



ISO 9001 : 2008 : 210089

ANNUAL PROGRESS REPORT NICRA - 2015-2016



CSK HPKV
Krishi Vigyan Kendra Hamirpur
Himachal Pradesh -177 044

DR PARDEEP KUMAR
PROGRAMME CO-ORDINATOR & PI

Demographic features of Technology Demonstration Site

Villages: Tareti, Mann, Jangloo Ghumarhata, Kuthera

Panchayat: Mann

Population: 2251

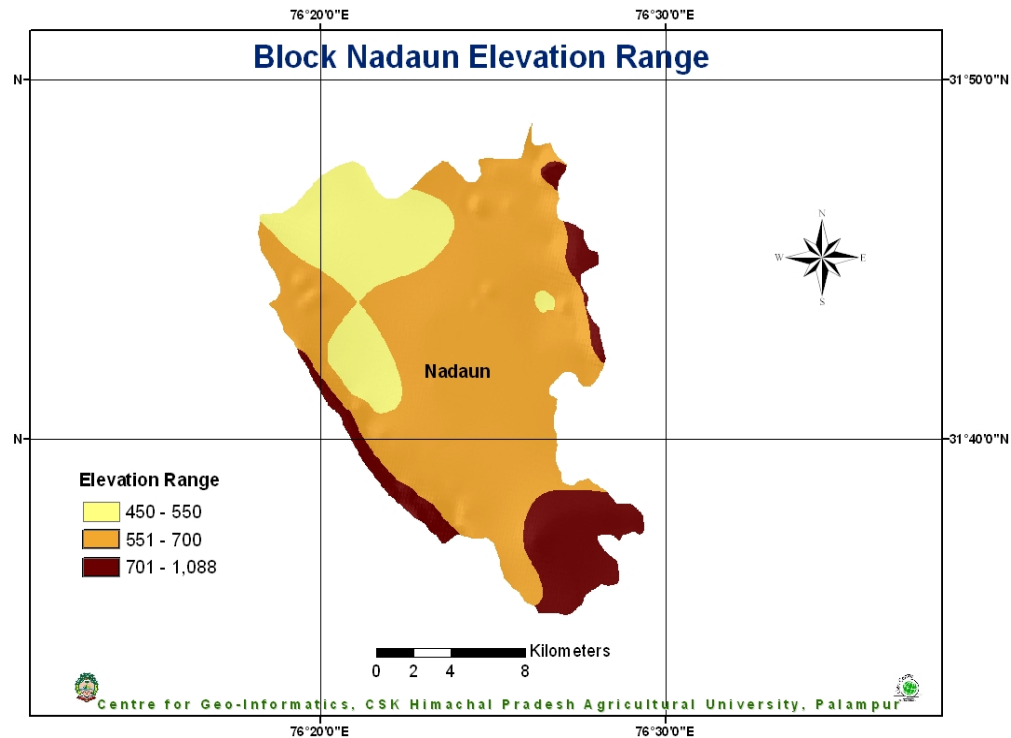
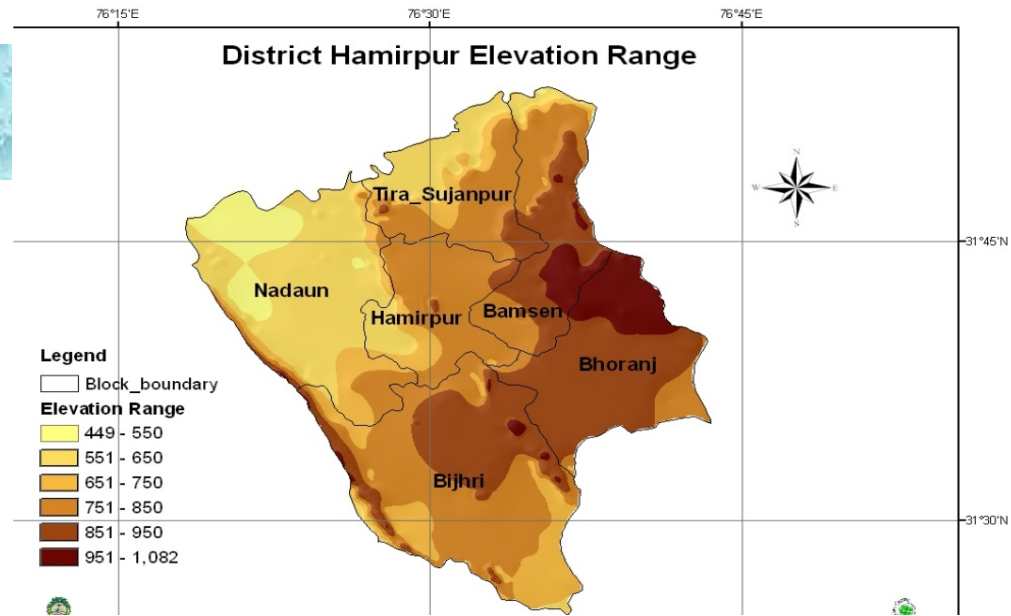
Households: 489

Cultivated area: 117.87 ha

Major crops: Maize, wheat, Vegetables for kitchen gardening

Source of irrigation: Rain-fed farming

Annual rainfall: 1025 mm



Coverage of interventions across different sections of the NICRA village

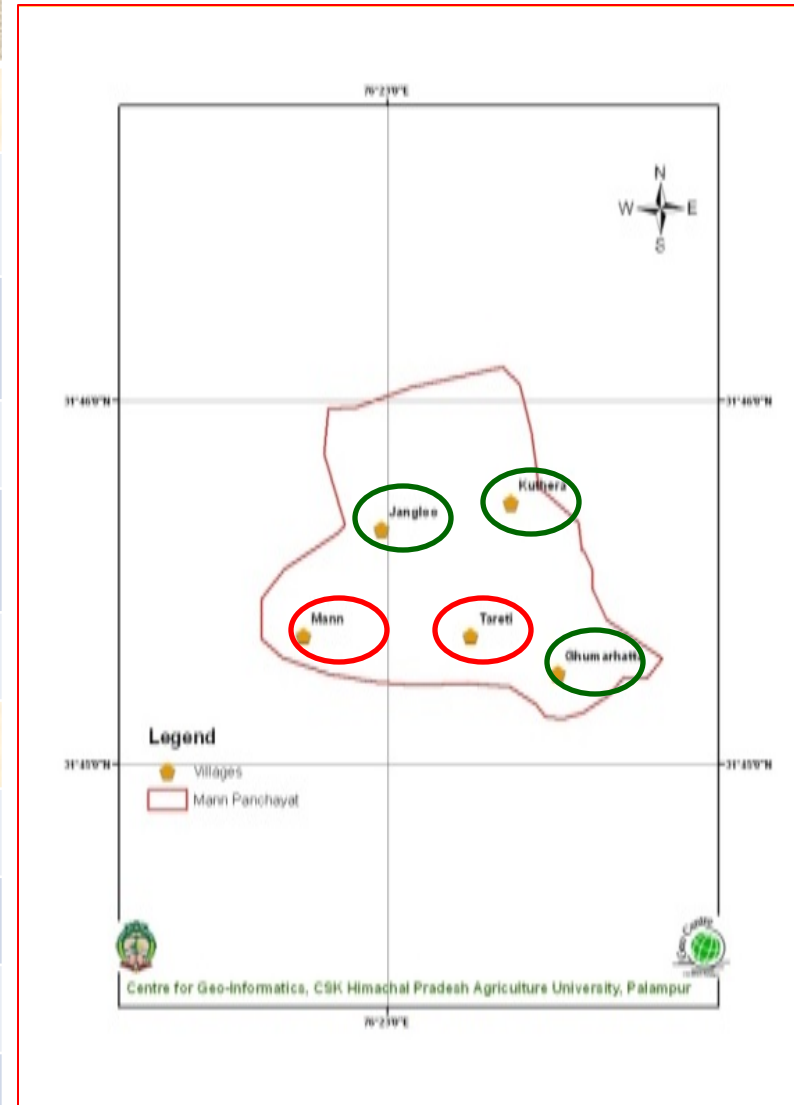
Category	Total No. in the Village	No. covered under different interventions
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By land holding

Landless	Nil	Beneficiaries
Marginal	180	75%
Small	120	62.5%
Medium	185	74.6%
Large	4	100 %

By section

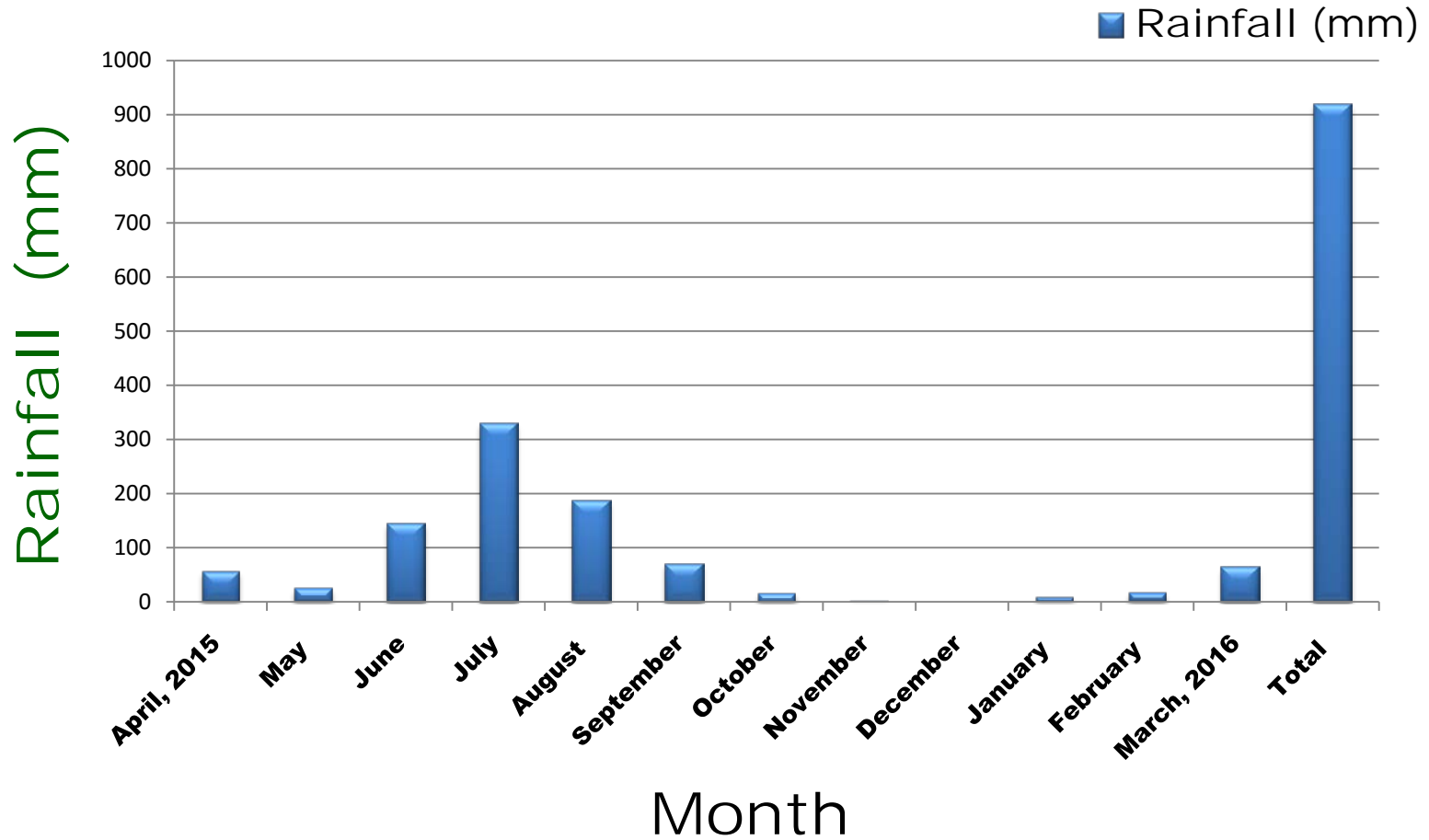
ST	03	100 %
SC	67	65.6 %
OBC	334	80.8 %
General	85	42 %



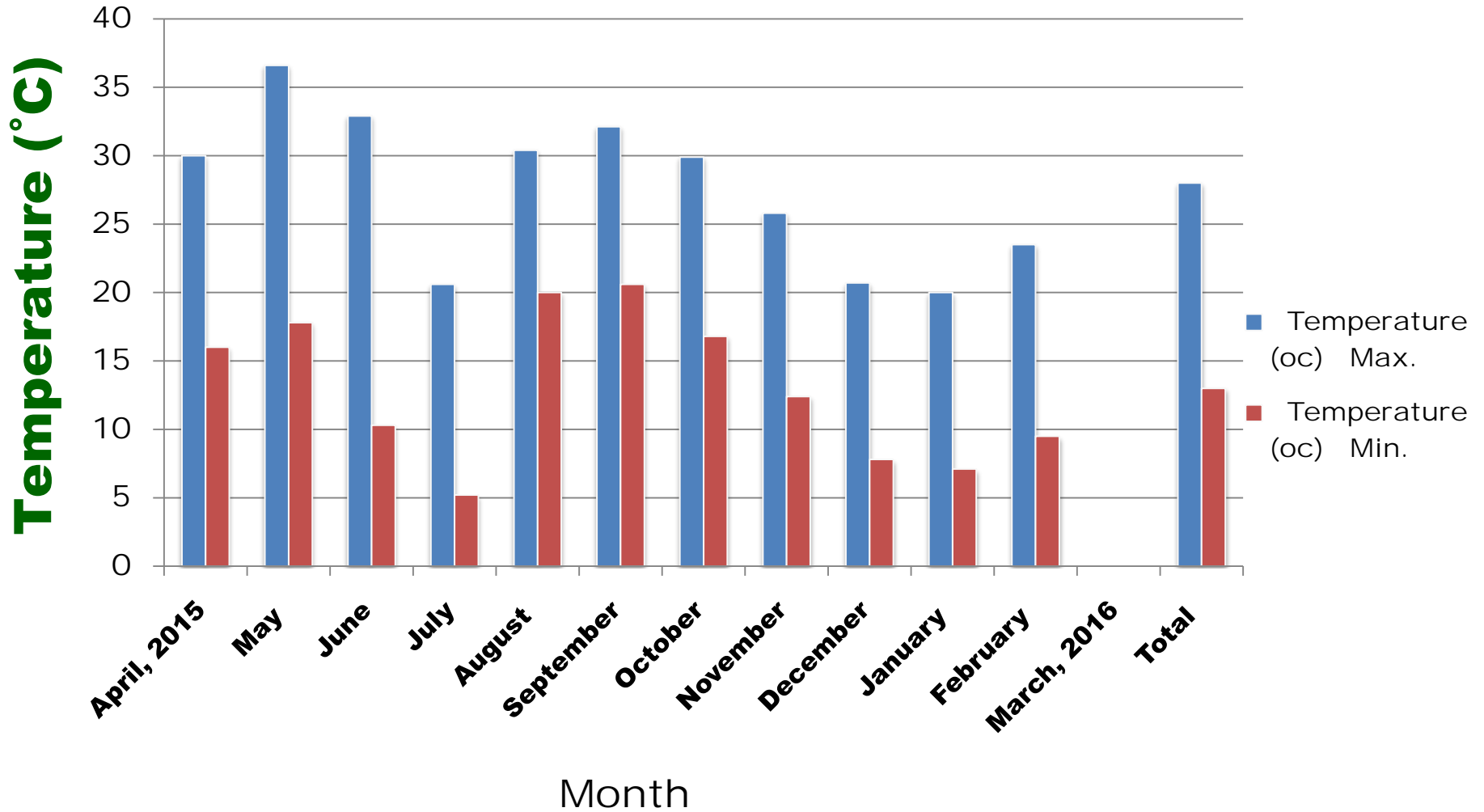
Weather Data

Month	Rainfall (mm)	Temperature (°c)		Humidity (%)	
		Max.	Min.	Max.	Min.
April, 2015	56.75	30.0	16.0	80.0	33.8
May	24.75	36.6	17.8	61.5	19.3
June	144.5	32.9	10.3	75.7	26.6
July	330.25	20.6	5.2	80.6	43.5
August	186.75	30.4	20.0	95.6	58.2
September	69.5	32.12	20.6	95.3	48.0
October	16.0	29.9	16.8	93.4	39.25
November	2.0	25.8	12.4	90.2	34.4
December	0.0	20.7	7.8	94.4	38.0
January	8.6	20.0	7.1	95.3	37.9
February	17.2	23.5	9.5	92.4	31.4
March, 2016	63.8	Data not retrieve from the site			
Total	920.1	28	13	87	37

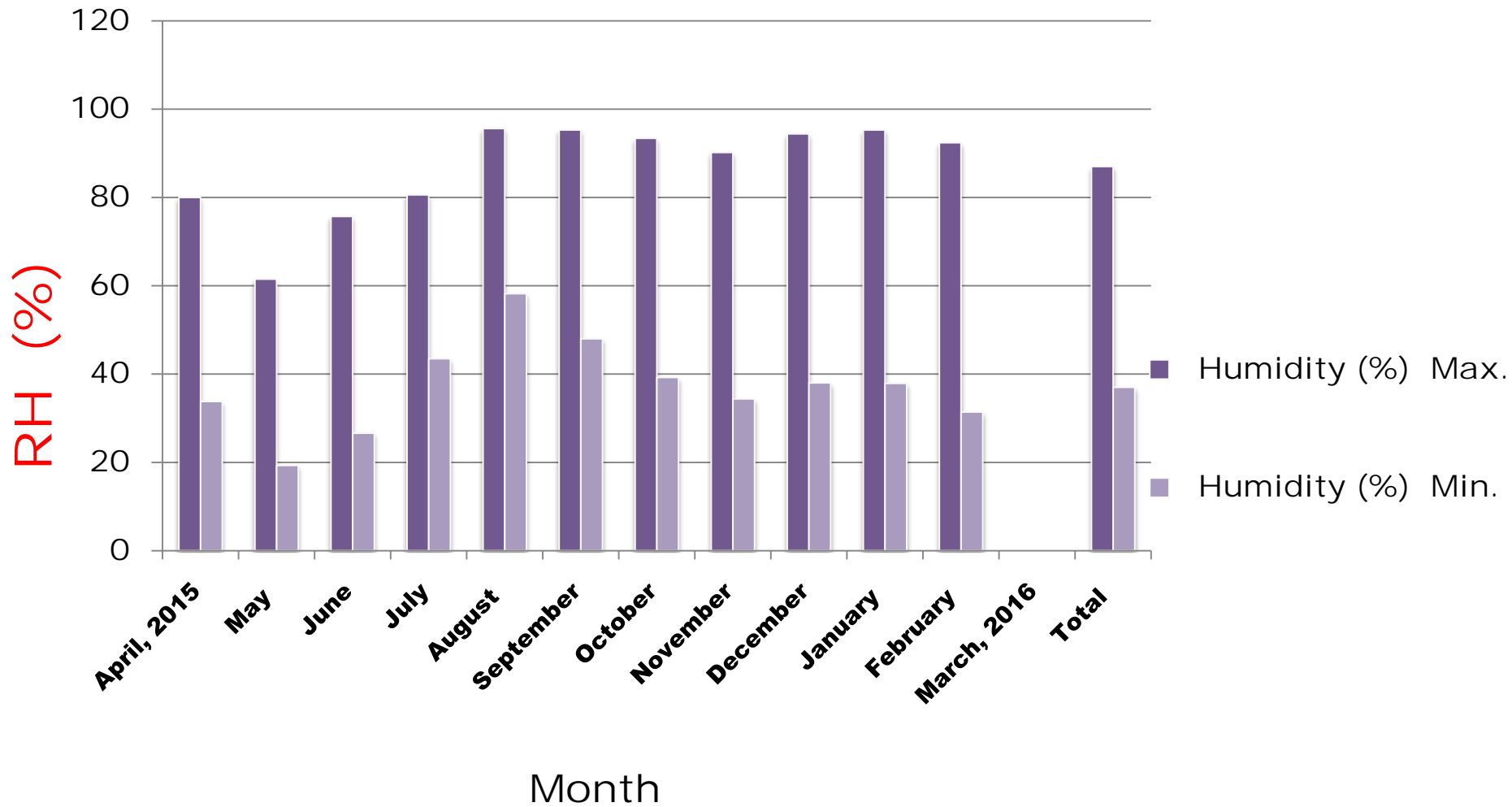
Rainfall pattern in year 2015-16



Temperature Pattern in Year 2015-16



Relative Humidity Pattern in Year 2015-16



Module-1: Natural Resource Management

Technology demonstrated	No. of farmers	Measurable indicators of output		Economics of demonstration (Rs./ha)		
				Yield (q/ha)	Net Return	BCR
Plastic mulching in cucurbits	33	Yield, No. of irrigation reduced =5, No. of weeding, and hoeing reduced =2	Bitter gourd	355	213000	3.3
			Bottle gourd	315	227000	3.5
			Cucumber	172	104000	2.5

Plastic mulching in Cucurbits

Module-1: Natural Resource Management

Interventions	Technology demonstrated	No. of farmers	Measurable indicators of output
Tetra Vermibed	Vermicompost preparation	13	32.5q from 13 units i.e 1.25qx13 units=16.25q from one season and farmer used the vermibed for 2 season from April 2015 to March 2016

Vermicompost

Module-2: Crop Production

Interventions	Technology demonstrated (crop/variety)	No. of farmers	Area (ha)	Measurable indicators of yield (q/ha)		% increase	Economics of demonstration (Rs./ha)	
				Demo	Local		Net Return	BCR
Short duration (Zaid crop)	Toria (Bhawani)	20	1.0	6.5	5.1	27.45	7500	1.62

Continue

Intervention	Technology demonstrated	Critical input (crop/Variety)	No. of farmers	Area (ha)	Measurable indicators of yield (q/ha)		% increase	Economics of demonstration (Rs./ha)	
					Demo	Local		Net Return	BCR
					High yielding variety	Recommended Hybrid resistance to Lodging	Maize (F1 4640)		
High yielding variety	Early sown to variety to exploit residual moisture	Wheat (HPW 360)	5	1	25	22.0	13.6	17500	1.88
		Gobhi Sarson (GSC7)	50	2	7.25	5.85	23.93	6750	1.45
High yielding variety	Drought tolerant	Brown Sarson (KBS3)	25	1	6.6	5.35	23.36	4800	1.32
High yielding variety	Seed bank	Wheat (HPW 349)	28	3	27.5	22.0	25	19250	1.87

Demonstration on Maize

Demonstration on Wheat

Demonstration on Oilseed

Demonstration on Wheat

Interventions	Technology demonstrated (crop/variety)	Critical input	No. of farmers	Area (ha)	Measurable indicators of yield (q/ha)		% increase	Economics of demonstration (Rs./ha)	
					Demo	Local		Net Return	BCR
Crop diversification	Cabbage	Charmant	10	0.64	190	160	18.8	148000	2.8
Crop diversification	Cauliflower	F1- 626	12	1.2	185	125	48.0	188000	3.3
Moisture conservation through bio mass mulching	Elephant foot Yam	Narendra-2	8	0.04	500	350	42.0	200000	1.8

Demonstration on Cauliflower

Demonstration on Cabbage

Interventions	Technology demonstrated(crop & variety)	Critical input	No. of farmers	Area (ha)	Measurable indicators of yield*		% increase	Economics of demonstration (Rs./ha)	
					Demo	Local		Net Return	BCR
Ridge and furrow method & bio mass mulching	Bitter gourd	Aman	5	0.4	355	260	36.53	213000	3.3
	Bottle gourd	Sharda, Shambu	5	0.48	315	240	31.25	227000	3.5
	Cucumber	Malav	6	0.6	172	118	45.76	104000	2.5
Pheromone trap for fruit fly	Low cost & Eco-Friendly means for the management of fruit fly in cucumber		95	3.80	150	120	25.0	144000	2.78

Demonstration on Cucurbits

Livestock and Fisheries

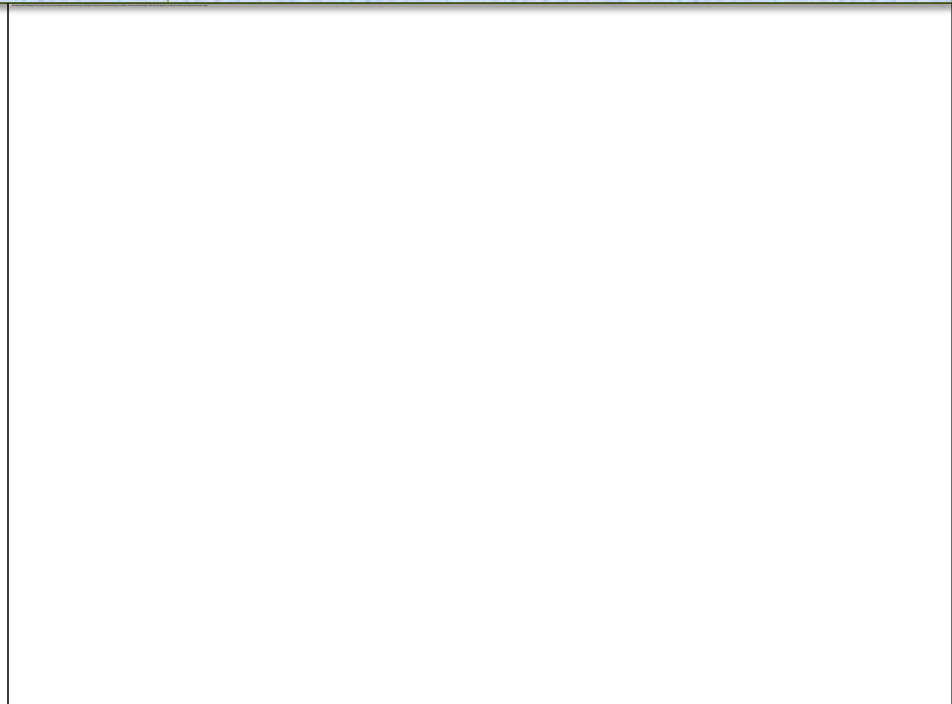
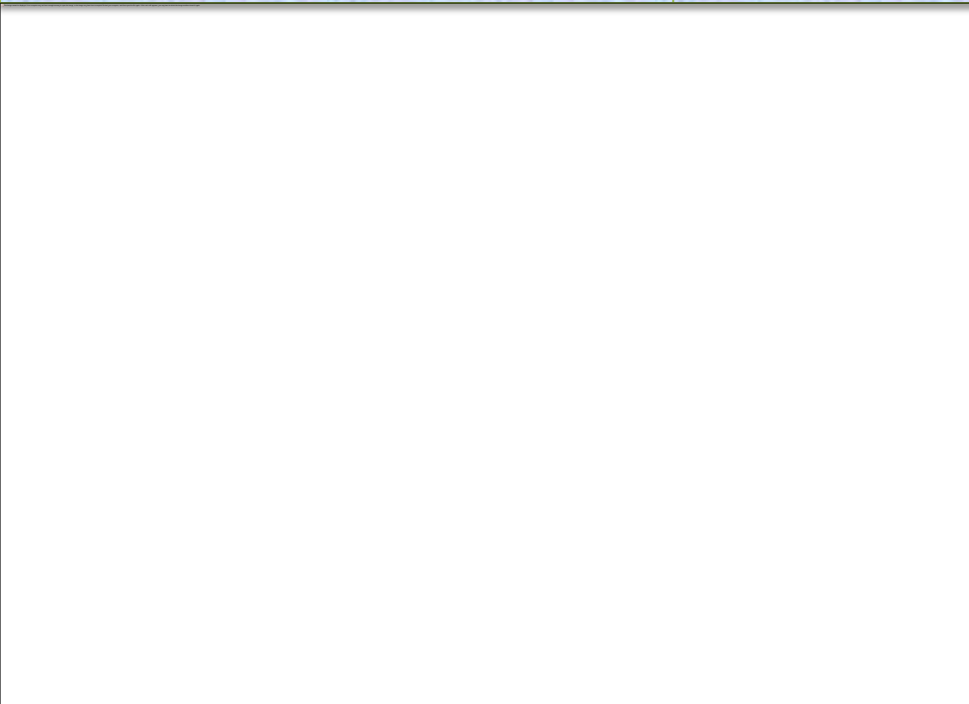
Interventions	No. of demonstrations	No. of farmers benefitted	No. of animals/ birds treated
Artificial Insemination	209	200	209
Breed up gradation (Name of breeds)	2(Beetal buck)	64	82
De-worming in livestock	1002	263	1091
UMB	56	46	48
Mineral mixture	47	36	39
Preventive vaccination	200(HS&BQ)	167	200
Total	1516	776	1669

Herd of local goats in the village

Demonstration on Mineral Mixture

Fodder Production

Interventions	No. of Demonstrations	Total Quantity (q)
Azolla (Renovation)	7	11.20
Silage (refilling)	2	2.0
Goatry feed	9	7.0
Total	20	22.20



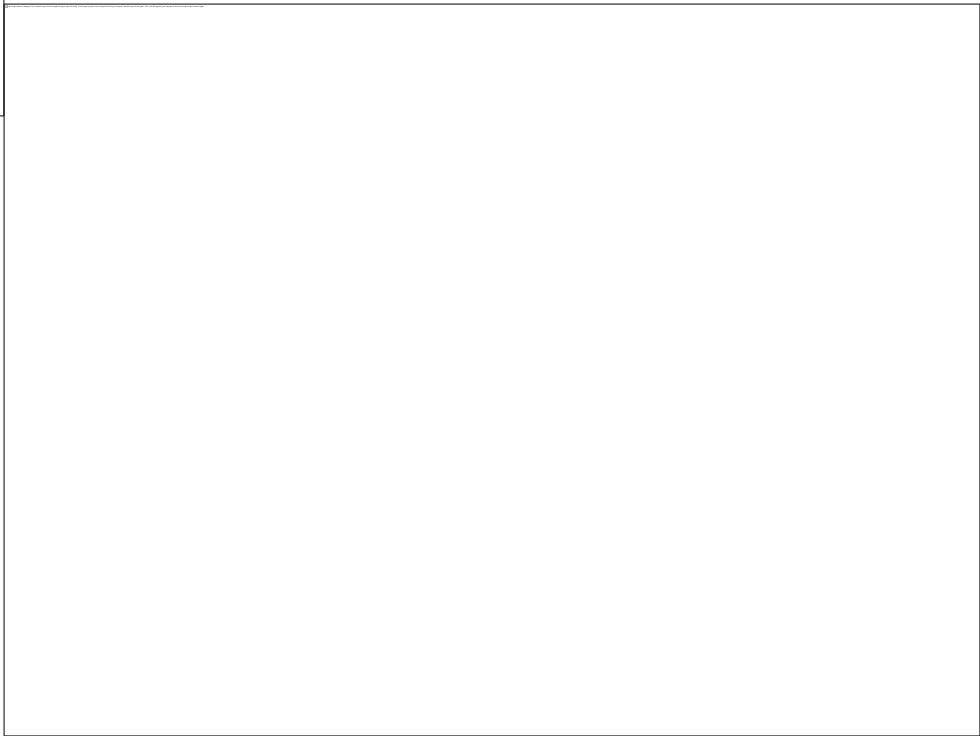
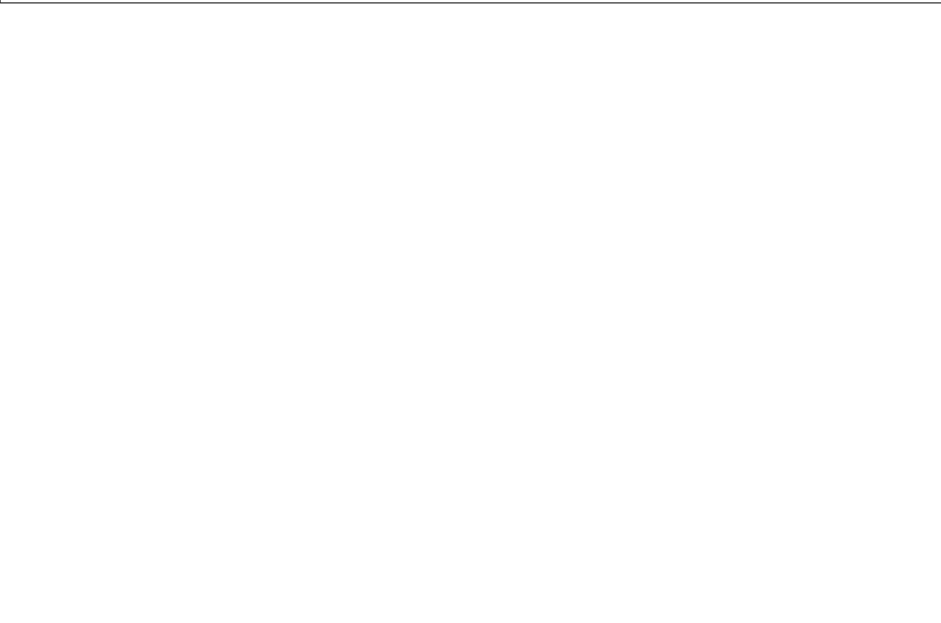
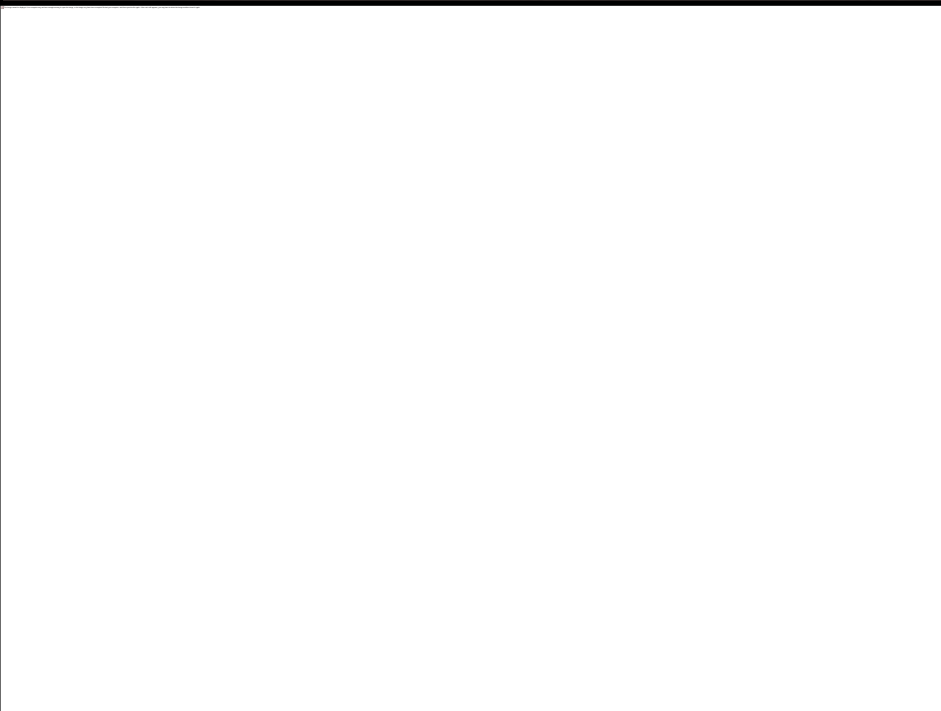
Demonstration on Silage

Demonstration on Azolla

Institutional Interventions

Interventions	No. of demonstrations/ activities	No. of farmers	Area (ha)
Climate literacy through a village level weather station	15	89	70
Seed bank (HPW-349)	28	28	3.0
Community Nursery			
Cauliflower (var. 626)	1	12	1.2
Cabbage (var. charmant)	1	12	0.64
Post-harvest losses	4	65	-
Total	49	206	74.84

Installation of Small Weather Station



Interventions	No. of demonstrations	Details of activity		Critical input	No. of farmers	Area (ha)
		Name of crops	Quantity/ Number			
Seed bank	28	Wheat (HPW-349)	3 q	Isoproturon & 2-4D @ 1.0kg+0.5 kg/ha Bavistin-2.5g/kg, propoconazol-1.0 ml/L	28	3.0
Climate literacy through village level weather station	15	Vegetable, Maize, Wheat & oil seed	89	-	89	70

Capacity Building (HRD)

Title of the programme	Title of training	Number of trainings	Number of beneficiaries		
			Male	Female	Total
Crop Management	Scientific cultivation of Maize crop	1	5	5	10
	Scientific cultivation of Toria	1	12	7	19
	Scientific cultivation of Kharif crops	1	6	6	12
	Scientific cultivation of early sown wheat	1	8	3	11
Plantation through forestry Systems	Agro development of uncultivated land	1	8	11	19
Natural resource management	Use of plastic mulch in vegetables	1	13	0	13

Title of the programme	Title of training	Number of trainings	Number of beneficiaries		
			Male	Female	Total
Enterprises for self employment	Income generation activities for empowerment of rural women	1	7	13	20
	7 days on campus vocational training on Mushroom cultivation	1	1	0	1
Fodder and feed management	Refilling and remaking of silage unit	1	8	6	14
	Training on Goatry feed supplements	1	6	7	13
NICRA awareness	Parthenium eradication day	1	17	18	35
	Integrated weed management	1	8	7	15
	Pradhan Mantri Phasal Bima Yojna	1	8	0	8
	Celebration of World Food Day	1	9	18	27
Soil health management	Celebration of world soil health day	1	33	25	58

Title of the programme	Title of training	Number of trainings	Number of beneficiaries		
			Male	Female	Total
Pest and disease management	Seed Treatment in Wheat	1	8	7	15
	Insect Pest and disease management in oil seeds	1	5	23	28
	IPM of Rabi crops	2	11	27	38
	Nematodes and their management in open and protected conditions	1	7	11	18
	Seed Treatment in Wheat	1	8	7	15
Post harvest technology	Minimization of nutrient losses in fruits and value added Aonla products	1	1	21	22
	Value added papaya products	2	18	28	46

Title of the programme	Title of training	Number of trainings	Number of beneficiaries		
			Male	Female	Total
Vegetable production	Scientific cultivation of okra	1	12	3	15
	Scientific cultivation of Elephant Foot Yam	1	10	1	11
	Nursery raising of Cauliflower and cabbage	1	9	6	15
	Scientific cultivation of winter vegetables	1	11	12	23
	Scientific cultivation of cucurbits using ridge and furrow techniques	1	11	2	13
	Scientific cultivation of cauliflower	1	16	4	20

Extension Activities

Name of the activity	Number of programmes	No. of beneficiaries		Remarks
		Male	Female	
Field day on Maize	1	21	9	For scientific cultivation of Maize and Toria
Field day on Toria	1	9	12	
Method demonstrations	18	232	253	Method demonstration on silage making, Azolla, okra cultivation, Elephant Foot Yam cultivation, moisture conservation, scientific cultivation of Maize, seed treatment, value added products, production of low cost pheromone traps

Name of the activity	Number of programmes	No. of beneficiaries		Remarks
		Male	Female	
Awareness	87	910	920	Awareness regarding technology related to agriculture, animal husbandry and resource management and crop insurance
Group dynamics	85	908	1073	For higher income and profitability
Kisan Mela (Jai Jawan- Jai Kisan Diwas)	1	13	14	Celebrate Jai Jawan- Jai Kisan Diwas & provide awareness regarding crop diversification and crop management

Adoption of
Successful
Interventions in the
NICRA & the
adjoining villages

Small scale water harvesting structures

	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015	Total tanks	Increase in No.
Number of tanks by KVK	2	6	4	8	-	18	94.4 %
Number of tanks by MANREGA	-	10	10	10	5	35	
Area covered in Vegetables	0.8	2.0	0.4	0.5	-	-	

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Crop under kitchen gardening	Area (Ha)	Yield (q)	Gross cost	Gross return	Net return	BCR
Bitter gourd	0.20	45	17500	45000	27500	2.57
Cucumber	0.24	30	18000	30000	12000	1.66
Cauliflower	0.4	80	25000	64000	39000	2.56
Radish	0.32	56	8000	28000	20000	3.50

Seed Bank (HPW-236)

	Year 2012	Year 2013	Year 2014	Year 2015	Total Area (ha)	% Increase over demonstrat ion
Demonstrated area	1.5	2.0	2.0	-	5.5	45.4
Area increased under intervention	-	2.5	2.5	3.0	8.0	

Low cost Eco-friendly pheromone traps

	Year 2012	Year 2013	Year 2014	Year 2015	Total Area (ha)	% Increase over demonstration
Demonstrated area	1.2	1.6	2.0	2.0	6.8	54.4
Area increased under intervention	-	3.3	3.4	3.8	10.5	
No. of farmers	59	82	100	95	336	41.1
Increase in number of farmers	-	129	160	185	474	

Fodder Bank(Silage & Azolla)

	Year 2012	Year 2013	Year 2014	Year 2015	Total No.	% Increase in Numbers of farmers
Silage						
No. of demonstration	-	85	-	-	85	2.35
No. increased	-	-	87	87	87	
Azolla						
No. of demonstration	-	58	18	-	76	2.63
No. increased	-	-	67	78	78	

❖ To mitigate fodder scarcity during lean period

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Azolla Cultivation

Silage Making

Improved Planting Techniques in Vegetables

	Year 2012	Year 2013	Year 2014	Year 2015	Total Area (ha)	% Increase over demonstration
Demonstrated area	2.2	2.0	2.6	3.3	10.1	23.8
Area increased under intervention	4.0	3.5	4.5	4.5	12.5	
No. of farmers	28	25	40	38	131	18.3
Increase in number of farmers	-	35	50	70	155	

Ridge and furrow method of cultivation

Custom Hiring Services

s.no.	Name of equipments	Number	Rate fixed (Rs.)	Present condition
1	Power tiller	1	200 per hr including fuel	Working
2	Power weeder	1	50 per hr including fuel	Working
3	Bush cutter	1	50 per hr	Working
4	Maize Sheller	1	60 per hr	Working
5	Spray pump	2	10 per kanal	Working

EXPENDITURE FOR THE YEAR 2015-16

S. No.	Item of Expenditure	Opening Balance as on 1 st April 2015	RE for 2015-16	Amount released during 2015-16	Expenditure from 1 st April 2015 to 31 st March 2016	Closing balance as on 31 st March 2016 – Col. (3+5-6)
1	2	3	4	5	6	7
A. Recurring Contingency						
1.	Operational expenses (Labour, skilled staff, POL, Supplies etc.) Contractual services etc.	92658	548000	455342	524272	23728
2.	TA	0	100000	100000	61439	38561
	Total (A)	92658	648000	555342	585711	62289

Continue...

S. No.	Item of Expenditure	Opening Balance as on 1 st April 2015	RE for 2015-16	Amount released during 2015-16	Expenditure from 1 st April 2015 to 31 st March 2016	Closing balance as on 31 st March 2016 – Col. (3+5-6)
1	2	3	4	5	6	7
B. Non-Recurring Contingency						
1.	Small Equipments and miscellaneous farm implements	0	490000	490000	490000	0
	Total (B)	0	490000	490000	490000	0
	Total (A+B)	92658	1138000	1045342	1075711	62289

Detail of Non-Recurring Contingency

Total sanction (Rs)	Equipments purchased
490000	Small weather station installed in NICRA village
	Reaper-cum-Binder (In progress)
	Seed-cum-fertilizer drill (In progress)

Action Taken Report

Targets

❖ Soil Health Card

❖ Seed Bank

❖ In Situ Moisture Conservation

Soil Health Card

Intervention	Number of soil sample collected	Number of soil sample analyzed	Number of farmers covered	Number of soil health card issued in year 2015-16	Remarks
GPS based soil sampling	100	50 (50 in progress)	100	50	Celebrated World soil health day on 5 th December 2015

Distribution of Soil health Card

Celebrate World soil health day

Seed Bank

Interventions	No. of demonstrations	Details of activity			Critical input	No. of farmers	Area (ha)
		Name of crops	Qty (q)	Technology used in seed bank			
Seed bank	28	Wheat	3.0	Integrated crop management	Var. HPW-349, Bavistin-2.5g/kg, Isoproturon-1.0 kg/ha, 2-4D -0.5kg/ha, Propoconazol -1.0 ml/lt	28	3.0

Demonstration on Wheat

In Situ Moisture Conservation

Technology demonstrated	No. of farmers	Measurable indicators of output*		Economics of demonstration (Rs./ha)		
				Yield (q/ha)	Net Return	BCR
Plastic mulching in cucurbits	33	Yield, No. of irrigation reduced =5, No. of weeding, and hoeing reduced =2	Bitter gourd	355	213000	3.3
			Bottle gourd	315	227000	3.5
			Cucumber	172	104000	2.5

Plastic mulching in Cucurbits

ACTION PLAN (NICRA)-KVK HAMIRPUR

2016-17

HIMACHAL PRADESH-177 044

Natural Resource Management

Module-1	Climatic constraint addressed	Key intervention	Measurable indicator (s)
In-situ conservation by organic mulch	Less availability of water and organic matter resulted in poor fruit set even the crop growth is good	Use of locally available and easily degradable biomass in cucurbits ,Ginger, Colocasia and Turmeric	Soil moisture content, no. of irrigation reduced and crop yield
Cultivation of Ginger incorporating biomass mulch	Incorporation mulching	Use of locally available and easily degradable biomass	Soil moisture content, no. of irrigation reduced and crop yield

Crop Production

Module-2	Climatic constraint addressed	Key intervention	Measurable indicator (s)
Maize -3 ha	Lodging problem	Recommended hybrid	Plant height, cob size, yield
Early sown Wheat (HS 542)-1ha	Rain fed areas	For early sowing in rain fed areas to exploit residual moisture	Yield
Timely sown Wheat HPW -368 (seed bank)-2 ha	Yellow rust resistance	To make available recently released yellow rust resistance variety	Yield, Yellow rust incidence
Okra, Cucurbits, Ginger, Cole crops	Poor fruit set in cucurbits ,small curd size in cauliflower under rain fed condition	Ridge and furrow method of cultivation, sprinkler method of irrigation and organic mulching	Number of harvesting in case of Okra and Cucurbits, corm size and weight in Ginger, weight of curd in Cole crops

Crop Production

Module-2	Climatic constraint addressed	Key intervention	Measurable indicator (s)
Oil seed			
Toria (Bhawani) -1ha	Zaid Crop	Improved seed, INM	Seed yield, Aphid infestation
Gobhi sarson(GSC-7)-1ha	Rain fed farming	Improved seed, INM/IPM	Seed yield, Aphid infestation
Brown sarson (KBS-3) -2ha	Rain fed farming	Improved seed INM/IPM	Seed yield, Aphid infestation
Pheromone traps for management of fruit fly	High infestation of fruit fly with changing climate	Use of low cost pheromone trap for management of fruit fly in Cucurbits	Insect infestation and yield

Livestock & Fisheries

Module-3	Climatic constraint addressed	Key intervention	Measurable indicator (s)
Mineral mixture demonstration -200 no., UMB demonstration -200 no.	Negative protein energy balance	Balanced feed supplementation	Milk yield
Azolla units remaking (15 units)	Non availability of green fodder during lean period	Protein rich diet for live stock	Milk yield in milch animals, weight gain in heifers
Silage refilling	Non availability of green fodder during lean period	Protein rich diet for live stock	Milk yield in milch animals, weight gain in heifers

Institutional interventions

Module-4	Climatic constraint addressed	Key intervention	Measurable indicator (s)
Community nursery (onion, Cole crops, cucurbits)	Slow growth of nursery under open conditions due to low temperature	Raising of nursery under low poly tunnel	Number of watering, number of seedlings produced
Poly tunnel demonstration (5 farmers)	Slow growth & mortality of plant due to low temperature thereby resulting in delayed harvest	Advancing growth of tomato, brinjal, summer squash other cucurbits by using low poly tunnels	Yield, month of availability of produce

Implements for Custom Hiring Centre

S. No.	Item	Unit cost* (Rs)	No. of units	Amount (Rs)
1.	Seed cum fertilizer drill	50000	1	50000
2.	TNAU stored grain insect pest management kit	-	-	20000
	Total			70000

In situ conservation – Resource Conservation Technologies (RCTs)

Item (specify the interventions)	Unit cost Rs/acre	No. of demos	Coverage		Amount (Rs)	Remarks
			Area (acres)	No. of farmers		
	A	B	C	D	A x C	
Cultivation of Ginger employing Bio mulch	32000	10	1	10	32000	Bio mulch will be provided on the crop by the farmers themselves
Total					32000	

Stress tolerant/Improved varieties/ Short duration

Intervention	Description		Cost (Rs)/ acre	No. of demos	Coverage		Amount (Rs)	Remarks (purpose of intervention)
	Crop	Variety (s)			Area (ac)	No. of farmers		
			A	B	C	D	A x C	
Short duration varieties (specify)	Toria	Bhawani	6000	15	2.5	15	15000	Zaid crop
	Maize	Recommended Hybrid	6000	20	5	20	30000	To combat lodging problem

Intervention	Description		Cost (Rs)/acre	No. of demos	Coverage		Amount (Rs)	Remarks (purpose of intervention)
	Crop	Variety (s)			Area (ac)	No. of farmers		
			A	B	C	D	A x C	
Early sown	Wheat	HS 542	6000	15	2.5	15	15000	Exploitation of residual moisture
Timely sown	Wheat	HPW 368	6000	20	5	20	30000	Yellow rust resistance
High yielding variety	Gobhi sarson	GSC-7	6000	20	2.5	20	15000	Suitable for rain fed farming
For monkey menace area	Brown sarson	KBS-3	6000	45	5	45	30000	Suitable for rain fed farming

Improved agronomic practices and other crop interventions

Intervention	Cost (Rs)/acre	No. of demos	Coverage		Amount (Rs)	Remarks (Purpose of intervention)
			Area (ac)	No. of farmers		
	A	B	C	D	A x C	
Community nursery (Cole crops ,Cucurbits, onion)	50000	1	0.1	5	5000	Easy availability of nursery
Harvesting and post harvesting related interventions(value addition of locally available fruits)	600	12	-	20 in each	7500	Value addition of locally available fruits
Income generation activities (Mushroom etc)	5000	5	-	5(50 bags each)	25000	Income generation
Income generation activities (Vegetables etc.)	5000	12	5.0	12	25000	Income generation
Total					62500	

Silage ,Mineral Mixture & UMB

Details of feed demo	Unit cost of demo (Rs)	No. of demos	Amount (Rs)	Remarks (purpose of intervention & farmers covered)
Silage demos(refilling)	100	15	1500	15
Mineral mixture demos	120	200	24000	200
UMB	100	200	10000	200
Total			35500	

Establishment of Seed banks

Crop and variety	Quantity of storage (t)	Remarks (No. of beneficiaries & Period of use)
Wheat HS-542 (Early sown) HPW 368 (Timely sown)	2 qtl	Rabi season (20)

Training Courses proposed

Theme	Title of training course	Proposed month	No. of participants	Cost to project (Rs.)
Crop production/ diversification/fodder and feed management/ IPM/Value Addition	Integrated/ Scientific cultivation of crops	Throughout the year	15-20 in each trainings	13,000
Total				13,000

Field Days proposed

Theme	Title of training course	Proposed month	No. of participants	Cost to project (Rs.)
Crop management	Maize, Oil seed Wheat	September, February and March	20 each	8000
Crop diversification	Scientific cultivation of Ginger	September & October	25 each	2000
	Scientific cultivation of Okra	August	20 each	2000
Total				12000

Up-scaling of Successful Interventions

Name of technology	Unit cost/ha (Rs.)	No. of farmers covered	Cost to project (Rs.)	Remarks (justification)
Community vegetable nursery	3000	9	27000	Farmers are successfully growing nursery of vegetable crops
Total			27000	

Contractual Manpower (SRFs)

Category	Rate/month (Rs.)	No. of positions	No. of months	Amount (Rs.)
SRFs	36600	2	12	439200
Contractual labour	8000	1	12	96000
Total				535200

Media Products to be developed (brochure/bulletin)

Item description	No. of copies	Amount (Rs.)
Pamphlets -2 types	500	5,000
Booklets	500	15,000
Total		20000

Thanks & Think