Deendayal Research Institute
Chitrakoot

Welcomes

All the Jury members and Delegates

Independent People's Tribunal on the
World Bank in India
New Delhi

Sustainable Agriculture

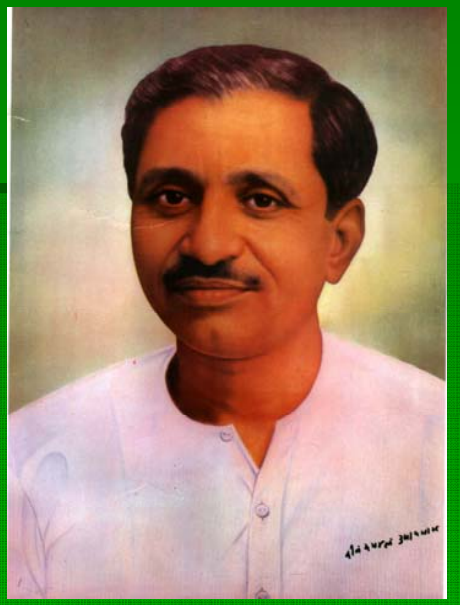
A Case Study
Of
Deendayal Research Institute
Chitrakoot

Agriculture and farmers after 60 years of Independence

- Farmers dependency for seed and fertilizers.
- cost of cultivation is increased
- poor market facilities (supporting price)
- Farmers Suicide
- Agriculture become burden for farmers
- Fight for Food and livelihood
- Feelings of interdependency and complementarity declined
- Increasing Frustrations and disputes
- Decreasing land-holdings
- Migration from rural areas
- Insecurity and disparity

An Innovative effort of Deendayal Research Institute

Integral Humanism



“The process of development begins from the bottom and moves towards the top. The roots of our nation lie in rural India. So the development of our society and country must begin from the rural areas.”

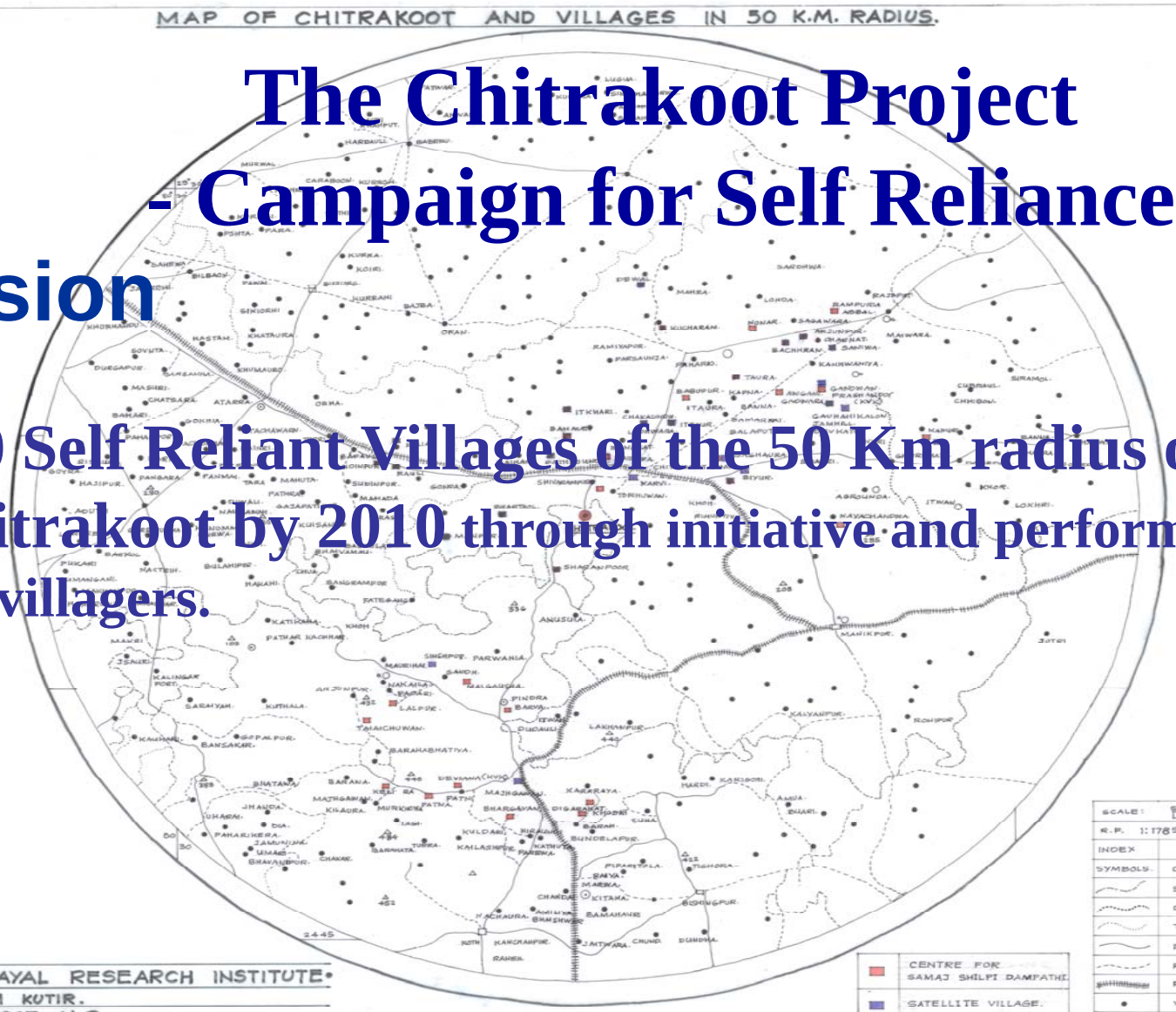
Pt. Deendayal Upadhyaya

The food security at national level, in real sense, can only be achieved by achieving food security at household level. ***Nana Ji Deshmukh***

The Chitrakoot Project
- Campaign for Self Reliance

Vision

500 Self Reliant Villages of the 50 Km radius of Chitrakoot by 2010 through initiative and performance of the villagers.



Collecting Basic information from villagers

PRA- (Village Survey & Family Survey)

Peoples Participations- Planning by the People for the People

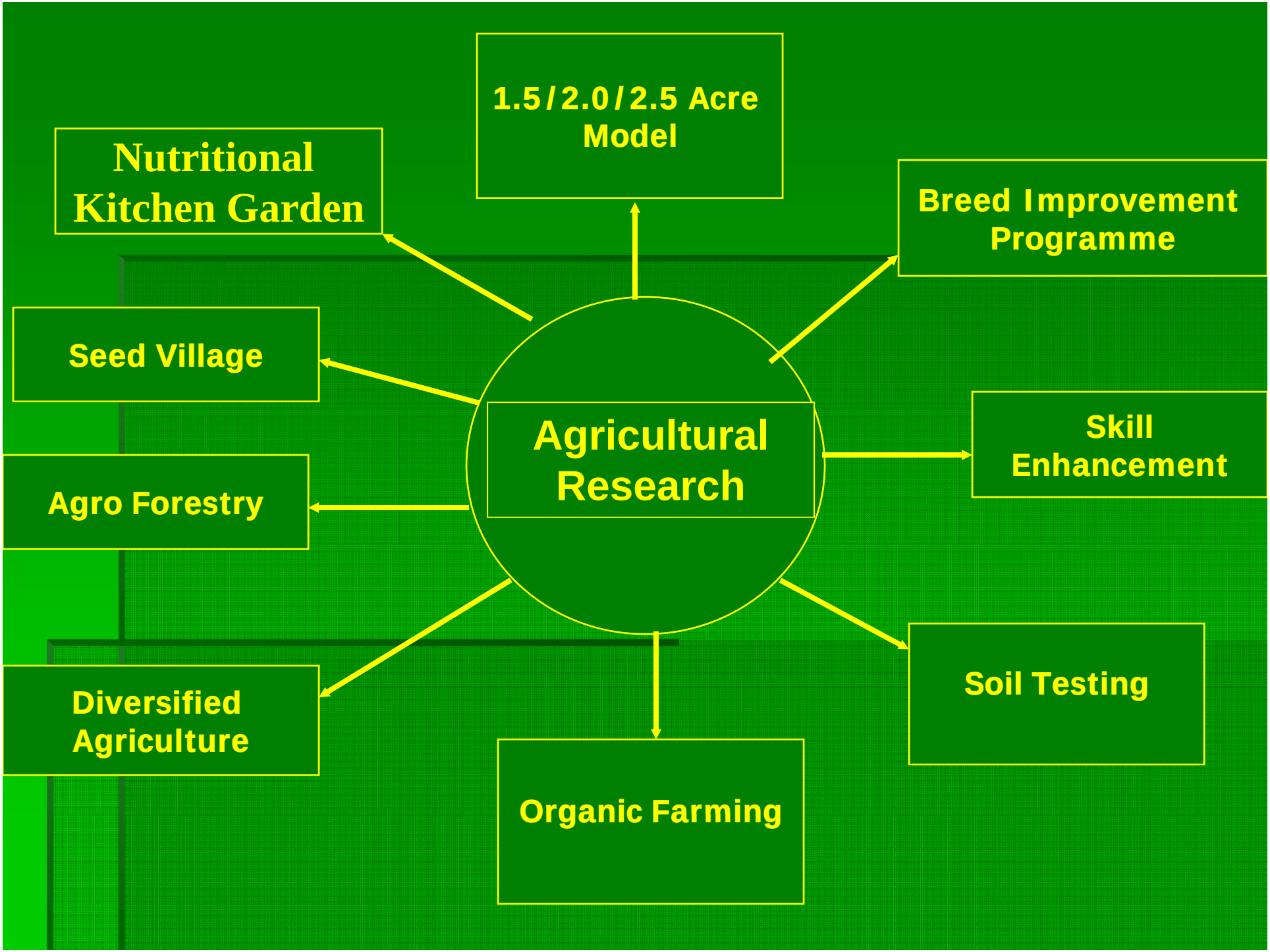
Major problems of Chitrakoot Area….

Poverty,Disparity,Unemployment, Illiteracy, Ill Health, No Water

Purpose

“Total transformation and development of society, through peoples’ initiative and performance with integrated and holistic approach”

Peoples’ power is the real power


1.5 / 2.0 / 2.5 Acre Model
Nutritional Kitchen Garden
Breed Improvement Programme
Seed Village
Agricultural Research
Skill Enhancement
Agro Forestry
Diversified Agriculture
Organic Farming
Soil Testing

The collective efforts of the villagers harnessed rainwater runoffs into ponds. In this way, not only was the problem of drinking water solved, but irrigation of the agricultural land has also become possible.

Staggered Trenches

Loose Boulder Check Dams

Water Harvesting for Irrigation and Ground Water Recharge

MP State Govt. Sanctioned a sum of Rs, 4000 /ha under watershed management program, Deendayal Research Institute watershed management incurred an expenditure of Rs. 3486.00/ha thus saved Rs. 514/ha.

Ponds for Irrigation

Impact of Watershed

Particulars	Before Treatment	After Treatment	Increase
Irrigated area (Ha.)	**66.0**	**2224.0**	**2158.0**
water level of wells (Meter)	**0.45**	**3.34**	**2.89**
Crops Production Q/ha., increase (In%)			
Paddy	10.30	22.80	121.36
Wheat	15.80	26.20	65.82
Gram	8.10	15.70	93.83
Mustard	5.00	10.02	100.40
Jower	6.00	8.60	43.33
Pegion pea	7.40	9.10	22.97
Average Family Income (Rs.)	**10430**	**22875**	**12445**


Gir from Gujrat


Sahiwal from Punjab


Rathi from Rajasthan


Ongol from Andhra Pradesh


Tharparkar from Sindh


Kankrej from Gujrat


Hariyana from Hariyana

Conservation and Propagation of pure indigenous breed of cattle


Nagori from Jodhpur

Most of the farmers adopting organic manure

NADEP Compost

Horn compost

- NADEP Compost
- Vermi compost
- Wormi wash
- Matka khad
- Horn compost
- Biogas slurry

Wormi wash

Matka khad

ORGANIC CERTIFIED VILLAGE

Annex. to Audit Report

SGS India Pvt. Ltd. has performed an inspection as per Regulation NSOP and, EEC 2092/92 assigned by:

Licensee Name	:	Deendayal Research Institute
Contact Address	:	7E Jhandewalan
Extension		New Delhi-110055
Contact Person	:	Mr. Atul Jain
Country of Production	:	India

This report referred to in the licensee contact as scope certificate, covers the following **Processing unit (s)** which meets the criteria of Regulation NSOP and EEC 2092/91 :

Unit No.	Name of Unit	Address	Process
DDRI 104-U-01	Krishi Vigyan Kendra DRI	Majhgwan, Distt. Satna, Madhya	Administration, Internal Control, Export, Cleaning, grading, drying, Dal Milling, Oil Extraction packing, storage

As per this annex. to Audit Report following product(s) which meet the criteria of Regulation NSOP and EEC 2092/91 are mentioned below

Product No.	Name of Product	Product Category	Processing Unit No
DDRI 104-P-01	Wheat	Registered to Organic	DDRI 104-U-01
DDRI 104-P-02	Wheat Flour	Registered to Organic	DDRI 104-U-01
DDRI 104-P-03	Wheat Dalia	Registered to Organic	DDRI 104-U-01
DDRI 104-P-04	Gram	Registered to Organic	DDRI 104-U-01
DDRI 104-P-05	Gram Dal	Registered to Organic	DDRI 104-U-01
DDRI 104-P-06	Gram Besan	Registered to Organic	DDRI 104-U-01
DDRI 104-P-07	Pigeon Pea	Registered to Organic	DDRI 104-U-01
DDRI 104-P-08	Sorghum	Registered to Organic	DDRI 104-U-01
DDRI 104-P-09	Paddy (Rice)	Registered to Organic	DDRI 104-U-01
DDRI 104-P-10	Barley Flour	Registered to Organic	DDRI 104-U-01
DDRI 104-P-11	Barley Dalia	Registered to Organic	DDRI 104-U-01
DDRI 104-P-12	Mustard Oil	Registered to Organic	DDRI 104-U-01
DDRI 104-P-13	Kodo	Registered to Organic	DDRI 104-U-01

As per this audit report Scope Certificate covers the following agricultural unit(s) which Meet(s) the criteria of Regulation NSOP and EEC 2092/91 :

Farm /Unit No	Unit / Farm Name	Registered Organic	
		Ha	Farmers
DDRI 104-F-01	Tagi	76.50	21
DDRI 104-F-02	Bichhian	82.50	70
DDRI 104-F-03	Karariya	48.90	17
		207.90	108
Products :	Wheat, Wheat Flour, Wheat Dalia, Gram Dal, Gram Besan, Pigeon pea, Sorghum, Paddy (Rice), Barley Flour, Barley Dalia, Mustard Oil, Kodo		

per pro SGS India Private Ltd.

Authorised Signatory

TEST REPORT

Sample No. : GR:GL:521004052 Date : 23.05.2005

JOE No.: 52151482 Report No. :521004864

SAMPLE DRAWN BY SGS INDIA PRIVATE LTD.

SAMPLE IDENTIFIED AS : SOIL	
COMPANY NAME	DEENDAYAL RESEARCH INSTITUTE
ADDRESS	7E JHANDEWALAN EXTENSION
CITY	NEW DELHI-110055
	A/C Suggest INDIA PRIVATE LTD. (Food Services-Gurgaon)
SAMPLING METHOD	N.A.
SAMPLE DESCRIPTION	DRY BROWN SOLID
SAMPLE CONDITION	SEALED
SAMPLE QTY.	500 gms
CLIENT CODE	IN/DEL/CTS-FOOD/05/104/ORG.
SEAL Number	LAB/DRI/SOIL 03
SAMPLE RECD ON	06/05/2005
TEST START DATE	06/05/2005
TEST END DATE	16/05/2005

TESTS	PROTOCOL	RESULT
LEAD	AOAC 17TH EDN : 2000	27ppm
COPPER	AOAC 17TH EDN : 2000	13.32 ppm
ARSENIC	AOAC 17TH EDN : 2000	ND (DL-0.1 ppm)
TIN	AOAC 17TH EDN : 2000	ND (DL-5 ppm)
ZINC	AOAC 17TH EDN : 2000	99.6 ppm
CADMIUM	AOAC 17TH EDN : 2000	ND (D.L. 0.5 ppm)
MERCURY	AOAC 17TH EDN : 2000	ND (DL-0.1 ppm)
CHROMIUM	AOAC 17TH EDN : 2000	22 ppm
NICKEL	AOAC 17TH EDN : 2000	24 ppm

per pro SGS India Private Ltd.

Authorised Signatory

- **Conversion of uneconomic holdings to economic holding**
  - By changing the farming system (2.5/1.5 acre Model)
  - Substitution of crops(Cash crops)
  - Substitution of improved varieties/disease resistant/tolerant varieties

Layout and planning for Marginal farmers
KHARIF (2.5 Acre Model)

Paddy (JR_353) –1.5 acre

Urd(PU-30)-0.5 acre

Brinjal 0.05 acre

Tomato 0.05 acre

Okra 0.05 acre

Lobia 0.05 acre

Spinach Radish 0.05 acre

Chilies(Pant c-1) 0.125 acre

Onion(ADR) -0.125 acre

RABI

Wheat (WH-147)+ Mustard (Varuna)–1.0 acre

Gram (JG-315)-0.5 acre

Mustard (Varuna)-0.5 acre

Toma to 0.05 acre

Pea 0.05 acre

Potato-0.125 acre

Spinach Radish 0.025 acre

Coriander (Morrakkan) 0.125acre

Garlic (G-1) -0.125 acre

ZAID

Fallow/ Green manuring–1.0 acre

Fallow/ Green manuring -0.5

Bottle Gourd - 0.5 acre

Lobia 0.0625 acre

Okra 0.125acre

Spinach Radish 0.025 acre

Table 3. Comparative study showing Increase in yield & income:

Particulars	Before intervention		After intervention	
	Avg.Yield (kg)	Income(Rs.)	Avg.Yield (kg)	Income(Rs.)
Cereals	2500	11250.00	2545	14198.00
Paddy	-	-	1340	6968.00
Wheat	2500	11250.00	1205	7230.00
Pulses	500	6000.00	421.50	6933.00
Urd	-	-	225.00	3375.00
Gram	500	6000.00	296.50	3598.00
Oilseed	-	-	434.00	6944.00
Mustard	-	-	434.00	6944.00
Vegetables	690	2070.00	4028.50	16920.00
Spices	10	260.00	733.50	15042.00
Total		**19580.00**		**60037.00**

Prices of produce were calculated on the basis of prevailing rates in the local market

Uneconomic land holdings of small and marginal farmers have been successfully converted into economic ones through 2.5 and 1.5 acre models.

The farmers of the Chitrakoot area have been inspired to adopt organic farming and are benefiting from this.

Nutritional Kitchen Garden in the backyard of every house

Diversified Agriculture

Value addition activities through landless labours


30/09/2004


18/07/2004


14/07/2004


MOHANLAL
ASHOKKUMAR
14/07/2004


18/07/2004

MARKETING THROUGH GRADUATE UNEMPLOYED YOUTH

Multi Level Employment Model

Raw material collection,
Grading and (Rich farmers)

↓

value addition (landless labours)

↓

Semi processing (Marginal Farmers)

↓

Processing (Marginal Farmers)

↓

Quality Control (Scientist)

↓

Packaging (Landless Labours)

↓

Dispatch (Landless Labours)

↓

Marketing → Profit sharing

Non farm sector

Non-farm sector









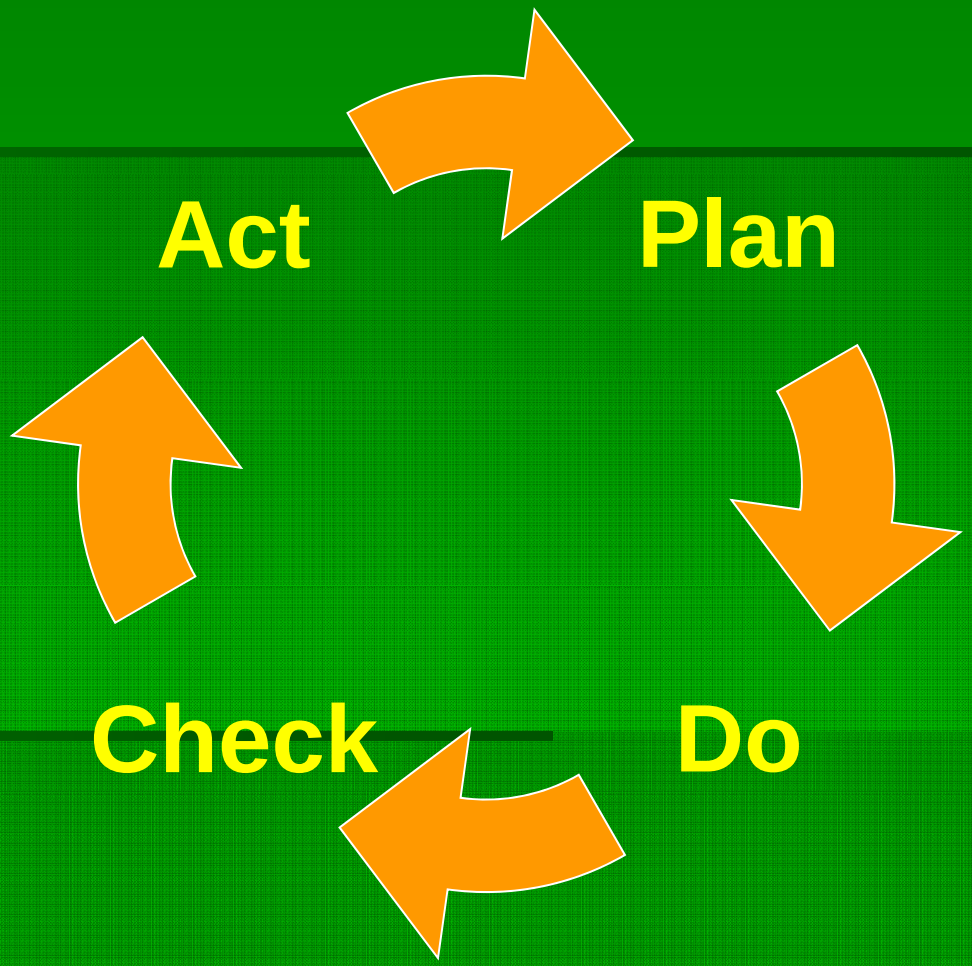

Knowing about the 2.5 acre model Industrialist Ratan Tata

DG & DDG (AE) ICAR discuss with farmer's

Dr. Mangala Rai, DG, ICAR visiting to farms

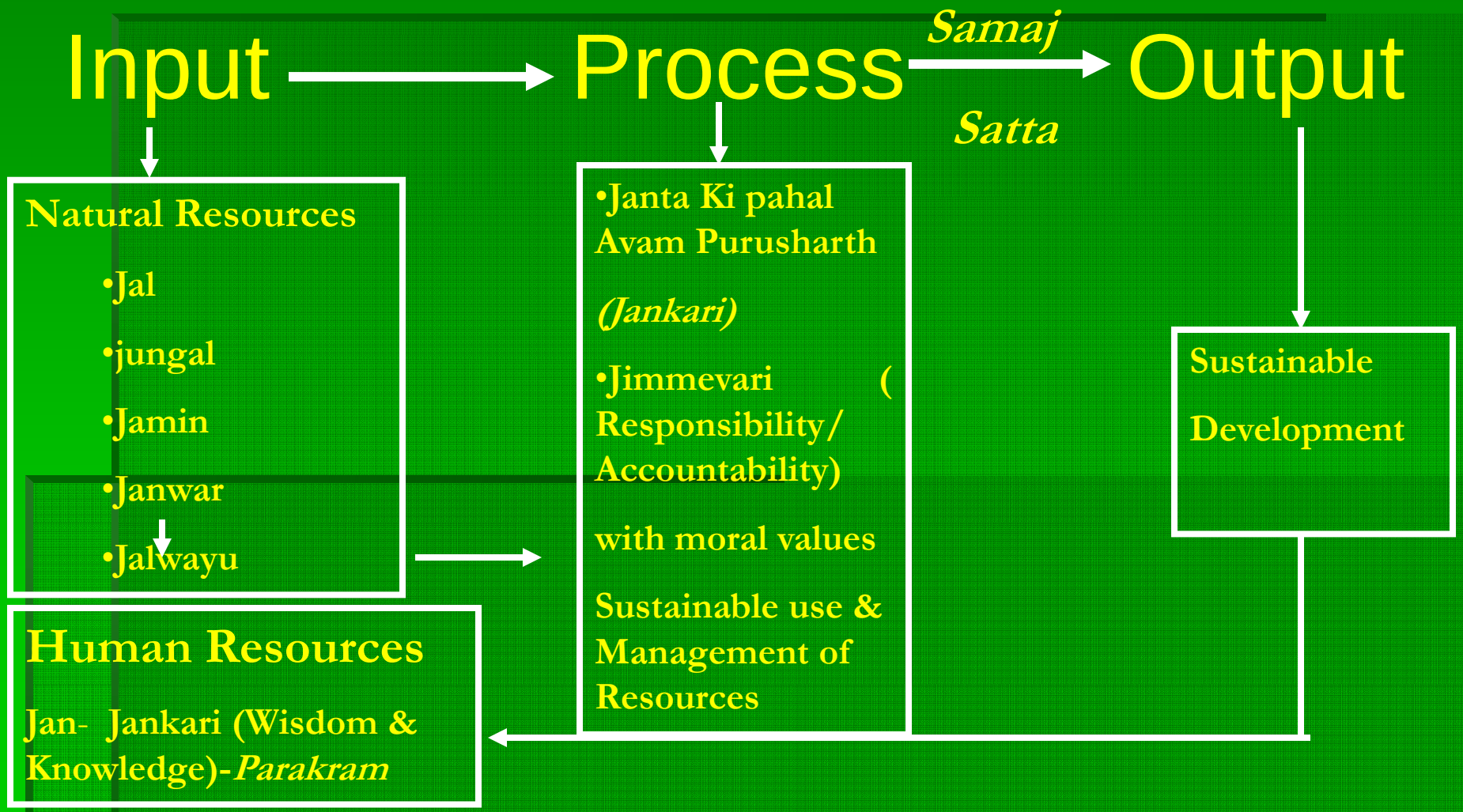
Villagers are sharing their experience with Dr. Kalam

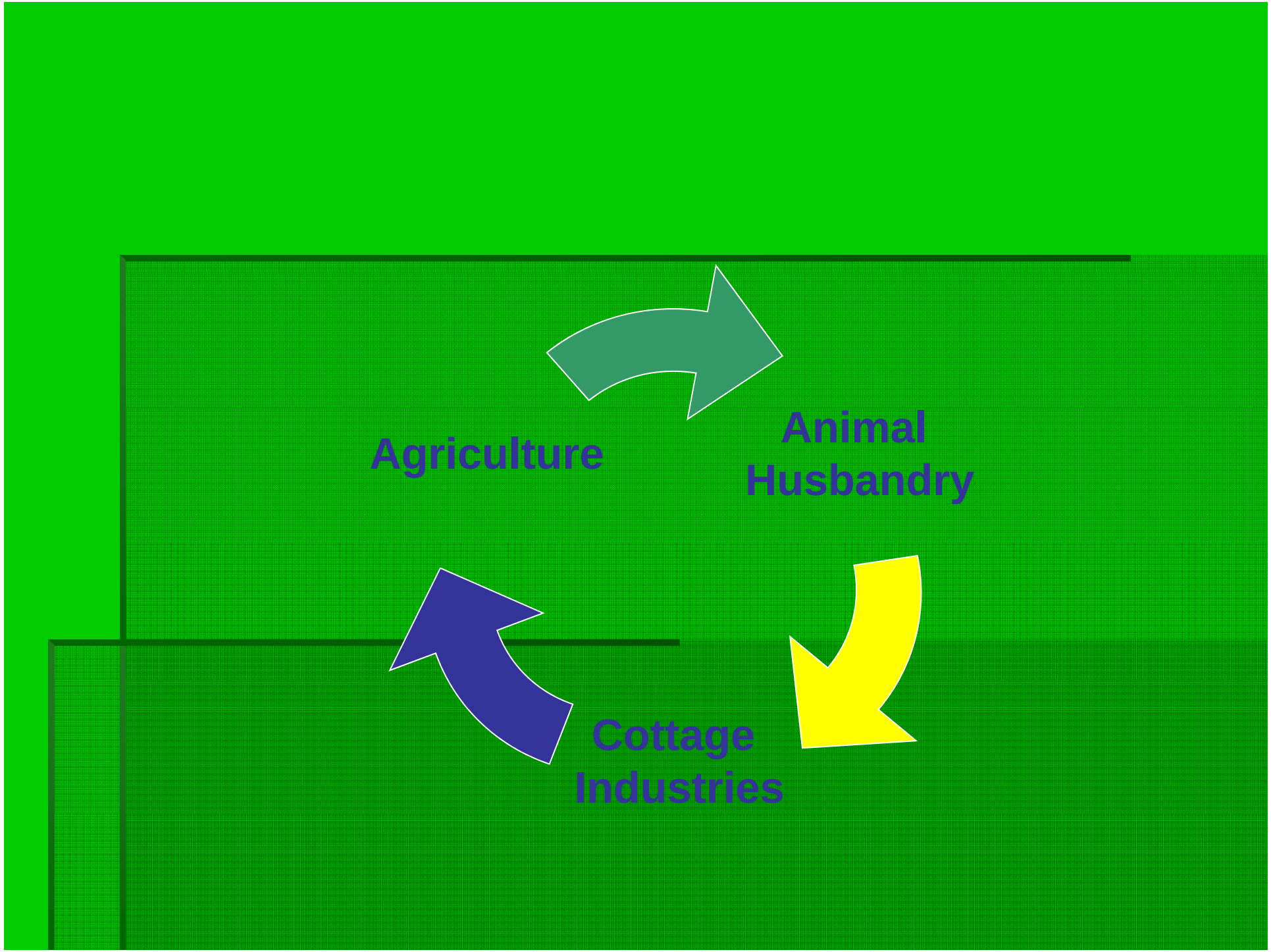
PDCA cycle

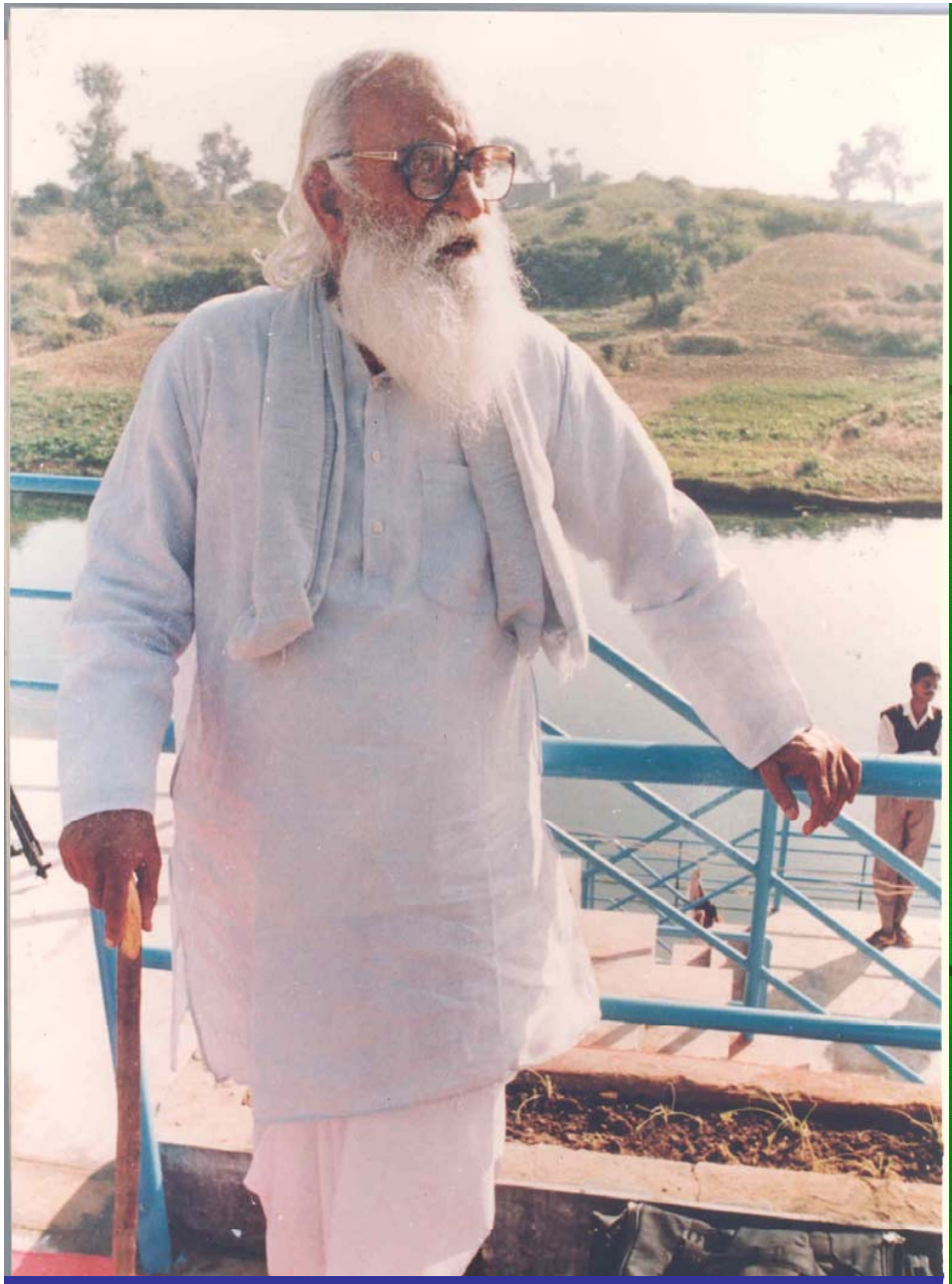


Outcomes of DRI experiences.....

Sustainable Development




Agriculture
Animal Husbandry
Cottage Industries



Nana Ji Deshmukh

Founder -Deendayal Research Institute

Majority of Indian farmers are small and marginal whose land holdings are considered as uneconomic. Our country cannot prosper agriculturally as long as these uneconomic holdings are considered non viable for securing adequate food for family. There is a need to undertake experiments on converting these uneconomic holdings into economic holdings so that these farmers can contribute to the nation's capital formation