Feedback from the KVK Scientists (Subject wise) to the research institutions/universities:

Technical Feedback on the demonstrated technologies

Sr. No	Feed Back
1	Terrace gardening, Box gardening and hanging pot kitchen gardening / availability of vegetables throughout the year on season basis.
2	Cost of feeding animals to be reduced
3	Experiment on amur common carp need to be conducted
4	Experiment on cage culture in big village tanks need to be conducted
5	Preparation and testing of amrutmitti, amrutjal, jivamrut and panchgavya for different crops.
6	Preparation and testing of herbal pesticide for controlling pests and diseases.
7	Testing of cow dung and cow urine for enhancing growth and controlling pests and diseases.
8	Module for pesticide free productions.

9	Availability of country seeds.
10	Develop salt reclamation bio fertilizers.
11	To develop new variety of hybrid vegetables.
12	Develop early maturing and high yielding pigeon pea variety.
13	Branches of mango or sometime mango plant die in month of September-October.
14	Stem cracking or bark splitting was found in mango.

11. Technology Week celebration during 2018-19: Yes If Yes

Period of observing Technology Week : From 05/03/2019 to 09/03/2019

Total number of farmers visited : 1495

Total number of agencies involved : 4

Number of demonstrations visited by the farmers with in KVK campus : 1239

Other Details

Types of Activities	No. of Activities	Number of Farmers
Gosthies	1	166
Lectures organized	5	1533
Exhibition	1	1150
Film show	3	214
Farm Visit	4	1518
Diagnostic Practicals	2	88
Supply of Literature (No.)	19	1200
Supply of Seed (q)	0.05	50
Total number of farmers visited the technology week	**5**	**1533**

12. Interventions on drought mitigation (if the KVK included in this special programme) : - NIL

13. IMPACT

A. Impact of KVK activities

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Mango Bio fertilizer	226	60%	134000	196800
Brinjal Novel spray	25	45%	175000	220000
Mango Fruit fly management	200	22%	154770	165690
Introduction of new variety Paddy (NAUR-1, GNR-3,GNR-2, S-25114 SRI)	498	68%	75934	88439
Fish seed stocking density and species ratio carps culture	92	72%	72000	168000
Fish seed rearing (Fry to yearlings)	5	100%	85000	178000
Fish nutritions & feeding management in carps culture	118	70%	70000	174000

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

B. Cases of large scale adoption- full cases may be given at the end as Annexure.

1. Newly released variety of paddy NAUR- 1 is adopted in large scale in tribal area of Navsari district. Farmers are growing NAUR-1 variety instead of hybrid paddy variety. During this year, more than 2000 farmers have adopted NAUR-1 variety covering more than 500 ha.
2. Vaishali variety of Tur was adopted by farmers. This variety used for dual purpose, for dal and green vegetable purpose. In Navsari district, 1891 farmers have adopted this variety.
3. Yellow vein mosaic resistant variety, Meha of green gram is largely adopted by farmers. Total 467 ha area was covered by this variety. This variety produced 21% higher yield than old variety but farmers get higher price of Meha.
4. New short duration high value crop sweet corn is adopted by farmers. Nearly 130 ha. area are covered under this crop. Nearly 700 farmers are cultivating sweet corn because this crop earn more profit during short duration.
5. Farmers are aware about soil health. They are using bio compost from the sugar factories. Near about 1 lakh ton of Bio compost was used by the farmers.

C. Details of impact analysis of KVK activities carried out during the reporting period Out Put of Trainings: On basis of pre and post evaluation of trainings

Agronomy:

- Technology Benefits: Old varieties has been replaced by new varieties/newly released SAU varieties. by increase in per cent yield .
- Economic Benefits: Due increase in yield farmers obtained higher return over expenditure.
- Environment benefits: New varieties are tolerant to many pest and disease, there by reduction in use of pesticides and production of residue free food grains.

Horticulture:

- The knowledge level of farmer about use of bio fertilizer in mango increased by 62% as a result of KVK intervention which was earlier 25%
- More than 48% farmer adopted novel spray fertilizer in brinjal after intervention of KVK which was earlier only 20%
- After initiative of sonpari mango variety 35% farmers started interest in growing of few sonpari plants in their farm.
- Regarding little gourd, the crop is still in cultivation & total production of crop has not reported but farmer were happy by growing little gourd in their farm. Because growing are long and slanderous well as higher in yield compared to local variety.

Plant protection:

- Technology Benefits: After adopting this technology lot of area has been transformed into use of fruit fly traps not only in mango and sapota also.
- Economic Benefits: Change in the income status of farmers income for unit are has been increased
- Environment benefits: Residue free fruits are available and no of sprays to control fruit fly in mango has nearer to nil.

Home Science

- Through training on nutrition education more than 70% women of adopted villages are become conscious about the health of their family.
- With the help of training on kitchen garden, around 70-80% farmers and farm women have adopted kitchen garden concept at their own backyard and around 20-30% farmers are making kitchen garden on large scale and got additional income through selling the excess vegetables.
- Farm women are now preparing mango pulp, jam, and masalas at their home rather than buying it from the market.
- Farm women prepared value added products like masalas, gulkand, rose water, rose syrup. pickles, farsan, biscuits, ragi papad, flour, ragi biscuits etc., and sold it near market their own from home, Krishi Mela as well as in different stall programmes of KVK, Navsari
- Moreover best out of west products like doormats, napkin, decorative diyas (Kodiya), decorative flower pot, sathiya, bamboo, wall piece, toys, flower pot etc. prepared by farm women and also after selling all products socio- economic status will increase.
- Exposure visits organised by KVK at different food industry and places to aware and educate farm women.

Extension

- Enriched the knowledge level of field functionaries.
- Increased convergence among different department through strong coordination with line departments.
- Because of linkages, it became possible to conduct various extension activities.
- Due to the follow-up by the functionaries, demonstration and technologies have become effective.
- In general, the area, production, and productivity increased in the district.

Fisheries

- Fresh water culture activities in village tanks/khet talavadi increased by 200 % in Navsari district.
- Fish production yield increased by 48-17% in villages tanks.
- Farmer's visits and enquiries are increased by 400% for fish farming activities & related issues.
- Now there enquiries from farmers for implementing latest modern aquaculture technologies such as RAS, BIOFLOC, Aqua ponies & cage farming.
- Fish farming activities are becoming effective tools for employment generation. Livelihood nutrition security for poor & active rural youth.
- Fish consumption rate per capital increased by 300 % in the home holds these encouraged by KVK through training & demonstration of fish farming.
- Fish farming activities in villages tanks by rural youth not only increase the income but rural development works such as sports ground, water tanks for cattle, street lights & roads have been done.

14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2018	5	8696	10
May	5	6792	18
June	10	8034	21
July	4	23253	19
August	5	22559	15
September	5	6231	28
October	13	12531	39

November	5	11350	10
December	7	6163	23
January 2019	6	5164	27
February	8	5561	14
March	6	8216	19
Total	**79**	**124550**	**243**

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
KVK, Navsari	Text only	28	3	3	5	20	15	74
	Voice only	0	0	0	0	0	0	0
	Voice & Text both	0	0	0	0	0	0	0
	Total Messages	28	3	4	6	21	17	79
	Total farmers Benefitted	**58912**	**2141**	**10522**	**2489**	**25918**	**24568**	**124550**

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

A. Performance of demonstration units (other than instructional farm including value added products)

Sr. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
NIL									

B. 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									
Paddy	July-18	Oct-18	0.5	NAUR-1	Seed Pro.	24.00		To be sell in Kharif-19	
Paddy	July-18	Oct-18	2.5	GNR-3	Seed Pro.	98.00			
Sweet corn	Oct-18	Jan-19	0.25	S-75	General	1614	3500	6665.00	
Pulses									
Pigeon pea	July-18	Feb-19		Vaishali	Seed pro.	25.00		To be sell in Kharif-19	
Gram	Dec-18	March-19	0.25	GG-1	General	24	300	1200	
Green gram	Oct-18	Jan-19	0.5	CO4	General	18.5	250	1110	
Fruits									
Watermelon	Dec-18	March-19	0.25	Sugar queen	General	569.5	2000	11390	

Vegetables									
Brinjal	July-18	Aug-18	-	-	Kitchen Garden	131.25	700	2635	
Tomato	July-18	Aug-18	-	-	Kitchen Garden	92.5	350	1850	
Chilly	July-18	Aug-18	-	-	Kitchen Garden	2.5	-	50	
Ridge gourd	July-18	Aug-18	-	-	Kitchen Garden	188.75	600	3775	
Smooth gourd	July-18	Aug-18	-	-	Kitchen Garden	179.25	600	3585	
Okra	July-18	Aug-18	-	-	Kitchen Garden	47	200	940	
Bitter gourd	July-18	Aug-18	-	-	Kitchen Garden	74.75	300	1495	
cow pea	July-18	Aug-18	-	-	Kitchen Garden	34	200	680	
Indian bean	July-18	Aug-18	-	-	Kitchen Garden	40	200	800	
Bottle gourd	July-18	Aug-18	-	-	Kitchen Garden	174.5	600	3490	
Little gourd	July-18	Aug-18	-	-	Kit. Gar.	16.25	100	325	
Pointed gourd	July-18	Aug-18	-	-	Kit. Gar.	5	-	100	
Cauliflower	July-18	Aug-18	-	-	Kit. Gar.	8	-	160	
Turmeric	July-18	Jan-19		NAUT-1	Kit. Gar.	154.5	600	4635	
Red beet	July-18	Jan-19		-	Kit. Gar.	173	-	432.50	
Cabbage	July-18	Jan-19		-	Kit. Gar.	57	150	1140	
Brocoli	July-18	Jan-19		-	Kitchen Garden	5.5	-	220	
Drum stick	July-18	Jan-19		PKV-2	Kit. Gar.	148	-	172	
Tur	July-18	Feb-19		Vaishali	Kit. Gar.	22.75	-	455	
Raddish	Rabi-18	Jan-19		-	Kit. Gar.	185	-	462.50	
Green leafy vegetables	Rabi-18	Jan-19		-	Kitchen Garden	371	150	1855	
Others (specify)									
Fish	July-17	Oct-18	0.6	Catla, Rohu, Grass carp	General	540	-	54000	

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

Sr. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.	Vermicompost	1170 kg.	3100	6435	

D. Performance of instructional farm (livestock and fisheries production)

Sr. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Rohu, Catla, Mrigal, Grass carp	-	Fish	540 kg	30,000	54,000.00	-

E. Utilization of hostel facilities

Accommodation available (No. of beds): 12

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2018	10	1	
May 2018	-	-	
June 2018	-	-	
July 2018	19	1	
August 2018	29	8	
September 2018	12	1	
October 2018	27	3	
November 2018	-	-	
December 2018	7	3	
January 2019	22	16	
February 2019	64	5	
March 2019	59	2	

F. Database management: NIL

G. Details on Rain Water Harvesting Structure and micro-irrigation system

Rain Water recharge structure of KVK.Building which has capacity of 37000 liter

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
Farmers who come to KVK, are exposed to Rainwater Harvesting Demonstration Unit									

16. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State Bank of India, Navsari	Agriculture campus, Eru char rasta	3889	Senior Scientist & Head, KVK, NAU, Navsari	30043864605	396002062	SBIN0003889
With KVK							

B. Utilization of KVK funds during the year 2018-19 (Rs. in lakh)

Sr. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	95.00	92.00	82.73
2	Traveling allowances	2.50	0.73	0.83
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	13.00	12.00	11.88
B	POL, repair of vehicles, tractor and equipments	-	-	-
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	-	-	-
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	-	-	-
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	-	-	-
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	-	-	-
G	Training of extension functionaries	-	-	-
H	Maintenance of buildings	-	-	-
I	Establishment of Soil, Plant & Water Testing Laboratory	-	-	-
J	Library	-	-	-
TOTAL (A)		110.5	104.73	95.44
B. Non-Recurring Contingencies				
1	Works			
2	Equipments including SWTL & Furniture	8.00	-	-
3	Vehicle (Four wheeler/Two wheeler, please specify)			
4	Library (Purchase of assets like books & journals)			
TOTAL (B)		8.00	-	-
C. REVOLVING FUND		-	-	-
GRAND TOTAL (A+B+C)		**118.50**	**104.73**	**95.44**

C. Status of revolving fund (Rs. in lakh) for the three years

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2016 to March 2017	4,97,140	10,87,975	10,67,917	5,17,198
April 2017 to March 2018	5,17,198	6,84,662	9,05,080	2,96,780
April 2018 to March 2019	2,96,780	9,55,529	7,50,924	5,01,385

17. Details of HRD activities attended by KVK staff during year

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr.K.A.Shah	Scientist (Agrnomy)	Recent trends in sustainable management of soil health for doubling the farmer's income	Jabalpur	18-09-2018 to 8/10/2018
Dr.Sumit R. Salunkhe	Scientist (Extension Education)	Recent development in organic production system under changing climate scenario	squats, Kashmir Srinagar	24/07/2018 to 13/08/2018
Dr.Prabhu Nayaka	Scientist (Plant protection)	Recent development in organic production system under changing climate scenario	squats, Kashmir Srinagar	24/07/2018 to 13/08/2018
Prof R.A. Gurjar	Scientist (Horticulture)	Pulses post harvest loss reduction	CIPHET Punjab	04-25/07/2018
Dr.Prabhu Nayaka	Scientist (Plant protection)	One day orientation workshop and launch of Unnat Bharat Abhiyan 2.0	New Delhi	25/4/18
Dr.Sumit R. Salunkhe	Scientist (Extension Education)	National Seminar on extension strategies for doubling the farmer's income for livelihood secuirty	AAU,Anand	26-27/4/18
Dipal N.Soni	Scientist (Home science)			
Dr.C.K.Timbadia	Scientist (Senior Scietist & Head)	National Seminar on Agri Food processing connect to prime minister-Kisahn Smpada Yojana	Surat	24/4/18

Dr.K.A.Shah	Scientist (Agrnomy)	Anunal Zonal workshop of KVKs	Rhahuri	5-7/5/18
Dr.K.A.Shah	Scientist (Agrnomy)	International conference on agricultural , horicultural & plant science	Simla	28-29/6/18
DR.Sumit R.Shaukle	Scientist (Extension Education)			
Dr.K.A.Shah	Scientist (Agrnomy)	Workshop on digital field book	Navsari	29/10/18
Dr.K.A.Shah	Scientist (Agrnomy)	CFLD workshop	bhavnagar	6-9/12/18
Dr.K.A.Shah	Scientist (Agrnomy)	Integrated farming system for enhancing farmers income and nutrimental security	Kolkata	5-7/12/18
DR.Sumit R.Shaukle	Scientist (Extension Education)			
DR C K Timbadia	Senior Scientist and Head KVK Navsari	Workshop on annual action plan 1 &2/3/19 ABM, NAU, Navsari		
Dr.Prabhu Nayaka	Scientist (Plant protection)			
DR.Sumit R.Shaukle,	Scientist (Extension Education)			

18. List the other collaborative research/ extension projects and also write brief key achievements of the projects.

- Pro SOIL
- NARI (Please indicate the name of one adopted village and give the activities carried over on nutri sensitive agriculture)
- VATICA

Seed Hub Project:

1. **Separate account opening date as per guidelines:** 18/8/17
2. **Transfer/deposit of money by host institute (Mention date):**
3. **Infrastructure created:**

Sr. No.	Name of items (Like Godown, Processing equipment)	Allotted Fund (in Lakh)	Expanse Fund (in Lakh)	Unutilized Fund (in Lakh)
1	For godown construction the fund was transfer to executive engineer	35.00	29.00	6.00
2	Seed processing machinery equipment	15.00	6.52	8.48
	Total	**50.00**	**35.52**	**14.48**

4. **Details of seed production and budget allocation for Seed hubs at KVK, Navsari**

State	Nam of the centre	Seed production target (q)			Budget allocation (Rs. In Lakh)		
		2016-17	2017-18	2018-19	Seed processing & storage Infrastructure under (2016-17)	Revolving und	
						2016-17	2017-18
Gujarat	KVK, Navsari	450	700	1000	50.00	35.00	65.00

5. **Target of quality seed production o pulses by seed-hub (KVK, Navsari) during 2016-17 to 2018-19 is a under**

State	Name of the centre	District	Crop / Variety	Quantity of seed production (q)			
				2016-17	2017-18	2018-19	Total
Gujarat	KVK, Navsari	Navsari	Mung bean	150	300	350	2150
			Pigeon pea	300	400	650	
Total				**450**	**700**	**1000**	

19. Please include any other important and relevant information which has not been reflected above (write in detail).

Remarkable activities carried out by KVK, Navsari :

[1]

Smriti Z Irani Union Cabinet Minister of Textiles, Government of India visited KVK Navsari and chaired a farmer's meet.

Srimathi Smriti Z Irani Union Cabinet Minister of Textiles, Government of India visited KVK Navsari on 1st June 2018. Minister visited KVK demonstration and interacted with many farmers. She launched voice SMS system for providing advisor to farmers by KVK and reliance foundation. Hon minister had reviewed KVK activities through presentation. Stake holder of KVK expressed remarkable feedbacks and impressed ministers. Hon minister also graced farmers meet and explained fund allotted by GOI for uplifting farming community. Minister impressed by interactive talk with the organic farmers and SHGs member of navsari districts. And she honored the six progressive farmer of Navsari district.

[2]

Celebration of Mahila Kisan Diwas

Mahila Kisan Diwas was organized by KVK, Navsari on October 15, 2018 in Auditorium Hall, NAU, Navsari in the presence of Hon. Vice Chancellor Dr. C. J. Dangaria and Senior Scientist and Head Dr. C. K. Timbadia. In this Program More than 800 Farm Women were enthusiastically participated. Various competitions like Extempore, Arti decoration, Mahendi, Hair style and Best out of waste competition were organized. About 80 farm women were participated in the competitions.

[3]

Free Medical Health Check up Camp

Free Medical Health Check up Camp was organized at KVK, NAU, Navsari in collaboration with Kiran Hospital, Surat on December 16, 2018. The Program was inaugurated by Hon. Vice Chancellor Dr. C. J. Dangaria and Director of Extension Education Dr. G. R. Patel. More than 400 Farm women benefited.

[4]

Traffic Rules Awareness Programme

Traffic Rules Awareness Programme was organized by District Traffic Education Trust and KVK, Navsari at Tata Hall, Navsari on December 25, 2018. The Programme was innograted by Dr. Girish Pandya, Supretendent Police, Deputy collector and Dr. C. K. Timbadia, Senior Scientist and Head. More than 500 farm women were benefited and provide the information about traffic rules.

[5]

Breast Cancer Awareness Programme

Breast Cancer Awareness Programme was jointly organized by KVK, Navsari and Manav Kalyan Trust, Navsari on December 30, 2018. The Programme was organized under the chairmanship of Dr. M. K. Aravadia, Principal, NMCA, NAU, Navsari, Shri Amrutbhai, Director of Manav Kalyan Trust, Navsari, Dr. Ruchi Thakor, Kiran Hospital & Dr. C. K. Timbadia, Senior Scientist & Head. More than 450 Farm women were participated in this Programme and about 110 farm women were benefited by free check up.

[6]

Organic Farming Seminar

KVK Navsari Organized One Day Organic Farming Seminar and Training Programme on 14-08-2018 with 100 South Gujarat Organic Farmers. Before the Programme Dr. Anand Kaswala delivered a lecture on research recommendation of NAU Organic Farm to the organic farmer. Then Programme was started through welcome speech by Dr. C. K. Timbadia, Senior Scientist and Head KVK Navsari then "Padma Shree" "Mathurbhai Savani" " had Inaugurated the Function and Interact with Farmers then Dr. C. J. Dangaria- Hon'ble VC of NAU Navsari, Dr. G. R. Patel- Hon'ble DEE of NAU Navsari, Jayantibhai Patel Chairman of NOFFCO, Kribhco TEAM had Graced this Function and Interacted with Organic Farmers and distributed Organic Farming KIT to all Organic Farmers.

[7]

Organic farming certification procedure programme

KVK, Navsari organised organic farming certification procedure programme on 20-12-2018 with help of Padmshree Mathurbhai Savani at Kiran Hospital Surat with more than 200 farmers. Dr. C. K. Timbadia Head of KVK had explained motto of this programme"importance of organic farming certification". Dr. C. J. Dangaria Hon'ble vc nau, Padmshree Mathurbhai Savani, Dr. G. R. Patel Hon'ble Dee of Nau had explained their vision on organic farming, Team of GOPCA had explained procedure of organic farming certification. Dr. Shah Agronomy Scientist & Dr. Prabhu nayaka Plant Protection Scientist and team of KVK and team of Kiran Hospital contributed a lot to make grand success of the programme.

[8]

Celebration of Kisan Divas

KVK, Navsari Celebrated Kisan Divas and Swachhta Hi Sewa Mission on 23-12-2018 at Kharjai Village, Vansda with more than 180 farmers. 1. Celebration of Kisan Divas. 2. Oath of Swachhta Hi Sewa Abhiyan. 3. Cleanness Streets and Surrounding area of Primary school of Kharjai Village. These activities were conducted by KVK, Navsari on this Special Day. Dr. C. K. Timbadia (Senior Scientist and Head, KVK, Navsari) and Shree Somabhai Patel(Director of Baroda Swarojgar Vikas Sanstha) had Explained about Kisan Divas and Swachhta Hi Sewa Mission. Dr. K. A. Shah (Scientist Agronomy), Dr. Prabhu Nayaka (Scientist Plant Protection), Dr. Sumit Salunkhe (Scientist Extension) had Interacted with Farmers on various Crop production technologies.

25 Days Skill India Training on Assistant Gardener

Krishi Vigyan Kendra, Navsari Agricultural University, Navsari organized 25 days skill training on Assistant Gardener. It was sponsored by Agriculture Skill Council of India, under Pradhan Mantry Kaushal Vikas Yojana during 18-12-2018 to 11-01-2019 by trainer Mr. R. A. Gurjar, Scientist (Horticulture) KVK, NAU, Navsari. In this skill oriented programme, 11 female & 9 male had actively participated from different districts of Gujarat. Learning by doing was the main objectives of this skill training. During this skill based training, scientific cultural practices were taught for growing different types of annuals, biennials, herbaceous perennials, climbers, cactus, succulents, lawns, bonsai, palms, trees, grass & reeds. Different types of skill based activities e.g., seed & plant identification, selection, site preparation, grading, leveling, planking, sowing methods, time of planting, spacing, different types of irrigation methods, nursery raising, media preparation, plug tray of plants, staking, topiary preparations, dibbling, turfing, mowing, training and pruning of ornamental plants were practiced scientifically.

Experts from different disciplines who have worked for several years were invited to share their experience and problems in landscape gardening. For better exposure of garden principles, types of gardens, maintenance and turf grass management, plant utilization, Swaminarayan temple of Sakari-Bardoli, Golf and Cricket garden of Meril Industries, Vapi and Flower valley of Statue of Unity at Sardar Sarovar Dam were visited. Course director of Turf grass management Dr. S. L. Chawla, Associate Professor, ACHF, NAU was invited to share their experience regarding turf grass. Golf course and horticulture consultant, Dr Naresh Pancholi delivered lecture to understand assistant gardener's responsibilities in industries. Honorable Dr. Trilochan Mohapatra, Secretary (DARE) & Director General (ICAR) visited & interacted with trainees and spend his prestigious time. During his visit, Honorable Vice Chancellor Dr. C. J. Dangariya & Director of Extension Education Dr. G. R. Patel and Dr. C. K. Timbadia, Senior Scientist and Head and KVK staff members were remained present. Among twenty students of Assistant gardener skill development program one student has developed his own venture for landscape gardening and nine students are employed.

[10]

25 Days Skill India Training for shrimp farmers

25 days skill training on shrimp farmers sponsored by ASCI was organized during 18th December, 2018 to 16th January, 2019. About 400 interested candidates had shown keen interest to participate the training nut as per ASCI norms 20 highly interested and qualified per ASCI criteria were selected for training. During the training various training. During the training various theory lectures on site selection for shrimp culture, farm design, selection of shrimp seeds, stocking of eeds, water of shrimp seeds. stocking of seeds, water quality management. Food & feeding management shrimp healthily management & harvesting & post harvest preservations were delivered using PPT, audio visual aids & e-learning modules. Practical on water quality management pond preparation harvesting of shrimp were conducted at aquaculture lab, shrimp farm danti of college of fisheries, Navsari Agricultural university. Moreover farmers were also trained at various private shrimp farmers. After training all trainees were evaluated by third party arranged b ASCI. Out of 20 participants 19 participants were qualified and got certificates completion of successful trainings. As an impact of this trainings 12 shrimp farmers strictly followed the lesions learnt during training in their shrimp seeds stocking $ water quality management activities and remaining & have appliet to get lease of land for shrimp cultivation start up venture.

[11]

Women Empowerment through Skill Development on Sewing:

The skill development training on "Sewing Machine" was organized at Bodali village. The training was started from **17/12/2018 to 16/02/2019 (2 Months)** and total **29 farm women** were enthusiastically participated. The resource person from Rotary club, Navsari was co-ordinated the whole programme. In this training, the co-ordinator gave training how cut the cloth materials and prepare dress, frock, gown, one piece, blouse, bag, purse, best out of waste material, *etc.* to the farm women. Now, they can prepare their own garments as well as get order from others also. After this skill development training, women can improve their social and economic status.


[12]

Vocational training on Bakery Products:

The skill development vocational one day training on "Bakery Products" was held at Bakery Unit, Navsari Agricultural University, Navsari on **29/01/2019**. Krishi Vigyan Kendra, Navsari Agricultural University, Navsari organized such type of training for women empowerment. Total **17 women** were participated from Matvad village of Jalalpore taluka and Navsari. In this training, different types of Biscuits and Cake were prepared by participants and got the theoretical and practical knowledge on such products. Nowadays, Six women can prepare self help group and worked together. Moreover, they prepared Bakery products as well as Farsan and got the order from their village and other sources. Thus, they became self reliant and improve their self-confidence.


[13]

Awareness programme on Red Revolution:

In collaboration with Rotary club, Navsari and Krishi Vigyan Kendra, Navsari Agricultural University, Navsari organized Red Revolution programme at Bodali village on **08/02/2019**. More than 30 farm women were participated and got the knowledge about Red revolution. Every month many women

suffered from stomachache, body ache, etc. due to menstruation. The member of Rotary club defined how to protect and take care themselves from infection and other body problems during this period. Moreover, they gave training on preparation of safety sanitary pad to the women.

[14]

Awareness programme on Leprosy Disease:

Primary Health Centre, Bodali and Krishi Vigyan Kendra, Navsari Agricultural University, Navsari organized Leprosy Disease programme at Bodali village on **08/02/2019**. Leprosy (Hansen's disease) is a chronic infectious disease that primarily affects the peripheral nerves, skin, upper respiratory tract, eyes and nasal mucosa (lining of the nose). The disease is caused by a bacillus (rod-shaped) bacterium known as Mycobacterium leprae. More than 50 farm women were aware about the disease.

[15]

Live telecast programme of Pradhanmantri Kishan Samman Nidhhi (PM-Kishan) on 24th February 2019

KVK Navsari organized Live telecast programme on Launched of "Pradhanmantri Kishan Samman Nidhi (PM-Kisan)" by Hon'ble prime minister Shri Narendra Modi and Man ki baat in presence of Hon'ble DEE Dr. G. R. Patel, President of Navsari vijalpore nagar palika Shri Modi, President of BJP Kisan Morcha Shri. Jignesh Naik and Senior Scientist and Head of KVK, Navsari Dr. C. K. Timbadia.

[16]

Lord Ganesh Ceremony Wastes (Flowers) Converted into Organic manure

Thousands of tons flowers along with plastic bags are being dumped into river every year during religious ceremony such as lord Ganesh Utsav & Navratri. Such high load of organic matter spoils the quality waters non degraders articles enters the stomach of fish & aquatic creatures which harms our environment. Impact we are celebration our religious festivals for happiness of all living being but our such practices unknowingly harms. the living organisms and informs human being to create awareness & divert the people from their long aged traditional customers KVK, Navsari & Rotary club collected all flowers along with banana leaves & plastics prepared fine decomposed manure for kitchen gardening & agricultures use. KVK, Navsari also arranged one day campaign seminar on this activity to divert the people towards true eco-friendly festival celebration. Such small steps have potential too create great impact our river cleanliness as our government spending thousand millions on river Ganga cleanliness.

About 200 bags (5 kg) manure prepared from flowers/leaves/fruits wastes were distributed to urban people for kitchen gardening.

[17]

CELEBRATION OF TECHNOLOGY WEEK

Technology week was celebrated on 5-9th March, 2019 at KVK, Navsari. The programme was scheduled as below.

1st day	Seminar on Agro Forestry project planning & Management
2nd day	Seminar on Scientific cultivation Mango and Sapota
3rd day	Seminar on Agriculture Service Provider
4th day	Seminar on "Pre Rabi Farmers Sammelan" And International Women's Day - 2019
5th day	Seminar on Organic farming in Mango and use of bio-pesticides

International women day (Rabi crop summit and Agriculture fair)

"PRE RABI FARMERS SAMMELAN" AND INTERNATIONAL WOMEN'S DAY – 2019

To create awareness among the farmers on Rabi crops a "Pre Rabi Farmers Sammelan" was organized by Krishi Vigyan Kendra, Navsari, Navsari Agricultural University, Navsari. The function was inaugurated by Chief Guest Shri Anant Patel, MLA, Vansda, Smt. Arunaben. G Patel, Sarpanch, Singhdai, Dr. C.K. Timbadia, Senior Scientist and Head, KVK, NAU, Navsari and Dr. G.R Patel DEE, NAU, Navsari and was President of this function. Shri Gamanbhai patel, Chairman vasudhara dairy, Navsari; Shri Viphul patel, Director Mahuva Sugars, Dr. S.C. Mali, Research Scientist and Unit Head, Main Sugar Research Station, NAU, Navsari; Dr. Digvijaya Chauhan, Senior Scientist, NAU, Navsari; Progressive farmers and different officers of Line Department were was also present as invitee members of this function. Total 12 officers & extension functionaries and 600 farmers & farm women were participated in this function. Lecture was delivered on: scientific cultivation of rabi maize (Sweet corn) and gram; Use and importance of bio-fertilizers in rabi crops; IPM and IDM in Rabi Crops; Mechanization in rabi crops.

KVK also organized short film shows, provided extension literature related to agricultural technologies, displayed exhibits, posters, photographs, digital prints, display boards, sample trays, etc.

Smt.Arunaben. G Patel, Sarpanch, Singhdai, Shri. Rajashreeben Karadi lioness Club, Navsari was also graces the function on the occasion of International women's day. As an health awareness; club organized the " Free diabetic check up" and also promoted the women farmers who were preparing and marketing the Gulkand (rose), Mango pulp, Ragi biscuits, Varieties of Pickles, Condiments and Spices.

Seminar on Organic farming in Mango and use of bio-pesticides

Preamble:

The use of chemicals (fertilizers and pesticides) has taken over crop production these days. Crops have lost their natural resistance and stamina and become susceptible to disease due to the use of chemical fertilizers. Organic farming is the only recourse for farmers, to save both livelihood and the health of the soil. Organic farming methods enable farmers save money. It is possible to turn one's own farmyard waste into value-added products for increasing crop production. We will thereby avoid poisoning our land. Our soil will get enriched. We will be able to provide healthy food crops for our own consumption and for sale. Our environment will be saved. Diseases can be averted. Farmers will not have to be dependent on agri-business companies for seeds, fertilizers and pesticides. Our self-reliance is thus preserved.

Inaugural Session and Dignitaries speech

Dr. C.K Timbadia, Senior Scientist and Head, KVK, NAU, Navsari has emphasized that organic certificate is a mandatory requirement for export purpose but in domestic market it is not required. He also suggested that in organic farming, on farm input production as well suitable combination of different component of organic farming has great importance as it reduces the cost as well as threat of environmental pollution. He has opined that there is an urgent need to identify the crop as well as soil suitable for organic farming.

Shri. Deepakbhai Naik**,** President Co-op society, Amalsad mentioned in his speech that Agnihotra is an unique gift of great IndianVedic Sciences to human kind for bio energy, medicine, agriculture and climate engineering. He said that Agnihotra is a process of purification and harness the solar energy through participation of fire, lit in pyramid like structure made up of copper tuned to biorhythm of sunrise/sunset and it has to improve soil, water and environmental quality as it reduce the microbial, metal and gaseous pollution.

Shri. Jayntibhai**,** president organic farming, Navsari opined that there is great scope of organic farming as the awareness of health and environment protection increased among the people. Based on experience of organic farming he said that nutrient base organic farming gave yield equivalent to conventional farming and crops grown under organic farming superior quality than their conventional counterpart.

Scientists Interaction

Dr. K.A.Shah, Scientist, Agronomy He pointed out significant scope of organic farming .Under nutrient management, he discussed about various preparation techniques of solid, liquid formulations of organic compost and their uses. He has also presented modified vermiwash technology for commercial preparation and applications,

Dr. Prabhu Nayaka, Scientist, Plant protection he dealt about pest and disease management by judicious use of cow urine, fermented butter milk and plant extracts such as *Ghaneri, Lantana, Darek*, which are used as repellent and anti-feedant.

Use of Biopesticides - *Trichoderma viride* or *T. harazianum* or *Pseudomonas fluorescence* formulation @ 4gm/kg seed either alone or in combination, manage most of the seed borne & soil borne diseases. There are other formulations viz. *Beauvaria bassiana*, *Metarizium anisopliae*, *Numeria rileyi*, *Verticillium* sp, which are available in the market and can manage their specific host pest. Bt. has been used in the management of diamond back moth on crucifers and vegetables @ 0.5-1.0 kg Formulation per ha.

Viral biopesticides of baculovirus group viz. granulosis viruses (GV) and nuclear polyhedrosis viruses provided a great scope in plant protection field. Spray of nuclear polyhedrosis viruses (NPV) of *Helicoverpa armigera* (H) or *Spodoptera litura* (S) @ 250 larval equivalents are very effective tools to manage the *Helicoverpa* sp. or *Spodoptera* sp. respectively.

Botanical pesticides

Many plants are known to have pesticidal properties and the extract of such plants or its refined forms can be used in the management of pests. Among various plants identified for the purpose, neem has been found to be most effective.

Neem (*Azadirachta indica*) – Neem has been found to be effective in the management of approximately 200 insects, pests and nematodes. Neem is very effective against grasshoppers, leaf hoppers, plant hoppers, aphids, jassids, and moth caterpillars. Neem extracts, are also very effective against beetle larvae, butterfly, moth and caterpillars such as Mexican bean beetle, Colorado potato beetle and diamondback moth. Neem is very effective against grasshoppers, leaf minor and leaf hoppers such as variegated grasshoppers, green rice leaf hopper and cotton jassids. Neem is fairly good in managing beetles, aphids and white flies, mealy bug, scale insects, adult bugs, fruit maggots and spider mites.

Some other pest control formulations

Many organic farmers and NGOs have developed large number of innovative formulations which are effectively used for control of various pests. Although none of these formulations have been subjected to scientific validation but their wide acceptance by farmers speak of their usefulness. Farmers can try these formulations, as they can be prepared on their own farm without the need of any purchases. Some of the popular formulations are listed below:

Cow urine – Cow urine diluted with water in ratio of 1: 20 and used as foliar spray is not only effective in the management of pathogens & insects, but also acts as effective growth promoter for the crop.

Fermented curd water – In some parts of central India fermented curd water (butter milk or *Chaach*) is also being used for the management of white fly, jassids aphids etc.

Dashparni extract – Crush neem leaves 5 kg, Vitex negundo leaves 2 kg, Aristolochia leaves 2 kg, papaya (Carica Papaya) 2 kg, Tinospora cordifolia leaves 2 kg, Annona squamosa (Custard apple) leaves 2 kg, Pongamia pinnata (Karanja) leaves 2 kg, Ricinus communis (Castor) leaves 2 kg, Nerium indicum 2 kg, Calotropis procera leaves 2 kg, Green chilly paste 2 kg, Garlic paste 250 gm, Cow dung 3 kg and Cow Urine 5 lit in 200 lit water ferment for one month. Shake regularly three times a day. Extract after crushing and filtering. The extract can be stored up to 6 Months and is sufficient for one acre.

Farmers Interaction

About 10 farmers explained their experiences in organic farming. Most of the farmers were from different taluka's *viz.,* Navsari, jalalpore, khergam and Chikhli of south Gujarat. They opined that organic farming is remunerative and maintained the soil health also. They described about different inputs that they are using with advantages along with difficulties encountered by them as specially in obtaining certificate. They said that KVK, Navsari has done work to create awareness about organic farming among the farmers through organizing fairs/melas, FLD, training *etc.* They appreciate the activities related to organic farming taken up by KVK, NAU, Navsari.

SEMINAR ON ORGANIC FARMING IN MANGO AND USE OF BIO-PESTICIDES

Award received

Best Young Extension Scientist Awards (Dr.Sumir R. Salukhe)

Dr.Sumit Salunkhe, Scientist (Extension Education) KVK, Navsari. Got Best Young Extension Scientist Awards For the Year 2018 At Anand Agricultural University,AAU During National Seminar Organise By Society of Extension Education ,Gujarat.

Outstanding scientist awards (Dr. Sumit R. Salukhe)

Dr.Sumit Salunkhe, Scientist (Extension Education) KVK, Navsari. Got outstanding scientist awards for the year 2018 at International Conferences on Agriculture, Horticulture and Plant Science at Shimla organized by the society of Tropical Agriculture, New Delhi.

Fal Ane Shakbhaji Parirakshan Technologyna Upayog Dhwara Adiwasi Mahila Sashaktikaran	Dairy, Food processing & Home science	2017-18	Krushigovidya

Appreciation Certificate received (Smt. Dipal N.Soni)

Appreciation certificate awarded for training on ***"Nutritious Food Management"*** to Senior citizen people in Navsari district by Senior Citizen Trust, Vijalpore, Navsari, Dated-**22-11-18**

Appreciation Certificate to Scientist (Prof. R A Gurjar)

During Breast cancer awareness programme Prof. R A Gurjar Scientist (Horticulture) KVK, Navsari was honored by Manav Kalyan Sarvajanik Trust, Navsari for his very good initiative to popularize 'Kitchen Garden' concept in the urban area and in the District.

Appreciation Certificate to Scientist (Mr. Alpesh N. Lad)

During Breast cancer awareness programme Mr. Alpesh N Lad Farm Manager KVK, Navsari appreciated by Manav Kalyan Sarvajanik Trust, Navsari for the amazing work done to make Organic Manure which was decomposed scientifically from organic waste used during Lord Ganesh Puja Under "PURNUTHAN OF PURNA PROJECT" and that is used In Kitchen Garden.

APR SUMMARY

(Note: While preparing summary, please don't add or delete any row or columns)

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	82	2233	1744	3977
Rural youths	5	115	124	239
Extension functionaries	1	19	9	28
Sponsored Training	3	112	9	121
Vocational Training	2	0	45	45
Total	**93**	**2479**	**1931**	**4410**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	0	0	0
Pulses	874	113	
Cereals	538	229.5	
Vegetables	722	50	
Other crops			
Fruit crops	387	106	
Fodder crops	40	4	
Hybrid crops	0	0	0
Total	**2561**	**502.5**	
Livestock & Fisheries	225	43.7	-
Other enterprises	30	-	-
Total	**255**	**43.7**	-
Grand Total	**2816**	**546.2**	

3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
Technology Assessed			
Crops	3	6	18
Livestock/Fisheries	1	1	20
Various enterprises			
Other	4	7	38
Total	**4**	**7**	**38**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	214	37695
Other extension activities	465	-
Total	**679**	37695

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
	Text only	28	3	4	6	21	17	79
	Voice only							
	Voice & Text both							
	Total Messages	**28**	**3**	**4**	**6**	**21**	**17**	**79**
	Total farmers Benefitted	**58912**	**2141**	**10522**	**2489**	**25918**	**24568**	**124550**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	135.32	809832.80
Planting material (No.)	3700	1850
Bio-Products (kg)	1170	6435
Livestock Production (No.)		
Fishery production (No.)	540 kg	54000

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	337	20700.00
Water	157	
Plant	-	
Total	**494**	

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	15
2	Conferences	12/6
3	Meetings	31
4	Trainings for KVK officials	-
5	Visits of KVK officials	-
6	Book published	1
7	Training Manual	-
8	Book chapters	-
9	Research papers	5
10	Lead papers	-
11	Seminar papers	-
12	Extension folder	-
13	Proceedings	-
14	Award & recognition	6
15	On going research projects	-