

# NICRA Village Information

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<b>Name</b>	<b>: Khutli; Tal. Kaprada</b>
<b>Longitude and Latitude</b>	<b>: N 20`24.972' E073`10.354'</b>
<b>Distance from KVK</b>	<b>: 23 km</b>
<b>Nos of family</b>	<b>: 349 (100 % Tribal population)</b>
<b>Total population</b>	<b>: 1922</b>
<b>Total land of the village (ha)</b>	<b>: 568</b>
<b>Total cultivated area (ha)</b>	<b>: 301</b>
<b>Forest including others (ha)</b>	<b>: 267 (48%)</b>
<b>Cattle population</b>	<b>: 685</b>
<b>Major crops</b>	<b>: Paddy, Pulses, Vegetables</b>
<b>Rainfed agriculture</b>	<b>: 70 %</b>



# Existing Farming Systems

## Prior NICRA

## Constraints

- Single enterprise model
- Rice based cropping system
- Paddy-fallow-Paddy
- Paddy -Pulses-Paddy
- Livestock

- Deforestation
- Infertility in cattle/poor milk production -unavailability of green fodder
- Under utilization of natural resources-water
- Poor land use pattern
- Monocropping

Unviable farming system



# Climate smart technological interventions

- Soil solarisation using plastic sheet
- Lodging resistant variety-paddy
- Tarpaulin sheets
- Planting technique of vine crops
- Soil and water conservation
- Custom hiring centre
- Introduction of perennial fodder grass variety
- Efficient use of harvested water in Irrigation
- Alternate source of energy - Gobargas
- Vermicomposting
- Plastic mulching



# Institutional Arrangement

Membership  
Fee Rs.100/-

**CRMC**  
**11**

**Animal care**  
**(04+01)**

**NRM**  
**(04+01)**

**Custom  
Hiring**  
**(04+01)**

**Water  
Management**  
**(04+01)**

**Crop  
production**  
**(04+01)**

**437**  
**Stakeholders**



# Effect of Climate Change



- 39.5 mm rain on 6<sup>th</sup> October with wind velocity 12.5 km/hr.
- More than 65 % paddy lodged at maturity
- Wet field condition (humidity) cause germination of grains in field
- Quality of paddy straw get deteriorate-turns brown-black colours
- Difficult to harvest - increase labour
- Difficult to carry harvested produce to home
- Results in to greater economic loss

# Lodging resistant variety

- 📍 The variety MTU-1010 is short duration, dwarf and resistant to lodging
- 📍 The harvesting of paddy was started by 2nd fortnight of October
- 📍 Demonstrated variety was found affected only 10 – 15 percent
- 📍 Withstand moderate wind velocity
- 📍 Prevents the losses to grain yield as well as straw which is main source of dry fodder
- 📍 Av. production of demo. plots was 4040 kg/ha



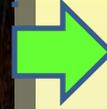
# Uses of Tarpaulin sheet

- Protect harvested produce from rain
- Threshing/Winnowing of crops
- Storage of produce



# Soil Solarisation

Most of farmers got convinced to use plastic **instead of fire wood** for raising paddy nursery



# Economic Impact of Intervention

Variety	Avg Grain Yield (kg/ha)	Avg. Grain Income (Rs/ha)	Avg. Straw yield (kg/ha)	Avg . Straw Income (Rs./ha)	Avg. Cost of Harvesting -Manually (Rs./ha)	Income Rs./ha.
MTU1010 (Demo plot)	4,040	40,400	4,083	10,208	60 Labours@ Rs120 =7200	43,408
OTHERS (NON DEMO PLOT)	3,105	24,840	3,189	7,973	83 Labours@ Rs 120 =9,960	22,853
DIFFERENCE	935	15,560	894	2,235	2,760	<b>20,555</b>



# Custom hiring centre

Sr.No	Equipment	No. of equip.	Hrs. used	Users	Total Income
1	Power tiller	01	282	134	84,860
2	Diesel engine	01	559	18	11,193
3	Winnowing fan	27	--	322	27,000
4	Brush cutter	1	30	10	1,500
5	Reaper	1	12	12	3,462
<b>Total</b>		<b>31</b>		<b>496</b>	<b>1,28,015</b>



# Constraints in vine crop cultivation



- **Traditional method of cultivation**
- **Bamboo structure**
- **Metal wire (corroded)**
- **Direct sowing of seed in field**
- **Mortality of plants**
- **Poor plant geometry**
- **Use of different varieties**

**Low return**





## Effect of climate change on traditional method

- Damage on : 24-09-2013
- Rain : **213 mm/day**
- Wind velocity : 13.2 km/hr



# Technological Intervention



- **Boundary with RCC pole**
- **Plastic rope - light in weight with good stretching capacity provide longer life to the structure and can be reused.**
- **Less storage space**



# Technological intervention : Planting technique



- Seedlings grown in nursery
- Poly bags transferred to the field
- Uniform growth
- Gap filling
- Early production
- INM (Liquid biofertiliser)
- IPM (Q lure fruit



NICRA Project  
**Crop Demonstration On Bottle gourd**  
Total Demo Area: - 1.2 ha.  
Total beneficiaries: - 6  
Farmers Contribution: - 25%  
PIA  
Krishi Vigyan Kendra  
Ambheti - Valsad - C



# Community Nursery

Managed by Shivam group of women



- Shed net house (200 sq.mtr)
- More than 25 % contribution received from beneficiary of net house demo.
- Seedling sale:67000 nos.  
Rs 29250 earned from vegetable seedling sell by group nursery



# LIVESTOCK ENTERPRIZE

→ Introduction of HYVs  
of perennial grasses  
i.e.Co-1,Co-2,Co-3

→ Area covered 1.47 ha.  
( 42 members)

→ Synchronization

→ Deworming of 300 animals  
FMD mass vaccination of 360  
animals



# GOBAR GAS

**Fire wood users family : 270**

## Technology :

**Alternate source of energy**

**Type : Floating (Sintex make)**

**Capacity : 2 CMT**

**Beneficiary : 7**

**Other agency beneficiary : 36**

**Contribution : 25 %**

**Total Installed : 43**



**Floating type**



**Vermicomposting**



# Natural Resources Management

- ➔ Percolation tank with Pucca RCC westweir
- ➔ Renovation of old west weir
- ➔ Bunding/Trenching (with farmers 10% contribution)
- ➔ Drumstick plantlets produced in group nursery are planted on bunds
- ➔ Cashewnut /Mango plantation

## IMPACT

- ➔ Increase availability of water during Feb-March.
- ➔ About 28 ha. of land covered.
- ➔ Total 32 farmers benefited from both the structure



# Natural Resources Management

**Before Treatment**



**Renovation**



**Result**



# Efficient use of irrigation water

**Technology : MIS**

**Approach : PPP Mode**

**Partners : Farmers, NICRA (KVK) and GGRC**

**Total Area Covered : 50 ha.**

**Contribution : GGRC- 75 %**

**Farmers-5%**

**NICRA-20%**

**Total cost : 10.5 Lacs**



# FINANCIAL STATUS OF CRMC

- Total Income (Including contribution) **RS. 6,83,955/-**
- Total expenditure (Custom hiring centre Const.) RS. 1,02,650/-
- Demonstrations from farmers contribution RS. 1,50,000/-
- Balance with CRMC RS. 3,31,345/-

Saving account balance with SBI (Rs.)	Fixed deposit with SBI (Rs.)	Cash on hand (Rs.)	Total balance with CRMC (Rs.)
<b>155948</b>	<b>175000</b>	<b>397</b>	<b>3,31,345</b>



a/c = Account	dep = Deposit
adj = Adjustment	Dft = Draft
Amt = Amount	dish/dsh = Dishonour
Ar = Arrear	DR = Debit
bal = Balance	DOB = Date of Birth
Capn = Capitalization	eft = Electronic Fund Transfer
chg/ch = Charge	Inop = Inoperative
chq = Cheque	ins = Insurance
Clos = Closure	int/in = Interest
coll = Collection	lon/ln = Loan
comm. = Commission	min = Minimum
COR/CORR = Correction	os = Outstanding
CR = Credit	P & T = Postage & Telegram
csh = Cash	Pos = Point of Sale

Pr = Principal
tr = Transfer
Tr = Telegraphic transfer
txn = Transaction
Wdl = Withdrawal
+MOD bal = total balance (SB+linked MOD a/c)



भारतीय स्टेट बैंक

State Bank of India

Savings Bank Account  
CIF No : 86037409422

VAPI ROAD NANAPONDA  
OKIT BI 910 LUHAR FALIA VAPI

Account No : 31750452511  
Customer Name: NIKRA, KHUTLI CLAIMENT RISK MANAGEMENT COMMITTI

OAD

S/D/W/H/o:  
Address: KHUTLI

Phone: 250350  
Email: sbi.11007@sbi.co.in  
Branch Code: 11007  
Date of Issue: 18/05/2011  
18/05/2011 353670 11007  
FIRST शाखा प्रबंधक

Branch Manager

TA- KAPARADA

Phone:  
Email:  
D.O.B. (If Minor):  
MOP:  
Nom. Reg. No.:

DATE	PARTICULARS	CHEQUE NO.	DEBIT	CREDIT	BALANCE
				Brought Forward	187559.00Cr
06.03.13	CASH DEPOSIT SELF			25500.00	213059.00Cr
08.04.13	CLG TRF DENA	538976288		10000.00	223059.00Cr
10.04.13	STDR ISSUED	577653	25000.00		198059.00Cr
10.04.13	TRF TO 032934281471				
10.04.13	STDR ISSUED	577652	50000.00		148059.00Cr
10.04.13	TRF TO 032934266666				
10.04.13	STDR ISSUED	577651	100000.00		48059.00Cr
10.04.13	TRF TO 032934262232				
21.05.13	CASH DEPOSIT SELF			21000.00	69059.00Cr
22.05.13	AXS	129033	3172.00		65887.00Cr
25.06.13	CASH DEPOSIT SELF			7500.00	73387.00Cr
25.06.13	CASH DEPOSIT SELF			14400.00	87787.00Cr
30.06.13	INTEREST CREDIT			2646.00	90433.00Cr
05.07.13	DR THRU CHQ	129034	6000.00		84433.00Cr
21.08.13	CASH DEPOSIT SELF			3000.00	87433.00Cr
28.09.13	CASH DEPOSIT SELF			50000.00	137433.00Cr
08.10.13	CASH DEPOSIT SELF			18515.00	155948.00Cr



**Best CRMC  
Performance Award  
(Rs.1.0 lakh)**



**Her Excellency  
Dr KAMLA BENIVAL  
Governor of Gujarat  
visit at NICRA Village**





# VISIT OF ZPD, REPRESENTATIVE FROM CRIDA AND RESEARCHERS TO NICRA VILLAGE



# Convergence

- Gujarat Green Revolution Company
- Valsad District Cooperative Milk Producers Union Ltd.
- ANARDE Foundation
- Jasoda Narottam Public Charitable trust
- State Dept. of Irrigation, Valsad
- State Dept. of Forestry, Valsad
- Navsari Agricultural University, Navsari
- ATMA Project, Valsad

