

**ICAR-ATARI, Pune**  
**DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2017-18**  
**(1<sup>st</sup> April 2017 to 31<sup>st</sup> March 2018)**

**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, Ahwa road, Waghai, Tal: Waghai, District: Dang, Gujarat-394730	Office 02631-246239	FAX 02631-246239	<a href="mailto:kvkwaghai@nau.in">kvkwaghai@nau.in</a>	<a href="http://dangs.kvk6.in">http://dangs.kvk6.in</a>

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

Address	Telephone		E mail	Website address
	Office	FAX		
Navsari Agricultural University, Eru Char Rasta, Dandi Road, Navsari, Gujarat, 396450	02637-282823 02637-282026	02637-284254 02637282706	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
I/C: Sri V.K.Desai	02631-246239	9979908974	<a href="mailto:vkdesai@nau.in">vkdesai@nau.in</a> <a href="mailto:kvkwaghai@nau.in">kvkwaghai@nau.in</a>

1.4. Year of sanction: 1984-85

1.5. Staff Position (as on March 31, 2018)

Sr. No.	Sanctioned post	Name of the incumbent	Discipline	If Permanent, Please indicate		Date of joining	If Temporary, pl. indicate the consolidated amount paid (Rs./month)
				Current Pay Band	Current Grade Pay		
1.	Senior scientist and head	Vacant	-	-	-	-	
2.	Scientist(1)	Mr. V. K. Desai	Plant Pathology	15600-39100	6000	6.5.2011	
3.	Scientist(2)	Mr. N. M. Thesia	Agronomy	15600-39100	6000	16.5.2012	
4.	Scientist(3)	Mr.H.A.Prajapati	Horticulture	15600-39100	6000	13.02.2017	
5.	Scientist(4)	Dr. D. B. Bhoi	Vet.Gynaec & Obste.	15600-39100	6000	4.4.2011	
6.	Scientist(5)	Mr. J.B.Dobariya	Extension Education	15600-39100	6000	20.08.2015	
7.	Scientist(6)	Smt. N. N. Patel	Home Science	15600-39100	6000	2.1.2014	
8.	Farm Manager	Mr. P.M Sankhla	-	38090 Fix	-	23.9.2015	
9.	Computer Programmer	Mr. G. R. Rathod	-	39900-126600	-	01-02-2017	
10.	Programme Assistant	Mr. K.V.Patel	-	38090 Fix	-	24.9.2015	
11.	Accountant / superintendent	Mrs P.D.Rathod	-	25500-81100	-	27.6.2017	
12.	Stenographer	Vacant	-	5200-20200	-	-	
13.	Driver	Vacant	-	5200-20200	-	-	
14.	Driver	Vacant	-	5200-20200	-	-	
15.	Supporting staff	Vacant	-	4440-7440	-	-	
16.	Supporting staff	Mr. D. N. Parmar	-	14800-47100	-	19.06.2006	

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	--
2.	Under Demonstration Units	--
3.	Under Crops	4.00
4.	Horticulture	1.97
5.	Pond	---
6.	Others if any	---
	Total	5.97

**1.7. Infrastructural Development:**

**A) Buildings**

S. 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	1990	200.73	0.93	--	--	--
2.	Farmers Hostel	ICAR	2005	278.00	12.00	--	--	--
3.	Staff Quarters (6)	--	--	--	--	--	--	--
	B-Type(2)	ICAR	1994	--	--	--	--	--
	C-Type(1)	ICAR		197.04	343696	--	--	--
	A-Type(1)	ICAR		--	--	--	--	--
	E-Type(1)	ICAR		--	--	--	--	--
	<b>Total</b>			197.04	343696	--	--	--
	RCC approach road		2005	82.00	2.21	--	--	--
	Rcc Sump		2005	40000 lit cap	0.76	--	--	--
4.	Demonstration Units (2)	---	--	--	--	--	--	--
5	Fencing	---	--	--	--	--	--	--
6	Rain Water harvesting system	---	--	--	--	--	--	--
7	Threshing floor	ICAR	2012	84	2.00	--	--	--
8	Farm godown	ICAR	2011	12	3.00	--	--	--

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep (one) GJ 15 G 415	1999	343156	3,77,668	Auction of vehicle at date 16-03-2017,urgently need another vehicle
Motorcycle Hero Honda Splendour (SPREDRKCC)	2011	50755	24567 (26-03-2018)	working
Mobile Soil testing van GJ-21 T-6881	2009-10	2630000	9381 (27-03-2018)	working

**C) Equipments & AV aids**

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Camera (Soni-Digital )	5.1.2001	27100/-	Working
Digital camera	03.01.2009	19038/-	Working
Fax maschine	30.3.2010	--	Working
Generator set (Honda)	26.3.2010	49600/-	Working
EPBAX system	24.2.2011	49868/-	Working
Plough (Heavy duty)	18.2.2011	19000/-	Working
Rotavator	14.3.2011	63400/-	Working
Vivitek Multimedia DLP projector	14.3.2011	99990/-	Working
Winnowing fan	27.2.2011	6900/-	Working
Power sprayer	4.2.2011	24150/-	Working
Power tiller	24.3.2011	148785/-	Working
Cultivator	3.3.2011	20700/-	Working

Two-way-leveller	3.3.2011	12600/-	Working
Thresher	17.2.2011	18000/-	Working
Seed cum fertilizer drill	17.2.2011	36100/-	Working
Scale (Weghing)	18.2.2011	6000/-	Working
PRON Impact	28.3.2011	35600/-	Working
Trailor (For Power tiller)	28.3.2011	26500/-	Working
Submersible pump ISIV-6	07.03.2014	18,750/-	Working
Digital mini lab	23.11.2015	75000/-	Working
Tractor	04.12.2015	581228/-	Working
Paddy winnowing fane	29-02-2016	42200/-	Working
Rotary power tiller	18-03-2016	98500/-	Working
Desk top computer (Lenova)	21-03-2016	38775/-	Working
HP printer	28-03-2016	10999/-	Working
Tractor Trailer	29-03-2016	117000/-	Working
M.B.Plough	20-02-2017	30500/-	Working
Roklith cooler	23-02-2017	79000/-	Working
Lenovo computer (All in one)	07-03-2017	46199/-	Working
Laser printer	07-03-2017	25800/-	Working
Voltas AC	08-03-2017	72000/-	Working
Photocopier machine	10-03-2017	150000/-	Working
Mridaparishak soil testing kit	15-03-2017	90300/-	Working
Multicrop thresher	16-03-2017	210000/-	Working
Information kiosk thin client based free standing type model	23-03-2017	90250/-	Working
Stabilizer	27-09-2017	8260/-	Working
V-ditcher, Ridzer, Burd former	19-02-2018	60000/-	Working

#### 1.8. Details SAC meeting conducted in the year

Date	Name of Participants	Designation of Participants	Salient Recommendations	Action taken
12-03-2018	Dr. C. J. Dangaria	Hon'ble Vice Chancellor, NAU, Navsari	Replace IR-28 for demonstration and seed production purpose with new recommended varieties GNR-7.	Due to unavailability of GNR 7, We have conducted 1.0 ha seed production programme of GNR 6 variety of paddy at our KVK farm
	Dr. G. R. Patel	Director of Extension Education, NAU, Navsari	Take new released varieties GNR-7 for paddy, GJG 5 for gram and GNP-2 & BSMR-711 for pigeon pea for front line demonstration.	Due to unavailability of GNR 7, We have conducted GNR 6 variety for demonstration. GJG 5 variety of gram given 1.0 ha for demonstration. GNP 2 variety of pigeon pea gives 2.0 ha and BSMR-711 variety gave 1.0 ha
	Dr. Z. P. Patel	Dean & Principal, CoA, NAU, Waghai-Dangs	Create awareness regarding new crops like pineapple, strawberry for crop diversification.	We have conducting scientist visit to farmer's field for pineapple and strawberry. We have discussed about the scientific cultivation of pineapple and strawberry in On and Off campus trainings.
	Mr. M.M.Patel	Project Director, ATMA, Ahwa, Dang	To investigate the reasons for shrinkage of harvested turmeric rhizomes after boiling for processing purpose in the dang district.	The farmers of Dang district could not provide irrigation facilities after monsoon which is necessary for the reduce shrinkage of harvested turmeric rhizomes after boiling for processing purpose in the dang district.

Dr. S. N. Saravaiya,	Asso.Professor & Head, (Vegetable Sci.), Aspee college of Horticulture and Forestry, NAU, Navsari	Create awareness on scientifically cultivation of mushroom in dang district and give training for value addition and marketing of mushroom.	Vocational training for same carried out of farmers and farm women demanded quality mushroom spore.
Dr. H. E. Patil	Associate Research Scientist, Hill millet Research Station, NAU, Waghai-Dangs	Popularize dang <i>Nagli</i> biscuit in all over the Gujarat state for the prevention of malnutrition.	1) Two meeting of ICDS, Waghai attended by scientist (Home Science) were discussed this topic with CDPO, Ahwa and She agree to recommend this topic with Collector, Ahwa for their Implementation in whole District. 2) Two on campus training conducted for value addition and trained two SHGs for Ragi Value addition. 3) Also suggest this topic to office programmer, World Vision India, Waghai. After this suggestion they proposed a project on "Prevention of malnutrition through Ragi". In this project they will covered 600 preschool (ICDS) Malnourished children for biscuit supplement. 4) Our two SHGs name "Krimishasakhimandal and MahalakshmiSakhimandal actively participated in Various mega events organized in all over Gujarat. Bring their stall of value added product of ragi at Ahmedabad,Bhavnagar, Ukai, Dediapada, Ahwa, Dang Darbaar, Dediapada etc. during the whole year. Also they exhibit and saled their product at NAU, Navsar, Junathana, Navsari and AAU, Anand.
Mr Sunil U Patel	District Agriculture Officer, Ahwa, Dangs		
Dr.Mahaveer Choudhary	Principal of Agri. Polytechnic, NAU, Waghai-Dangs		
Mr. K. G. Birari	Agri Entrepreneur, Jamlapada, Tal.-Waghai, Dangs		
Mr. Bendubhai M. Gaikwad	Progressive Farmer, Nadagkhadi, Tal.-Waghai, Dangs		
Smt. Bhartiben C. Patel	Chair person of Women SHG, Waghai, Dangs		
Mr. V.U.Patel	Agriculture Officer, Dep. of agriculture, Vasda		
Mr. Jiteshbhai R.Gavit	Progressive farmer, Village: Divadiyavan, Waghai, Dangs		
Mrs.Chamulaben valvi	Progressive farmer, Village: Kudkas, World vision, India, Waghai		
Mrs. Kamuben Ganeshbhai Jadav	Progressive farmer, Village:Dabdar, Tal. Waghai, Dangs		
Mrs. Sarikaben Sanjaybhai Babar	Progressive farmer, Village:Dabdar, Tal. Waghai, Dangs		
Mrs. Sajniben Balubhai Pasariya	Progressive farmer, Village:Dabdar, Tal. Waghai, Dangs		
Prof. V. K. Desai	I/C Senior scientist & head (Plant protection), KVK, NAU, Waghai-Dangs		
Prof. N. M. Thesiya	Scientist (Agronomy), KVK, NAU,		

		Waghai-Dangs		
	Dr. D. B. Bhoi	Scientist (Veterinary Sci.), KVK, NAU, Waghai-Dangs		
	Prof. J. B. Dobariya	Scientist (Extension Education), KVK, NAU, Waghai-Dangs		
	Prof. H.A.Prajapati	Scientist (Horticulture), KVK, NAU, Waghai-Dangs		
	Prof. N.N.Patel	Scientist (Home Science), KVK, NAU, Waghai-Dangs		
	Mr. K.V.Patel	Agriculture Officer, KVK, NAU, Waghai-Dangs		
	Mr. P. M.Shankhla	Agriculture Officer, KVK, NAU, Waghai-Dangs		

## 2. DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1	Cereals : Paddy, finger millet, little millet, Sorghum, Maize, Wheat.
2	Pulses : Gram, Black gram, Tur
3	Oilseeds : Groundnut, Niger, Soybean
4	Végétales : Okra, Brinjal, Cucurbit, Tomato
5	Fruit Crops : Mango, Chiku, Cashewnut, custardapple
6	Floriculture : Rose and marigold
7	Others : Tuber crops
8	Live Stock : Dangi breed of cow for draft purpose, HF cow for milk and Buffaloes for milk and draft Purpose

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

#### a) Soil type

Sl. No.	Agro-climatic Zone	Characteristics
1	South Gujarat Heavy Rainfall Zone-I Agro Ecological Situation-I	Dangs district is comes under South Gujarat Heavy Rainfall Zone-I Agro Ecological Situation-I having total 172366 ha land. Out of that, 53.74% is occupied with forest and only 33.80% of land comes under cultivated and cultivable fallow. The district is remote forest area and characterized mainly by tribal. The cropping pattern of the district is single rainfed crops. The major crops in <i>kharif</i> are Paddy, Finger millet, little millet, Sorghum, Black gram etc. Some more information regarding the district is given below.

## b) Topography

S. No.	Agro ecological situation	Characteristics
1	Location	73'.29' to 73'.51' longitude and 20'.39' to 21'.50' latitude. An elevation 105 to 1317 mtrs. MSL
2	Agro climatic zone	South Gujarat Heavy Rainfall Zone-I Agro Ecological Situation-I
3	Soil	Laterite, Hilly, Undulating with slopes of 20 to 40 percent, shallow to medium in depth
4	Rainfall	1800-2000 mm with average rainy days of 85-95
5	Irrigation	18 percent
6	Rivers	Ambica, Khapri, Purna, Gira

## 2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1.	Lateritic, Hilly, Undulating with the slopes of 20 to 40 per cent, light to medium texture soil and others	Shallow to medium in depth, low to moderately fertile, medium to high in slope, normal to slightly acidic pH, moderate temperature because of thick forest cover, area under irrigation (10500 ha)	56,300

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

S. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
1	Paddy (Drilled)	557	946	1700
2	Paddy (T.P)	20588	92645	4500
3	Nagli	7575	9090	1200
4	Vari	6580	8223	1250
5	Sorghum	1743	1655	950
6	Maize	2728	2590	950
7	Black Gram	5357	5057	950
8	Pigeon Pea	2963	3386	1250
9	Soybean	3106	2484	800
10	Ground nut	2755	3306	1200
11	Niger	1235	554	450
	<b>Kharif Total</b>	<b>55187</b>		
12	Gram	20648	25809	1250
13	Wheat	2255	4961	2200
14	Pigeon pea	1750	6153	850
15	Black Gram	5357	5057	950
16	Cluster bean	149	74	500
17	Sugarcane	170	5950	35
	<b>Rabi-Total</b>	<b>30329</b>		

Source: District agriculture department.

**Area, Production and Productivity of major horticultural crops cultivated in the district (Year 2017-18)**

Source: DHO, Ahwa (Dangs)-

SN	Crop	Area (hs)	Production (Mt)	Productivity (t/ha)
<b>A</b>	<b>Fruit Crops</b>			
1	Mango	4905	33550.20	6.84
2	Sapota	27	299.16	11.08
3	Banana	25	1025	41.00
4	Custurd apple	105	840	8.0
5	Amla	22	136.18	6.19
6	Cashew	1315	2104	1.60
7	Pomegranate	12	90.12	7.51
8	Others	87	683	7.85
	<b>Total</b>	<b>6498</b>	<b>38728.48</b>	<b>--</b>
<b>B</b>	<b>Vegetable crops</b>			
1	Cowpea	128	1088	8.5
2	Cucurbits	775	10540	13.6
3	Others	1491	31922.31	21.41
4	Onion	545	11668.45	21.41
5	Brinjal	627	11160	17.79
6	Okra	1260	18396	14.6
7	Tomato	360	7974	22.15
	<b>Total</b>	<b>5186</b>	<b>92748.76</b>	
<b>C</b>	<b>Spices</b>			
1	Chilly (Dry)	18	27	1.5
2	Turmeric	238	5414.50	22.75
	<b>Total</b>	<b>256</b>	<b>5441.5</b>	
<b>D</b>	<b>Flower crops</b>			
1	Rose	57	458.28	8.04
2	Marigold	132	1161.60	8.80
3	Others	16	126.72	7.92
	<b>Total</b>	<b>205</b>	<b>1746.6</b>	
<b>Grand Total (A+B+C+D)</b>		<b>12133</b>	<b>138575.22</b>	<b>-</b>

## 2.5. Weather data (2017-18)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
April-2017	0	39.2	19.9	58	0
May-2017	0	39.5	24.4	68	0
June-2017	460	34.1	25.1	81	15
July-2017	1282	28.9	24.2	90	26
Aug-2017	429	29.4	24.0	89	24
Sept-2017	150	32.3	23.0	84	10
Octo-2017	167	33.9	20.6	79	6
Nov-2017	0	32.7	13.9	68	0
Dec-2017	73	29.6	13.5	76	1
Jan-2018	0	31.3	11.7	72	0
Feb-2018	0	34.1	13.1	64	0
Mar-2018	0	37.0	16.5	63	0
<b>Total</b>	<b>2561</b>	-	-	-	<b>82</b>

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

Category	Population	Productivity
<i>Crossbred</i>	9860	2000 to 2200 lit/cow
<i>Indigenous</i>	60074	800 lit/cow
<b>Buffalo</b>	20727	1200 lit/cow
<i>Crossbred</i>	--	--
<i>Indigenous</i>	--	--
<b>Goats</b>	30316	300 lit
<b>Pigs</b>	--	--
<i>Crossbred</i>	--	--
<i>Indigenous</i>	148	--
<b>Rabbits</b>	109	--
<i>Desi</i>	153189	62 eggs/year
<i>Improved</i>	1715	188 Egg/Annum
Ducks	538	150 Egg/Annum
Turkey and others		--
<b>Category</b>		<b>Productivity</b>
Fish	--	--

## 2.7. Details of Operational area / Villages

Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Ahwa Waghai Subir	Waghai	Daguniya	<b>Cereals:</b> Paddy, Finger millet, little millet	-Use of traditional variety - Poor quality of seed -Improper use of fertilizers - Lack of awareness about plant protection measures -Scarcity of fodder - Repeat Anoestrus - Less interest in dairy business	- Promoting Animal husb./ horticultural crops as IFS - Use of recommended variety - Promotion of scientific package of practices - Create awareness about plant protection - Scientific feeding management - Artificial insemination - Aawareness about dairy enterprise
		Sadarmal			
		Ghodi			
	Ahwa	Tekpada	<b>Pulses:</b> Gram, Black gram, Tur		
		Lahanchrya	<b>Oilseeds:</b> Groundnut, Niger		
		Motacharya	<b>Vegetables:</b> Okra		
		Kandalghodi	<b>Fruit crops:</b> Mango Custrad apple		
		Amsarpada	<b>Floriculture:</b> Rose and Marigold		
			<b>Others:</b>		
	Subir	Bijurpada	Tuber crops		
		Khambhla	Animal Husbandry		

## 2.8. Priority thrust areas:

Crop/Enterprise	Thrust area
Rice	Integrated Nutrient Management
	Introduction of new variety
	Water management
	Integrated Pest and Disease Management
Nagli / vari	Introduction of new variety
	Soil moisture conservation
	Integrated Nutrient Management
Pulses	Soil moisture conservation
	Integrated Pest and Disease Management
Oilseeds (Groundnut)	Soil moisture conservation*
	Integrated Pest and Disease Management
Okra	Integrated Nutrient Management
	Integrated Pest and Disease Management
	Marketing
Watermelon	Integrated Nutrient Management
	Integrated Pest and Disease Management
Mango	Integrated Pest and Disease Management
	Integrated Nutrient Management

### The Major thrust areas are as under:

- Increase productivity of the major field crops, fruits and vegetables by introduction of new technologies.
- Increasing milk production by dissemination of latest technology.
- Management of Natural Resources (Soil and water conservation)
- Nutrition management of child and women

- Empowerment of tribal women for sustaining livelihood
- Popularization of suitable farming system
- Value addition
- Protected cultivation and high-tech agriculture
- Integrated farming system
- Farm mechanization
- Introduction of new crops like sunflower, bajara, strawberry, tuber crops, etc.

### 3. TECHNICAL ACHIEVEMENTS

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

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)				
1				2				
Number of OFTs		Total no. of Trials		Area in ha			Number of Farmers	
Targets	Achievement	Targets	Achievement	Season/ Year	Targets	Achievement	Targets	Achievement
8	8	106	106	1. Rabi-Sum., 2016-17	38 ha & 130 units	29 ha & 122 units	315	291
				2. Kharif, 2017	29 ha & 30 units	21.2 ha & 25 units	163	137
				<b>Total (1+2)</b>	<b>67 ha &amp; 160 units</b>	<b>50.2 ha &amp; 147 units</b>	<b>478</b>	<b>428</b>
				3. Other Schemes (Rabi-2016-17)	57 ha & 30 units	74.4 ha	280	322
				4. Kharif-17	40 ha	79.98 ha	120	186
				<b>Total (3+4)</b>	<b>97 ha &amp; 30 units</b>	<b>154.38 ha</b>	<b>400</b>	<b>508</b>
				<b>Grand Total</b>	<b>164 ha &amp; 190 units</b>	<b>254.58 ha &amp; 147 units</b>	<b>878</b>	<b>936</b>

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
47	91	1166	3729	142	467	9116	9120
Seed Production (Qtl.)				Planting materials (Nos.)			
5				6			
Target		Achievement		Target		Achievement	
87		131		25000		4750	
Livestock, poultry strains and fingerlings (No.)				Bio-products (Kg)			
7				8			
Target		Achievement		Target		Achievement	

#### 3.1. B. Operational areas details during 2017-18

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district		Names of Cluster Villages identified for intervention	Intervention (OFT, FLD, Training, extension activity etc.)*
			Crop	Area (ha)		
1	<b>Cereals:</b> Paddy, Finger millet, little millet <b>Pulses:</b> Gram, Black gram, Tur <b>Oilseeds:</b> Groundnut, Niger <b>Vegetables:</b> Okra <b>Fruit crops:</b> Mango <b>Floriculture:</b> Rose and Marigold <b>Others:</b> Tuber crops Animal Husbandry	-Use of traditional variety - Poor quality of seed -Improper use of fertilizers - Lack of awareness about plant protection measures -Scarcity of fodder - Repeat Anoestrus - Less interest in dairy business	Paddy (Drilled)	557	Daguniya	On campus training, Off campus training, Sponsored training, Vocational training, In-service training, Lecture delivered, Field visit, FLD visit, OFT visit, Scientist visit to farmer field, Farmer visit to KVK, Diagnostic visit, Exposure visit, Kisan Gosthi, Animal camps, Field day, Farmer fair, Farmer scientist interaction, Farmers meeting, TV-Film show, Exhibition, Farm School, Soil health campaign, Celebration of importance day, Swachata Jagruti, Soil sample analyzed, Plant health clinic diagnostic services, SMS portal, Telephone helpline
2			Paddy (T.P)	20588	Sadarmal	
3			Nagli	7575	Ghodi	
4			Vari	6580	Tekpada	
5			Sorghum	1743	Lahanchrya	
6			Maize	2728	Motacharya	
7			Black Gram	5357	Kandalghodi	
8			Pigeon Pea	2963	Amsarpada	
9			Soybean	3106	Bijurpada	
10			Ground nut	2755	Khambhla	
11			Niger	1235		
			<b>Kharif Total</b>	<b>55187</b>		
12			Gram	20648		
13			Wheat	2255		
14			Pigeon pea	1750		
15			Black Gram	5357		
16			Cluster bean	149		
17	Sugarcane	170				
	<b>Rabi-Total</b>	<b>30329</b>				

\* Support with problem-cause and interventions diagram

### 3.2. Technology Assessment and Refinement

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Home Science	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation										1	1
Seed / Plant production											
Weed Management											
Integrated Crop Management			2								2
Integrated Nutrient Management											
Integrated Farming System											
Mushroom cultivation											
Drudgery reduction											
Farm machineries											
Value addition											
Integrated Pest Management											
Integrated Disease Management	1		1								2
Resource conservation technology					1						1

Small Scale income generating enterprises										
Adolescent Girls										
<b>TOTAL</b>	<b>1</b>		<b>3</b>		<b>1</b>				<b>1</b>	<b>6</b>

#### A2. Abstract on the number of technologies refined in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Women and child care	Tuber Crops	TOTAL
Varietal Evaluation										
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient Management										
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Post Harvest Technology										
Integrated Pest Management										
Integrated Disease Management										
Resource conservation technology										
Small Scale income generating enterprises										
Anemia in adolescent girl										
<b>TOTAL</b>										

#### A3. Abstract on the number of technologies assessed in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds						
Nutrition Management	2					2
Disease of Management						
Value Addition						
Production and Management						
Feed and Fodder						
Small Scale income generating enterprises						
<b>TOTAL</b>	<b>2</b>					<b>2</b>

#### A4. Abstract on the number of technologies refined in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds						
Nutrition Management						
Disease of Management						
Value Addition						
Production and Management						
Feed and Fodder						
<b>TOTAL</b>						

## B. Achievements on technologies Assessed and Refined

### B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management					
Varietal Evaluation	Okra	Varietal evaluation of okra during <i>Rabi</i> season in the Dangs	6	6	Concluded (1.2 ha)
Integrated Pest Management	Okra	Control of sucking pest in okra	5	5	
Integrated Crop Management	Green gram	Spacing management in summer green gram	30	30	3.0
Integrated Disease Management	Finger millet	Control of blast disease of Finger millet in the Dangs	6	6	3.6
Small Scale Income Generation Enterprises					
Weed Management	Watermelon	Mulching in watermelon	6	6	3.6
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System	Gram	Seed bed preparation for <i>Rabi</i> gram	30	30	3.0
Seed / Plant production					
Post Harvest Technology / Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
<b>Total</b>			<b>83</b>	<b>83</b>	

**B.2. Technologies Refined 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)
Integrated Nutrient Management					
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
<b>Total</b>					

### B.3. 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
Evaluation of breeds				
Nutrition management	crossbred cattle	Effect of bypass fat feeding on milk production in crossbred cattle.	25	75
Disease management				
Value addition				
Production and management				
Feed and fodder	crossbred cattle	Effect of concurrent use of mineral mixture deworming in growth rate of calves	30	150
Small scale income generating enterprises				
<b>Total</b>			<b>55</b>	<b>225</b>

### B.4. Technologies Refined under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Nutrition management				
Disease management				
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
<b>Total</b>				

**C1.Results of Technologies Assessed**  
**Results of On Farm Trial**

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
Gram (2016-17)	Rain fed	Low yield of <i>Rabi</i> gram crop	Seed bed preparation for <i>Rabi</i> gram	30	T1.Broadcasting T2. 30 cm x 10 cm	Yield	T1:583 Kg T1:984 Kg	Treatment T2 (30 cm x 10 cm ) was better than T1 (Broadcasting)	--	No	--
Gram (2017-18)	Rain fed	Low yield of <i>Rabi</i> gram crop	Seed bed preparation for <i>Rabi</i> gram	30	T1.Broadcasting T2. 30 cm x 10 cm	Yield	Result awaited		--	No	--
Green gram (2016-17)	Rain fed	Low yield of green gram crop in summer	Spacing management in summer green gram	30	T1. Broadcasting T2. 30 cm x 10 cm	Yield	T1:469Kg T1:680Kg	Treatment T2 (30 cm x 10 cm ) was better than T1 (Broadcasting)		No	--
Green gram (2017-18)	Rain fed	Low yield of green gram crop in summer	Spacing management in summer green gram	30	T1. Broadcasting T2. 30 cm x 10 cm	Yield	Awaited	--	--	No	--
Okra	Irrigated	Low yield of okra in <i>Rabi</i> and to popularize new variety	Varietal evaluation of okra during <i>Rabi</i> season in the Dangs	06	T1: Local variety (Farmers practices) T2: GAO-5 variety (Improved variety)			Note: On the basis of the above table it is summarized that the treatment T-2 recorded the highest production that is 10225 kg/ha. The lowest production recorded with T-1 is 9441. So, it is concluded that the T-2 that is "GAO-5 variety (Improved variety)" gives higher yield. GAO-5 variety contain a fruits which are attractive due to its large shape and size but customer and merchants prefer a small size with a dark green color, so GAO-5 fetch a low price.			
Watermelon	Irrigated	Low yield of watermelon and high evaporation rate of soil moisture	Mulching in watermelon	06	T1: No mulching T2: Paddy Straw T3: Plastic mulch (30 micro, silver-black color)	Yield	16330 kg/ha 18810 kg/ha 22900 kg/ha	T3 treatment is best among T1 and T2	Use of Plastic mulch is increase the production in watermelon	No	--
Okra	Irrigated	Sucking pest problem	Control of sucking pest in okra	05	T1 : Farmer's practices T2 : Dimethoate-30 % EC @ 10 ml/10 lit. of water as per ETL T3: Acetamiprid-20% S.P. @ 10 g/10 lit. of water as per ETL	Yield of Okra	T1: 90.6 Q/ha T2: 90.6 A/ha T3: 92 Q/ha	T3 treatment is best among T1 and T2	Problem of yellow vein mosaic virus was reported in okra.	No	--

Finger millet	Rainfed	Low yield of Finger millet	Control of blast disease of Finger millet in the Dangs	06	T1: Farmers practice T2: Spray of Pseudomonas sp. @ 60ml/10litre of water	Yield of finger millet	T1: 850 kg/ha T2: 1000 kg/ha	T2 treatment is best than T1	Need high yielding blast disease resistant variety in Finger millet	No	--
Cross bred cattle	--	Lack of knowledge about bypass fat feeding technology. Low milk yield	Effect of bypass fat feeding on milk production in crossbred cattle.	25	--	Body growth rate	Awaited	--	--	No	--
Cross bred cattle	--	Less body growth Parasitic infestation	Effect of concurrent use of mineral mixture and deworming on growth rate of calves	30	--	Milk production	Awaited	--	--	No	--

**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
T1. Broadcasting T2. 30 cm x 10 cm	NAU, Navsari (1998)	T1: 583 Kg T2: 984 Kg	Kg/ha	21940	2.7
T1. Broadcasting T2. 30 cm x 10 cm	NAU, Navsari (1998)	Result awaited			
T1. Broadcasting T2. 30 cm x 10 cm	NAU, Navsari	T1: 469 Kg T2: 680 Kg	Kg/ha	19100	2.6
T1. Broadcasting T2. 30 cm x 10 cm	NAU, Navsari	Result awaited	-	-	-
T1: Local variety (Farmers practices) T2: GAO-5 variety (Improved variety)	AAU, Anand	OFT was concluded in ZREAC			
T1: No mulching T2: Paddy Straw T3: Plastic mulch (30 micro, silver-black color)	NAU, Navsari	16330 kg/ha 18810 kg/ha 22900 kg/ha	Kg/ha	66645/- 80365/- 104850/-	2.69 2.92 3.38
T1: Farmer's practices T2: Dimethoate-30 % EC @ 10 ml/10 lit. of water as per ETL T3: Acetamiprid-20% S.P. @ 10 g/10 lit. of water as per ETL	NAU, Navsari	T1: 90.6 Q/ha T2: 90.6 Q/ha T3: 92 Q/ha	Quintal/ha		
T1: Farmers practice T2: Spray of Pseudomonas sp. @ 60ml/10litre of water	NAU, Navsari (2011-12)	T1: 850 kg/ha T2: 1000 kg/ha	Kg/ha		

T 1- Framer's practice T 2-Concentrate (1.5kg/cow/day for maintenance+500gm for each lit.milk production) T 3 - Concentrate (1.5kg/cow/day for maintenance+500gm for each lit.milk Production) + Bypass fat 50-100gm/cow/day.	NAU, Navsari (2011)	Awaited	Awaited	Awaited	Awaited
T1-Framer's practice T 2-Mineral mixture powder @25 gm/calf/day T 3- Mineral mixture powder @25 gm/calf/day + Bol. Aldendazole (7.5 mg/kg B. weight, Oral) on day 5, 35, 80 <sup>th</sup> after birth.	NAU, Navsari (2011)	Awaited	Awaited	Awaited	Awaited

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

**OFT: 1**

**Title of Technology Assessed:** Seed bed preparation for *Rabi* gram (2016-17)

**Problem Definition:** In dang district, productivity of gram is low because of not maintaining proper spacing and sowing method which causing severe weed and disease problem in the area which ultimately reduces the yield.

**Details of technologies selected for assessment:**

**Treatment:**

T1: Farmer practices (Broadcasting)

T2: 30 x10 cm (Recommended)

**Input:**

1. Chickpea variety Guj. Gram – 2 @ 60 kg/ha
2. Pendimethalin @ 1 kg a.i./ha is suggested
3. Seed treatment with Thirum is suggested
4. Liquid bio-fertilizer: Rhizobium @ 1lit/oft
5. Fertilizer application based on soil testing report
6. Novel organic fertilizer 1 lit/oft

**Source of technology:** NAU, CoA, NMCA, Navsari

**Production system and thematic area:**

**Production system:**

Season: Rabi-2016-17

Farming situation: Irrigated

**Thematic area:**

Resource conservation technology

**Performance of the technology with performance indicators:**

Sr. No.	Year	No of trial	Area (ha)	Yield(kg/ha)	
				30 cm between rows (Recommended)	Broad casting (Farmer practices)
1	2016-17	30	3	984	583

**Farmers Feedback, matrix scoring of various technology parameters done through farmer's participation/ other scoring techniques:**

**Farmers Feedback**

1. Farmers are impressed by recommended practices.
2. It is easy for farmers to remove weed in 30 cm between rows sowing of gram rather than farmer practices.
3. Higher yield in recommended practices due easy weeding and less competition of nutrients and fertilizer between crops.

- Farmer practices best for easy sowing crop but shows serious problem of wilt.

**Final recommendation for micro level situation:**

The Data of yield was taken after harvesting and threshing of gram by farmers. Same scientific practices were carried out in other one treatment. The yield data of this year trial is presented here. From the Table 1, 30cm between rows of gram shows highest mean yield per hectare i.e. 984 kg/ha in year 2016-17.

**Constraints identified and feedback for research:**

- Suitable weed control method for the Dang district. (High infestation of weed due to forest area.)
- Improved hand tools for various agricultural operations in hilly area.
- Lack of marketing facilities of crops in Dang district.
- Unavailability of agro-chemical & fertilizer or limited stock.
- Need to develop proper post harvest chain from farm to market.

**Process of farmers participation and their reaction:**

- Two on campus and two off campus meeting
- One field day, three field visit and demonstrated this technology to other farmers
- They are ready to adopt this technology

**OFT: 2**

**Title of Technology Assessed:** Spacing management in summer green gram (2016-17)

**Problem Definition:** In dang district, productivity of gram is low because of not maintaining proper spacing and sowing method which causing severe weed and disease problem in the area which ultimately reduces the yield.

**Details of technologies selected for assessment:**

**Treatment:**

T1: Farmer practices (Broadcasting)

T2: 30 x10 cm (Recommended)

**Input:**

- Green gram variety Meha @ 20 kg/ha
- Pendimethalin @ 1 kg a.i./ha is suggested
- Seed treatment with Thirum is suggested
- Liquid bio-fertilizer: Rhizobium @ 1lit/oft
- Fertilizer application based on soil testing report
- Novel organic fertilizer 1 lit/oft

**Source of technology:** NAU, CoA, NMCA, Navsari

**Production system and thematic area:**

**Production system:**

Season: Summer-2016-17

Farming situation: Irrigated

**Thematic area:**

Resource conservation technology

**Performance of the technology with performance indicators:**

Sr no.	Year	No of trial	Area (ha)	Yield(kg/ha)	
				30 cm between rows (Recommended)	Broad casting (Farmer practices)
1	2016-17	30	3	680	469



**Farmers Feedback, matrix scoring of various technology parameters done through farmer's participation/ other scoring techniques:**

**Farmers Feedback**

1. Farmers are impressed by recommended practices.
2. It is easy for farmers to remove weed in 30 cm between rows sowing of Green gram rather than farmer practices.
3. Higher yield in recommended practices due easy weeding and less competition of nutrients and fertilizer between crops.
4. Farmer practices best for easy sowing crop but shows serious problem of wilt.

**Final recommendation for micro level situation:**

The experiment was started in summer 2016-17. The Data of yield was taken after harvesting and threshing of gram by farmers. Same scientific practices were carried out in all the three treatments. The yield data of this year trial is presented here. From the Table 1, 30cm between rows of gram shows highest mean yield per hectare in year 2016-17 i.e. 684, while lowest yield was observed in the farmer practices i.e. 469.

**Constraints identified and feedback for research:**

1. Suitable weed control method for the Dang district. (High infestation of weed due to forest area.)
2. Improved hand tools for various agricultural operations in hilly area.
3. Lack of marketing facilities of crops in Dang district.
4. Unavailability of agro-chemical & fertilizer or limited stock.
5. Need to develop proper post harvest chain from farm to market.

**Process of farmer's participation and their reaction:**

1. Two on campus and two off campus meeting
2. Two Field day, four fields visit and demonstrated this technology to other farmers
3. They are ready to adopt this technology

OFT: 3

**Title:** Varietal evaluation of okra during *Rabi* season in the Dangs (Assessment)

**Problem Definition**

Poor economic condition, Costly seeds of hybrids & low yield potential, Low yield of okra in *Rabi* and to popularize new variety, No PP measures due to lack of knowledge & poverty, High incidence of pest and disease, Farmers mostly follow narrow spacing with very high seed rate, no inter-culturing & very less use of K fertilizers

**Details of technologies selected for assessment**

Okra (*Abelmoschus esculentus* L. [Moench](#)) also known as Lady's Finger or *Bhindi* is the major vegetable crop grown in certain pockets of the Dangs district especially during *Rabi* season due to which farmers also get better monetary returns as the cultivation is restricted to small area during this period.

In Gujarat, it is grown in an about 65,410 ha area with production of 7, 17,254 M.T, whereas in the Dangs it is grown in an about 904.0 ha area and production is about 13601 M.T (2015). In Dangs, mostly hybrid varieties of okra are grown and the seeds of which are very costly with yield potential of 90 to 120 q/ha and so the OFT has been framed for comparing GAO-5 which is having average yield potential of 196 q/ha with low infestation of YVMV.

T<sub>1</sub>: Local variety (Farmers practices)

T<sub>2</sub>: GAO-5 variety (Improved variety)

**Source of Technology:** Anand Agricultural University, Anand

**Production system and thematic area:** irrigated

**Performance of the Technology with performance indicators:** GAO 5 variety is better yielder

**Feedback, matrix scoring of various technology parameters done through farmers participation/ other scoring Technique :** -

**Final recommendation for micro level situation:** GAO 5 variety is better yielder but not referred by the merchants and customers

**Constraints identified and feedback for research:** Research work needed related to variety suitable for dang district

**Process of farmer's participation and their action:** farmers are actively participated in training programme.

**OFT: 4**

**Title of Technology Assessed:** Mulching in watermelon (Assessment)

**Problem definition:** Low yield of watermelon and high evaporation rate of soil moisture

**Details of Technologies selected for assessment:** T<sub>1</sub>: No mulching

T<sub>2</sub>: Paddy Straw

T<sub>3</sub>: Plastic mulch (30 micro, silver-black color)

**Source of Technology:** Navsari Agricultural University, Navsari

**Production system and thematic area:** irrigated

**Performance of the Technology with performance indicators:** Plastic mulch increase the yield of watermelon

**Feedback, matrix scoring of various technology parameters done through farmer's participation/ other scoring Technique:** -

**Final recommendation for micro level situation:** Use of Plastic mulch in watermelon give the better yield than paddy straw mulching and no mulching

**Constrains identified and feedback for research:** Water scarcity

**Process of farmer's participation and their action:** farmers are actively participated in training programme.

**OFT: 5**

**Title:** Control of sucking pest in okra.

**Problem Definition:** Okra sucking pest infestation and resistance to recommended insecticide among sucking pest adopted by farmers.

**Details of technologies selected for assessment:**

1. No. of Villages : 3
2. No. of farmers : 5
3. Size of plot/treat/farmer: 0.20 ha.
4. Total OFT area: 3.0 ha

**Source of technology:** NAU, Navsari

**Production system and thematic area:** Integrated Pest Management

**Performance of the Technology with performance indicators**

Treatments:

T<sub>1</sub> : Farmer's practices

T<sub>2</sub> : Dimethoate-30 % EC @ 10 ml/10 lit. of water as per ETL

T<sub>3</sub> : Acetamiprid-20% S.P. @ 10 g/10 lit. of water as per ETL

Details of OFT Programme:

**Results: (First year, Rabi-2014)**

Treatments	Yield (Qtl/ha)		
	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>
Highest	85	90	95
Lowest	75	82	85

<b>Average</b>	<b>80</b>	<b>86</b>	<b><u>90</u></b>
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**Summary:**

From the above table, treatment T<sub>3</sub> (spraying of acetamaprid-20% W.P. @ 10 g/10 lit. of water as per ETL) in okra recorded highest average yield of 90.00 qtl/ha and the lowest yield of 80.00 qtl/ha was observed under T<sub>1</sub> (farmers practices). Whereas, T<sub>2</sub> also recorded higher yield than farmer's practices but was next to T<sub>3</sub>.

**Results: (Second year, Rabi-2015)**

Treatments	Yield (Qtl/ha)		
	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>
Highest	88	92	<u>96</u>
Lowest	80	85	<u>90</u>
<b>Average</b>	<b>83.4</b>	<b>89</b>	<b><u>94</u></b>

**Summary:**

From the above table, treatment T<sub>3</sub> (spraying of acetamaprid-20% W.P. @ 10 g/10 lit. of water as per ETL) in okra recorded highest average yield of 94.00 qtl/ha and the lowest yield of 83.4 qtl/ha was observed under T<sub>1</sub> (farmers practices). Whereas, T<sub>2</sub> also recorded higher yield than farmer's practices but was next to T<sub>3</sub>.

**Results: (Third year, Rabi-2016)**

Treatments	Yield (Qtl/ha)		
	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>
Highest	89	94	<u>97</u>
Lowest	79	87	<u>88</u>
<b>Average</b>	<b>90.6</b>	<b>90.6</b>	<b><u>92</u></b>

**Summary:**

From the above table, treatment T<sub>3</sub> (spraying of acetamaprid-20% W.P. @ 10 g/10 lit. of water as per ETL) in okra recorded highest average yield of 92.00 qtl/ha and the lowest yield of 90.6qtl/ha was observed under T<sub>1</sub> (farmers practices). Whereas, T<sub>2</sub> also recorded higher yield than farmer's practices but was next to T<sub>3</sub>.

**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques : NA**

**Final recommendation for micro level situation**

On the basis of pooled data of OFT on "Control of sucking pest in okra." the farmer's of the Dangs district are advice to spread Acetamiprid-20% S.P. @ 10 g/10 lit. of water as per ETL for control of sucking pest in okra for obtaining higher yield.

**Constraints identified and feedback for research:** Pest disease control measures for organic farming

**Process of farmer's participation and their reaction:** Field day, Method demonstration, OFT visit etc

OFT: 6

**Title: Control of blast disease of Finger millet in the Dangs**

**Problem Definition:** Low yield of Finger millet

**Details of technologies selected for assessment:**

Finger millet (*Elusinecorcana*) is a cereal crop grown during kharif season in dang district. It is grown widely in Dang district locally it is known as Nagli or Ragi. Finger millet is infected by blast disease causing occasional outbreak of disease causing losses to farmer.

**Source of technology:** NAU, Navsari (2011-12)

**Production system and thematic area:** Integrated Disease Management

**Performance of the Technology with performance indicators**

<b>Treatments: 02</b>	T1:Farmers practice T2:Spray of <i>Pseudomonas sp.@60ml/10litre of water</i>
<b>Details of OFT:</b>	
Variety	Local variety
Season	<i>Kharif- 2016</i>
No. of villages	3
No. of farmers	6
Area/treatment/farmer	0.2ha
Total area of OFT	2.4
<b>Observation to be recorded</b>	Yield of finger millet
<b>Estimated cost of inputs of OFT</b>	Rs.3000/-

**Results: (First year, Kharif 2016)**

Treatments	Yield kg/ha	
	T <sub>1</sub>	T <sub>2</sub>
Highest	850	<u>1100</u>
Lowest	750	<u>850</u>
<b>Average</b>	<b>750</b>	<b><u>1020</u></b>

**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques: NA**

**Final recommendation for micro level situation**

From the above table, treatment 2<sub>2</sub>(Spray of *Pseudomonas sp.@60ml/10litre of water*) in finger millet recorded highest average yield of 1020 kg/ha and the lowest yield of 750 kg/ha was observed under T<sub>1</sub> (farmers practices).

**Constraints identified and feedback for research:** Pest disease control measures for organic farming

**Process of farmer's participation and their reaction:** Field day, Method demonstration, OFT visit etc

OFT: 7

**Title:** - Effect of bypass fat feeding on milk production in crossbred cattle.

**Problem Definition:**

- ✓ Lack of knowledge about bypass fat feeding technology.
- ✓ Low milk production due to improper feeding.
- ✓ Lack of energy for milk production.

**Details of technologies selected for assessment:**

Milk production is growing at a much faster pace compared to many other agricultural commodities and is being increasingly viewed as a source of food and an effective instrument for improving livelihood. Dairy production is mainly based on proper scientific feeding of animals. The lactating animals are to be fed with good quality roughages along with green fodder belonging to

legumes or cereals as per the availability. Looking to the productivity of crossbred cattle such food resources are not sufficient to meet the nutrient requirement of a lactating animal. Hence we have to add more nutritious food in to the diet of crossbred animals to reach the maximum production potential and to maintain the normal body condition. Concentrate feeding is very common to overcome nutrient deficit. Which we can only fed on a dry matter basis, as it is not a natural food for ruminants. Now a day, bypass fat feeding technology is recommended for high yielding cattle.

In view of bypass fat feeding technology it is necessary to popularize in Dangs district along with concentrate feeding in cattle to fulfill energy and nutrient requirement. Hence, we have proposed this on farm testing to increase the milk production of crossbred cattle.

**Source of technology:** NAU, Navsari (2011)

**Production system and thematic area:** Nutrition Management

Farmers in the district are not following a wearing system & they also keep them under traditional management system so due to malnutrition & no deworming, the growth rate was found to be hindered

**Performance of the Technology with performance indicators**

**Treatments:**

- T 1 - Farmer's practice
- T 2 -Concentrate (1.5kg/cow/day for maintenance+500gm for each lit.milk production)
- T 3 - Concentrate (1.5kg/cow/day for maintenance+500gm for each lit.milk Production) + Bypass fat 50-100gm/cow/day.

**Detail of OFT Programme:**

- ✓ No. of Villages : 5
- ✓ No. of animals : 25
- ✓ 5 milking, stall-fed crossbred cows will be selected from each village.
- ✓ Each animal will be in similar physiological condition (age, lactation, days of lactation etc.).

**Parameters to be evaluated/ recorded:**

- Milk production (lit / cow / day)

**Results:**

1) **Table-1: Milk Production in crossbred cattle (Kharif, 2015 )**

Treatments	Yield (Lit/Cow/Day)		
	Highest	Lowest	Average
T <sub>1</sub> . Farmer practices	6.6	2.5	3.1
T <sub>2</sub> .Concentrate(1.5kg/cow/day for maintenance+500gm for each lit.milk production)	8.7	7.0	7.6

T <sub>3</sub> . Concentrate (1.5kg/cow/day for maintenance+500gm for each lit.milk production) + Bypass fat 50-100gm/cow/day.	14.2	11.0	13.3
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**Table-1.1: Economic Impact**

Cost of Cultivation			Ava. Gross return			Ava.Net Return			B:C		
D		LC	D		LC	D		LC	D		LC
T3	T2	T1	T3	T2	T1	T3	T2	T1	T3	T2	T1
2800	2500	1000	9750	6000	2250	6950	3500	1250	3.48	2.40	2.25

**2) Table-2: Milk Production in crossbred cattle (Kharif, 2016)**

Treatments	Yield (Lit/Cow/Day)		
	Highest	Lowest	Average
T <sub>1</sub> . Farmer practices	6.7	4.8	3.50
T <sub>2</sub> . Concentrate(1.5kg/cow/day for maintenance+500gm for each lit.milk production)	8.9	7.6	8.6
T <sub>3</sub> . Concentrate (1.5kg/cow/day for maintenance+500gm for each lit.milk production) + Bypass fat 50-100gm/cow/day.	15.4	12.3	13.5

**Table-2.1: Economic Impact**

Cost of Cultivation			Ava. Gross return			Ava.Net Return			B:C		
D		LC	D		LC	D		LC	D		LC
T3	T2	T1	T3	T2	T1	T3	T2	T1	T3	T2	T1
3500	3000	1200	10125	6450	2625	6625	3450	1425	2.89	2.15	2.18

**3) Table-3: Milk Production in crossbred cattle (Kharif, 2017)**

Treatments	Yield (Lit/Cow/Day)		
	Highest	Lowest	Average
T <sub>1</sub> . Farmer practices	6.7	2.7	3.2
T <sub>2</sub> . Concentrate(1.5kg/cow/day for maintenance+500gm for each lit.milk production)	8.8	7.5	8.5
T <sub>3</sub> . Concentrate (1.5kg/cow/day for maintenance+500gm for each lit.milk production) + Bypass fat 50-100gm/cow/day.	15.3	12.2	13.6



**Table-3.1: Economic Impact**

Cost of Cultivation			Ava. Gross return			Ava.Net Return			B:C		
D		LC	D		LC	D		LC	D		LC
T3	T2	T1	T3	T2	T1	T3	T2	T1	T3	T2	T1
4000	3300	1300	11424	7140	2688	7424	3840	1388	2.85	2.16	2.06

**Summary and conclusion**

On the basis of the study carried out for three consecutive years it is summarized that the treatment T-3 recorded the highest milk production in comparison to T-1 and T-2, However the milk production with T-2 was comparatively higher than T-1. So, it is concluded that T<sub>3</sub>. (Concentrate (1.5kg/cow/day for maintenance+500gm for each lit.milk production) + Bypass fat 50-100gm/cow/day) proved the best husbandry practices in tribal area of Dangs.

**Recommendation**

On the basis of data recorded during the year 2015-16, 2016-17 and 2017-18, OFT on “Effect of bypass fat feeding on milk production in crossbred cattle.” In Dang district was carried out and it is recommended to provide Bypass fat 50-100gm/cow/day with Concentrate and fodder for better health and increased milk production in crossbred cattle.

**Final recommendation for micro level situation:** Result Awaited

**Constraints identified and feedback for research:** NA

**Process of farmer’s participation and their reaction:** Field day, Method demonstration, OFT visit etc

**OFT: 8**

**Title: - Effect of concurrent use of mineral mixture and deworming on growth rate of calves.**

**Problem Definition:**

- ✓ Parasitic infestation & mineral imbalance
- ✓ Lower body growth rate

**Details of technologies selected for assessment:**

Milk production is growing at a much faster pace compared to many other agricultural commodities and is being increasingly viewed as a source of food and an effective instrument for improving livelihood. Dairy production is mainly based on proper scientific feeding of animals. The young calves are the fate of tomorrow's Indian dairy industry. Their scientific feeding, housing, watering and overall management is a key to make them more productive. The calves are to be fed with good quality roughages along with green fodder belonging to legumes or cereals as per the availability.

Parasitic load & mineral imbalance are known to directly affect the health of calves. The dang district is a hilly area with heavy rainfall. Animal living in such area became prone to parasitic infection due to ingestion of infected grasses around stagnant water while grazing. A few years ago, people were using local breeds & traditional husbandry practices, but now a day they are rearing crossbred cows. These valuable animals are highly productive but due to particular geographical location such animals become infected with parasites which directly affect their health and ultimately affect the body growth rate.

Moreover, in spite of high rain, there is water sacristy during summer season due to particular geographical condition. So, green fodder is not available during summer, hence these animals undergo mineral imbalance & improper feeding. The socio- economic status of farmers is not very good so, they could not feed their growing calves with mineral supplements and deworming drugs.

Such growing calves undergo negative energy balance due to malnutrition & high parasitic infestation. So, to overcome these problems of parasitic infestation & mineral imbalance in growing calves we have identified following problems and proposed on farm testing programme.

**Source of technology:** NAU, Navsari (2011)

**Production system and thematic area:** Feed and Fodder management

In spite of large number of crossbred cattle in the district, they follow a traditional system & so, their animals remained malnourished so, the milk production was less

**Performance of the Technology with performance indicators**

**Treatments:**

T 1 - Farmer's practice

T 2 - Mineral mixture powder @25 gm/calf/day

T 3 - Mineral mixture powder @25 gm/calf/day + Bol. Aldendazole (7.5 mg/kg B. weight, Oral) on day 5, 35, 80<sup>th</sup> after birth.

**Detail of OFT Programme :**

✓ No. of Villages : 10

✓ No. of animals : total 30 calves (10 calves in each group)

**Parameters to be evaluated/ recorded:**

- Body weight gain (kg / day) and general body condition

**Result: Kharif 2017**

Result awaited

**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques: NA**

**Final recommendation for micro level situation: Result Awaited**

**Constraints identified and feedback for research: NA**

**Process of farmer's participation and their reaction:** Field day, Method demonstration, OFT visit etc

**D1. Results of Technologies Refined**

**Results of On Farm Trial**

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology refined	Parameters of refined t	Data on the parameter	Results of refinement	Feedback from the farmer	Details of refinement done
1	2	3	4	5	6	7	8	9	10	11

**Contd..**

Technology Refined	Source of Technology for Technology Option1 / Justification for modification of assessed Technology Option 1	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
12	13	14	15	16	17
Technology Option 1 (best performing Technology Option in assessment)					
Technology Option 2 (Modification over Technology Option 1)					
Technology Option 3 (Another					

Modification over Technology Option 1)					
--	--	--	--	--	--

D.2. Details of each On Farm Trial for refinement to be furnished in the following format separately as per the following details: **No Any**

### 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 2017-18 and recommended for large scale adoption in the district

S. 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	Introduction of new varieties	Improved varieties	FLD, Training, Field Days, Farmers meeting, Exposure visit to KVK farm, Mass media	15	150	15
2	Finger millet	Introduction of new varieties	Improved varieties		5	50	7
3	Green gram	Introduction of new varieties	Improved varieties		8	80	12
4	Water melon	Plastic mulch	Weed control and Water saving		7	95	65
5	Mango	IPM	Methylugenol trap		5	45	16
6	Poultry	Introduction of new variety	Popularization of RIR improved poultry birds for backyard farming		10	12	12
7	Farm Mechanization	Drudgery reduction	Twin wheel hoe		10	50	25

B. Details of FLDs implemented during 2017-18 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, Pulses, cotton and commercial crops.**)

S N	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
<b>I</b>	<b>Oilseed crops</b>									
-	-	-	-	-	-	-	-	-	-	-
<b>II</b>	<b>Pulse crops</b>									
1	Gram	Introduction. of new variety	New variety- GG-2	Rabi & Summer-2016-17	5	5	40	--	40	--
2	Pigeon pea	Introduction. of new variety	Vaishali BDN 711 GNP 2	Kharif, 2017	5	5	25	--	25	--
<b>III</b>	<b>Cereal crops</b>									
3	Paddy	Intro. of new variety	New variety- GNR 6	Kharif, 2017	5	5	25	--	25	--
4	Finger millet	Intro. of new variety	New variety- GNN 6	Kharif, 2017	5	5	25	--	25	--
5	Little millet	Intro. of new variety	New variety- GV 3	Kharif, 2017	5	5	25	--	25	--
<b>IV</b>	<b>Horticultural crops</b>									
6	Indian bean	Intro. of new variety	NPS-1	Rabi & Summer 2016-17	5	5	25	--	25	--
7	Okra	INM	INM	Rabi & Summer 2016-17	10	10	50	-	50	-
8	Onion	Intro. of new variety	AFLR	Rabi & Summer 2016-17	02	02	20	--	20	--
9	Mango	INM	Biofertilizer	Rabi & Summer 2016-17	5	5	25	--	25	---
10	Turmeric	Intro. of new variety	Rhizomes of Sugandham, NVST-1	Kharif, 2017	1.2	1.2	12	-	12	-
<b>V</b>	<b>Plant Protection</b>									
11	Finger millet	Disease management	Tricyclazole	Rabi & Summer 2016-17	4	4	10	--	10	--
12	Paddy	Pest management	Trichocard	Rabi & Summer 2016-17	2	2	7	--	7	--
13	Mango	Pest management	Nauroji fruit fly trap	Rabi & Summer 2016-17	2	2	8	--	8	--
14	Groundnut	Disease management	Tricho derma	Rabi & Summer 2016-17	2	2	9	-	9	
15	Okra	Pest management	Yellow sticky trap	Rabi & Summer 2016-17	2	2	5	--	5	--

#	<b>FLDs under other schemes (Other than KVK-ICAR Budget): Adaptive Trial (Phase-II), DGR, NRCG, Junagadh, Pulse production, ZPD, Jodhpur, Mega seed TSP</b>									
<b>I</b>	<b>Oilseed</b>									
	-	-	-	-	-	-	-	-	-	-
<b>II</b>	<b>Pulse crops</b>									
16	Green gram	Introduction. of new variety	New variety- Meha	Rabi & Summer 2016-17	20.4	20.4	95	--	95	--
17	Green gram	Introduction. of new variety	New variety- GAM 5	Rabi & Summer 2016-17	20	20	50	--	50	--
18	Green gram	Introduction. of new variety	New variety- Meha	Rabi & Summer 2016-17	18	18	70	--	70	--
<b>II</b>	<b>Cereal crops</b>									
19	Paddy	Intro. of new variety	New variety- GNR 4	Kharif, 2017	14.88	14.88	93	--	93	--
20	Little millet	Intro. of new variety	New variety- GV 2	Kharif, 2017	65.10	65.10	93	--	93	--
<b>III</b>	<b>Horticultural crops</b>									
21	Watermelon	RCT & weed management	Plastic Mulch	Rabi & Summer 2016-17	2.0	2.0	22	--	22	--
<b>IV</b>	<b>Plant Protection</b>									
22	Cashew nut	IPDM	Recommended pesticide	Rabi & Summer 2016-17	10	10	40	--	40	--

23	Mango	Pest management	Methylugenol trap	Rabi & Summer 2016-17	06	06	15	--	15	--
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#### 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					
<b>Oilseed crops</b>											
-	-	-	-	-	-	-	-	-	-	-	-
<b>Pulse crops</b>											
Gram	Rabi & Summer- 2016-17	Irrigated	Lateritic black Hilly	H	M	H	Paddy, Ragi	20 to 25 /11/2016	20 to 28 /2/2017	00	00
Pigeon pea	Kharif, 2017	Rain fed	Lateritic black Hilly	H	M	H	Gram	20 to 30 /7/2017	10 to 30 /1/2018	2101	67
<b>Cereal crops</b>											
Paddy	Kharif, 2017	Rain fed	Lateritic black Hilly	H	M	H	Gram, Green gram	25 to 30 /7/2017	10 to 30 /11/2017	2028	66
Finger millet	Kharif, 2017	Rain fed	Lateritic black Hilly	H	M	H	Gram, Green gram	25 to 30 /7/2017	10 to 30 /11/2017	2028	66
Little millet	Kharif, 2017	Rain fed	Lateritic black Hilly	H	M	H	Gram, Green gram	25 to 30 /7/2017	10 to 30 /11/2017	2028	66
<b>Horticultural crops</b>											
Indian bean	Rabi & Summer- 2016-17	Irrigated	Lateritic black Hilly	H	M	H	Paddy	1 <sup>st</sup> week of Jan, 2017	1 <sup>st</sup> week of April, 2017	00	00
Okra	Rabi & Summer- 2016-17	Irrigated	Lateritic black Hilly	H	M	H	Paddy	4 <sup>th</sup> week of Nov, 2016	1 <sup>st</sup> week of March 2017	73	01
Onion	Rabi & Summer- 2016-17	Irrigated	Lateritic black Hilly	H	M	H	Paddy	October 2016	March 2017	73	01
Mango	Rabi & Summer- 2016-17	Irrigated	Lateritic black Hilly	H	M	H	--	Existing	May 2017	00	00
Turmeric	Kharif, 2017-18	Rain fed	Lateritic black Hilly	H	M	H	Gram, Green gram	1 to 30 /05/2017	01 to 28/02/2018	2561	82
<b>Plant Protection</b>											
Finger millet	Rabi & Summer- 2016-17	Rain fed	Lateritic black Hilly	H	M	H	Gram, Green gram	25 to 30 /7/2017	10 to 30 /11/2017	2028	66
Paddy	Rabi & Summer-	Rain fed	Lateritic black	H	M	H	Gram	25 to 30 /7/2017	10 to 30 /11/2017	2028	66

	2016-17		Hilly								
Mango	Rabi & Summer-2016-17	Irrigated	Lateritic black Hilly	H	M	H	--	Existing	May 2017	00	00
Groundnut	Rabi & Summer-2016-17	Irrigated	Lateritic black Hilly	H	M	H	Paddy, Ragi	--	--	00	00
Okra	Rabi & Summer-2016-17	Irrigated	Lateritic black Hilly	H	M	H	Paddy	2 <sup>nd</sup> week of Nov.2016	1 <sup>st</sup> week of March 2017	00	00
<b>#. FLDs under other schemes (Other than KVK-ICAR Budget): Adaptive Trial (Phase-II)</b>											
<b>Oilseed crops</b>											
-	-	-	-	-	-	-	-	-	-	-	-
<b>Pulse crops</b>											
Green gram	Rabi & Summer 2016-17	Irrigated	Lateritic black Hilly	H	M	H	Paddy, Ragi	01 to 10 /2/2017	01 to 10 /5/2017	00	00
Green gram	Rabi & Summer 2016-17	Irrigated	Lateritic black Hilly	H	M	H	Paddy, Ragi	01 to 10 /2/2017	01 to 10 /5/2017	00	00
Green gram	Rabi & Summer 2016-17	Irrigated	Lateritic black Hilly	H	M	H	Paddy, Ragi	01 to 10 /2/2017	01 to 10 /5/2017	00	00
<b>Cereal crops</b>											
Paddy	Kharif, 2017	Rain fed	Lateritic black Hilly	H	M	H	Gram	25 to 30 /7/2017	10 to 30 /11/2017	2028	66
Little millet	Kharif, 2017	Rain fed	Lateritic black Hilly	H	M	H	Gram, Green gram	25 to 30 /7/2017	10 to 30 /11/2017	2028	66
<b>Horticultural crops</b>											
Watermelon	Rabi & Summer-2016-17	Irrigated	Lateritic black Hilly	H	M	H	Paddy	1 <sup>st</sup> week of Jan, 2017	1 <sup>st</sup> week of April, 2017	00	00
<b>Plant Protection</b>											
Cashew nut	Rabi & Summer-2016-17	Irrigated	Lateritic black Hilly	H	M	H	--	Existing	May 2017	00	00
Mango	Rabi & Summer-2016-17	Irrigated	Lateritic black Hilly	H	M	H	--	Existing	May 2017	00	00

**Technical Feedback on the demonstrated technologies**

S. N	Discipline	Feed Back
1	Agronomy	Variety of paddy GNR 6 need to lodging resistance.
2		High yielding variety of gram suitable for Dang district required.
3	Horticulture	Navsari Turmeric 1 variety is not infected by Rhizome rot disease.
4		Suitable variety of okra required.
5		Research on marketing & price fluctuations in vegetables & fruit crops.
6	Plant protection	Need to develop Traps for pests of rice, pulses, mango & cashew nut.
7		Development of false smut resistant variety of rice.

8		Tolerant/resistant variety of cashew nut to tea mosquito bug
9		Pest disease control measures for organic farming
10	Livestock prod.	Frozen semen doses for A.I. should be developed for Dangi cows.
11		Immediate measures must be taken for conservation of local Dangi cattle breed as there is meager number of animals available in its own breeding track of Dangi cattle.
12	Home Science	Extra income generated by selling extra vegetables grown in Kitchen garden.
13		Improved suruchi sickle help to reduce drudgery in terms of time, work efficiency and physical hazard.
14	Extension Education	Need to develop proper post harvest chain from farm to market.
15		Increase the convergence among different department through strong coordination.
16		Farmer are able & trained to take soil sample from its own soil .

#### Farmers' reactions on specific technologies

SN	Discipline	Feed Back
1	Agronomy	GG-2 variety of gram gave excellent yield under conserve moisture
2		GNN 6 is good variety of finger millet for higher yield.
3		GNP is excellent variety of pigeon pea for seed & vegetable purpose.
4		GNR 6 excellent short duration variety of rice but susceptible to lodging.
5	Horticulture	Use of Plastic mulch is increase the production in watermelon
6		AFLR variety of onion gave a high production then local check.
7		GAO-5 variety contain a fruits which are attractive due to its large shape and size but customer and merchants prefer a small size with a dark green color, so GAO-5 fetch a low price.
8		Need to develop proper marketing channel for Turmeric.
9		Problem of yellow vein mosaic virus was reported in okra.
10	Plant protection	List of recommended insecticides and weedicides for organic farming
11		Trap similar to Nauroji fruit fly trap for Tea mosquito bug.
12	Livestock prod.	RIR poultry breed is best suited for backyard poultry farming in Dangs.
13		Feeding bypass fat along with mineral mixture in cross breed cattle resulted increase milk production and better health.
14	Home Science	Finger millet biscuit is easily prepare by minimum available food material at home
15		Nutritional status and health is improved by feeding of Finger millet biscuit in preschool children
16		Through kitchen garden maximum utilization of backyard space and waste water
17		Before demonstration farm women were growing only 3 or 4 vegetables mostly wine vegetables in their backyard, after demonstration they start growing 6 to 8

		types of vegetables other than vine vegetables in scientific way.
18		Through Kitchen garden they get benefit of fresh and organic vegetables at low cost.
19	Extension Education	Want to meet travelling allowance to trainee farmers for attaining on campus training.

#### Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	11	--	162	
2	Farmers Training	60	--	2438	
3	Media coverage	1	-	-	
4	Training for extension functionaries	6	--	192	

#### C. Performance of Frontline demonstrations

##### A. Frontline demonstrations 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										
--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone. \*\* BCR= GROSS RETURN/GROSS COST

##### B. 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										
Gram	Intro. of new variety	New variety	GG-2	40	5	10.50	9.25	9.88	7.78	26.99	12500	34580	22080	2.76	11000	27230	16230	2.47
Pigeon pea	Intro. of new variety	New variety	Vaishali,	10	2	10.50	10.0	10.38	8.28	25.36	9000	25950	16950	2.88	8000	20700	12700	2.59
			BDN 711	5	1	9.75	8.50	9.20	7.95	15.72	9000	23000	14000	2.56	8000	19875	11875	2.48
			GNP 2	10	2	11.50	10.50	11.03	8.20	34.51	9000	27575	18575	3.06	8000	20500	12500	2.56

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone. \*\* BCR= GROSS RETURN/GROSS COST

##### C. FLDs on Other crops:

Category & Crop	Thematic Area	Name of the technology	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Change 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	Ave.										

																			(C)
<b>Cereal crops</b>																			
Paddy	Intro. of new variety	New variety	GNR 6	25	5	29.25	25.00	27.94	23.75	17.77	26500	50292	23792	1.90	24500	50292	25792	2.05	
Finger millet	Intro. of new variety	New variety	GNN 6	25	5	12.50	10.50	11.81	8.90	32.70	6000	17715	11715	2.95	5500	17715	12215	3.22	
Little millet	Intro. of new variety	New variety	GV 3	25	5	12.0	10.50	11.27	8.31	35.62	6000	16905	10905	2.82	5500	16905	11405	3.07	
<b>Horticultural crops</b>																			
Indian bean	Intro. of new variety	New variety	NPS 1	25	5	33.1	24.9	29.00	25.80	12.40	31500	116000	84500	3.68	33800	98040	64240	2.90	
Okra	INM	Integrated nutrient management	Hybrid	50	10	96.74	87.26	92.0	88.0	4.54	42600	165600	123000	3.89	44800	158400	113600	3.54	
Onion	Intro. of new variety	New variety	AFLR	20	2	167.69	162.31	165.00	144.00	14.58	106859	181500	74641	1.70	108000	158400	50400	1.47	
Mango	Biofertilizer	NOVEL & Biofertilizer	--	25	5	59.64	56.36	58.00	56.20	3.20	40400	116000	75600	2.87	42000	112400	70400	2.68	
Turmeric	Intro. of new variety	New variety	Sugandham, NVST-1 and Kesar	12	1.2	198.89	172.10	185.5	154.0	20.45	135000	241150	106150	1.79	125000	200200	75200	1.60	
<b>Plant Protection</b>																			
Finger millet	Diseases management	Tricyclazole	Mixed	10	4	11.0	8.60	10.20	9.40	8.51	30000	33000	3000	1.10	28400	30000	1600	1.05	
Paddy	Pest management	Trichocard	Hybrids	7	2	31.0	27.0	28.00	27.10	3.32	24000	46950	22950	1.95	21000	38000	17000	1.80	
Mango	Pest management	Nauroji fruit fly trap	Mixed	8	2	61.0	56.0	57.0	54.0	5.56	50000	98000	48000	1.96	49500	90000	40500	1.81	
Groundnut	Diseases management	Trichoderma	Mixed	9	2	19.0	16.0	18.0	16.0	12.50	25000	59000	34000	2.36	24500	52448	27948	2.14	
Okra	Pest management	Yellow sticky trap	Hybrid	5	2	105	75	90	85	5.88	42000	108000	66000	2.57	39250	96000	56750	2.44	

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

\*\* BCR= GROSS RETURN/GROSS COST

**D. FLDs under other schemes (Other than KVK-ICAR Budget):**

Category & Crop	Thematic Area	Name of the technology	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Economics of demonstration (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Ave.						
<b>Oilseed</b>														
--	--	--	--	-	--	--	--	--	--	--	--	--	--	--
<b>Pulse crops</b>														
Green gram	Intro. of new variety	New variety	Meha	95	20.4	8.40	7.20	7.64	--	--	11500	34380	22880	2.98
Green gram	Intro. of new variety	New variety	GAM 5	50	20	7.90	6.80	7.18	-	-	11500	32310	20810	2.80
Green gram	Intro. of new variety	New variety	Meha	70	18	8.30	7.09	7.57	--	--	11500	34065	22565	2.96
<b>Cereal crop</b>														
Paddy	Intro. of new variety	New variety	GNR 4	93	14.88	25.80	23.90	24.12	-	-	26500	43416	16916	1.63
Little millet	Intro. of new variety	New variety	GV 2	93	65.10	9.78	7.68	7.98	--	--	6000	11970	5970	1.99
<b>Horticultural crops</b>														
Watermelon	WM & RCT	Plasti Mulch	Hybrid	22	2.0	--	--	183	--	--	41900	118950	77050	2.84
<b>Plant Protection</b>														
Cashew nut	IPDM	Recommended pesticide	--	40	10.0	25	18	34.60	--	--	30000	34600	4600	1.15
Mango	Pest and diseases management	Methylugenol trap	Mixed	15	06	60	49	57	--	--	50000	98000	48000	1.96

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

\*\* BCR= GROSS RETURN/GROSS COST

**E. FLDs on Livestock:**

Backyard poultry farming: Improved RIR birds: 12 unit

Bird	Demo. Yield		local Check	Increase in yield (%)
Layer	Lowest	108 egg/year	34 egg/year	114.28
	Highest	189 egg/year	85 egg/year	

	Average	135 egg/year	63 egg/year	
Broiler	Lowest	50 birds/year	24 birds/year	110.34
	Highest	85 birds/year	40 birds/year	
	Average	61 birds/year	29 birds/year	
<b>Bird</b>	<b>Demo. Yield</b>		<b>local Check</b>	<b>Increase in yield (%)</b>
Layer	Lowest	108 egg/year	34 egg/year	114.28
	Highest	189 egg/year	85 egg/year	
	Average	135 egg/year	63 egg/year	
Broiler	Lowest	50 birds/year	24 birds/year	110.34
	Highest	85 birds/year	40 birds/year	
	Average	61 birds/year	29 birds/year	

Particular	Cost of Cultivation Rs./Yr/10 birds		Ave. Gross return Rs/Yr/10 birds		Ave. Gross Net Rs/Yr/10 birds		B: C ratio	
	D	C	D	C	D	C	D	C
<b>Layer</b>	2000	1300	5400	2520	3400	1220	2.7	1.93
<b>Broiler</b>	2000	1300	4880	2320	2880	1020	2.44	1.78

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

\*\* BCR= GROSS RETURN/GROSS COST

F. **FLDs on Fisheries:** Nil

G. **FLD on Other enterprises:** Nil

I. **FLD on Farm Implements and Machinery:** Nil

J. **FLD on Other Enterprise: Kitchen Gardening:**

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Vegetable crops	Nutrition	Kitchen garden	50	50	81	NA	NA	--	--		3645	2595	3.47	NA	NA	NA	NA
Vegetable crops	Nutrition	Kitchen garden	25	25	87	NA	NA	--	--	975	3919	2944	4.02	NA	NA	NA	NA

\* 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**

**Nutrition management: Finger millet Biscuit**

Demonstration period: Nov'2016 to Feb'2017, No. of Demonstration: 10

Critical Input: Finger millet Biscuit (65 gm/day/child), Average weight gain of tribal children per month:

Age	No of preschool Children	Average body weight of preschool children(Kg.)			Weight gain (Kg.)	Increase in weight (%)	*Feeding of Poshak Aahar (gm/day/child)	
		Before demon. (Sep'15)	After Demonstration					
			1 <sup>st</sup> Month	2 <sup>nd</sup> Month				3 <sup>rd</sup> Month
3-5 years	10 Demos.	10.140	10.340	10.650	10.900	0.760	7.4	65
	10 Control	10.120	10.200	10.300	10.370	0.250	2.4	-

\* 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 Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Area (ha) covered per hour under demo per operation		Time (hr) saved to cover one ha	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Harvesting	Total	Land preparation	Labour	Irrigation	Total
Paddy harvesting	NA	Suruchi sickle	50	50	Drudgery reduction	20.8	26.3	20.6	-	-	3	3	-	675	-	675
Twin wheel hoe	row crop	Weed management	30	30	Drudgery reduction	0.075	0.04	-	-	-	-	-	-	-	-	-

Labour cost calculated@Rs. 15 / hour. \*Cost of operation is calculated as per Govt. rules.

**FLD on Demonstration details on crop hybrids** (Details of Hybrid FLDs implemented during 2016-17):Nil

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

### 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
<b>I Crop Production</b>										
Weed Management										
Resource Conservation Technologies										
Cropping Systems	2				34	38	72	34	38	72
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management	1				35	0	35	35	0	35
Integrated Crop Management	1				20	0	20	20	0	20
Soil & water conservatioin										
Integrated nutrient management										
Production of organic inputs										
Others (pl specify) Organic farming	4				118	36	154	118	36	154
<b>Total</b>	<b>8</b>				<b>207</b>	<b>74</b>	<b>281</b>	<b>207</b>	<b>74</b>	<b>281</b>
<b>II Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low value and high valume crops										
Off-season vegetables										
Nursery raising	1				14	45	59	14	45	59
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation	1				28	0	28	28	0	28
Others (pl specify) Organic farming	2				32	56	88	32	56	88
<b>Total (a)</b>	<b>4</b>				<b>74</b>	<b>101</b>	<b>175</b>	<b>74</b>	<b>101</b>	<b>175</b>
<b>b) Fruits</b>										
Training and Pruning										
Layout and Management of Orchards	1				24	06	30	24	06	30
Cultivation of Fruit	1				29	8	37	29	8	37
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify) Production technology	1				49	1	50	49	1	50
<b>Total (b)</b>	<b>3</b>				<b>102</b>	<b>15</b>	<b>117</b>	<b>102</b>	<b>15</b>	<b>117</b>
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
<b>Total (c)</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
<b>Total (d)</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>e) Tuber crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
<b>Total (e)</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>f) Spices</b>										
Production and Management technology										
Processing and value addition										

Others (pl specify)										
<b>Total (f)</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
<b>Total (g)</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>GT (a-g)</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>176</b>	<b>116</b>	<b>292</b>	<b>176</b>	<b>116</b>	<b>292</b>
<b>III Soil Health and Fertility Management</b>										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management	1				24	02	26	24	02	26
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
<b>Total</b>	<b>1</b>				<b>24</b>	<b>02</b>	<b>26</b>	<b>24</b>	<b>02</b>	<b>26</b>
<b>IV Livestock Production and Management</b>										
Dairy Management	2				30	34	64	30	34	64
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1				40	28	68	40	28	68
Disease Management	1				19	41	60	19	41	60
Feed & fodder technology	3				37	40	77	37	40	77
Production of quality animal products										
Others (pl specify)										
<b>Total</b>	<b>7</b>				<b>126</b>	<b>143</b>	<b>269</b>	<b>126</b>	<b>143</b>	<b>269</b>
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening	1				4	34	38	4	34	38
Design and development of low/minimum cost diet	1				3	25	28	3	25	28
Designing and development for high nutrient efficiency diet	1				5	46	51	5	46	51
Minimization of nutrient loss in processing										
Processing and cooking	1				1	27	28	1	27	28
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Women empowerment	1				6	55	61	6	55	61
Location specific drudgery reduction technologies	1				11	51	62	11	51	62
Rural Crafts										
Women and child care	1				0	25	25	0	25	25
Others (pl specify)										
<b>Total</b>	<b>7</b>				<b>30</b>	<b>263</b>	<b>293</b>	<b>30</b>	<b>263</b>	<b>293</b>
<b>VI Agril. Engineering</b>										
Farm Machinery and its maintenance	1				20	0	20	20	0	20
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
<b>Total</b>	<b>1</b>				<b>20</b>	<b>0</b>	<b>20</b>	<b>20</b>	<b>0</b>	<b>20</b>
<b>VII Plant Protection</b>										
Integrated Pest Management	1				28	12	40	28	12	40
Integrated Disease Management	2				67	32	99	67	32	99

Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										

<b>Total</b>	<b>3</b>				<b>95</b>	<b>44</b>	<b>139</b>	<b>95</b>	<b>44</b>	<b>139</b>
<b>VIII Fisheries</b>										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
<b>Total</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>IX Production of Inputs at site</b>										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
<b>Total</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>X CapacityBuilding and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital	2				87	35	122	87	35	122
Entrepreneurial development of farmers/youths										
WTO and IPR issues	1				46	53	99	46	53	99
Others (pl specify) Capacity building	1				12	13	25	12	13	25
<b>Total</b>	<b>4</b>				<b>145</b>	<b>101</b>	<b>246</b>	<b>145</b>	<b>101</b>	<b>246</b>
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
<b>Total</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>GRAND TOTAL</b>	<b>38</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>823</b>	<b>743</b>	<b>1566</b>	<b>823</b>	<b>743</b>	<b>1566</b>

**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
<b>I Crop Production</b>										
Weed Management										

Resource Conservation Technologies	1			54	2	56	54	2	56
Cropping Systems									
Crop Diversification	1			50	0	50	50	0	50
Integrated Farming									
Micro Irrigation/irrigation									
Seed production									
Nursery management									
Integrated Crop Management									
Soil & water conservatioin									
Integrated nutrient management									
Production of organic inputs									
Others (pl specify) Organic farming	2			81	58	139	81	58	139
<b>Total</b>	<b>4</b>			<b>185</b>	<b>60</b>	<b>245</b>	<b>185</b>	<b>60</b>	<b>245</b>
<b>II Horticulture</b>									
<b>a) Vegetable Crops</b>									
Production of low value and high valume crops	1			31	23	54	31	23	54
Off-season vegetables									
Nursery raising									
Exotic vegetables									
Export potential vegetables									
Grading and standardization									
Protective cultivation									
Others (pl specify) Organic farming	1			28	4	32	28	4	32
<b>Total (a)</b>	<b>2</b>			<b>59</b>	<b>27</b>	<b>86</b>	<b>59</b>	<b>27</b>	<b>86</b>
<b>b) Fruits</b>									
Training and Pruning									
Layout and Management of Orchards									
Cultivation of Fruit									
Management of young plants/orchards									
Rejuvenation of old orchards									
Export potential fruits									
Micro irrigation systems of orchards									
Plant propagation techniques									
Others (pl specify)									
<b>Total (b)</b>	<b>0</b>			<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>c) Ornamental Plants</b>									
Nursery Management									
Management of potted plants									
Export potential of ornamental plants									
Propagation techniques of Ornamental Plants									
Others (pl specify)									
<b>Total (c)</b>	<b>00</b>			<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>d) Plantation crops</b>									
Production and Management technology									
Processing and value addition									
Others (pl specify)									
<b>Total (d)</b>	<b>00</b>			<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>e) Tuber crops</b>									
Production and Management technology	1			18	22	40	18	22	40
Processing and value addition									
Others (pl specify)									
<b>Total (e)</b>	<b>1</b>			<b>18</b>	<b>22</b>	<b>40</b>	<b>18</b>	<b>22</b>	<b>40</b>
<b>f) Spices</b>									
Production and Management technology									
Processing and value addition									
Others (pl specify)									
<b>Total (f)</b>	<b>00</b>			<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>g) Medicinal and Aromatic Plants</b>									
Nursery management									
Production and management technology									
Post harvest technology and value addition									
Others (pl specify)									
<b>Total (g)</b>	<b>00</b>			<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>GT (a-g)</b>	<b>3</b>			<b>77</b>	<b>49</b>	<b>126</b>	<b>77</b>	<b>49</b>	<b>126</b>
<b>III Soil Health and Fertility Management</b>									

Soil fertility management										
Integrated water management										
Integrated Nutrient Management	1				22	3	25	22	3	25
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
<b>Total</b>	<b>1</b>				<b>22</b>	<b>3</b>	<b>25</b>	<b>22</b>	<b>3</b>	<b>25</b>
<b>IV Livestock Production and Management</b>										
Dairy Management	1				13	17	30	13	17	30
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1				14	16	30	14	16	30
Disease Management	1				11	6	17	11	6	17
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
<b>Total</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>39</b>	<b>77</b>	<b>38</b>	<b>39</b>	<b>77</b>
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet	1				0	27	27	0	27	27
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing	1				0	30	30	0	30	30
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	2				0	54	54	0	54	54
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
<b>Total</b>	<b>4</b>				<b>0</b>	<b>111</b>	<b>111</b>	<b>0</b>	<b>111</b>	<b>111</b>
<b>VI Agril. Engineering</b>										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
<b>Total</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>VII Plant Protection</b>										
Integrated Pest Management	1				40	29	69	40	29	69
Integrated Disease Management	1				52	1	53	52	1	53
Bio-control of pests and diseases	1				10	0	10	10	0	10
Production of bio control agents and bio pesticides										
Others (pl specify)										
<b>Total</b>	<b>3</b>				<b>102</b>	<b>30</b>	<b>132</b>	<b>102</b>	<b>30</b>	<b>132</b>
<b>VIII Fisheries</b>										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										

Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
<b>Total</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>IX Production of Inputs at site</b>										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
<b>Total</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>X Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital	1	-	-	-	0	25	25	0	25	25
Entrepreneurial development of farmers/youths	1				6	19	25	6	19	25
WTO and IPR issues										
Others (pl specify)										
<b>Total</b>	<b>2</b>				<b>6</b>	<b>44</b>	<b>50</b>	<b>6</b>	<b>44</b>	<b>50</b>
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
<b>Total</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>GRAND TOTAL</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>430</b>	<b>336</b>	<b>766</b>	<b>430</b>	<b>336</b>	<b>766</b>

#### 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
<b>I Crop Production</b>										
Weed Management										
Resource Conservation Technologies	1				54	2	56	54	2	56
Cropping Systems	2				34	38	72	34	38	72
Crop Diversification	1				50	0	50	50	0	50
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management	1				35	0	35	35	0	35
Integrated Crop Management	1				20	0	20	20	0	20
Soil & water conservatiion										
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)	6				199	94	293	199	94	293
<b>Total</b>	<b>12</b>				<b>392</b>	<b>134</b>	<b>526</b>	<b>392</b>	<b>134</b>	<b>526</b>

<b>II Horticulture</b>									
<b>a) Vegetable Crops</b>									
Production of low value and high volume crops	1		31	23	54	31	23	54	
Off-season vegetables									
Nursery raising	1		14	45	59	14	45	59	
Exotic vegetables									
Export potential vegetables									
Grading and standardization									
Protective cultivation	1		28	0	28	28	0	28	
Others (pl specify) Organic farming	3		60	60	120	60	60	120	
<b>Total (a)</b>	<b>6</b>		<b>133</b>	<b>128</b>	<b>261</b>	<b>133</b>	<b>128</b>	<b>261</b>	
<b>b) Fruits</b>									
Training and Pruning									
Layout and Management of Orchards	1		24	06	30	24	06	30	
Cultivation of Fruit	1		29	8	37	29	8	37	
Management of young plants/orchards									
Rejuvenation of old orchards									
Export potential fruits									
Micro irrigation systems of orchards									
Plant propagation techniques									
Others (pl specify)	1		49	1	50	49	1	50	
<b>Total (b)</b>	<b>3</b>		<b>102</b>	<b>15</b>	<b>117</b>	<b>102</b>	<b>15</b>	<b>117</b>	
<b>c) Ornamental Plants</b>									
Nursery Management									
Management of potted plants									
Export potential of ornamental plants									
Propagation techniques of Ornamental Plants									
Others (pl specify)									
<b>Total (c)</b>	<b>00</b>		<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>d) Plantation crops</b>									
Production and Management technology									
Processing and value addition									
Others (pl specify)									
<b>Total (d)</b>									
<b>e) Tuber crops</b>									
Production and Management technology	1		18	22	40	18	22	40	
Processing and value addition									
Others (pl specify)									
<b>Total (e)</b>	<b>1</b>		<b>18</b>	<b>22</b>	<b>40</b>	<b>18</b>	<b>22</b>	<b>40</b>	
<b>f) Spices</b>									
Production and Management technology									
Processing and value addition									
Others (pl specify)									
<b>Total (f)</b>	<b>00</b>		<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>g) Medicinal and Aromatic Plants</b>									
Nursery management									
Production and management technology									
Post harvest technology and value addition									
Others (pl specify)									
<b>Total (g)</b>	<b>00</b>		<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>GT (a-g)</b>	<b>10</b>		<b>253</b>	<b>165</b>	<b>418</b>	<b>253</b>	<b>165</b>	<b>418</b>	
<b>III Soil Health and Fertility Management</b>									
Soil fertility management									
Integrated water management									
Integrated Nutrient Management	2		46	05	51	46	05	54	
Production and use of organic inputs									
Management of Problematic soils									
Micro nutrient deficiency in crops									

Nutrient Use Efficiency									
Balance use of fertilizers									
Soil and Water Testing									
Others (pl specify)									
<b>Total</b>	<b>2</b>			<b>46</b>	<b>05</b>	<b>51</b>	<b>46</b>	<b>05</b>	<b>51</b>
<b>IV Livestock Production and Management</b>									
Dairy Management	3			43	51	94	43	51	94
Poultry Management									
Piggery Management									
Rabbit Management									
Animal Nutrition Management	2			54	44	98	54	44	98
Disease Management	2			30	47	77	30	47	77
Feed & fodder technology	3			37	40	77	37	40	77
Production of quality animal products									
Others (pl specify)									
<b>Total</b>	<b>10</b>			<b>164</b>	<b>182</b>	<b>346</b>	<b>164</b>	<b>182</b>	<b>346</b>
<b>V Home Science/Women empowerment</b>									
Household food security by kitchen gardening and nutrition gardening	1			4	34	38	4	34	38
Design and development of low/minimum cost diet	2			3	52	55	3	52	55
Designing and development for high nutrient efficiency diet	1			5	46	51	5	46	51
Minimization of nutrient loss in processing	1			0	30	30	0	30	30
Processing and cooking	1			1	27	28	1	27	28
Gender mainstreaming through SHGs									
Storage loss minimization techniques									
Value addition	2			0	54	54	0	54	54
Women empowerment	1			6	55	61	6	55	61
Location specific drudgery reduction technologies	1			11	51	62	11	51	62
Rural Crafts									
Women and child care	1			0	25	25	0	25	25
Others (pl specify)									
<b>Total</b>	<b>11</b>			<b>30</b>	<b>374</b>	<b>404</b>	<b>30</b>	<b>374</b>	<b>404</b>
<b>VI Agril. Engineering</b>									
Farm Machinery and its maintenance	1			20	0	20	20	0	20
Installation and maintenance of micro irrigation systems									
Use of Plastics in farming practices									
Production of small tools and implements									
Repair and maintenance of farm machinery and implements									
Small scale processing and value addition									
Post Harvest Technology									
Others (pl specify)									
<b>Total</b>	<b>1</b>			<b>20</b>	<b>0</b>	<b>20</b>	<b>20</b>	<b>0</b>	<b>20</b>
<b>VII Plant Protection</b>									
Integrated Pest Management	2			68	41	109	68	41	109
Integrated Disease Management	3			119	33	152	119	33	152
Bio-control of pests and diseases	1			10	0	10	10	0	10
Production of bio control agents and bio pesticides									
Others (pl specify)									
<b>Total</b>	<b>6</b>			<b>197</b>	<b>74</b>	<b>271</b>	<b>197</b>	<b>74</b>	<b>271</b>
<b>VIII Fisheries</b>									
Integrated fish farming									
Carp breeding and hatchery management									
Carp fry and fingerling rearing									
Composite fish culture									
Hatchery management and culture of									

freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
<b>Total</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>IX Production of Inputs at site</b>										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
<b>Total</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>X Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital	3				87	60	147	87	60	147
Entrepreneurial development of farmers/youths	1				6	19	25	6	19	25
WTO and IPR issues	1				46	53	99	46	53	99
Others (pl specify)	1				12	13	25	12	13	25
<b>Total</b>	<b>6</b>				<b>151</b>	<b>145</b>	<b>296</b>	<b>151</b>	<b>145</b>	<b>296</b>
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
<b>Total</b>	<b>00</b>				<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>GRAND TOTAL</b>	<b>58</b>				<b>1253</b>	<b>1079</b>	<b>2332</b>	<b>1253</b>	<b>1079</b>	<b>2332</b>

### 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
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture	1	-	-	-	15	0	15	15	0	15
Mushroom Production	1	-	-	-	0	27	27	0	27	27
Bee-keeping										

Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition	1	-	-	-	0	20	20	0	20	20
Small scale processing										
Post Harvest Technology	1	-	-	-	0	25	25	0	25	25
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	-	-	-	5	14	19	5	14	19
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
<b>TOTAL</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>86</b>	<b>106</b>	<b>20</b>	<b>86</b>	<b>106</b>

### 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
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
<b>TOTAL</b>										

**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
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture	1	-	-	-	15	0	15	15	0	15
Mushroom Production	1	-	-	-	0	27	27	0	27	27
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition	1	-	-	-	0	20	20	0	20	20
Small scale processing										
Post Harvest Technology	1	-	-	-	0	25	25	0	25	25
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	-	-	-	5	14	19	5	14	19
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
<b>TOTAL</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>86</b>	<b>106</b>	<b>20</b>	<b>86</b>	<b>106</b>

**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
Productivity enhancement in field crops	1	-	-	-	12	0	12	12	0	12
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs	1	-	-	-	36	11	47	36	11	47
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs	1	-	-	-	10	23	33	10	23	33
Women and Child care	1	-	-	-	0	40	40	0	40	40
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application	1	-	-	-	15	5	20	15	5	20

Management in farm animals	1	-	-	-	18	0	18	18	0	18
Livestock feed and fodder production										
Household food security										
Any other (pl.specify) Plant protection	1	-	-	-	22	0	22	22	0	22
<b>TOTAL</b>	<b>7</b>				<b>113</b>	<b>79</b>	<b>192</b>	<b>113</b>	<b>79</b>	<b>22</b>

### 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
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
<b>TOTAL</b>										

### 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
Productivity enhancement in field crops	1	-	-	-	12	0	12	12	0	12
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs	1	-	-	-	36	11	47	36	11	47
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs	1	-	-	-	10	23	33	10	23	33
Women and Child care	1	-	-	-	0	40	40	0	40	40
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application	1	-	-	-	15	5	20	15	5	20
Management in farm animals	1	-	-	-	18	0	18	18	0	18
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)	1	-	-	-	22	0	22	22	0	22
<b>TOTAL</b>	<b>7</b>				<b>113</b>	<b>79</b>	<b>192</b>	<b>113</b>	<b>79</b>	<b>192</b>

### 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

<b>Crop production and management</b>										
Increasing production and productivity of crops	2	-	-	-	62	35	97	62	35	97
Commercial production of vegetables										
Others, Organic farming	3	-	-	-	95	75	170	95	75	170
Others, Awareness creation	1	-	-	-	35	0	35	35	0	35
<b>Production and value addition</b>										
Fruit Plants										
Ornamental plants										
Spices crops										
Soil health and fertility management										
Production of Inputs at site	1	-	-	-	32	34	66	32	34	66
Methods of protective cultivation										
Others (pl. specify) Nursery management	1	-	-	-	14	45	59	14	45	59
Organic farming in horticulture crop	1	--	-	-	0	22	22	0	22	22
<b>Total</b>	<b>9</b>				<b>238</b>	<b>211</b>	<b>449</b>	<b>238</b>	<b>211</b>	<b>449</b>
<b>Plant Protection measure</b>	2	-	-	-	67	32	99	67	32	99
<b>Total</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>67</b>	<b>32</b>	<b>99</b>	<b>67</b>	<b>32</b>	<b>99</b>
<b>Post harvest technology and value addition</b>										
Processing and value addition										
Others (pl. specify)										
<b>Total</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>Farm machinery</b>										
Farm machinery, tools and implements										
Others (pl. specify)										
<b>Total</b>	<b>00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>Livestock and fisheries</b>										
Livestock production and management	2	-	-	-	53	58	111	53	58	111
Animal Nutrition Management										
Animal Disease Management	1	-	-	-	19	41	60	19	41	60
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
<b>Total</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>72</b>	<b>99</b>	<b>171</b>	<b>72</b>	<b>99</b>	<b>171</b>
<b>Home Science</b>										
Household nutritional security	2	-	-	-	8	71	79	8	71	79
Economic empowerment of women										
Drudgery reduction of women										
Others (pl. specify)	1	-	-	-	06	55	61	06	55	61
Value addition	1	-	-	-	00	19	19	00	19	19
<b>Total</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14</b>	<b>145</b>	<b>159</b>	<b>14</b>	<b>145</b>	<b>159</b>
<b>Agricultural Extension</b>										
CapacityBuilding and Group Dynamics	1	-	-	-	46	53	99	46	53	99
Others (pl. specify) Use of ICT	2	-	-	-	87	35	122	87	35	122
<b>Total</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>133</b>	<b>88</b>	<b>221</b>	<b>133</b>	<b>88</b>	<b>221</b>
<b>GRAND TOTAL</b>	<b>21</b>				<b>524</b>	<b>575</b>	<b>1099</b>	<b>524</b>	<b>575</b>	<b>1099</b>

## 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
<b>Crop production and management</b>										
Commercial floriculture										
Commercial fruit production										
Commercial vegetable production										
Integrated crop management										
Organic farming	1	-	-	-	15	0	15	15	0	15
Others (pl. specify)										
<b>Total</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>15</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>15</b>
<b>Post harvest technology and value addition</b>										
Value addition	1	-	-	-	0	20	20	0	20	20
Others (pl. specify) Post harvest management	1	-	-	-	0	25	25	0	25	25
<b>Total</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>45</b>	<b>45</b>	<b>0</b>	<b>45</b>	<b>45</b>
<b>Livestock and fisheries</b>										
Dairy farming										
Composite fish culture										
Sheep and goat rearing										
Piggery										
Poultry farming	1	-	-	-	5	14	19	5	14	19
Others (pl. specify)										
<b>Total</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5</b>	<b>14</b>	<b>19</b>	<b>5</b>	<b>14</b>	<b>19</b>
<b>Income generation activities</b>										
Vermicomposting										
Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
Repair and maintenance of farm machinery and implements										
Rural Crafts										
Seed production										
Sericulture										
Mushroom cultivation	1	-	-	-	0	27	27	0	27	27
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dying etc.										
Agril. para-workers, para-vet training										
Others (pl. specify)										
<b>Total</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>27</b>	<b>27</b>	<b>0</b>	<b>27</b>	<b>27</b>
<b>Agricultural Extension</b>										
Capacity building and group dynamics										
Others (pl. specify)										
<b>Total</b>	<b>00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>00</b>
<b>Grand Total</b>	<b>5</b>				<b>20</b>	<b>86</b>	<b>106</b>	<b>20</b>	<b>86</b>	<b>106</b>

### 3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	26	31607	14	31621
Diagnostic visits	37	198	15	213
Field Day	11	162	9	171
Group discussions	06	222	7	229
KisanGhoshi	1	120	5	125
Film Show	11	700	20	720
Self -help groups	3	43	2	45
KisanMela	1	50	5	55
Exhibition	2	315	15	330
Scientists' visit to farmers field	46	337	12	349
Plant/animal health camps	02	31	3	34
Farm Science Club	00	00	00	0
Telephone helpline	72	1384	25	1409
Farmers' seminar/workshop	00	00	00	0
Method Demonstrations	37	593	6	601
Celebration of important days	14	1095	25	1120
Special day celebration	00	00	00	0
Exposure visits	5	210	5	215
Others				0
Field visit	64	577	7	584
FLD visit	50	354	8	362
OFT visit	20	126	4	130
Farmers Visit to KVK	24	590	6	596
BRS, MRS placement	04	10	1	11
Farm school	02	80	2	82
Soil health camp	08	248	6	254
Survey work	02	300	12	312
Swachata Jagruti Abhiyan	02	268	9	277
<b>Total</b>	<b>450</b>	<b>39620</b>	<b>223</b>	<b>39845</b>

#### Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	--
Extension Literature	--
Newspaper coverage	1
Popular articles	2
Radio Talks	--
TV Talks	--
Animal health camps (Number of animals treated)	31
Others (pl. specify)	
<b>Total</b>	<b>34</b>

### 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	IR 28		2870		
		GR 7		5088		
		GNR 6		2185	24035	
	Little millet	GV 2		305		
Oilseeds						
Pulses	Gram	GG 2		895	58175	180
	Green gram	CO 4		340	14940	33
		GAM 5		900	25650	57
Commercial crops						
Flower crops						
Spices	Turmeric	Sugandham		280	6250	12
		Kesar		100	2500	
		GNT 1		150	3750	
Fodder crop seeds						
Fiber crops						
Forest Species						
Others	Mango	Kesar		100		
		Rajapuri		60		
		Totapuri		680		
		Amrapali		160		
		Vasi badami		150		
		Dasheri		360		
		Deshi		280		
	Watermelon	Black badshah		203		
<b>Total</b>				<b>15106</b>	<b>135300</b>	<b>282</b>

**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
Commercial						
Vegetable seedlings	Brinjal			3645 nos.	1822.50	25
	Tomato			1005 nos.	502.50	
	Chilli			1105nos.	552.50	
Fruits						
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others						
<b>Total</b>				<b>5755 Nos.</b>	<b>28772.50</b>	<b>25</b>

**Production of Bio-Products**

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilisers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others				
<b>Total</b>				

#### Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
<b>Dairy animals</b>				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
<b>Poultry</b>				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
<b>Piggery</b>				
Piglet				
Others (Pl.specify)				
<b>Fisheries</b>				
Indian carp				
Exotic carp				
Others (Pl. specify)				
<b>Total</b>				

#### 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	Constraints faced by farmers living in drought situation of Gujarat	J.B.Dobariya	01
	Role of cluster Frontline Demonstrations in enhancement of green gram production in Dang District.	J.B.Dobariya, N.M.Thesiya & N.N.Patel	01
	Knowledge and adoption level of beneficiary and non beneficiary farmers about okra production technology	J.B.Dobariya	01
	Knowledge and adoption level of beneficiary and non beneficiary farmers about okra production technology.	J.B.Dobariya, Mahaveer Choudhari and H.A.Prajapati	01
	Impact of KVK activities in adopted village of KVK-Dangs	J.B.Dobariya, N.M.Thesiya and V.K.Desai	01
Technical reports	MPR,QPR, PMO, PMO Organic and CRS –April 2017 to March 2018, Monthly	J.B.Dobariya	01
	Quarterly and Annual report of adaptive trial	J.B.Dobariya	01
	Annual report of MGMG with photograph	J.B.Dobariya	01
	Report of PPV & FRA-2001	J.B.Dobariya	01
	Report of information of publication of last 5 year research paper, article	J.B.Dobariya	01
	Pulse production technologies	N.M.Thesiya	01
	TSP Mega seed	N.M.Thesiya	01

	Annual progress report from period of 01/04/2016 to 31/03/2017 and Annual Action Plan 2017-18	J.B.Dobariya	01
	Weather report	J.B.Dobariya	01
	Preparation & Printing highlights of last three years May 2014 to May 2017 of KVKs programmes & activities	J.B.Dobariya	01
	National Compilation of Technologies assessed in OFTs / FLDs-Reg	J.B.Dobariya	01
	Report of TSP 2016-17	J.B.Dobariya	01
	Information for NAU Spectrum	J.B.Dobariya	01
	Evaluation of the Krishi Vigyan Kendra (KVKs) for Categorization into A, B, C & D	J.B.Dobariya	01
	Report, photographs and video clips of "Sankalp se Siddhi Programme" KVK, Dang.	J.B.Dobariya	01
	25 <sup>th</sup> and 26 <sup>th</sup> ZREAC report and action taken report	J.B.Dobariya	01
	Report on knowledge management	J.B.Dobariya	01
	Report on OFT and FLD detail of 2016-17 and 2017-18	N.N.Patel	01
	Adaptive trial report Quarterly	J.B.Dobariya	01
	Achievements of Quarter I and I of KVK dang	J.B.Dobariya	01
	Swachhta Action Plan Activities	J.B.Dobariya	01
	Information of Women Annual plan	J.B.Dobariya	01
	Outcome review of KVK scheme	J.B.Dobariya	01
	Details of training and extension activities conducted by KVK during XII plan (2012-13 to 2016-17) on beekeeping for honey and wax production-reg.	J.B.Dobariya	01
	14 <sup>th</sup> AGRESCO report of Social science group	J.B.Dobariya	01
	Report of documenting technologies/interventions	J.B.Dobariya	01
	17 <sup>th</sup> SAC report English as well as Gujarati	J.B.Dobariya & N.N.Patel	01
	Report of Kishan gosthi on Doubling Farmers income	J.B.Dobariya	01
Technical bulletins			
Popular articles	Krushi ma Jal chanchay ni Jaruriyat	J.B.Dobariya & N.M.Thesiya	01
	Fal pako ma Mulya vardhan ane teni vechan vyavastha	J.B.Dobariya and Rajendra P Bambharoliya	01
Extension literature	--	--	--
Others (Pl. specify) Abstract	Impact of KVK activities of adopted village of KVK dang	J.B.Dobariya, N.M.Thesiya and V.K.Desai	01
<b>TOTAL</b>			<b>36</b>

### C. Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number
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**D. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).**

## **Gram yield enhancement through Pulse production technology**

### **Success story-1**

**N.M.Thesiya, J.B.Dobariya, H.A.Prajapati, D.B.Bhoi, N.N.Patel & V.K.Desai**



Name of Villages: Borpada and Dagdiamba  
 Ta: Waghai  
 Dist: Dangs  
 Gujarat  
 Year: 2017-18

#### **Before Contact with KVK, Waghai, Dangs**

Farmers of the cluster villages of Borpada and Dagdiamba were using old variety of gram with low yield, high seed rate (80 kg /ha), injudiciously use of fertilizer. These increase their cost of production of gram. Further due to random sowing, weeding and other interculturing operations were become difficult and it increase labour charges. Farmers of these villages were facing very poor economic condition and very hard to run her family satisfactorily.

#### **After KVK Intervention**

Borpada and Dagdiamba are tribal dominated villages situated 15 km away from Krishi Vigyan Kendra, Waghai, Dist. Dangs head quarter. The farmers of these villages are recourse poor with undulating, fragmented land. Majority of the farmers are marginal farmers. The farmers have purchased the gram from private seed companies and also used their own farm saved seeds. KVK scientists explained the uses and production of quality seeds. But, the resource poor farmers were unable to produce the seeds of their own due to lack of technical knowledge. Then the Krishi Vigyan Kendra intervened and trained the farmers of these villages about the pulse seed production technologies such as land selection, sources of seed, seed rate, method of sowing, judicious use of fertilizer, harvesting and post harvest handling of seeds. The Krishi Vigyan Kendra, waghai has selected these villages for transfer of technologies related to pulse production scheme. The team of KVK scientists had made survey of the village to identify the adoption gap and technological needs of farmers as well as their socio economic status. The development plan of village for various TOT activities has been prepared. Among various technological gaps, the KVK scientists have worked out the gap regarding method of sowing, seed rate and fertilizer application in gram by the farmers. The Scientist (Crop production) decided to intervene on this point and given demonstration of gram to the farmers. The farmers have been given training on gram package of practices. The team of KVK scientist made frequent visits of the farmers' field and guided them accordingly for various operations.

As a result of intervention, the seed rate has been reduced to 20 kg/ ha in line sowing method

of gram. This reduce their 20 per cent cost on seed material. Further due to line sowing, the application of fertilizers, weeding and other interculturing operations were become easy for the farmers which in turn saved labour charges. The major advantage of this scheme was increase in yield net return of gram due to scientific cultivation practices.

In farmer's method the farmers were able to harvest average of 772 kg/ha of gram as against 1000 kg/ha in demonstration with an increase of 23 per cent. The net benefit incurred was Rs. 22517 per hectare in demonstration plot of gram.

**Comparison of yield and economics:**

Sr.No	Particulars		
1	No. of Farmers	50	
2	Area (ha)	20	
3	Variety	GG 2	
Yield and economics:			
Sr.No.	Particulars	Farmer' existing plot	Demonstration plot
1	Gram yield (kg/ha)	772.5	1000.5
2	Gross Cost (Rs/ha)	11000	12500
3	Gross return (Rs/ha)	27037	35017
4	Net Return (Rs/ha)	16037	22517
5	B:C ratio	2.5	2.8
6	Increase in yield (%)	-	23

**Summary:**

Small and Marginal farmers are often at a disadvantageous position in absorbing the agricultural technology related to genetic enhancement of production potential of agricultural crops. This is because of centralized production and distribution of improved seeds by a seed companies. Though the organized sector is able to produce a large quantity of seeds, the supply chain is unable to cope with the huge demand for seeds across the length and breadth of the country. Thus, the farming community depends to a large extent on external sources for important inputs such as seeds. Pulse production programme provide an alternative to this problem and help farmers become self reliant. This initiative needs both organized communities and scientific backstopping. Efforts towards up scaling pulse production technolgy under Krishi Vigyan Kendra, Waghai in the Dang district resulted in encouraging learning outcomes and demonstrated the viability of pulse production with suitable

technical backstopping by KVK scientist and empowerment of the community members. The pulse production concept not only ensure good quality seeds for enhancing productivity but also in generating income for the community members resulting in improved livelihood.



## Success Story-2

### Title: Bittergourd growing with higher net return in the Dang district

H.A.Prajapati, N.M.Thesiya, J.B.Dobariya, D.B.Bhoi, N.N.Patel & V.K.Desai

#### Situation Analysis/Problem Statement

Anjanaben Niteshbhai Dhoom is a woman farmer of Village : Sadadmal, Taluka: Waghai, District: Dangs in Gujarat, educated up to 10<sup>th</sup> standard and having 7.5 Acre of land. Her husband is also a farmer. They have two children a son and a daughter. Somehow, they were earning their livelihood by practicing rain fed agriculture in their land. She was growing local and old varieties of Paddy, Vari and Ragi during Kharif season and okra in rabi season. Under such situation, it was difficult to sustain economic security and standard of living of her family. Therefore, she was in search of some alternate sources of income.



**Anjanaben Niteshbhai Dhoom**

Village: Sadadmal, Taluka-Waghai, District Dangs -394 730 (Gujarat)

Age: 33 years , Education: 10<sup>rd</sup> Standard , Size of Land holding: 7.5 Acre

#### Plan, Implement and Support

By some sources, she came to know about some welfare schemes for tribal. Sadadmal was adopted by KVK of the district. A series of Horticulture activities like meetings, trainings, kisan gosthis, field visits and visit to a progressive farmer's field has been started by KVK scientists. Anjanaben had decided to sown bittergourd to 0.20 hectares area. They often faced so many troubles for proper guidance. In the beginning she was not known about scientific cultivation of bittergourd. She started to visit the KVK in order to get the guidance for cultivation of bittergourd. Horticulture scientist of KVK was impressed to see her keen interest in Bittergourd cultivation and other horticultural crop. The Scientist of KVK started a series of activities i.e. training, demonstration, exposure visit etc to deal with the existing problems and observed a positive impact.

#### Output

At present, Anjanaben has adopted scientific concepts of cultivation of bittergourd and other horticultural crop as per the suggestions given by KVK scientists. She has extended her farm and today she has adopted horticultural crops like Okra, Mango, Brinjal and Indian bean. She uses proper scientific cultivation practices as per the guidance provide by the scientists of KVK through training, demonstrations and very frequent farm and home visits.

#### Outcome

Due to adoption of improved practice, her constant efforts and hard work and timely support from KVK and other line departments, she could achieve very impressive growth in horticulture crop farming as per the table-1.

### Impact of KVK

1	Crop and variety	Bittergourd , var: Noor
2	Area in acre	20 guntha (0.20 hectare)
3	Crop spacing	1.5 x 1.0 metre
4	Field preparation & Cost of inputs used in cultivation	
i	Land preparation per 0.20 ha	Rs. 2800
ii	cost of seed per 0.2 ha	Rs. 4560
iii	Organic, In organic fertilizers and agro-chemicals. 0.20 ha	Rs. 7112
iv	Labour charge Rs. 150/labour/8 hours ( for sowing, mixing of FYM & fertilizer, weeding, for kachcha mandap structure, for plant protection, for harvesting, for packaging)	Rs. 10800
iv	Kachchaa pandal system per 0.20 ha	Rs. 12000
v	Total cost of land preparation & inputs = 6(i)+6(ii)+6(iii)+6(iv)	Rs. 37272
5	Yield: quintals per 0.20 ha (in quintals)	32
6	Average price per 20 kg fruits (Rs.)	Rs.900
7	packaging charge (Rs. 35/box)	Rs. 5600
8	Gross income per 0.20 ha (Rs.)	Rs. 144000
9	Cost of cultivation per 0.20 ha (All input cost + land preparation & other operations)	Rs. 42872
10	Net profit per 0.20 ha	Rs. 101128
11	Benefit cost ratio	3.35



For the success of horticultural farming in tribal areas she believes that it is due to intensive guidance provide by the Scientist of KVK, Mr. H. A. Prajapati as he considering me as a family member.

This impressive result of Horticultural farming turned Anjanaben Niteshbhai Dhoom & her husband from poor farmer to a happy progressive farmer. The success of dairy farming in resource poor areas is a unique example to generate the employment as well as empower the tribal economy in the country.

### Success story-3

#### Cashew yield enhancement through control of tea mosquito bug

V.K.Desai, H.A.Prajapati, N.M.Thesiya, J.B.Dobariya, D.B.Bhoi & N.N.Patel



Name of Villages: Dagadpada

Ta: Waghai

Dist: Dangs

Gujarat

Year: 2017-18

#### Before Contact with KVK, Waghai, Dangs

Farmers of the cluster villages of Dagadpada were given 20 grafts of cashew and mango to each farmer under vadi project. After raising of grafts the farmers encountered problem of tea mosquito bug during flowering season of cashew nut due to which loss of production and financial loss was incurred by farmers most of the farmers were small and marginal farmers. The farmers were thinking of cutting down the trees and plant some other remunerative crop and increase their income.

#### After KVK Intervention

Farmers of Dagadpada village approached KVK through Jamlapada Co-operative society to suggest some control measures. The village was situated 18 Kms away from Krishi Vigyan Kendra. The farmer of this village were resource poor with undulating fragmented land. Due to lack of technical know how about cashew crop, which was new crop to the area farmers were unaware of scientific cultivation of cashew crop. At this point Krishi Vigyan Kendra intervened the team of KVK scientist visited and trained the farmers regarding scientific plant protection in cashew nut. However the farmers were not ready to spent money due to fear of economic crop loss. The scientist (crop protection) decided to intervene at this point and give demonstration of recommended pesticides for the control of tea mosquito bug in cashew nut. Frequent visits were made to farmers field during the months of November, December and January to supervise spray of pesticides according to recommended dose.

As a result of intervention the farmers were able to harvest good amount of cashew nut with average of 20-25 Kg of raw nuts per tree.

#### Comparison of yield and economics:

SN	Particulars		
1	No. of Farmers	40	
2	Area (ha)	10	
3	Variety	Vengurla-4	
<b>Yield and economics:</b>			
SN	Particulars	Before KVK Intervention	After KVK Intervention
1	Cashew nut yield (kg/tree)	14	20-25
2	Gross cost (kg/tree)	900	1200
3	Gross return (kg/tree)	1260	2000-2500
4	Net Return (kg/tree)	360	800-1200
5	B:C ratio	1.4	2.08
6	Increase in yield (%)	-	42-78%

**Summary:**

Small and marginal farmers are at a disadvantage in the event of crop fail year due to biotic or a biotic stress due to the fear of economic crop loss they do not want to spend money on crop protection measures, however KVK scientist assured them of bumper yield if measures as per recommendation were adopted and accordingly farmers increase their production in the range of 42-78% and increased income of farmers giving them confidence in technologies demonstrated by KVK scientist.

## Success Story-4

### Title: Dairy Farming-A boon for socio-economic upliftment of tribal farmers

D.B.Bhoi, V.K.Desai, H.A.Prajapati, N.M.Thesiya, J.B.Dobariya, & N.N.Patel

#### Situation Analysis/Problem Statement

Niteshbhai Manubhai Dhoom is a farmer from Village Sadadmal, Taluka Waghai, District Dangs in Gujarat, educated up to M.A., B.A. and having 8.5 acre of land. His wife is also a farmer. They have two children a son and a daughter. Some how, they were earning their livelihood by practicing rain fed agriculture in their land. He was growing local and old varieties of Paddy, Vari and Ragi during Kharif season. He had two bullocks and two cows of local origin. These animals were a burden rather than a source of income due to the meagre productivity, however the bullocks were used for the agricultural operations. Under such situation, it was difficult to sustain house hold food and nutritional security of his family. Therefore, he was in search of some alternate sources of income.



**Niteshbhai Manubhai Dhoom**

Village: Sadadmal, Taluka-Waghai, District Dangs -394 730 (Gujarat)

Age: 38 years , Education: M.A. , Size of Land holding: 8.5 Acre

## Plan, Implement and Support

By some sources, he came to know about some welfare schemes for tribal in the district panchayat. First of all he visited a co-operative dairy in a nearby village and he also decided to start it in his village. But for that he has to convince his villagers. Meanwhile his village, Sadadmal was adopted by KVK of the district. A series of animal husbandry activities like meetings, trainings, kisan gosthis, scientists interaction, method demonstrations, field visits, visit to a dairy co-operative has been started by KVK scientists. Niteshbhai, her wife Anjanaben and other interested farmers had purchased one HF cross-bred cow worth Rs. 35,000/- by receiving loan with 50% subsidy. They also started a village dairy co-operative. As cross bred cow was a new enterprise for them, they often faced so many troubles for proper guidance. In the beginning he was not able to maintain the proper health of his animals. He started to visit the KVK in order to get the guidance for maintaining the dairy animals. Animal scientist of KVK, Dr.D.B.Bhoi was impressed to see his keen interest in dairy farming. It was found that the farmers of this village were rearing the animals with traditional method, imbalance in use of feeds and fodder as well as facing the chronic problem of anoestrus, repeat breeder and poor growth. The Scientist of KVK started a series of activities i.e. training, demonstration, exposure visit etc to deal with the existing problems and observed a positive impact.

## Output

At present, Niteshbhai has adopted scientific concepts to rear his animals as per the suggestions given by KVK scientists. He has extended his farm and today he owned 9 milking HF crossbred cows, 4 heifers, 1-buffalo and 5 calves. He has constructed a pakka house with manger and water tank. He uses proper concentrate feed, a mixture of green and dry fodder, mineral mixture, timely vaccination, deworming and diagnosis as per the guidance provide by the scientists of KVK through training, demonstrations and very frequent farm and home visits.

Not only that, he started a mini bio-gas plant in his backyard with a subsidy received from the animal husbandry department. He is using the same in his kitchen and able to save plenty of money.

Apart from being a dairy entrepreneur, he took a training on Artificial Insemination from the Navsari Agricultural University, and now a days he has become a most successful artificial inseminator in his block Waghai giving about 60-75 per cent result in the form of successful conception. So, by this way he has proved himself not only a dairy man but also an entrepreneur and a very good service provider.

## Outcome

Due to adoption of improved husbandry practices, his constant efforts and hard work and timely support from KVK and other line departments and Vasudhara dairy he could achieve very impressive growth in dairy farming as per the table-1.

## Impact of KVK

Sr. No.	Particulars/ Items	Before KVK intervention	After KVK intervention
1	Animals own	2-Desi cows 2- Desi Bullocks	9- HF cows 4-Heifers 5 - Calves (HF) 1-Buffalo 2- Bullocks 25 poultry birds
2	Vaccination & De-worming	Not proper	Regular
3	Milk production (day)	Initial 1.5 lit/day	Average-10.5 lit/cow/day He could sold milk of about

			66 lit/day i.e. highest income up to Rs. 45,000/- per month
4	Highest milk production per animal per day	2.0 lit/day	Up to 22 lit/day/animal
5	Anoestrus and repeat breeder problems	Yes	No
6	Inter-calving interval	More than 2 yrs	12-16 months
7	Service period	Average-170 days	93 days
8	No. of service per conception rate	7-8	1-2
9	Growth of calves and heifers	Poor	Good
10	Age of first calving	5-6 yrs	28-30 months
11	Economics enhancement Income per month(Net profit) Income through selling of self reared HF animals	Not good  Nil	Rs.25,000-30,000 per month  Planned in future
12	Modern assets in the house because of dairy farming	Nil	Freeze - 1 TV - 1 Telephone - 1 Motorcycle - 1(Hero Honda) Laptop-1
13	Bank loan	-----	Paying regularly
14	C.B. Ratio		1: 1.75

For the success of dairy farming in tribal areas he believes that it is due to intensive guidance provide by the Scientist of KVK, Dr.D.B.Bhoi as he considering me as a family member. In addition to this, humble support made by Vasudhara dairy as well as state government to provide subsidy for purchasing the cross bred cows and proper marketing facility and bio-gas plant, respectively.

At present he is paying an instalment of loan worth Rs. 5,000/- regularly to the bank. He feels that having good genetic potential and dairy characters of HF cross bred animals plays an important key role in dairy business. He also emphasized that after starting the dairy farming he need not to go anywhere for earning employment as well as he could make heimelf away from the money lender's clutch to satisfy his needs. Now he can easily manage his all needs and able to think in advance for the sake of better education to his children due to dairy farming and Artificial Insemination business.

This impressive results of dairy farming turned Niteshbhai Manubhai Dhoom & his wife from poor farmer to a happy progressive dairy farmer. The success of dairy farming in resource poor areas is an unique example to generate the employment as well as empower the tribal economy in the country.

## Success Story-5

### Prevention of malnutrition and generate Extra income through Kitchen Gardening N.N.Patel, D.B.Bhoi, V.K.Desai, H.A.Prajapati, N.M.Thesiya & J.B.Dobariya

#### 1. Situation Analysis/ problem statements:

Dang district is tribal and hilly belt of south Gujarat most of populations dependent on agriculture, animal husbandry and daily wages laborious job. It also consist forest and heavy rainfall area. Due to above reason farmers are not receiving good yield and production in agriculture. Here all farmers have small to medium land holding so, most of people live below poverty line. Tribal women also help in agriculture, animal husbandry and extreme cases have to work as migrant labour outside Dang district. There is no Industrial area in Dang so, after monsoon due to scarcity of water most of families are migrate to other district for their livelihood.

#### 2. Plan, Implement and Support:

KVK, Waghai gives On campus training on various aspects like Kitchen Gardening, value addition in fruits and vegetables, SHGs management, Balance Diet for various ages, Child and mother care, etc. Also encourage farm women for other income generating activities besides agriculture and animal husbandry.

One of the on campus training on Kitchen Gardening was carried out for farm women and ICDS workers during 2016-17 .KVK also conducted 50 kitchen garden demonstration under Home science discipline. Gave them seeds of 6-7 vegetables and seedling of Tomato, Brinjal, Chilly as a FLD input. Home scientist provide them technical and scientific knowledge and guidance for FLD. In which 25 rural middle age farm women and 25 ICDS workers were actively participated and successfully completed 4 days training conducted by KVK, Waghai. On behalf of them one ICDS worker had well prepared and scientifically maintained demonstration of kitchen garden at their home. She used some of vegetables in ICDS centre for preschool children's and her family's diet and some vegetables sale for earning extra income.

#### 3. Output:

On campus training class was attended by **Smt. Sitaben Kaalubhai Pawar (age: 42 yrs.), Aanganwadi worker of Chichinaganvtha village** before joining the class she grown 3-4 vine or cucurbiteous type vegetables in kitchen garden during only rainy season. because she don't know about importance and health benefits of kitchen garden. But, after joining the training she learnt many aspects for maintenance of kitchen garden, she also learnt line sowing, prepared individual bed for different vegetables. Sitaben herself work as Aanganwadi worker and her husband have very

small cultivated land area for farming and no any milch animals or any other sources for livelihood so, her husband do daily wages laborious job in wooden depo of forest department for income. During training she pay maximum time and effort in learn various aspect of kitchen garden. As a result after attending training she start to prepare kitchen garden around her home with the help of her son and husband. From well grown kitchen garden she regularly got fresh, Organic vegetables for daily use. She used some of vegetables in ICDS centre for preschool children's and her family's diet and some vegetables sale for earning extra income. Monthly she earn extra 1100- 1200/- Rs. Also save 1000/ Rs.- expend after vegetables. By using these vegetables in preparation of various recipe for preschool children at her ICDS center. By this reason she become able to improve nutritional status of her preschool children. her confidence become raise and very satisfied by this activity. Also feel some relax from the economic scarcity. She happily say that " I go ahead and ahead in this profession and pay my duty very honestly for preschool children.

#### 4. Outcome:

5-6 women from village had visited her kitchen garden and prepared kitchen garden at her home for family uses. Next year in 2017-18 there are 25 more ICDS workers become ready to prepare kitchen garden and they are benefitted by KVK, NAU, Waghai.

#### 5. Impact:

Sr. No.	Particulars	Before KVK intervention (2014-15)	After KVK intervention	
			2015-16	2016-17
1	<b>Kitchen Gardening</b>	Grown only 3-4 vine or cucurbiteous type vegetables like Cowpea, Indian bean, Bottle gourd and Sponge gourd	1).She include 8-9 vegetables in her kitchen garden like Brinjal, Okra, Chilly, Tomato, Pigeon pea, cluster bean, French bean, cabbage etc. with vine vegetables 2). She learnt line sawing and individual bed sawing. 3)Save 1000/- rupees vegetable expenditure monthly 4). Use vegetables for her family and also for preschool children of their Aanganwadi	1) She well establish kitchengarden with 11-14 types of vegetables including leafy and tuber vegetables like elephant yam, purpule yam, tapioca 2) She planted drumstick, papaya, Jackfruit, lemon, curry leaves, Custard apple etc. fruit plants 3) Also prepared compost pit for organic fertilizer for her kitchen garden 4) Get benefit of extra income
2	<b>Income (Rs. /month)</b>	-	1100/- to 1200/- per month	2000- 2500/- Rs. per month



### Success Story-6

**Resource conservation trough plastic mulch with drip irrigation**  
**J.B.Dobariya, N.N.Patel, D.B.Bhoi, V.K.Desai, H.A.Prajapati & N.M.Thesiya**

<b>Name and Address of the Farmer/ Other applicant</b>	Smt. / Shri Rajambhai Rogyabhai Gavit S/o Rogyabhai Laxmanbhai Gavit Postal Address with Pin code and State: At Divadiyavan, Post: Bhalkhet, Tal: Waghai, Dist: Dang, Gujarat, Telephone No. with STD Code: 9408574184 Mob No.9428219932	
<b>Date of Birth:</b>	01-01-1940	
<b>Qualifications:</b>	Nil	
<b>Total active farming experience:</b>	60 years	
<b>Size of holding:</b>	11-84-83 ha	

#### Situation Analyses

Shri Rajambhai Rogyabhai Gavit S/o Rogyabhai Laxmanbhai Gavit is a farmer of Village-Divadiyavan, Post: Bhalkhet, Tal: Waghai, Dist: Dang, Gujarat, uneducated and having 11.84 ha total land. He has 60 years of experience in farming. He has adopted integrated farming approach in his farm. He has managed more than 4 to 5 crops in same piece of land. He came in to contact with various line departments and KVK to collect scientific information related to new farming practices. Previously he was doing traditional farming. Due to frequently contact of KVK he has changed his

farming practices. Now a day he is sowing watermelon, brinjal and Groundnut crops with scientific methods.

**Information about Crops grown:**

Year	Crop	Variety (ies) and area		Income	Income from other Sources (Rs.)	Total Income (Rs.)
		Variety	Area (ha)			
2014-15	Paddy, water melon and brinjal	Raja-312, Suruchi, 25p25, Raja, 25 p 35 Watermelon : var, Patanegra(Hybrid)	3.30	147500/-	26000/-	173500/-
2015-16	Paddy, Watermelon	Watermelon : var, Patanegra(Hybrid)	3.0	227000/-	33571/-	260571/-
2016-17	Paddy, Watermelon and Groundnut	Paddy: 25p25, Raja, 25 p Watermelon : var, Patanegra(Hybrid)	5.50	505100/-	47000/-	552100/-

**Information about other subsidiary farming enterprises activities carried out:**

Subsidiary enterprises	Since when?	Income (Rs.)	Turnover (Rs.)
Dairy enterprise	2010		
2014-15	8 (No. of animal)	26000/-	220000/-
2015-16	10 (No. of animal)	33571/-	260000/-
2016-17	15 (No. of animal)	47000/-	380000/-

**Plan, Implement and Support**

By the help of KVK Scientist, he motivates to grow watermelon with mulching technology. In watermelon by mulching practices he got 80,000/- net benefit from half acre of land on the principal of seeing believes. Other farmers of the same village are adopting this practice. He has installed irrigation and mulching technology in his land by technical support from KVK scientists. He doesn't sale his agri. produce in local market but by transport he put his produce to Surat market and gets satisfactory prices. He came to know about some welfare schemes for tribal by some sources. He introduce high yielding hybrids and to motivate tribal farmers toward horticultural crops along with improvement in their socio-economical status.



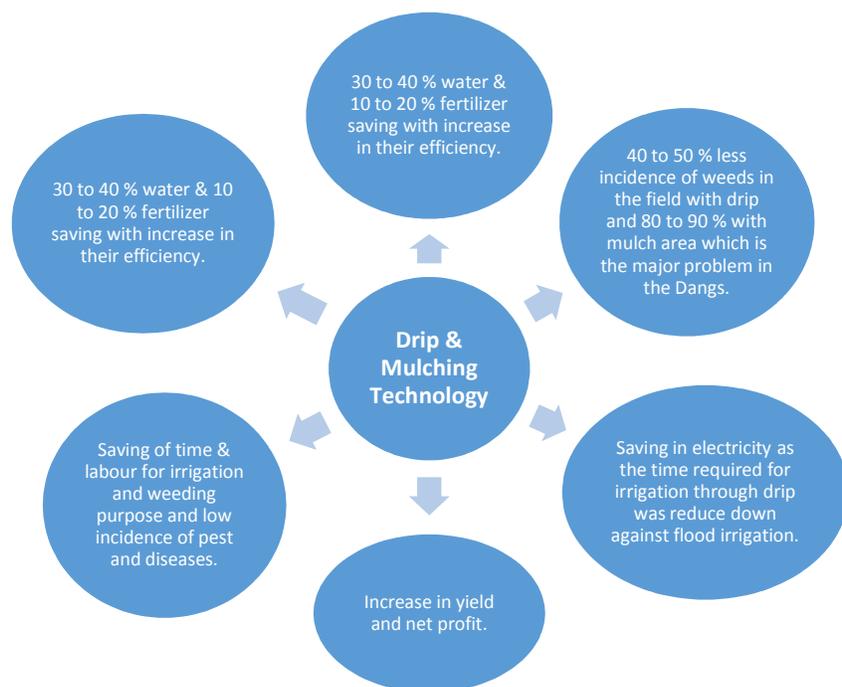
Activities of KVK like trainings, demonstration, field visit, scientist visit, krishi melas, film show, group meetings, kisan gosties, diagnostic services, animal treatment camps, etc., are also carried out in this village as per need and demand.

**List the innovations introduced for increased productivity and income at his farm**

Enterprise	Innovations introduced	Year	Source of innovation	Income increase/year
Irrigation	Drip Irrigation	2014-15, 2015-16	KVK, Dang. Krishi mela	Rs.200000/-
Mulching	Mulching with drip in water melon	2015-16	KVK, Dang. Krishi mela	Rs. 300000/-
Tomato	Telephone methods	2017-18	KVK, Dang. Krishi mela	Rs.200000/-

**A concise statement (about 150 words) highlighting the most significant contributions in terms of new package of practices/ management strategies/innovations or breaking yield barriers, saving of resources/inputs, prevention of outbreak of pests, etc.**

After getting success, He realizes the importance of drip and mulching and also motivated other farmers by making awareness about this technology. He now has also adopted drip irrigation and mulching practices banana on commercial basis. Presently he has considered as popular and progressive farmers in Waghai Taluka.



### Success Point:

The major problem of the other farmers in the village was the unavailability of irrigation water and drip installation company, whereas the farm of Shri Rajambhai Rogyabhai Gavit is around the bank of river where the water is available throughout the year and he decided to provide water for irrigation purpose to whole village but on condition of installing drip irrigation system in their fields.



### Future prospects/ Area of up-scaling

- The major impact was seen that the migration of farmers after monsoon was decline with increase in income of whole village. Now days, Shri. Rajambhai Rogyabhai Gavit is invited in various extension activities for farmers by KVK for sharing his experience about drip irrigation technology and for that KVK appreciates his efforts and interest in upliftment of farming community.
- Area under drip system at present in village is 40 ha out of total 60 ha cultivable area.
- No. of farmers family installed drip system at present are 45 as compared to 2 families earlier.

#### Any other relevant information in addition to already given.

#### Impact of technology

- Area of hybrid watermelon increase.
- Increase in income of farmers by Rs. 15000- 20000.
- Farmers adopted mulching technology and in subsequent seasons adopted the technology whole heartedly.
- Networking with potential buyers improved.

- Area under drip system at present in village is 40 ha out of total 60 ha cultivable area.

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

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

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

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

**A. Practicing Farmers**

- Organic farming
- Use of mulching with drip irrigation in mulching
- Organic protection measure

**B. Rural Youth**

- Bee keeping
- Mushroom production

**C. Farm mechanization**

- Use of various Agri apps

**C. In-service personnel**

- Use of bank credit in Agriculture
- Organic farming
- Pont for doubling farmer's income

**5.2. Indicate the methodology for identifying OFTs/FLDs**

**For OFT:**

- PRA (✓)
- Problem identified from Matrix
- Field level observations (✓)
- Farmer group discussions
- Others if any

**For FLD:**

- New variety/technology (✓)
- Poor yield at farmers level (✓)
- Existing cropping system (✓)
- Others if any

**5.3. Field activities**

- Name of villages identified/adopted with block name (from which year) -
- No. of farm families selected per village :
- No. of survey/PRA conducted :
- No. of technologies taken to the adopted villages
- Name of the technologies found suitable by the farmers of the adopted villages:
- Impact (production, income, employment, area/technological- horizontal/vertical)
- Constraints if any in the continued application of these improved technologies

**6. LINKAGES**

**A. Functional linkage with different organizations**

Name of organization	Nature of linkage
Navsari Agricultural University	Provides technical experts for various disciplines as well as practical training to the trainees during educational tour. Teaching at Agricultural college & politechnique of NAU, Waghai.
NAIP, ICAR	Technical support
Agricultural department, District Panchayat , Ahwa Dept. of Horticulture, Ahwa	Helps in organizing in service training for VLWs, khedut shibir and conducting sponsored training programme by receiving the grant from DAO Ahwa.
ATMA, Dangs	Technical support, joint organization of farmers fair.
FTC, Dangs, and Tapi	Technical support
Forest dept., South Dangs, Ahwa.	Helps in organizing van mahotsav, farmers training.
District Information Department, Ahwa.	Publish the activities in news papers.
Veterinary college, NAU, Navsari, Department of Ani. Husb., Ahwa Vasudhara dairy, Waghai	Organization of programme jointly- animal treatment camp, khedut shibir, calf rally etc.
Mahila samakhya, Ahwa.	They depute the SHG for training in the KVK.

District Watershed Development Agency, Ahwa	Training & technical advice.
Lotus foundation, Waghai, World vision, Waghai Rowadan trust, Ahwa, ICDS, AKRS (Agakhan)	Training & field demonstration.
Bhimrao Ambedkar Trust	Training & technical advice.
Naheru Yuva Kendra, Ahwa, Dang	Training & technical advice
Collectorate and District Development Officer, Dang	Election related activities, Krishi Mahotsava and other Government programmes.

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

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

SN	Name of Scheme	Budget Head	Grant Sanction (Lakh Rs.)	Expenditure made up to 31 <sup>st</sup> March-2018 (Rs.)
1	Strengthening of testing of University technologies through FLDs. Adaptive trial Phase-II.	12306-D	2,00,000/-	1,99,925/-
2	Mega Seed Project-TSP	2068-B	15,070/-	15,010/-
3	FLDs on Rabi Pulses, 2017-18 schemes (Director, ATARI, Pune /ICAR)	2088-B	76,942/-	76,845/-
4	Campus development programme On campus, KVK,Waghai	12712-5C	3,41,000/-	3,40,362/-
5	Cluster frontline demonstration on pulses funded under NFSM during 2017-18	2105-B	37,500/-	27,155/-
6	Sankalp Se Siddhi Programme, Waghai	18120-E	54,804/-	Grant not release up to date

**C. Details of linkage with ATMA**

a) Is ATMA implemented in your district Yes/No:--- Yes  
If yes, role of KVK in preparation of SREP of the district?

**Coordination activities between KVK and ATMA**

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings		04	02	
02	Research projects				
03	Training programmes	On campus training	08	08	
04	Demonstrations				
05	Extension Programmes				
	KisanMela				
	Technology Week		01		
	Exposure visit				

	Exhibition		01		
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
<b>06</b>	<b>Publications</b>				
	Video Films				
	Books				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				
<b>07</b>	<b>Other Activities (Pl. specify)</b>				
	Watershed approach				
	Integrated Farm Development				
	Agripreneurs development				

#### D. Give details of programmes implemented under National Horticultural Mission

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

#### E. Nature of linkage with National Fisheries Development Board

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

#### F. Details of linkage with RKVY

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

#### 7. Convergence with other agencies and departments:

KVK Name	Name of scheme	Name of Agency (Central/state)	Funds received (Rs.)	Activities organized	Operational Area	Remarks
KVK-Waghai	ATMA	State		25	Dang	--
	MNREGA	--			--	--
	NHM	State			Dang	--
	RKVY	State			Dang	--
	DRDA	State			Dang	--
	Zila Panchyat	State			Dang	--
	Seed Village	State		10	Dang	--
	NAIP	--			--	--
	Climate Change	--		2	--	--
	Others (Plz. Specify)	--			--	--
	DAO	State		5	Dang	-
	ADHO	State		4	Dang	-

#### 8. Innovator Farmer's Meet

Sl.No.	Particulars	Details
1	Are you planning for conducting Farm Innovators meet in your district?	Yes/ No
2	If Yes likely month of the meet	Yes
3	Brief action plan in this regard	We want to meet on SHG in the village nadagkhadi, Tal-Ahwa. The group makes biscuit from the Figure millet flour and takes good income. This is a good source of value addition of figure millet.

#### 9. Farmers Field School (FFS)

S. No	Thematic area	Title of the FFS	Budget proposed in Rs.
1	Income generation	Doubling the farmers income	75000/-

### 10.1. Technical Feedback of the farmers about the technologies demonstrated and assessed:

S. N	Discipline	Feed Back
1	Agronomy	GG-2 variety of gram gave excellent yield under conserve moisture
2		GNN 6 is good variety of finger millet for higher yield.
3		GNP 2 is excellent variety of pigeon pea for seed & vegetable purpose.
4		GNR 6 excellent short duration variety but susceptible to lodging.
5	Horticulture	Use of Plastic mulch is increase the production in watermelon
6		AFLR variety of onion gave a high production then local check.
7		GAO-5 variety contain a fruits which are attractive due to its large shape and size but customer and merchants prefer a small size with a dark green color, so GAO-5 fetch a low price.
8		Need to develop proper marketing channel for Turmeric.
9		Problem of yellow vein mosaic virus was reported in okra.
10	Plant protection	List of recommended insecticides and weedicides for organic farming
11		Trap similar to Nauroji fruit fly trap for Tea mosquito bug.
12	Livestock prod.	RIR poultry breed is best suited for backyard poultry farming in Dangs.
13		Feeding bypass fat along with mineral mixture in cross breed cattle resulted increase milk production and better health.
14	Home Science	Finger millet biscuit is easily prepare by minimum available food material at home
15		Nutritional status and health is improved by feeding of Finger millet biscuit in preschool children
16		Through kitchen garden maximum utilization of backyard space and waste water
17		Before demonstration farm women were growing only 3 or 4 vegetables mostly wine vegetables in their backyard, after demonstration they start growing 6 to 8 types of vegetables other than vine vegetables in scientific way.
18		Through Kitchen garden they get benefit of fresh and organic vegetables at low cost.
19	Extension Education	Want to meet Traveling allowance for attaining on campus training.

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

S. N	Discipline	Feed Back
1	Agronomy	GNR 6 need to lodging resistance.
2		High yielding variety of gram suitable for Dang district required.
3	Horticulture	Navsari Turmeric 1 variety is not infected by Rhizome rot disease.
4		Suitable variety of okra required.
5		Research on marketing & price fluctuations in vegetables & fruit crops.
6	Plant protection	Need to develop Traps for pests of rice, pulses, mango & cashew nut.
7		Development of false smut resistant variety of rice.
8		Tolerant/resistant variety of cashew nut to tea mosquito bug
9		Pest disease control measures for organic farming
10	Livestock prod.	Frozen semen doses for A.I. should be developed for Dangi cows.
11		Immediate measures must be taken for conservation of local Dangi cattle breed as there is meager number of animals available in its own breeding track of Dangi cattle.
12	Home Science	Extra income generated by selling extra vegetables grown in Kitchen garden.
13		Improved suruchi sickle help to reduce drudgery in terms of time, work efficiency and physical hazard.
14	Extension Education	Need to develop proper post harvest chain from farm to market.
15		Increase the convergence among different department through strong coordination.
16		Farmer are able & trained to take soil sample from its own soil .

## 11. Technology Week celebration during 2017-18 Yes/No, If Yes

Period of observing Technology Week: From 19-02-2018 to 22-02-2018

Total number of farmers visited : 202

Total number of agencies involved : 05

Number of demonstrations visited by the farmers within KVK campus: 15

### Other Details

S. N.	Day/ Date	Thematic area	Topic / Technology covered	No. of participants		
				M	F	T
1	First 19-02-2018 Monday	High tech horticulture and organic farming training cum awareness programme	<ul style="list-style-type: none"> <li>➤ Organic farming</li> <li>➤ Vermicomposting</li> <li>➤ Bio-fertilizers &amp; bio-pesticide</li> <li>➤ Use of banana sap</li> <li>➤ Protected Cultivation</li> <li>➤ Drip &amp; Mulching</li> <li>➤ WadiYojana</li> </ul>	00	39	39
2	Second 20-02-2018 Tuesday	Training and dairy farming workshop	<ul style="list-style-type: none"> <li>➤ Feeding management in milking animals</li> <li>➤ Schemes of animal husbandry in dang district</li> <li>➤ Clean milk production</li> <li>➤ Future and present status of animal husbandry business in dang district</li> <li>➤ Precautions during calving</li> <li>➤ Importance of vaccination and deworming</li> <li>➤ NABARD scheme to purchase dairy animal</li> <li>➤ Organic farming in pulses</li> <li>➤ Importance of Kitchen gardening for to overcome malnutrition</li> </ul>	06	33	39
3	Third 21-02-2018 Wednesday	Women Empowerment workshop	<ul style="list-style-type: none"> <li>➤ Formation of SHGs and its importance</li> <li>➤ Management, registration and role of DRDA in formation of SHGs</li> <li>➤ Role of SHGs in home scale business</li> <li>➤ Bank loan to SHGs</li> <li>➤ Conservation of water and soil</li> <li>➤ Role of women in Poultry farming</li> <li>➤ Progressive &amp; entrepreneur farmers talk</li> <li>➤ Role of women in plant protection</li> <li>➤ I-Kisan&amp; ATMA information</li> </ul>	0	31	31
4	Fourth 22-02-2018 Thursday	Organic farming workshop	<ul style="list-style-type: none"> <li>➤ Quality seed production</li> <li>➤ Pulse production by organic farming</li> <li>➤ Soil health card</li> <li>➤ SRI technology of Paddy</li> <li>➤ Organic farming in cereal crops</li> <li>➤ Disease and pest management in rabi crops</li> <li>➤ Pradhan MantriFasalBimaYojana</li> <li>➤ Importance of De worming in animal</li> <li>➤ State &amp; Central Government Schemes for the farmers</li> </ul>	30	10	40
5	Fifth 23-02-2018 Friday	Farmer training cum awareness programme on plant protection in organic farming	<ul style="list-style-type: none"> <li>➤ Organic farming and plant protection in pulse crops</li> <li>➤ Organic farming and plant protection in cereal crops</li> <li>➤ Integrated pest/disease management in rabi crops</li> <li>➤ Information of organic product release by NAU, Navsari</li> <li>➤ Self employment by mushroom farming</li> <li>➤ Honey bee production</li> <li>➤ KVK is a farmer temple</li> </ul>	52	01	53

			<ul style="list-style-type: none"> <li>➤ Importance of Vaccination in animals</li> <li>➤ “Times” importance matter for farm management</li> <li>➤ Importance of self help group</li> </ul>			
<b>Total</b>				<b>88</b>	<b>114</b>	<b>202</b>

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

### A. Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries

### B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
<b>Total</b>		

### C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No.of participants
<b>Total</b>			

### D. Animal health camps organized

State	Number of camps	No.of animals	No.of farmers
<b>Total</b>			

### E. Seed distribution in drought hit states

State	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
<b>Total</b>				

### F. Large scale adoption of resource conservation technologies

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers

<b>Total</b>			
--------------	--	--	--

G. Awareness campaign

State	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers
<b>Total</b>												

### 13. IMPACT

#### A. Impact of KVK activities (Not to be restricted for reporting period).

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

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

#### B. Cases of large scale adoption (Please furnish detailed information for each case)

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

### 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 2017	02	2883	--
May	02	1541	--
June	04	4765	--
July	03	3837	--
August	08	10352	--
September	04	4581	--
October	00	00	--
November	01	1151	--
December	02	2497	--
January 2018	--	--	--
February	--	--	--
March	--	--	--

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
	Text only	13	--	--	--	05	08	26
	Voice only							
	Voice & Text both							
	<b>Total Messages</b>	<b>13</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>05</b>	<b>08</b>	<b>26</b>
	<b>Total farmers Benefitted</b>	<b>1554</b>	<b>8</b>	<b>-</b>	<b>-</b>	<b>6732</b>	<b>9327</b>	<b>31607</b>

### 15. PERFORMANCE OF INFRASTRUCTURE IN KVK

**A. Performance of demonstration units (other than instructional farm)**

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

**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.)	
				Variety	Type of Produce	Kg	Cost of inputs	Gross income
<b>Cereals</b>	--	--	--	--	--	--		
Gram	19/12/16	12/04/17	0.60	GG 2	Truthful Seed (TF)	895		
Green gram	19/12/16	02/05/17	0.40	CO-4	Truthful Seed (TF)	340		
Green gram	15/02/17	20/05/17	2.20	GAM-5	Truthful Seed (TF)	900		
Paddy	15/06/2016	10/10/2017	1.30	GR 7	Certified	5088		
Paddy	15/06/2017	01/10/2017	1.00	IR-28	Certified	2870		
Paddy	15/06/2017	01/10/2017	1.00	GNR-6	Truthful Seed (TF)	2185		
Little millet	20/06/2016	10/10/2017	0.20	GV 2	Truthful Seed (TF)	305		
Turmeric	15/06/2017	25/02/2017	0.20	Sugandhum, Kesar, NVST-1	Truthful Seed (TF)	280 100 150		
Mango	-	-	0.6	Kesar	General	100		
				Rajapuri	General	60		
				Totapuri	General	680		
				Amrapali	General	160		
				Vasibadami	General	150		
				Dasheri	General	360		
				Deshi	General	280		
Brinjal-seedling	--	--	0.04	DPR	--	3645 Nos		
Tomato	--	--		--	General	1105		
Capsicum	--	--		--	General	1005 (Plant)		

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

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

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

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

#### E. Utilization of hostel facilities

Accommodation available (No. of beds):

S. No.	Programme	No. of days
1	April 2016 to December 2016	Hostel facilities provided to Agriculture college, NAU, Waghai for students hostel purpose.--

#### F. Database management

S. No	Database target	Database created

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

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 Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		

### 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	--	--	--	--	--	--	--
With KVK	Stat Bank of India	Waghai, Dangs	SBIN0014992	Programme coordinator, NAU, Waghai	10692111061	394002508	SBIN0014992

#### B. Utilization of KVK funds during the year 2017-18 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure

<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	69,52,000/-	69,52,000/-	71,41,041/-
2	<b>Traveling allowances</b>	75,000/-	75,000/-	45,523/-
3	<b>Contingencies</b>	15,57,000/-	15,57,000/-	15,41,065/-
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			6,07,075/-
B	POL, repair of vehicles, tractor and equipments			2,11,676/-
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			1,56,268/-
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			9618/-
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			4,00,000/-
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			144686
G	Training of extension functionaries			11,742/-
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
<b>TOTAL (A)</b>		<b>85,84,000/-</b>	<b>85,84,000/-</b>	<b>67,27,629/-</b>
<b>B. Non-Recurring Contingencies</b>				
1	<b>Works</b>			
2	<b>Equipments including SWTL &amp; Furniture</b>			
3	<b>Vehicle</b> (Four wheeler/Two wheeler, please specify)			
4	<b>Library</b> (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>		--	--	--
<b>C. REVOLVING FUND</b>		--	--	7,49,131/-
<b>GRAND TOTAL (A+B+C)</b>		<b>85,84,000/-</b>	<b>85,84,000/-</b>	<b>74,76,760/-</b>

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

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2015 to March 2016	41,51,463/-	8,33,021/-	21,45,553/-	11,38,941/-
April 2016 to March 2017	11,38,941/-	49,52,897/-	7,40,893/-	53,50,935/-
April 2017 to March 2018	53,50,935/-	25,63,645/-	7,49,131/-	71,65,449/-

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

Sr.No	Date	Title	Type	Place	Attaining person
1	21,22-04-2017	National Seminar on Extension Plus: Expanding Horizons of Extension for Holistic Agricultural Development	Seminar	Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, Gujarat	J.B.Dobariya
2	20-05-17	Proper handling of soil testing machine	Training	ATARI, Jodhpur	N.M.Thesiya
3	03-05-17	TSP meeting of KVKs working in tribal area	Meeting	ATARI, Jodhpur	V.K.Desai
4	09 to 12-06-2017	Annual Review workshop of all KVKs	Workshop	JAU, Junagadh	V.K.Desai
5	07 & 08-06-2017	National workshop on empowering farmers of tribal areas	Workshop cum exhibition	NASC complex, New Delhi	J.B.Dobariya
6	13-06-17	ATMA review meeting	Meeting	Jila Panchayat, Ahwa, Dang	J.B.Dobariya
7	05-07-2017	Monthly Meeting	Meeting	Navsari	V.K.Desai
8	27-06-2017 to 17-07-2017	"Farmer's Empowerment and entrepreneurial development in food technologies for sustainable Agriculture	Summer school training	Ludhiana, Punjab	N.N.Patel
9	11 to 13 -07-2017	Communication skill for effective extension services	Workshop	ATIC, NAU, Navsari	J.B.Dobariya
10	26-07-2017	Seed village	Meeting	NAU, Navsari	V.K.Desai
11	14-08-2017	GST	Meeting	NAU, Navsari	V.K.Desai
12	29-07-2017	Celebration of Mahila Shasaktikaran Pakhvada	Meeting	Collector office, Ahwa	N.N.Patel
13	22-09-2017	Pay implement of 7th pay commission	Training	Navsari	V.K.Desai
14	05-09-2017 to 25-09-2017	Developing Strategies for doubling farm income in low rainfall areas	Summer School	CAZRI, Jodhpur, Rajasthan	J.B.Dobariya
15	05-10-17	Organic farming in dang district	Meeting	Navsari	V.K.Desai
16	12-10-17	Organic farming	Meeting	Ahwa	V.K.Desai
17	26-10-17	Election meeting	Meeting	Ahwa	All staff
18	08-11-17	Election meeting	Meeting	Ahwa	All staff

19	09-11-17	Election Training	Training	Ahwa	All staff
20	12-11-17	Election Training	Training	Ahwa	All staff
21	22-11-17	Election meeting	Meeting	Ahwa	All staff
22	24-11-17	Election Survey	Survey	Ahwa	All staff
23	11-11-17	VVPAT Demonstration in various village level for election awareness	Demonstration	Ahwa	All staff
24	27-11-17	General assembly Election 2017	Election Training	Ahwa	All staff
25	28-11-17	General assembly Election 2018	Election Training	Ahwa	All staff
26	29-11-17	General assembly Election 2019	Election Training	Ahwa	All staff
27	06-12-17	General assembly Election 2020	Election Survey	Ahwa	All staff
28	07-12-17	General assembly Election 2021	Election meeting	Ahwa	All staff
29	08-12-17	General assembly Election 2022	Election duty	Ahwa	All staff
30	09-12-17	General assembly Election 2023	Election duty	Ahwa	All staff
31	22-01-18	ATMA-AGB meeting as a PC	Meeting	Ahwa-Dang	D. B.Bhoi
32	03-01-18	ATMA convergence and KVKs review meeting attended	Review meeting	ATIC, NAU, Navsari	N.N.Patel
33	25-01-18	Celebration of the 15 the anniversary of Kisan call center	Programme	Gir foundation Hall, Indor park, Gandhinagar	J.B.Dobariya
34	10-01-18	Review meeting of Technology week	Meeting	KVK, Waghi	All staff
35	19-02-2018	Soil health card meeting	Meeting	District Panchayat, Ahwa	N.M.Thesiya
36	29 to 31-01-2018	CFLDs	Workshop	DEE, NAU, Navsari	N.M.Thesiya
37	02-08-18	28th ZREAC	Meeting	NAU, Navsari	H. A.Prajapati, V.K.Desai and J.B.Dobariya
7	15-02-2018	14th AGRESCO of Social Science group	Meeting	RAWE Hall, Ext. Dpt. N.M.C.A., NAU, Navsari	J.B.Dobariya and N.N.Patel
	26-02-2018	8 <sup>th</sup> Board Of Studies meeting (Social Science)	Meeting	RAWE Hall, Ext. Dpt. N.M.C.A., NAU, Navsari	J.B.Dobariya and N.N.Patel
	02-09-18	Biodiversity and Conservation	Workshop	Waghai Agricultural College, Waghai, Dangs, Gujarat	All staff
	5-6/03/2018	NRM AGRESCO	Meetin	N.A.U, Navsari	N.M.Thesiya
	06-03-18	Meeting for the Preparation of DAP, SAP & SIDP for the year 2017-18 to 2019-20	Meetin	SSK hall, N.A.U, Navsari	H. A.Prajapati and

		Navsari			J.B.Dobariya
	06-03-18	Annual action plan 2018-19 review meeting held at Navsari	Meetin	SSK hall, N.A.U, Navsari	H. A.Prajapati and J.B.Dobariya
	20-03-18	Meeting for the Preparation of DAP, SAP & SIDP for the year 2017-18 to 2019-20 held at Ahwa	Meetin	Jila Panchayat, Ahwa	H. A.Prajapati and J.B.Dobariya
	12-03-18	Scientific Advisory Committee meeting held at KVK, Waghai	Meetin	KVK, Waghai	All staff
	22 & 23-02-2018	AGRESCO meeting of Horticulture	Meetin	N.A.U, Navsari	H. A.Prajapati
	16 & 17 -03-2018	Biennial national conference of KVK	Conference	New Delhi	V.K.Desai
	27-03-18	PPV & FRA workshop	Workshop	NAU, Navsari	D. B.Bhoi and N.N.Patel

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

**Technical project was concluded in the 14 the AGERESCO of social science group**

**1) Title: Knowledge regarding micro finances among members of self help group. (Concluded)**

**Investigator :** Mrs. N.N.Patel, Scientist (Home Science)

Mr. J.B.Dobariya, Scientist (Extension Education)

Mr. V.K.Desai, Senior Scientist & Head, KVK, Waghai, Dang.

**Background:**

KVK is the Farm Science Center with multidisciplinary aims to transfer the latest technology to farmers in the district. Recently, empowerment of women has been central issue in determining the status of women. Recognizing importance of women as a new approach to the whole concept of women empowerment and over the country SHGs sprang up. The basic objective of SHG is to develop the saving capacity among the poorest sections of the society which in turn reduces dependence on financial institutions and develop self reliance, self confidence, social and economic empowerment among women member. Member of the SHG are frequently contact to bank for his saving and credit purpose. It is necessary that member of SHGs having knowledge of Agricultural credit given by the various bank. It is felt to determine the extent of knowledge of micro finances, also studying their profile and its correlation with their knowledge level.

**Objectives:**

- 1) To study the selected characteristics of the respondent
- 2) To known knowledge of SHGs member regarding Micro finances.
- 3) To know attitude of SHGs members toward micro credit

**Methodology:**

The present study was conducted in dang district of Gujarat. For the purpose of this study, 15 Villages of Waghai, Ahwa and Subir taluka were selected purposively from dang district to conduct the study by following the random sampling methods. A total sample of 150 respondents, 10 (One SHGs)

from each village was selected at random for the study with the help of random sampling methods. The information of each respondents was collected with the help of pre tested, structured interview schedule by personal interview. The collected data were analyzed and interpreted in the light of the objectives with appropriate statistical tools like percentage, rank, mean and standard deviation. From a block five SHGs was selected which were functioning for the last 3 year and which were linked to different commercial bank and NGOs.

### Findings:

The outcome of the present study has been presented here after applying the appropriate statistical analysis. The results have been described under the following sub heads in the light of the objectives of the study.

## 1 Socio-economic and personal characteristics of the respondents

The data regarding socio-economic and personal characteristics of respondents were analyzed and presented in the following sequence.

### 1.1 Age

The respondents were asked to indicate their age in completed year. Age refers as the number of years completed by an individual at the time of collection of information. The data in this regards were grouped into three categories viz; (i) Young age (up to 35 years), (ii) Middle age (36 to 50 years) and (iii) Old age (Above 50 years). The data collected about their age are presented in table 1.

**Table 1: Distribution of respondents according to their age (n= 150)**

Sr.	Age groups	Category of SHG member	
		Number	Per cent
1	Young age	81	54
2	Middle age	65	43.33
3	Old age	4	2.67
	<b>Total</b>	<b>150</b>	<b>100</b>

It is clear from the data in the Table 1 that more than half (54 per cent) of the respondents were in the young age group. The respondents found in middle and old age group were 43.33 per cent and 2.67 per cent, respectively.

### 1.2 Education

Education plays an important role in bringing out desirable changes in human behavior in the form of knowledge, skill and attitude. Education is valued as means of increasing level of knowledge and information. Keeping this in view, the level of education of the respondents was studied. The data in this regards was collected and grouped as; Illiterate, Primary level of education (1<sup>st</sup> to 7<sup>th</sup> standard), Secondary and Higher secondary level of education (8<sup>th</sup> to 12<sup>th</sup> standard) including diploma and College level of education (above 12<sup>th</sup> standard). The data in this regards are presented in table 2.

**Table 2: Distribution of respondents according to their education (n= 150)**

Sr.	Level of education	Category of SHG member	
		Number	Per cent
1	Illiterate	39	26.00
2	Primary level of education	63	42.00

3	Secondary and Higher secondary level of education	46	30.67
4	College level of education and above	02	1.33
	<b>Total</b>	<b>150</b>	<b>100</b>

It becomes clear from the data in table 2 that slightly less than half (42.00 per cent) of the respondents were found to have primary level education. The respondents from secondary and higher secondary level of education and illiterate education category were 30.67 and 26.00 per cent, respectively. Very few respondents (1.33 per cent) were found having college and above level of education.

### 1.3 Annual Income

This was operationalized as the annual income of the respondent's obtained from various sources. It was categorized and scored as followed.

**Table 3: Distribution of respondents according to their Annual Income (n= 150)**

hadSr.	Annual income	Category of SHG member	
		Number	Per cent
1	Low (below Rs. 25000/-)	133	88.67
2	Middle (Rs. 25000-50000/-)	14	9.33
3	High (Rs. Above 50000/-)	3	2.00
	<b>Total</b>	<b>150</b>	<b>100</b>

It is evident from Table 3 that majority (88.67 %) respondent had low level of income below 25000/-, where 9.33 and 2.00 per cent of them had Rs. 25000/- to 50000/- and above 50000/- income respectively. This finding indicates that majority of the respondent had low level of economic status.

### 1.4 Social participation

It was conceptualized as the degree of involvement of an individual in various as a member or as an office bearer. It was empirically measured by using the procedure followed by Hardikar (1998). One score was assigned to member, while, two score was given for regular participation and one score was assigned for occasional participation in the activities of each organization.

**Table 4: Distribution of respondents according to their social participation (n= 150)**

Sr.	social participation	Category of SHG member	
		Number	Per cent
1	Low = less than (X - SD)	23	15.33
2	Medium = (X - SD) to (X + SD)	100	66.67
3	High = more than (X + SD)	27	18.00
	<b>Total</b>	<b>150</b>	<b>100</b>
	<b>Mean</b>	<b>2.8266</b>	
	<b>SD</b>	<b>0.9949</b>	

The data furnished in Table 4 indicated that majority of the respondent (66.67%) had belonged to medium level of social participation followed by higher (18.00%) and low (15.33 %) respectively.

### 1.5 Mass media exposure

In order to assess the extent of use of mass media by the respondents, different mass media were listed and the respondents were asked to state as to how often they use these mass media.

The data was quantified by assigning the score as detail below, and presented in frequency and percentage.

Items	Score
Regularly	2
Occasionally	1
Never	0

**Table 5: Distribution of respondents according to their mass media exposure (n= 150)**

Sr.No	Media	Regular		Occasional		Never	
		Number	<i>Per cent</i>	Number	<i>Per cent</i>	Number	<i>Per cent</i>
1	Television	85	<b>56.67</b>	65	<b>43.33</b>	0	<b>00</b>
2	Radio	0	<b>00</b>	9	<b>6.00</b>	141	<b>94.00</b>
3	News paper	3	<b>2.00</b>	50	<b>33.33</b>	97	<b>64.67</b>
4	Magazine	0	<b>00</b>	50	<b>33.33</b>	100	<b>66.67</b>
5	Others	0	<b>00</b>	1	<b>0.67</b>	149	<b>99.33</b>

The result present in the Table 5 projected that the television viewing was found to be regular amongst 56.67 per cent and occasional among 43.33 percent. No any person those who have not see television in a year.

The result present in the Table 5 projected that majorities of the respondent (94.00 %) did not listen to radio. Of the remaining, 6.00 per cent listened occasionally and no any person of them listened regularly.

Regular news paper reading was very poor with only 2.00, while 33.33 per cent were occasionally, While the remaining 64.67 per cent of them never reading the news paper. The same result found in reading of the magazine that no any person reading regularly. 33.33 percent respondent read magazine occasionally and 66.67 percent respondent never read magazine. About 99.33 percent respondents have not reading any other material as a media.

### 1.6 Achievement Motivation

For the quantification of this variable, the scale followed by Hardikar (1998) was used. The scale consist of 7 statements, to be rated on a 3 point continuum namely agree, undecided and disagree with a score of 3, 2 and 1, respectively.

The possible scores one could get varied from 7 to 21. Considering the score obtained the respondent was classified into 3 categories as detail below.

**Table 6: Distribution of respondents according to their level of achievement motivation n=150**

Sr.	Level of Achievement Motivation	Category of SHG member	
		Number	Per cent
1	Low level of achievement motivation, Below (X - SD)	22	14.67
2	Medium level of achievement motivation Between (X - SD) and (X + SD)	108	72.00

3	High level of achievement motivation, Above (X + SD)	20	13.33
	<b>Total</b>	<b>150</b>	<b>100</b>
		<b>Mean=17.79</b>	
		<b>SD=1.97</b>	

A critical perusal of the data furnished in Table 6 portrays that majority of respondents (72.00%) had medium achievement motivation, followed by higher (14.67%) and meager in low category (13.33%).

### 1.7 Risk orientation

Risk orientation was operationally defined as the degree to which the respondent is oriented towards risk and uncertainty in facing problems in performance of economic activity.

Suppe (1969) developed a scale for measuring risk orientation. The same was used in the present investigation. The scale contained 6 statements of which first and fifth are negatively keyed. They are arranged on a 3 point continuum of agree undecided and disagree with a scoring of 3, 2 and 1 for positive and reverse for negative. The possible range of scores was from 6-18. Based on the scores, the respondents were categorized into three groups by adopting exclusive class interval stage.

**Table 7: Distribution of respondents according to their level of Risk orientation n=150**

Sr.	Level of Risk orientation	Category of SHG member	
		Number	Per cent
1	Low level of risk orientation (6 to 9 range)	01	0.67
2	Medium level of risk orientation (10-13 range)	21	14.00
3	High level of risk orientation (14-18 range)	128	85.33
	<b>Total</b>	<b>150</b>	<b>100</b>

A glance at Table 7 revealed that majority of the respondent (85.33%) had higher level of risk orientation, followed by medium (14.00%) and only (0.67 %) respondent had low level of risk orientation.

### 1.8 Market orientation

It refers to the knowledge about marketing conditions, prices, expected demand, mode of transportation, grading and storage, etc by women of self help group. The variables were measured by an index comprised of six statements and answer was obtained as Yes or No. Yes had 2 scores and No had 1 score. Maximum possible score was 42 and minimum was 6. Following three categories were formed on the basis of scores obtained by the respondents.

**Table 8: Distribution of respondents according to their level of Market orientation n=150**

Sr.	Level of Market orientation	Category of SHG member	
		Number	Per cent
1	Low level of market orientation (6-18 score)	149	99.33
2	Medium level of market orientation (19-30 score)	01	0.67
3	High level of market orientation	0.0	0.0

	(31-42 score)		
	<b>Total</b>	<b>150</b>	<b>100</b>

Table 8 presents data regarding market orientation of respondents. It shows that out of total respondents, 99.33 % respondent had low level of market orientation, while 0.67 % had medium and no any respondent had high level of market orientation. The result shows that there is very low knowledge regarding market and its function among respondent.

## 1.9 Saving

This was the saving done by the member in the SHG account and entered into pass book of SHG during last 12 months. This was measured in terms of rupees. The respondents were categorized into following categories.

**Table 9: Distribution of respondents according to their level of saving** **n=150**

Sr.	Saving	Category of SHG member	
		Number	Per cent
1	Low level of saving, Below (X - SD)	10	6.67
2	Medium level of saving Between (X - SD) and (X + SD)	130	86.66
3	High level of saving, Above (X + SD)	10	6.67
	<b>Total</b>	<b>150</b>	<b>100</b>
		<b>Mean=863.33</b>	
		<b>SD=411.44</b>	

It is evident from Table 9 that majority (86.66 %) respondent had medium level of saving; where the same Rank was given to low and high level of saving is 6.67 %. This finding indicates that majority of the respondent had medium level of saving between Rs. 451 to Rs.1274.

## 1.10 Group leadership

Is the process of providing focus and direction to a specific group of people. It is the degree of a member to control the other members of the group effectively. It was measured by using the procedure used for measuring leadership behavior by sherin (1998) with suitable modification for the present study. The modify index developed consisted of 8 statement relating to the role played by a leader in a group. The respondents were asked to give their responses on five point continuum as follows.

Response	Score
Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

The scoring was reversed in case of negative statements. The score obtained for each statement were summed up to arrive at the individual's total score of group leadership. Thus the score ranged from 8 to 40.

**Table 10: Distribution of respondents according to their group leadership** **n=150**

Sr.	Group leadership	Category of SHG member
-----	------------------	------------------------

		<b>Number</b>	<b>Per cent</b>
1	Low level of leadership (X - SD)	15	10.00
2	Medium level of leadership Between (X - SD) and (X + SD)	118	78.67
3	High level of leadership, Above (X + SD)	17	11.33
	<b>Total</b>	<b>150</b>	<b>100</b>
		<b>Mean=35.13</b>	
		<b>SD=3.64</b>	

A glance at Table 10 revealed that majority of the respondent of the group (78.67%) had higher level of leadership, followed by medium (11.33%) and (10.00 %) respondent had low level of leadership.

### 1.11 Awareness about micro finances

Awareness was measured with the help of structural interview schedule. The responses were collected for each scheme taken by the respondent in the three continuums viz. Do not aware, partially aware and fully aware and the scores of 0, 1 and 2 will be assigned. The scores of all the actions were added up to find out final score of awareness of the respondent towards micro finances. The respondent was classified in to three groups: viz low (below mean score-0.5 SD), Medium (mean +\_ 0.5 SD) and high (above mean + 0.5 SD).

**Table: 11 Distribution of respondents according to their Awareness about Microfinance: n= 150**

<b>Sr.</b>	<b>Level of Awareness about Microfinance</b>	<b>Category of SHG member</b>	
		<b>Number</b>	<b>Per cent</b>
1	Low level of Awareness about Microfinance, below (X - 0.5 SD)	29	19.33
2	Medium level of Awareness about Microfinance Between (X - 0.5 SD) and (X + 0.5 SD)	107	71.34
3	High level of Awareness about Microfinance (X + 0.5 SD)	14	9.33
	<b>Total</b>	<b>150</b>	<b>100</b>
		<b>Mean=25.40</b>	
		<b>SD=12.15</b>	

A look into Table 11 indicates that more than two third (71.34 %) of the member had medium level of awareness about microfinance , followed by 19.33 per cent with low level of awareness and 9.33 per cent with high level of awareness about micro finance. The result indicates that majority (90.34 %) of the member of self help groups had medium to high level of awareness about microfinance. The study reveals that most of the poor people of dang district are aware about micro saving schemes and also these schemes are the most opted for options amongst the targeted consumers.

### 1.12 Attitude towards microfinance

An attitude is often defined as a tendency to react favourable or unfavorable towards any objects. The attitude of the members towards micro finance was purposively studied to understand its relationship with possession of knowledge about micro finance. The respondent was classified in to three groups: viz low (below mean score-0.5 SD), Medium (mean +\_ 0.5 SD) and high (above mean + 0.5 SD).

**Table: 12 Distribution of respondents according to attitude towards Microfinance: n= 150**

Sr.	Level of Awareness about Microfinance	Category of SHG member	
		Number	Per cent
1	Unfavorable, below (X - 0.5 SD)	20	13.33
2	Neutral , Between (X - 0.5 SD) and (X + 0.5 SD)	105	70.00
3	Favourable (X + 0.5 SD)	25	16.67
	<b>Total</b>	<b>150</b>	<b>100</b>
		<b>Mean=30.75</b>	
		<b>SD=4.43</b>	

It can be seen in the Table 12 that majority (70.00 per cent) of the member had neutral attitude towards micro finance, whereas 16.67 per cent of them were with favourable attitude and 13.33 per cent of them were with unfavorable attitude towards micro finance.

### 2.1 Knowledge regarding micro finances

Microfinance refers to small savings, credit and insurance services extended to socially and economically poor segments of society. It is defined as provision of thrift, credit and other financial services and products of very small amounts distributed to the poor in rural and semi urban or urban areas, for enabling them to raise their income levels and improve living standards. At present a large part of micro finance activity is confined to credit only. Women constitute a large number of users of micro credit savings and services.

Knowledge refers to the degree of understood information possessed by the members of SHGs about micro finance. To know the understood information possessed by the members of SHGs about micro financé was the major objective of this study, hence interview schedule on micro finance related was prepared and responses were collected in terms of correct and incorrect answers. They were classified in to three categories on the basis of mean and standard deviation viz.

**Table: 2.1 Distribution of respondents according to knowledge about Microfinance: n= 150**

Sr.	Level of knowledge about Microfinance	Category of SHG member	
		Number	Per cent
1	Low knowledge, below (X - 0.5 SD)	25	16.67
2	Medium knowledge Between (X - 0.5 SD) and (X + 0.5 SD)	96	64.00
3	High knowledge (X + 0.5 SD)	29	19.33
	<b>Total</b>	<b>150</b>	<b>100</b>
		<b>Mean=17.33</b>	
		<b>SD=5.81</b>	

It is evident from the Table 2.1 that more than half ( 64.00 per cent) of the members had medium level of knowledge about micro finance, followed by 19.33 and 16.67 per cent with high and low level of knowledge about micro finance, respectively. The result indicates that majority (83.33 per cent) of the members had created medium to high level of understanding about micro finance. The result is due to good awareness about micro finance and neutral to favourable attitude towards microfinance.

### Conclusion

Majority of the beneficiary farmer were in young age group, had primary level of education, annual income below 25000/-, belonged to medium level of social participation, regular viewing of television, did not listen to radio. 64.67 per cent and 66.67 per cent of them never reading the news

paper and magazine respectively. 72.00 per cent of them had medium achievement motivation, having higher level of risk orientation and low level of market orientation. Majority of the respondent had medium level of saving between Rs. 451 to Rs.1274. Majority of the members of the group (78.67 per cent) had higher level of leadership. More than two third (71.34 per cent) of the member had medium level of awareness about microfinance. Majority (86.67 per cent) member's shows neutral to favourable attitude towards micro finance. the dependent variable shows that more than half ( 64.00 per cent) of the members had medium level of knowledge about micro finance, followed by 19.33 and 16.67 per cent with high and low level of knowledge about micro finance, respectively.

From the above finding an inference could be drawn that most of the members had shows neutral to favourable attitude and medium to high level of understanding towards microfinance. It is due to continues participation in various meeting organized by the head of DRDA and regularly visit to bank for saving of group money. SHGs and micro finance are found to be successful in promoting empowerment of women leading to development. One of the reasons of medium to high level of knowledge among members of SHGs is that Governments and Non Governmental Organizations are taking lead in the spread of literature of micro finance. Education and training should be provided for the microfinance beneficiaries on how to efficiently utilize the funds. Government has to monitor that loans are properly used for income generation activity purpose.

### **Recommendations**

1. Loan size should be increased enough to meet the requirements of borrowers.
2. The people should be given more opportunities for loan attainment.
3. Knowledge should be provided by MFIs to interested borrowers for the better utilization of credit.
4. Interest rate should be decreased so that more and more applicants can avail microfinance.
5. If microfinance is to be made a successful mass movement, the operations need to be made streamlined, cost effective and transparent.
6. The government should provide the basic infrastructural facilities such as good roads, schools, hospitals, constant power supply etc in the state to enable individuals achieve the benefits of microfinance.
7. The Poverty Alleviation Programme should be restructured to meet the needs of the less privileged members of the society mostly the women that are in serious need for microfinance.
8. The government should place proper supervision and regulation of most of the microfinance institutions in the country to prevent the collapse of such institutions as witnessed in the past in some regions.

### **Other information/Activities of KVK**

#### **1. Special programmes conducted**

<b>Sr No</b>	<b>Title</b>	<b>Date</b>	<b>Village</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
1	Dast nivaran Pakhvadiya(12-24 June 2017)	16-06-17	ICDS,Waghai	0	173	173
2	Mahila Krishi Divas	08-06-17	KVK,Waghai	0	112	112
3	New India manthan sankalpe se Siddhi	24-08-2017	KVK, Waghai	187	66	253
4	Parthenium grass awareness week	16 to 22-08-2017	Dokpatal	31	8	39
5	Swachhata pakhvada(25-09-2017)	15-09-2017 to 02-09-2017	KVK,Waghai	10	7	17

6	Mahila kisan Divas	15-10-17	KVK,Waghai	0	42	42
7	Word food day	16-10-17	KVK,Waghai	2	35	37
8	Agricultural Education day	03-12-17	KVK,Waghai	94	76	170
9	World soil health day	05-12-17	KVK,Waghai	50	0	50
10	Technology week (1st Day)	19-02-2018	Dabdar	0	39	39
11	Technology week (2st Day)	20-02-2018	Bhaphkal	6	33	39
12	Technology week (3rd Day)	21-02-2018	Dabdar	0	31	31
13	Technology week (4th Day)	22-02-2018	Dagdiamba	30	10	40
14	Technology week (5th Day)	23-02-2018	Bhogadiya, Kakarda, Bheskatari, Angeenpada, Koylipada	52	1	53
<b>Total</b>				<b>462</b>	<b>633</b>	<b>1095</b>

## 2. Ongoing FLDs (Rabi-Summer, 2017-18)

S N	Particulars of the FLDs	Season	Crop/ Enterprise	Variety/ Technology Input	Area (ha)	No. of Demonstrations
1	Crop production- Pulses	Rabi 2017-18	Gram	GJG 5	1	25
				GG 2	4	
2	Horticulture	Rabi, 2017-18	Indian bean	NPS-1	5	25
		Rabi, 2017-18	Okra	Biofertilizer & NOLF	5	25
		Rabi, 2017-18	French bean	Falguni	2	10
3	Plant protection	Rabi, 2017-18	Finger millet	Tricyclazole	2	8
		Rabi, 2017-18	Gram	Trichoderma	2	5
		Rabi, 2017-18	Mango	Navroji fruit fly trap	2	7
4	Animal Science	Rabi, 2017-18	Cross breed cattle	Mineral mixture	20 units	20
		Rabi, 2017-18	Cross breed cattle	Bypass fat	20 units	20
		Rabi, 2017-18	Backyard Poultry	RIR	20 units	20
5	Home Science	Rabi, 2017-18	Twin wheel hoe	Row crops	25 units	25
<b>Total</b>				<b>12 demons.</b>	<b>23 ha &amp;</b>	<b>190</b>

		<b>85 units</b>	
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### 3. Ongoing demonstrations given under other scheme: Other than KVK-ICAR budget.

SN	Scheme/ Particulars of the FLD	Season	Crop	Variety/ Component/ Technology	Area (ha)	No. of Demonstrations
<b>I</b>	<b>Adaptive trial (Phase-2)</b>					
1	Crop Production	Rabi, 2017-18	Gram	GAM 5	11.4	59
2	Horticulture	Summer, 2018	Watermelon	Plastic mulch	2	22
3	Plant protection	Summer 2018	Mango	Methylugenol trap	30	51
4	Animal Science	Rabi, 2017-18	Fodder Sorghum	CSV 21 F	20 units	20
		Rabi, 2017-18	Cross breed cattle	Mineral mixture	20 units	20
		Rabi, 2017-18	Cross breed cattle	Bypass fat	20 units	20
5	Home Scince	Rabi, 2017-18	Twin wheel hoe	For Row Crop	25 units	25
<b>II</b>	<b>TSP (Mega seed)</b>					
4	Crop production	Rabi, 2017-18	Green gram	CO 4	6.68	26
<b>III</b>	<b>Director, ATARI, Pune /ICAR</b>					
5	Crop production (Pulse)	Rabi, 2017-18	Gram	GG 2	20	50
<b>Total</b>					<b>70.08 ha &amp; 85 units</b>	<b>276</b>

### 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	58	1253	1079	2332
Rural youths	--	--	--	--
Extension functionaries	07	113	79	192
Sponsored Training	21	524	575	1099
Vocational Training	05	20	86	106
<b>Total</b>	<b>91</b>	<b>1910</b>	<b>1819</b>	<b>3729</b>

#### 2. Frontline demonstrations

Enterprise	No. of Farmers	Area(ha)	Units/Animals
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Oilseeds	--	--	--
Pulses	280	68.4	--
Cereals	261	94.98	--
Vegetables	154	25.2	--
Other crops	94	28.0	--
Hybrid crops	--	--	--
<b>Total</b>	<b>789</b>	<b>216.58</b>	<b>--</b>
Livestock & Fisheries	12	--	12
Other enterprises	135	--	165
<b>Total</b>	<b>147</b>	<b>216.58</b>	<b>177</b>
<b>Grand Total</b>	<b>936</b>	<b>216.58</b>	<b>177</b>

### 3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
<b>Technology Assessed</b>			
Crops	06	83	83
Livestock	02	75	225
Various enterprises	--	--	--
<b>Total</b>	<b>08</b>	<b>158</b>	<b>308</b>
<b>Technology Refined</b>			
Crops	-	-	-
Livestock	--	--	--
Various enterprises	--	--	--
<b>Total</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>Grand Total</b>	<b>08</b>	<b>158</b>	<b>308</b>

### 4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	450	39845
Other extension activities	--	--
<b>Total</b>	<b>450</b>	<b>39845</b>

### 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
	Text only	13	--	--	--	05	08	26
	Voice only							
	Voice & Text both							
	<b>Total Messages</b>	<b>13</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>05</b>	<b>08</b>	<b>26</b>
	<b>Total farmers Benefitted</b>	<b>15548</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6732</b>	<b>9327</b>	<b>31607</b>

### 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	15583	122800

Planting material (No.)	2523	12500
Bio-Products (kg)	--	--
Livestock Production (No.)	--	--
Fishery production (No.)	--	--

#### 7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	349	15000
Water	--	--
Plant	--	--
<b>Total</b>	<b>349</b>	<b>15000</b>

#### 8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	06
2	Conferences	01
3	Meetings	26
4	Trainings for KVK officials	06
5	Visits of KVK officials	14
6	Book published	--
7	Training Manual	--
8	Book chapters	--
9	Research papers	05
10	Lead papers	00
11	Seminar papers	02
12	Extension folder	--
13	Proceedings	03
14	Award & recognition	01 (Farmer)
15	On going research projects	02

# સંદેશ

SATURDAY, 26.08.2017

## ન્યુ ઈન્ડિયાના નિર્માણમાં દરેક ક્ષેત્રના લોકોનો સહયોગ ખૂબ જ આવશ્યક



### • ડાંગના વઘધ ખાતે ન્યુ ઈન્ડિયાના નિર્માણ માટે સામૂહિક મંથન

વાંસદા-ડાંગ, તા. ૨૫

ન્યુ ઈન્ડિયાના નિર્માણ માટે વડાપ્રધાન નરેન્દ્ર મોદીએ સેવેલા સ્વપ્નને વાસ્તવિક રૂપ આપવા માટે, દેશના દરેક ક્ષેત્રના લોકોનો સહયોગ ખૂબ જ આવશ્યક છે. એમા વલસાડ-ડાંગના સાંસદ ડી.કે.સી.પટેલે જણાવ્યું હતું.

ડાંગમાં કૃષિ વિજ્ઞાન કેન્દ્ર વઘઈના સેમિનાર હોલ ખાતે આયોજિત સંકલ્પ સે સિદ્ધિ કાર્યક્રમમાં ન્યુ ઈન્ડિયાના નિર્માણ માટે સામૂહિક મંથન કરતા સાંસદ ડી.કે.સી.પટેલે કહ્યું હતું કે ખાસ કરીને ખેડૂતો નવબારતના નિર્માણ માટે ખેતીવિકાસ અને ઉત્પાદન વૃદ્ધિ માટે સંકલ્પ લઈ ન્યુ ઈન્ડિયાના કાર્યક્રમમાક્ષેપ્ત યોગદાન આપી શકે છે. ડાંગ જિલ્લા પંચાયતના પ્રમુખ બાબુરાવ

ચૌયાંએ પશુપાલકોને તેમના વ્યવસાયમાં આધુનિક પદ્ધતિથી આગળ વધી, દેશના વિકાસમાં સહયોગી બનવાની હાકલ કરી હતી. માજી પારાસભ્ય વિજયભાઈ પટેલે આધુનિક ખેતપદ્ધતિ અપનાવી, વૈજ્ઞાનિક અભિગમ સાથે ખેતી કરીને મૂલ્યવર્ધિત ઉત્પાદનો તરફ વળવાની અપીલ કરી હતી. કૃષિ મહાવિદ્યાલયના ડીન ડી.ઝેડ.પી.પટેલે કૃષિ યુનિવર્સિટીના વિવિધ અભ્યાસક્રમોની વિગતો રજૂ કરી હતી. શરૂઆતમાં ડાંગના જિલ્લા ખેતીવાડી અધિકારી ભરત કાનડેએ સજીવ ખેતી સહિત રાજ્ય સરકારની જુદી જુદી ખેતીલક્ષી યોજનાઓની જાણકારી પૂરી પાડી હતી. કેન્દ્રના વૈજ્ઞાનિક વિરલ દેસાઈએ સ્વાગત કર્યું હતું. સંકલ્પ સે સિદ્ધિ કાર્યક્રમ દરમિયાન કૃષિ વૈજ્ઞાનિકો નયન ડેસિયા, જે.બી. ડાંબરીયા, હર્ષદ પ્રજાપતિ, નિતલ પટેલ, ડી.બી.ભોઈ વગેરે ઉપસ્થિત ખેડૂતો, પશુપાલકોને તાંત્રિક વિગતોથી વાર્કે કર્યા હતા.

જલસારી ડાંગ સંદેશ  
મંગળવાર  
તા. ૦૪.૦૮.૨૦૧૭  
Page No. ૦૪

## ડાંગમાં બહેનોને ભાઈઓને વ્યસનો છોડવા વચન લઈને પછી જ રાખડી બાંધવા અનુરોધ

### » આહવામાં મહિલા કૃષિ દિનની ઉજવણી પ્રસંગે જિલ્લા પંચાયતના પ્રમુખ, કલેક્ટર વગેરેનાં વક્તવ્યો

વાંસદા-ડાંગ, તા. ૦

ડાંગની ગ્રામીણ મહિલાઓને દારૂ જુગાર જેવા વ્યસનોને તિલાંજલિ આપવાના વચન સાથે તેમના ભાઈ ઓને આ રક્ષાબંધને રાખડી બાંધવાનું આહવાન કરી, ડાંગ જિલ્લા પંચાયતના પ્રમુખ બાબુરાવ ચૌયાંએ, રક્ષાબંધનની ઉજવણીની સાથે સાથે સમાજ ઘડતરની જવાબદારી અદા કરવાની હિમાયત કરી હતી.

આહવામાં મહિલા કૃષિ દિનની ઉજવણી પ્રસંગે રાજ્ય સરકારની મહિલા સશક્તિકરણ પખવાડિયાની ઉજવણીની વિભાવના સ્પષ્ટ કરતા

બાબુરાવ ચૌયાંએ તેમના જૂના સંસ્મરણો વાગોળી, સાંપત સમયમાં ગ્રામીણ જીવનપોરણમાં આવેલા પરિવર્તનનો ખ્યાલ આપ્યો હતો. કલેક્ટર બી.કે.કુમારે ડાંગની મહિલાઓને ખેતીવાડી, બાગાયત અને પશુપાલન ખાતાની વિવિધ યોજનાઓનો લાભ લઈ, આર્થિક ઉત્કર્ષ તરફ પ્રયાણ કરવા જણાવ્યું હતું.

જિલ્લામાંથી કુપોષણને દેશવટો આપવા તેમજ બાળ અને માતા મૃત્યુનું પ્રમાણ ઘટાડવા માટે યુવતીઓને યોગ્ય ઉમરે જ લગ્ન કરવાનું આહવાન કર્યું હતું. મહિલાઓને તેમના લાયક સંતાનોને મતાધિકાર પ્રાપ્ત થાય તે માટે તેમના બાળકોના નામો, મતદારપાટીમાં દાખલ કરાવવા માટે પણ માર્ગદર્શન પૂરું પાડ્યું હતું.

જિલ્લા બાગાયત અધિકારી તુષાર ગામીતે બાગાયત વિભાગની માન અને માન મહિલાઓ માટેની કિચન ગાર્ડન યોજનાનો ખ્યાલ આપી, બાગાયતી પાકોના મૂલ્યવર્ધન અંગેનું વિસ્તૃત માર્ગદર્શન પૂરું પાડ્યું હતું. વસુધારા ડેવીના પ્રતિનિધિ કન્યા ભાલ, કૃષિ વિજ્ઞાન કેન્દ્રના પશુપાલન તજજ્ઞ ડી. ભોઈરે તેમજ પ્રાથમિકા નિતલ પટેલે વિવિધ જાણકારી પૂરી પાડી હતી. સજીવ ખેતી તરફ વળવાનું આહવાન કરતા જિલ્લા ખેતીવાડી અધિકારી ભરત કાનડેએ કાર્યક્રમના પ્રારંભે મહાનુભાવોનું સ્વાગત કરી સંચાલન પણ કર્યું હતું. ચિચિનાગાંવઠાના પગતિરીલ પશુપાલક પાનતુબેને તેમના સ્વાનુભાવો વર્ણવી, ઉપસ્થિત મહિલાઓને પ્રોત્સાહિત કર્યા હતા.