



PATNA KALA - A STUDY OF A SELF-RELIANT VILLAGE

The Village of Patna Kala - A Study

People's participation has been identified as a **necessary condition** for the successful implementation of the Self-Reliance Campaign. Villagers are encouraged to learn and educate themselves in all aspects of the campaign. People's participation is actively sought in the preparation of the action plan, fixing the priorities for work, and the execution of the work planned within the programme.

Since Independence, rural development schemes were discussed and formulated at the District, State and National level without the participation of rural people. This ignored core local issues and the requirements of the particular area. As a result, these cost-intensive rural development schemes were unable to achieve their objectives. After planners and policy-makers realised the shortcomings of this type of planning, they resolved to compulsorily enlist the participation of the people involved in the developmental schemes being carried out in their villages through a **Participatory Rural Appraisal (PRA)**. This procedure, that has now become the key document for any rural developmental work, ensures the people's understanding of their problems and helps in devising solutions that can be implemented by them. People's participation in rural projects increases their scope, stability and success rate.

Rural participatory programmes succeed in bringing all sections of society - including women and landless labourers - to a common meeting ground, where villagers are apprised of their problems; educated about the rural development project, and their need for the project to alleviate their problems. This further ensures a surge of voluntary participation by them. The objective of the PRA is to gain the confidence of the villagers, who will then divulge basic information regarding local conditions relating to farming, schools, wells, ponds, flora & fauna, roads, forests, and a variety of other data that can help in devising solutions to their problems.

Basic information about the village, Patna Kala, was collected from the Agriculture Department, Panchayat Office, the *Patwari* of the Revenue Department, the Veterinary Officer, and Gyan Singh, the most recognized person in the village. The information on geographical coordinates, demographic pattern, community categorization, occupational distribution of each family, agricultural scenario, water resources, animal husbandry, etc., were collected.

The village of Patna Kala is a tribal village located in the Patna Khurd Panchayat and situated in the ravines near Majhgawan, a little known block in Satna district of Madhya Pradesh. The village of Patna Kala is said to be over 500 years old. It is believed that the village was earlier located 4 km north of its current location in a place called Amhe that no longer exists. It is said that a cholera epidemic swept the village and forced the villagers to abandon its old location and shift to its current location. Due to the availability of water, a core group of Amhe villagers decided to settle at the current location and thus the village of Patna Kala came into existence. Many villagers from surrounding villages, whose ancestors fled the epidemic but settled elsewhere, also claim ancestry from the village of Amhe.



Village Profile

Village	Patna Kala
Block And Tehsil	Majhgawan
Location	10 Km Southwest of KVK
Population	480
Scheduled Castes (SC)	41
Scheduled Tribes (ST)	433
Other Backward Classes (OBC)	06
Total farm families	83
Farm families Below Poverty Line	68
Big farmers	00
Small farmers	35
Marginal farmers	35
Landless farmers	03

The total population of the village is 480 and average family size 5.78 members.

FARM FAMILIES AND THEIR DEMOGRAPHIC COMPOSITION IN THE SELECTED VILLAGE

No. of families	Male (nos.)	Female (nos.)	Children (nos.)	Total	Av. Members /family
83	141	127	212	480	5.78

Village Transect

After collecting the basic information about the village, the transect walk of the village with all the socially recognized people in the village, was conducted to identify, understand and study the village in its entirety. This includes major land use, topography studies, mapping of water resources, soil type, crops grown, trees and shrubs, livestock, as well as the problems and opportunities for development in the village. The village transect is presented below:

- Soil type : Red Sandy Loam to Loam
- Water Resources : Seasonal *Nalas* and wells
- Crops : Sorghum + Pigeon Pea, Kodo Paddy, Wheat, Barley + Gram
- Vegetables : Nil
- Trees and Shrubs : Neem Babul, Mahua, Ber, Peepal, Mango
- Animals : Cattle, Buffalo and Goat
- Land Use Pattern : Houses, crops and animals
- Problems : **Health**
 - : Poor sanitary system
 - : Unsafe drinking water
 - : Malnutrition and under-nutrition
 - : High mortality rates
 - : Anaemia
- **Education**
 - : Children not attending School

- : High adult illiteracy leading to superstitions
- : **Social**
- : Child marriages
- : Child labour
- : Open grazing (*Arra Partha*)
- : **Income Generation**
- : Rain-fed farming
- : Poor quality Seed
- : Traditional farming practices
- : No value addition to forest/farm produce
- : Lack of non-farm sector Income
- : Poor genetic potential of livestock
- : Poor management practices
- : No veterinary aid centre
- Opportunities
- : **Health**
- : Sanitary programmes
- : Awareness and motivation programmes
- : Nutritional Kitchen Gardens
- : Knowledge of locally available herbs for minor ailments
- : Waste utilization
- : **Education**
- : Motivation of parents
- : **Social**
- : Motivation and education of villagers
- : **Income Generation**
- : Rainwater harvesting and recycling
- : Crop diversification
- : Quality seed production
- : Up-gradation of livestock
- : Formation of SHGs
- : Skill development for income generation

Soil and Hydrology of village:

The soil in the village is mostly sandy loam. Seasonal *nalas* flow on the two sides of the village, opening the scope for water harvesting through construction of check dams and diverting the flow of water towards cultivable land through channels. The villagers also admitted that if the water in the seasonal *nalas* is diverted towards the village through construction of an irrigation channel, most of the land in the village can be brought under irrigation. Thus, the villagers were made to realize that the water scarcity in the village is the root cause of their poor economic condition.

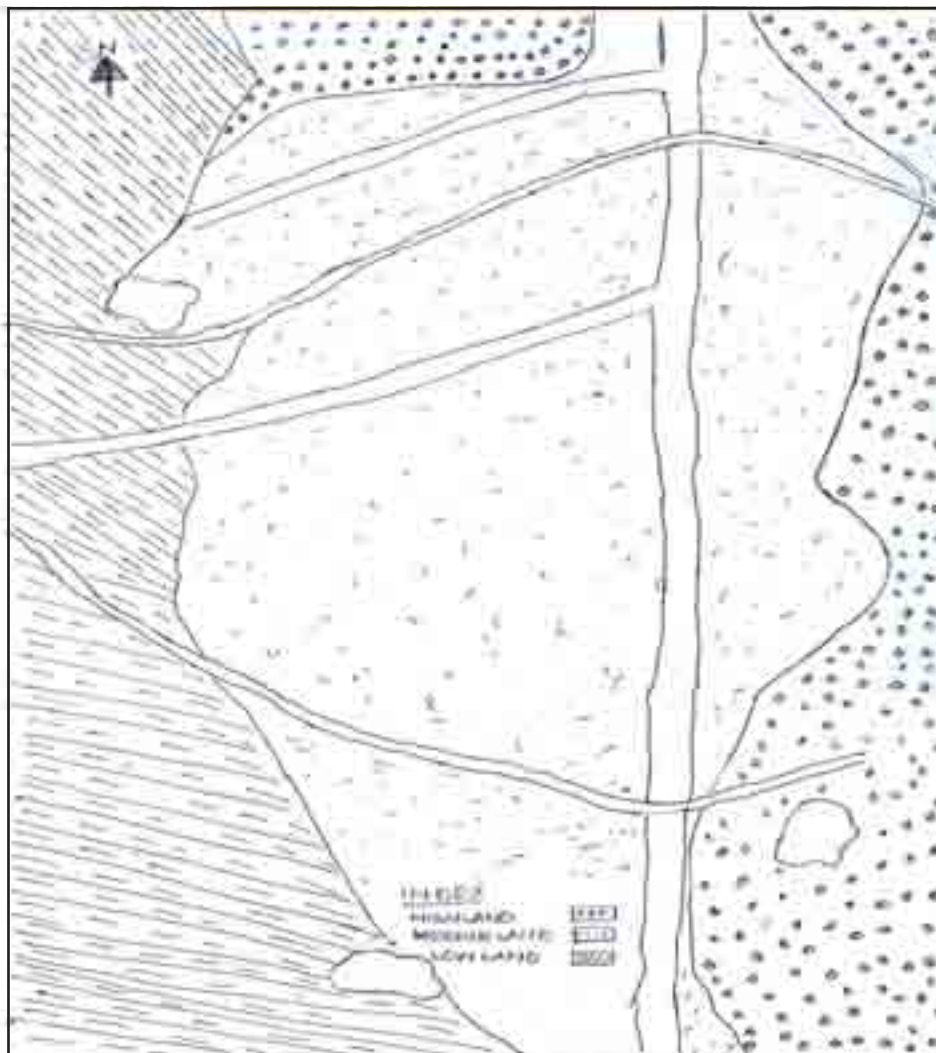
Agro-ecosystem map

To understand and study the micro-ecological features in the village, the information on meteorological parameters like rainfall, temperature, major flora & fauna of the village; basic land use patterns, such as cropping, forest cover, wasteland, livestock; other natural resources like soil type, water sources (wells, water channels, ponds); and other public amenities and their use in the village are required. All this information is depicted in a map made by the villagers. This map helps in the preparation of perspective planning for the village's development.

The maximum rainfall occurs during July-September which amounts to around 830 mm. Average temperatures range from 3^oC - 45^oC. The household areas, agricultural fields and pasture cover the maximum portion of the village. Water remains in the seasonal *Nalas* from August to mid-October.

Wheat is the major crop cultivated during *Rabi* season and it covers around 129.5 acres. Paddy is the main crop of *Kharif* season. Cows, buffalo and goats are the main animals reared by villagers. Farmyard manure (FYM) is heaped in one place without proper scientific practices.

According to survey, the total cultivated area was 200.0 acres, of which 26.5 acres was irrigated. Most of the farming community were marginal and small landholders. The major crops of the village were sorghum, pigeon pea, paddy, wheat and gram.



Agro-ecosystem Map



Agricultural Scenario of the Village (2002)

Year	2002
Total land (acre)	324.5
Agricultural land (acre)	285.75
Cultivated land (acre)	200.0
Fallow Land (acre)	43
Cultural Wasteland (acre)	38.75
Irrigated (acre)	26.5

Livestock wealth

S.No.	Type of Animal		
		No.	Av. Productivity (l/day)
1.	Buffalo	33	1.5 - 2.0
2.	Cow	232	0.75 - 1.25
3.	Goat	142	0.25 - 0.5
4.	Sheep	02	
5.	Bullock	122	

Resource map



Thereafter, the resource map was drawn by the villagers depicting land resources, crop and crop based resources, trees, fruit trees, livestock, public amenities, water resources, types of houses, farm implements that were available, communication equipment, etc.

a) Land Resources

The total geographical area of the village is 324.5 acres of which the residential area covers only 34.5 acres and cultivated area is around 200 acres. In the cultivated area, irrigation facilities are available in 26.5 acres.

b) Crops and crop-based resources

Wheat is the main crop grown during *Rabi* season and it covers around 129.5 acres. However, wheat productivity at 4.20 q/acre, is very low (National Average: 11.2 q/acre). The next most important *Rabi* crop is



chickpea, with 31 acres of land under cultivation. Paddy is the main crop grown during *Kharif* covering around 82 acres. However, productivity is only 3.35 q/ acre (National Average: 10 q/acre).

Area and Productivity of crops grown in the villages

Crop	Area (acre)	Av. Productivity (Q/acre)
Paddy	82	3.35
Pigeon Pea + Sorghum	5.5	2.0
Wheat	129.5	4.20
Barley	13.5	2.96
Chickpea	31	2.61
Mustard	6.5	1.46

c) Trees with economic value

Mahua, Babul, Neem, Arjun grow in the village.

d) Fruit Trees

Ber, Mango, Guava and Lemon were found growing near village homes. No fruit orchards were seen in the village.

e) Animal Resources

The village has 232 *desi* cows, 33 buffaloes, 122 bullocks and 142 goats. Scientific management of livestock is completely lacking. The milk productivity is also quite low.

f) Public Amenities

There is pasture land on two sides of the village covering about 10.5 acres. The other public amenities include a temple and water harvesting bund constructed by the forest department.

g) Government Institutions

There is one 5th standard school and a post office.

h) Water Sources

The only source of irrigation is wells. There are three wells from which the water is drawn by pumps. There are also seasonal *nalas* flowing on two sides of the village that provide water from August to October.

Village Enterprises

Farming in the village is rain-fed. The production from the land was insufficient to meet family requirements. So, to supplement their family income they engage in seasonal labour work - collection and selling of firewood and forest produce. As labourers, each family earns about Rs 400-500 per month. 68 farm families were below the poverty line (having family income less than Rs. 18,000 per annum). Only 15 farm families with an alternate source of income in addition to agriculture - through government jobs and remittances receiving through relatives who have migrated - were above the poverty line.

By and large each family has 4-5 livestock (cows, buffaloes, bullocks and goats). Milk production is very low in the village as most of the cows and buffaloes are of traditional breeds, with unproductive yields and poor health.

Main crops of the *Kharif* (July-November) season were paddy, sorghum and kodo; and during the *Rabi* (November-March) season were gram, barley and wheat. Farmers were following Paddy-Wheat; Fallow-Wheat; Fallow-Gram; Paddy-Fallow; Sorghum + Kodo + Paddy mixed cropping.

Livestock is totally dependent on grazing in nearby forest areas and wastelands round the year. There is also a great social constraint which is known locally as *Arra Pratha* (free grazing of animals) like other villages of the region.

Income-Generating Enterprises

A majority of the farm families in the village are marginal farmers, having less than 2.5 acre land. These farm families derive their subsistence through agriculture, labour and forest produce collection. Landless families are generally daily wage labourers. Small farmers have agriculture and livestock as their enterprises.

Seasonal Calendar

PARTICULARS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
AGRICULTURE												
LIVESTOCK												
FOREST PRODUCE COLLECTION												
MIGRATION OF FAMILIES												

SEASONAL CALENDAR OF LIVELIHOOD ACTIVITIES

Thereafter, the seasonal calendar of the activities performed by the villagers through the year was prepared. It shows the seasonal work flow of the villagers.

Gender Segregated Seasonal Calendar

The information pertains to specific tasks performed by men and women in the village. This helps in establishing the participatory level of men and women in various activities and village level programmes.

Seasonal Analysis

To discover if the village suffers from cyclical diseases and other related problems, seasonal analysis of information when diseases occur was collected, for both humans and livestock. Conditions and problems with farming were also gathered.

Social Map

83 farm families live in 81 houses made of stone, wood, earthen materials and thatch. The village is spread over an area of 1.5 km in length and 1 km in breadth. The village is divided into 6 hamlets, namely Amha Tola, Murli Tola, Patna Madhya, Harijan Basti, Ram Tola and Hanuman Tola. The farm families are mainly from the tribal community. Out of 83 farm families, 75 are of scheduled tribes (ST), 6 are of scheduled caste (ST) and two of other backward classes (OBC). The village has electric supply but due to the poor economic condition of people, the facility is used by only 3-4 resourceful families.

The village has one 5th standard school for boys and girls. The temple is located on one side of the village. The village has a network of trails approaching the main road and inside the village. Most of the women in the village are engaged in collection of fire wood from the forest, and selling in the nearby Majhgawan market.

The village is connected with a *kachha* pathway, which gets washed away whenever it rains. When this occurs, the villagers are forced to take an alternate route - a walk through the hills for 10 km to reach the nearest weekly *haat*, Majhgawan, as the weekly markets is known. The Payaswini River is located 15 km away, and Chitrakoot, Lord Rama's place of exile and '*Karma Bhoomi*', is at a distance of 45 km. The main deity of the village is 'Badhe Dev Baba', and his main temple is 24 kms away. The villagers often go on pilgrimages to these 3 places.

On the North of the village is the village of Patni, a distance of 6 km, and 7



km to the South is Village Kelhaura, another village selected as a *Swavlamban* Kendra (Self-Reliant Village). The village has degraded forest cover on its East and West sides.

Timeline and Trend

A timeline of the development of the village is given below.

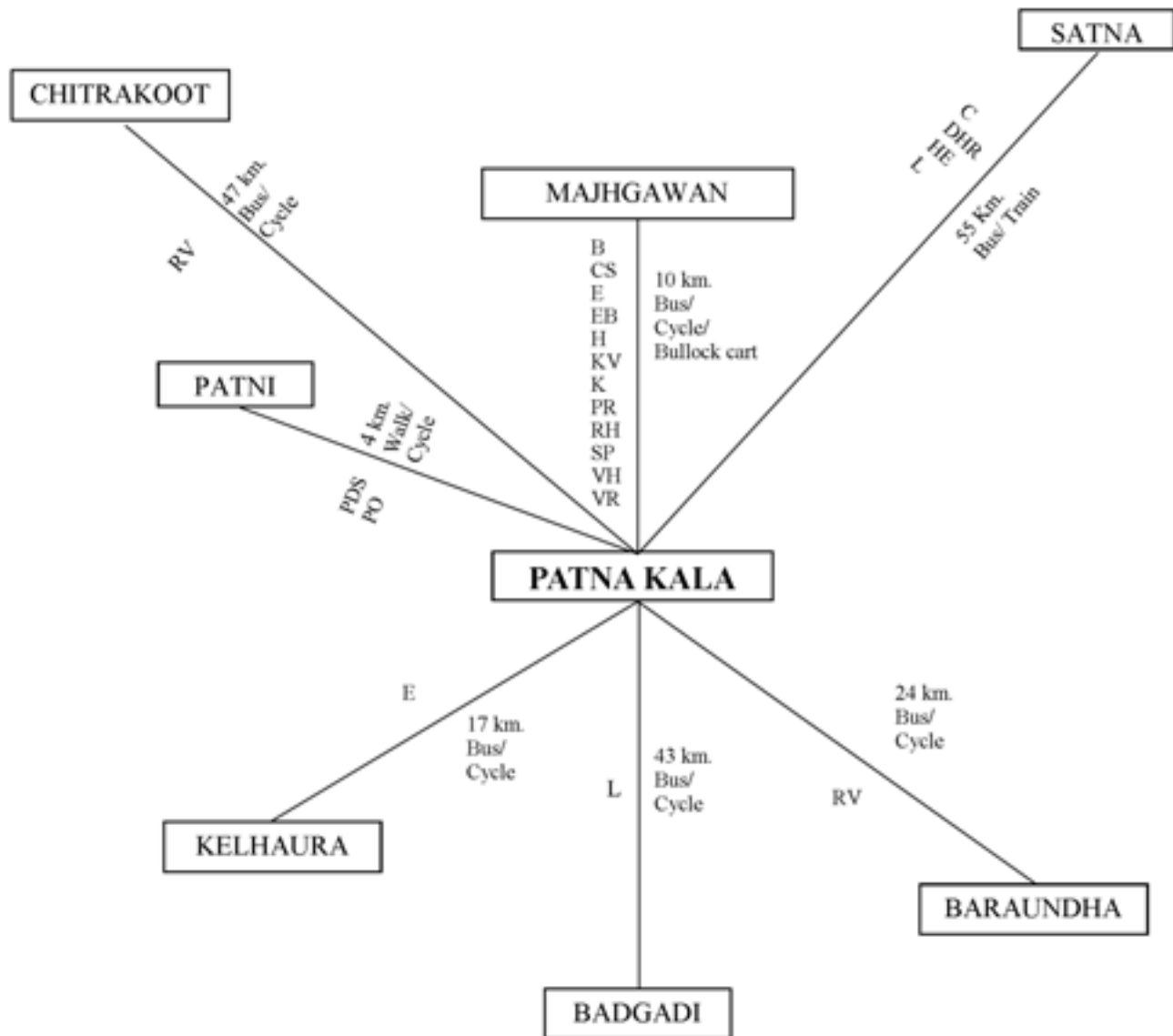
1500s	: Establishment of Patna Kala village
1927	: Establishment of temple
1968	: 1st Bicycle in the village
1970	: Severe Drought
1972	: 1st Radio in the village
1978	: 1st Primary School started
1985	: 1st Hand pump
1989	: Electricity connected to the village
1997	: 1st Bore well in the village
2000	: 1st TV in the village
2001	: 1st Tractor in the village
2002	: 1st Thresher in the village
2002	: 1st Seed drill in the village

Mobility Map

The mobility map prepared by villagers indicates that all the villagers frequently visit Maghgawan to purchase household goods, medicines and agricultural inputs; and Satna (the district headquarters) for administrative work and medical treatment. They also go Maghgawan for higher studies.



MOBILITY MAP : VILLAGE PATNA KALA



B - Bank
 C - Court
 CS - Co-operative Society
 DHQ - Distt. Headquarter
 EB - Electricity Board
 H - Health
 KVK - Krishi Vigyan Kendra
 L - Labour

PR - Provisions
 P - Panchayat
 PDS - Public distribution system
 RH - Referral Hospital
 SP - Selling of Produce
 VH - Veterinary Hospital
 VR - Vehicle Repair
 RV - Religious Visit

Venn Diagram

VENN DIAGRAM - VILLAGE PATNA KALA



A Venn diagram was prepared to understand the relationship of villagers with local institutions and enterprises in the area.

Wealth Ranking



The villagers were placed in different categories - namely, 'above the poverty line' and 'below the poverty line' on the basis of the perception of the villagers. This assumed that they have some knowledge regarding their neighbour's financial condition. The common criteria identified for wealth ranking in Patna Kala village were landholdings, livestock, and other sources of income (i.e. remittances received from relatives that had migrated for government or private jobs).

DISTRIBUTION OF FARM FAMILIES ACCORDING TO SIZE OF HOLDINGS (Acre)

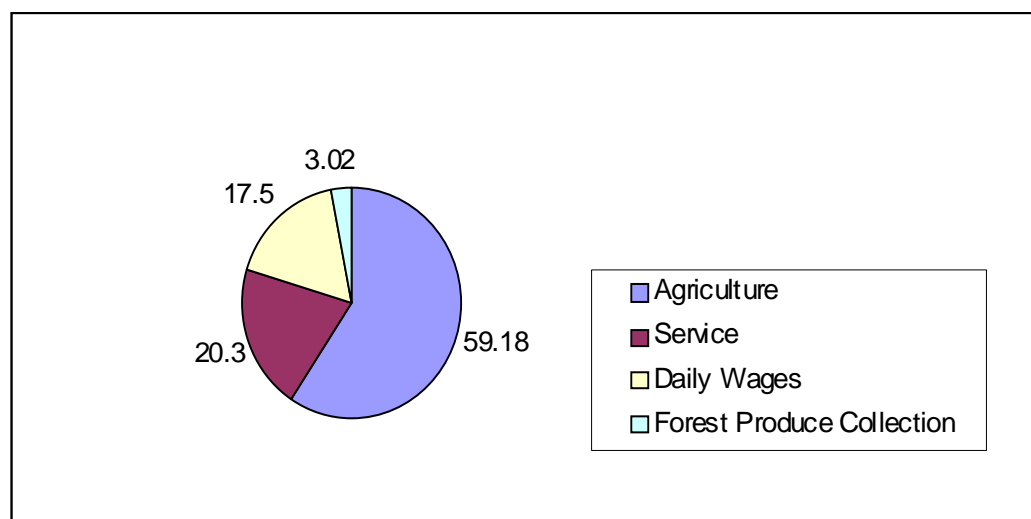
Landless (nos.)	Marginal (nos.)	Small (nos.)	Big (nos.)	Total
13	35	35	0	83

Landless - 0 acre; Marginal - less than 2.5 acre; Small - 2.5-12.5 acre; Big - above 12.5 acre

Livelihood Analysis

A livelihood analysis of the village was conducted to find out the degree to which the pattern of life differs in terms of family size, size of landholdings, type of house, annual income, type of farming, etc.

Percent Contribution of Source of Income to Family Livelihood



Problem identification

The problem identification exercise is done to identify the real problems faced by the villagers. During the PRA, the villagers identified the following problems/constraints affecting the development of the village.

- Rain-fed farming (Lack of irrigation facilities).
- Fallow/cultural wastelands.
- No alternate source of income (Migration of farm families to towns/cities).
- Low productivity of crops.
- 70% land mortgage.
- Uneconomic land holding.
- Low livestock productivity.
- Lack of economic enterprises.
- Lack of motivation for self-employment.
- No value-addition to farm or forest produce.
- Lack of skill and knowledge.
- Unhygienic living conditions.
- Unsafe drinking water.
- Malnutrition and under-nutrition.
- No birth control – Constant pregnancies as high infant mortality rate.
- Unhealthy habits.
- Seasonal migration of farm families.
- Unreliable schools.
- Child marriages.
- Open defecation in public areas.
- Unhygienic conditions near drinking water source.
- Lack of awareness of health/hygiene issues.
- *Arra Pratha*.
- Immature behavior and jealousy.
- Self-centered and superstitious behavior.

3. Land Holdings (In Acres) 2.00
- a. Irrigated area 2.00
- b. Cultivable area 2.00
- c. Orchard / No of plants & type Lemon-1, Ber-1

4. Irrigation Facilities

- a. Canal _____
- b. Tube well _____
- c. Ponds _____
- d. _____ _____
- e. _____ _____
- f. RIVER/Nala

5. Crop Productivity & Its area

Sr No.	Crop	Area In Acre	Productivity (Quintal per acre)	Total production	Quantity consumed	Quantity sold (quintal and Rs)
1.	Paddy	—	—	—	—	—
2.	Jwar	—	—	—	—	—
3.	Til	—	—	—	—	—
4.	Pegionpea	—	—	—	—	—
5.	Wheat	<u>1.00</u>	<u>6.00</u>	<u>6.00</u>	<u>3.00</u>	<u>4800</u>
6.	Barley	<u>1.00</u>	<u>2.00</u>	<u>2.00</u>	—	<u>1200</u>
7.	Gram	—	—	—	—	—
8.	Mustard	—	—	—	—	—
9.	Lin Seed	—	—	—	—	—
10.	Vegetable/Spices	—	—	—	—	—
11.	Others	—	—	—	—	—

I. No of Animals:

Sr No.	Animals	No of Animals	Breed	Production per animal	Qty consumed	Quantity sold
1.	Cattle	<u>3</u>	—	<u>0.500</u>	—	—
2.	Buffalo	—	—	—	—	—
3.	Goat	—	—	—	—	—
4.	Sheep	—	—	—	—	—
5.	Pig	—	—	—	—	—
6.	Poultry Birds	—	—	—	—	—
7.	Bullock	<u>2</u>	—	—	—	—
8.						

2. Agricultural Equipments

- a. Tractor Yes No
- b. Thresher Yes No
- c. Seed Drill Yes No
- d. Sprayer Yes No
- e. Duster Yes No
- f. Diesel engine Yes No
- g. Any others Yes No
name Bull Plough

If yes Specify the

3. Entertainment Facilities

- a. Television Yes No
- b. Radio Yes No
- c. Tape recorder Yes No
- d. Games Yes No
- e. Any others (specify) Yes No _____

4. Transport Facilities

- a. Car / Jeep Yes No
- b. Motor Cycle/Scooter Yes No
- c. Cycle Yes No
- d. Bullock cart Yes No

5. Source of Drinking Water and it's distance from house

- a. Hand pumps Distance—50 Mtr
- b. Wells Distance—50 Mtr
- c. Tube well Distance—
- d. Supply water Distance—
- e. Any other Distance—

6. Methods of Medical Treatment

- a. Allopathic
 - b. Ayurvedic
 - c. Traditional
 - d. Jhad-Phook
 - e. Others
- Preference
1. — A
 2. — D
 - 3.
 - 4.
 - 5.

7. Disputes:

Type of Disputes	Yes	No	Registered	Not Registered	Period of dispute
Family Disputes		✓	—	—	—
Revenue Disputes		✓	—	—	—
Fouj Dari		✓	—	—	—
Any others		✓	—	—	—

9. Condition of Houses

- a. Katcha b. Pakka c. Kacha Pakka both d. Hut

Facilities available in the house (if available mark \surd in the box)

- a. Toilet b. Drainage c. Soak pit d. Cattle shed
 e. Composed pit f. NADEP g. LPG Gas h. Biogas
 i. Solar (cooking system) j. Telephone Electric Connection

14. Nutritional Kitchen Garden

- Available Not Available

15. Name of persons in family suffering from serious diseases

Sr no.	Name	Age	Sex	Name of Diseases	Suffering time (Chronicity)	Treatment taken from (Village/city)
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

16. Knowledge about folklore medicine (Family Members Name)

Name of the person	Name of the plant		Uses of the plant
	Local	Botanical	
Bhokra	Tulsi		FEVER
	Guduchi		

17. Health program implemented

- a. Vaccination during pregnancy
 i. Yes ii. No

- b. Children Vaccination
 i. Yes ii. No

- If yes, Schedule of Vaccination a. Completed b. Not Completed

- c. Awareness about Family Planning
 i. Yes ii. No

- If yes, Contraceptive method applied or not
 i. Applied ii. Not Applied

18. Children Data:

No. Of birth during last 3 years	No. Of deaths of infants during last 3 years	No. of mal-nutritioned children adult
—	—	—

Malnutrition Data of children /adult

Sr.No.	Name	Sex (M/F)	Age	Height (feet)	Weight (kg)	Cause / Disease
—	—	—	—	—	—	—

19. Availability of Guduchi & Tulsi plants

- a) Tulsi
 i. Available ii. Not Available
- b) Guduchi
 i. Available ii. Not Available

20. No of family members who don't have Proper clothes.

- a) Wearing 0
- b) Bedding 0

21. No of Family member who are not getting 2 times Meal daily.

 0

22. How many family members migrated outside for employment :

- a) Permanent 1
- b) Seasonal 1
- c) According to need —

23. Taken Training details

Sr no.	Family Members Name	Type of Training / Skill	Training Institute	Passing year



Village Survey done on 21/05/2002

1. Name of village : **Patna Kala** (Murli Tola, Patna Madhya, Harijan Basti, Amha Tola, Hanuman Tola, Ram tola)

- Panchayat : Patna Khurd
- Block : Majhgawan
- Tehsil : Majhgawan
- District : Satna
- State : Madhya Pradesh

2. Population : 480

Total Family : Patna Kala -83

➤ Total member

a. Men	:	141
b. Women	:	127
c. Male child	:	109
d. Female child	:	103
e. S.C.	:	6 (41)
f. S.T.	:	75 (433)
g. O.B.C.	:	2 (6)
f. General	:	0 (0)
i. Religion		
i. Hindu	:	All
ii. Muslim	:	
iii. Christian	:	
iv. _____	:
v. _____	:

3. No. of Farm Families : 83

- a. Big : 00
- b. Small : 35
- c. Marginal : 35
- d. Landless : 13

4. No. of families possessing

a. Huts	:	02
i. Normal	:	01
ii. Critical	:	01
b. Mud House (<i>Kachcha</i>)	:	81
c. Brick House (<i>Pakka</i>)	:	0
d. <i>Kacha-Pakka</i> both	:	01

5. Availability of approach roads and internal lanes and its condition

Approach road	:	Yes
Condition	:	Not Good
Internal Lanes	:	Yes
Condition	:	Poor (Murli Tola in Patnakala)

6. Availability of infrastructure

- a. School
- i. Primary School : Yes In the village

ii. Junior School	No	10 km from the village
iii. High School	No	10 km from the village
iv. Intermediate School	No	10 km from the village
v. Others		
b. No of students	79	
i. Boys	48	
ii. Girls	31	
c. Playground	No	
d. Panchayat Bhavan	Yes	3 Km from Patna kala
e. Shradha Kendra	Yes	
f. Post office	Yes	
g. PHC./Health facility	No	In Majhgawan (10 Km)
h. Bank	No	In Majhgawan (10 Km)
i. Electrical facilities	Yes	
j. Wells	Yes	2
k. Ponds	No	
l. Hand pumps	Yes	2
m. Tube wells	No	

7. Other Educational facilities and types (like *anganwadi*, etc)
Yes

8. Type of drainage system

a. Earthen drain	—	Yes
b. Masonry drain	—	Nil
c. No of soak pits	—	Nil

9. Cultivable Land - 200.00 acre Irrigated - 26.5 acre Rain-fed - 173.5 acre

Average crop productivity

S.No.	Crops	Area under crops (acre)	Production (Quintal/acre)
1.	Jowar + Pigeon pea	5.2	2.35 +2.0
2.	Paddy	82	3.35
3.	Wheat	129.5	4.20
4.	Gram	31	2.61
5.	Barley	13.5	2.96
6.	Mustard	6.5	1.46

10. No. of BPL families (income less than Rs. 1500 per month)- 68

11. No. of traditional occupations

a. Barber	:	Nil
b. Pottery	:	Nil
c. Leather worker	:	Nil
d. Carpentry	:	05
c. Folklore medicine	:	02

12. No of boys and girls (5 to 14 years) don't go to school : 28

- a. Boys : 08
- b. Girls : 20

13. No. of Fruit Trees

- Ber : 13
- Lemon : 03
- Guava : 05
- Banana : 00
- Mango : 09
- Jack Fruit : 02

14. Kitchen Gardens

- a. No. of nutritional kitchen gardens : Nil
- b. No. of kitchen gardens : 24

15. Irrigation facilities available

- a. Canal : 0
- b. Tube well / Bore well : Nil
- c. Ponds : 0
- d. Seasonal *Nala* : 2
- e. Wells : 2

16. No of animals

Sr.No.	Animals	Number	Breed	Average production
1.	Cow	232	<i>Deshi</i>	0.41
2.	Buffalo	33	”	0.78
3.	Goat	142	”	0.25
4.	Sheep	02	-	-
5.	Pig	00	-	-
6.	Poultry	0	<i>Deshi</i>	-
7.	Bullock	122	”	-
8.	Fisheries	-	-	-
9.	Others	-	-	-

17. Transportation facility

- a. Tractor : 02
- b. Car/Jeep : Nil
- c. Motor cycle/Scooter : 02
- d. Cycle : 29
- e. Bullock cart : 08
- f. Truck : Nil

18. Availability of panchavati

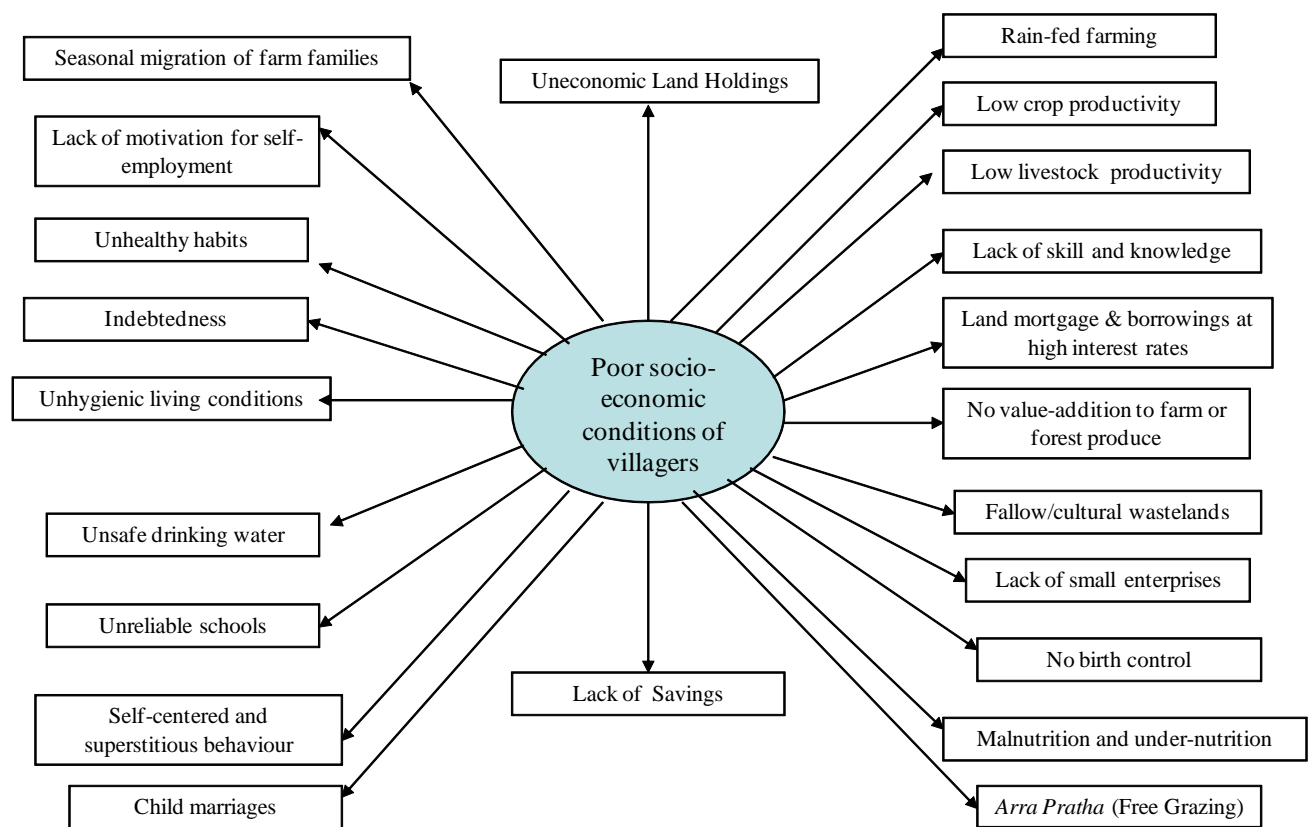
- Yes
- Trees**
- i. Pipal

- ii. Banyan
- iii. Mango
- iv. Aonla
- v. Bel

19. No. of families using organic manure		
	a. Fully	: 26
	b. Partially	: 57
20. No. of seed clubs		: 0
21. No. of families using agricultural technology		
	a. Traditional	: 55
	b. (ITK)	: 4
	c. New	: 11
22. Availability of improved agricultural implements		
	a. Tractor	: 2
	b. Duster	: Nil
	c. Sprayer	: Nil
	d. Thresher	: 5
	e. Seed drill	: 2
	f. Diesel Pump	: 6
23. Availability of signboards, information boards and wall writing:		
	Signboards	: Yes
	Information boards	: Nil
24. No. of unemployed rural people		: 46
25. No. of Disputes		: 6
	Civil (Revenue)	: 2
	Criminal (<i>Fauzdari</i>)	: 1
26. No. of Patients (chronic disease)		: 10

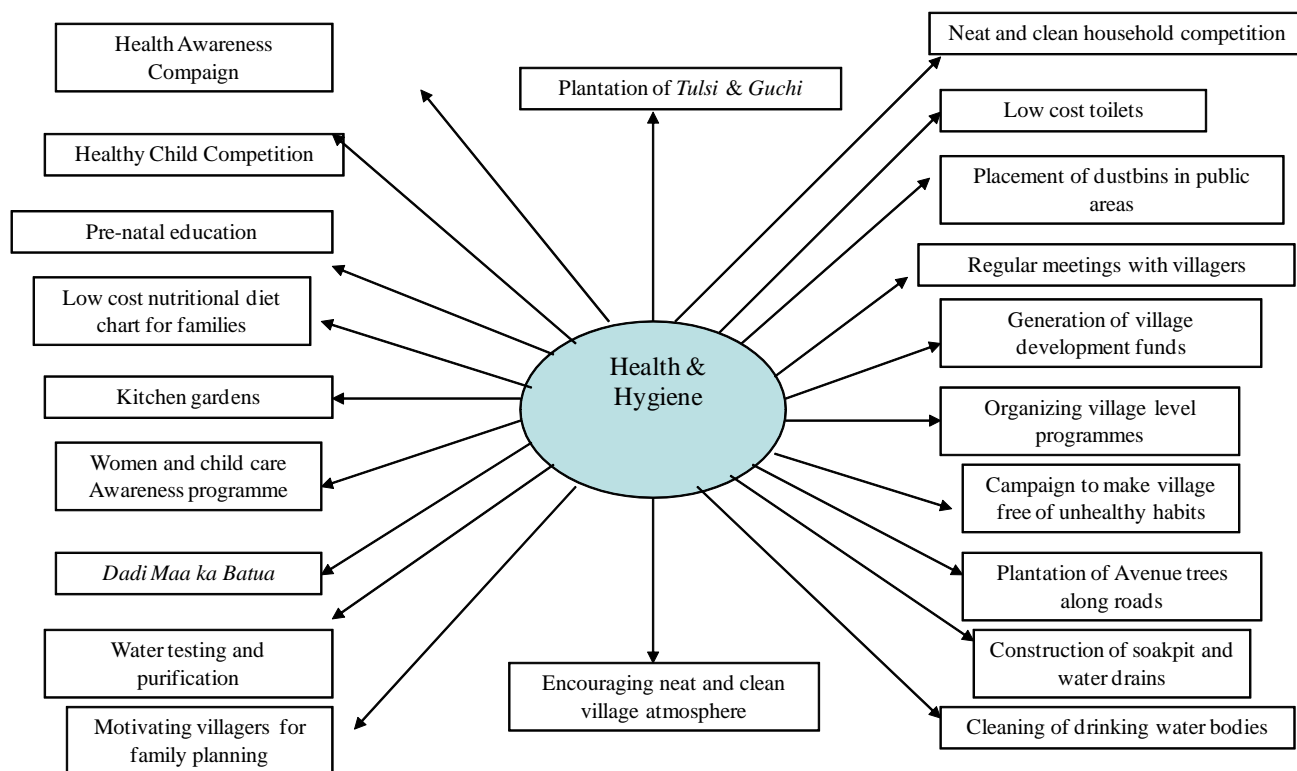
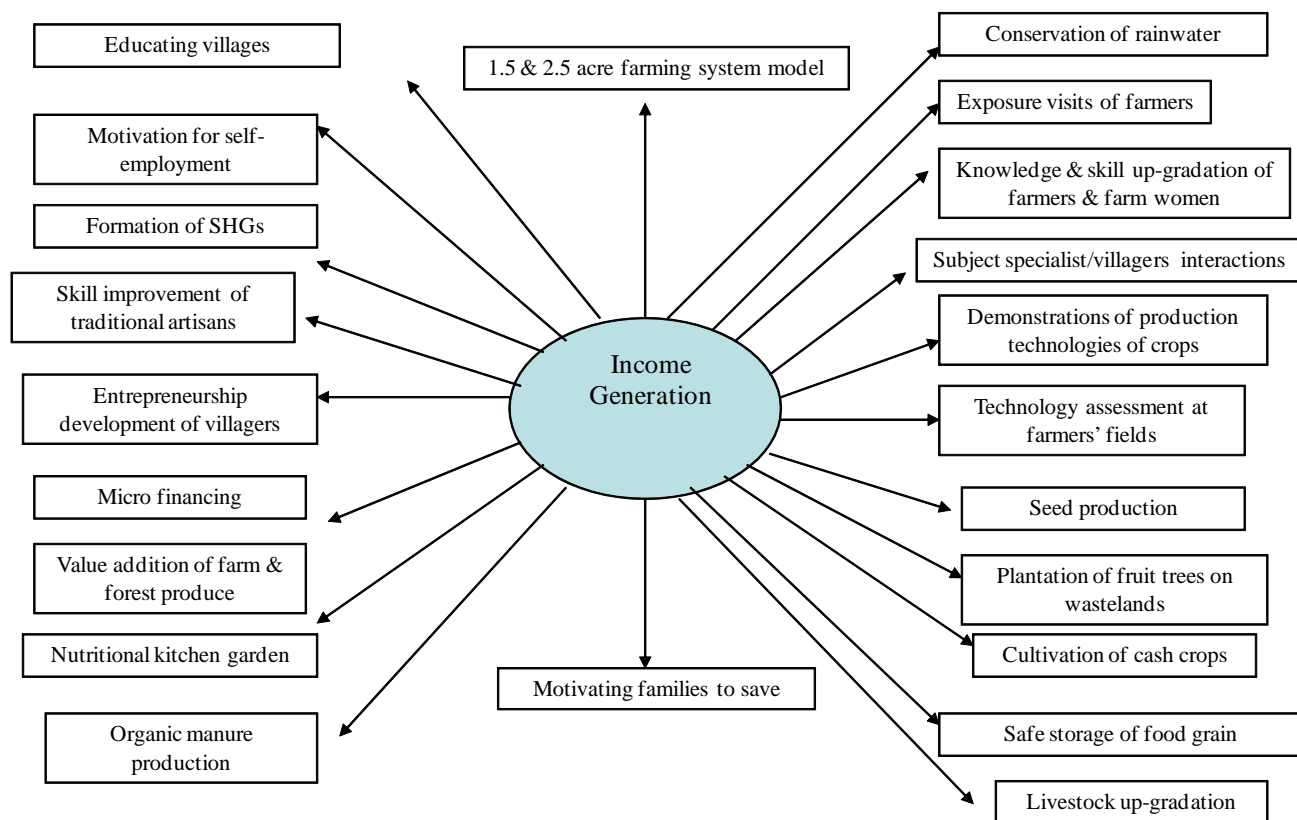
Problem/Cause Diagram

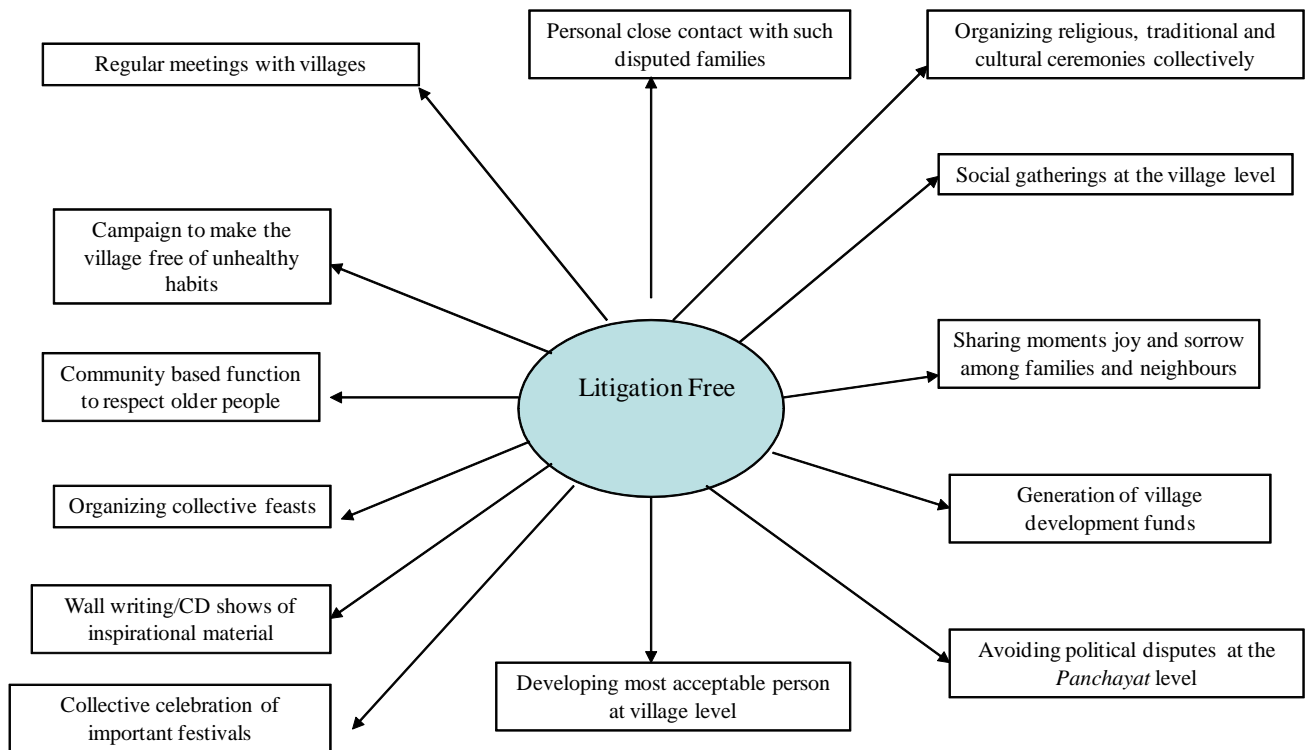
After identifying the problems in the village, the problem/cause diagram depicting the logical reason of the causal factors was drawn.



Solution Tree

Finally, the solution tree for addressing the root cause of the problem was developed in consultation with the villagers.





ACTION PLAN OF PATNA KALA VILLAGE

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
1	Poverty	Sustainable Development of the Village	Educating farmers. Formation of <i>Gram Vikas Samiti</i>	KVK	

Beneficiaries - 70 (Small - 35, Marginal - 35)

2003	2004					2005				
	Small	Marginal	Landless	Big	Landless	Marginal	Landless	Big	Landless	
—	—	—	—	—	—	35	—	—	35	—

Implementation schedule -

2004	2005												2006			
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
2	Poverty	Improved water availability for drinking and irrigation	Educating farmers through exposure visit to KVK. Motivation of villagers Appropriate methods of rainwater harvesting and irrigation channels	KVK	

Beneficiaries - 70 (Small - 35, Marginal - 35)

2003	2004					2005				
	Small	Marginal	Landless	Big	Landless	Marginal	Landless	Big	Landless	
—	—	—	—	—	—	35	—	—	35	—

Implementation schedule -

2004	2005												2006		
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
3	Poverty	Higher crop production.	Scientist/Villagers interactions for crop planning. Use of improved seed varieties & demonstration of production & management techniques for Cereal crops (rice and wheat)	KVK	

Beneficiaries - 42 (Small - 23, Marginal - 19)

2003		2004				2005					
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless
	8	5	-	-	7	6	-	-	8	8	-

Implementation schedule -

2003		2004												2005			
NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB		

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
4	Poverty	Higher crop production	Scientist/Villagers interactions for crop planning. Use of improved seed varieties & demonstrating production and management technology of Pulses (Arhar Blackgram and Chickpea)	KVK	

Beneficiaries - 34 (Small - 14, Marginal - 20)

2003		2004				2005					
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless
	-	-	-	-	10	13	-	-	4	7	-

Implementation schedule -

2003		2004												2005			
NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB		

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
5	Poverty	Higher crop production	Scientist/Villagers interactions for crop planning. Use of improved seed varieties & demonstrating production and management technology of Oilseeds (Sesame, Groundnut and Mustard)	KVK	

Beneficiaries - 45 (Small - 21, Marginal - 24)

2003		2004												2005										
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless									
--	4	5	--	--	10	07	--	--	7	12	--	--	7	12	--									
Implementation schedule -																								
2003		2004												2005										
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
6	Poverty	Nutritional Security	Scientist/Villagers interactions for crop planning. Use of improved cultivars & growing fruit trees near houses and on community lands	KVK	

Beneficiaries - 23 (Small - 14, Marginal - 11)

2003		2004					2005				
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless
--	-	-	--	--	02	0	--	--	12	11	--

Implementation schedule -

2003		2004												2005										
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
7	Poverty	Higher crop production	Scientist/Villagers interactions for crop planning. Use of improved seed varieties & demonstrating production and management technologies for vegetables and spices)	KVK	

Beneficiaries - 64 (Small - 32, Marginal - 32)

2003		2004												2005		
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	
--	4	2	--	--	15	25	--	--	13	5	--	--				

Implementation schedule -

2003		2004												2005											
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB		

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
8	Poverty	Higher crop production	Scientist/Villagers interactions for crop planning. Cultivation of high value cash crops and seed production at village level	KVK	

Beneficiaries - 64 (Small - 32, Marginal - 32)

2003		2004												2005		
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	
--	4	2	--	--	15	25	--	--	13	5	--	--				

Implementation schedule -

2003		2004												2005										
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
9	Poverty	Higher crop production	Knowledge and skill up-graduation of farmers	KVK	

Beneficiaries - 64 (Small - 32, Marginal - 32)

2003	2004												2005											
	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless								
--	36	26	--	--	--	71	--	--	--	57	--	--	--	48	58	--								

Implementation schedule -

2003	2004												2005											
	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
10	Poverty	Profitable farming system model	Planning & execution of 2.5 & 1.5 acre model	KVK	

Beneficiaries - 08

2003	2004												2005											
	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless								
--	--	02	--	--	--	01	--	--	--	02	--	--	--	--	03	--								

Implementation schedule -

2003	2004												2005											
	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB

Sr.	Vision	DRI Output	Activities	Responsibility	Resource required						
13	Poverty	Para vet training	Training on primary health care management, and recycling of waste water and organic manure production	KVK & Goshala	Training Material Fund- Rs. 10,000/-						
Beneficiaries - 02											
2003			2004			2005					
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless				
	01										
Implementation schedule -											
2003			2004			2005					
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
Beneficiaries - All families											
2003			2004			2005					
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless				
	01										
Implementation schedule -											
2003			2004			2005					
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB

Sr.	Vision	DRI Output	Activities	Responsibility	Resource required						
14	Poverty	Income Enhancement	Formation of Self Help Groups (SHGs). Motivating farmers toward small savings. Value addition of farm and forest produce, and improving skills of traditional artisans	KVK	Training material						
Beneficiaries - All families											
2003			2004			2005					
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless				
Implementation schedule -											
2003			2004			2005					
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
15	Poverty	Create model house for the homeless.	Low cost housing	UV	

Beneficiaries - 02		2004												2005		
Big	Small	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless
--	--	--	--	02	--	--	--	--	--	--	--	--	--	--	--	--

Implementation schedule -												2004			2005									
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
16	Poverty	Prosperous family	Motivating villagers to use family planning techniques and creating awareness of the ill-effects of unhealthy habits	KVK	Training material

Beneficiaries - All families		2004												2005										
Big	Small	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless	Big	Small	Marginal	Landless								
25	25																							

Implementation schedule -												2004			2005									
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
19	Unemployment	Employment generation	One village one product (Wheat Flour) through SHGs	UV	

Beneficiaries - 5 (1 SHG)

2003		2004			2005		
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless
	2	1	2	2	2	1	2

Implementation schedule -

2003		2004			2005						
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
			TR								
											TR

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
20	Unemployment	Employment generation	Skill development in Value addition of available natural resources	UV	

Beneficiaries - 05 (1 SHG)

2003		2004			2005		
Big	Small	Marginal	Landless	Big	Small	Marginal	Landless
	3	2	3	2	3	2	3

Implementation schedule -

2003		2004			2005						
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
27	Good health	Treatment of common ailments and Chronic diseases	Dadi Maa ka Batua, locally available herbs	AD	

Beneficiaries -

2003			2004			2005			
Big	Small	Marginal	Landless	Big	Marginal	Landless	Big	Marginal	Landless
All needy persons									

Implementation schedule -

2003			2004			2005					
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
28	Good health	Purification of water	Water testing and purification	AD SSD	Water purifying materials

Beneficiaries -

2003			2004			2005			
Big	Small	Marginal	Landless	Big	Marginal	Landless	Big	Marginal	Landless
All villagers									

Implementation schedule -

2003			2004			2005					
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
29	Good health	Training of TBA	Selection of Dais & training	AD	

Beneficiaries -

2003	2004												2005											
1	1																							

Implementation schedule -

2004												2005											
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		

4.

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
30	Good health	Lifelong health programmes	Design and development of low cost nutritional diet, household food security by kitchen garden, regular vaccination programmes.	AD Identification of medicinal plants Dadi Ma Ka Banua, AD	

Beneficiaries -

2003	2004												2005											
All pregnant women and children																								

Implementation schedule -

2004												2005											
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
33	Clean & Green	Establishment of nutritional kitchen garden	Awareness creation & providing seedlings of vegetables & fruit plants	KVK	Rs.10,000

Beneficiaries -37 (Small-20 and marginal -17)

2003		2004					2005				
Big	Small	Landless	Big	Marginal	Small	Landless	Big	Marginal	Small	Landless	
--	5	--	--	5	5	--	--	5	10	--	

Implementation schedule -

2003		2004												2005										
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	

Sn.	Vision	DRI Output	Activities	Responsibility	Resource required
34	No Dispute	Litigation free village	Personal close contact regular meetings of villagers, organizing community base ceremonies to respect the aged persons, social gatherings and <i>Sabhoj</i> sharing each others, joy and sorrows, making village free of unhealthy habits	SSD HQ Ram darshan ERC	Audio visual, posters, banners, religious books etc.

Beneficiaries -

2003		2004					2005				
Big	Small	Marginal	Landless	Big	Small	Landless	Big	Marginal	Small	Landless	

All families

Implementation schedule -

2003		2004												2005										
MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	

The implementation of the Action Plan involves firstly installing the *Samaj Shilpi Dampati* (SSD) in the village to serve as a fulcrum for all the developmental activities outlined in the Action Plan. With the help of the SSD, the villagers elected a *Gram Vikas Samiti* (Village Development Committee) to help in its implementation. The SSD helped motivate and create a congenial atmosphere, so that all the villagers were ready to work together to improve their socio-economic condition.

Implementation of the Action Plan

To solve the water problem in the village, DRI volunteers with the villager's initiative, involvement and commitment undertook two activities in the village. The first one was conservation of rainwater and the second was diversion of water from water bodies to farmers' fields.



Rain water harvesting

Details of treatments undertaken

Area (ha)	Details of Type of Treatment							
	Contour trenches (No.)	Loose boulder dams (No.)	Nala bunds (No.)	Stone dykes (m)	Cattle proof trenches (m)	Farm bunding (ha)	Plantation (No. of trees)	SHGs (No.)
145	2680	78	2	234	67	7	5135	2

Diversion of water to farmers' field

The seasonal *nala* that was about 3 km away from the village became alive with the development of watershed work in the village. But the water available in the *nala* was of no application to the villagers except as drinking water for livestock. With the motivation of *Samaj Shilpi Dampati* (Social Architect Couple), the villagers constructed 2 water channels to take the water from the source to the village. One channel was 1.8 km long and the other 2.1 km. This effort made by villagers themselves, changed the mindset of the villagers towards agriculture, and taught them the benefits of co-operation.

The 1.8 Km Channel built by the villagers' of Patna Kala to bring water to their fields.



Knowledge and skill up-gradation of farmers and farm women

Farmers and farm women of the village were given training on various aspects of crop production, horticulture, livestock production & management, and plant protection measures. Farmers were introduced to improved production technologies, such as selection of best seed variety, seed treatment, sowing techniques, balanced fertilization, weed management, plant protection measures, compost making, and the formulation of balanced rations for milch animals.

Trainings given to improve the skill of farmers

Sr. No.	Particulars	No. of farmers		
		2003	2004	2005
1	Crop Production	12	16	13
2	Vegetable Production	26	47	30
3	Spice Production	0	5	8
4	Fruit Production	0	2	14
5	Plant Protection	0	12	08
6	Animal Science	12	20	18
7	Home Science	12	16	15
	Total	62	118	106

The various training programmes organized for the farmers and farm women on agriculture and allied vocations yielded a visible result. Every training programme led to a substantial change in income. It was interesting to note that the technologies that were economically attractive and involved less investment were adopted more than the technologies that were less economic.

Employment generation training programmes for rural youths

Rural youths were exposed to various income generating enterprises like Para vet, vegetable production, spice cultivation, seed production, goat rearing, raising of horticultural crops in nursery, collection of medicinal herbs, repairing and maintenance of diesel engine and motors, tailoring, value addition of farm & forest produce, etc. to develop entrepreneurship skills.



Training given to rural youth

Sr. No.	Particulars	No. of Participants
1	Para vet	02
2	Gardener Training	01
3	Bio-Pesticides preparation	02
4	Tailoring	06
5	Vegetable Production	05
6	Spice Production	05
7	Identification and collection of herbs	05
8	Value addition of farm and forest produce	05
	Total	31

Substitution of improved varieties

Substitution of traditional seed with varieties that were tolerant/resistant to drought, disease and insects were the major interventions for enhancing the productivity of small and marginal farms as they were using seeds of local varieties and getting very low yields. A small investment on improved seed by the farmers has helped them to get substantial increments in yield over local varieties.

Sr.No	Crop	Varieties
1.	Cereals	
	Paddy	JR-75,J R-201, JR-345
	Wheat	HD-2329, HD-2285, JW-322. JW-17, JW-3020
2.	Pulses	
	Black Gram	PU-30,PDU-1
	Pigeon Pea	Asha, J.A.74, JKM-189
	Chick Pea	Awarodhi, KGD-1168, JG-322, JG-74,JG-16, JG-14
3.	Oil Seeds	
	Mustard	Urvashi, JM-1, Varuna, Vardan, NDR-8501
4.	Vegetables & Spices	Pant bahar, Pant Samrat, Pant C-1, G-4, Surma, Barua Sagar, VRO-6, IPCRP-2,ADR.

Demonstrations on production & managment technology for crops

The superiority of high yielding varieties and improved production technologies over the conventionally grown varieties and traditional methods of growing was demonstrated to the farmers through frontline demonstrations. 247 frontline demonstrations were conducted covering 70 farmers and 47.5 acres during the years 2003-2005. The frontline demonstration carried out on various crops resulted in a substantial increase in production and total income of the farmers. This was possible due to awareness among the farmers about improved production technologies, such as use of high yielding seed varieties, seed treatment, seeding techniques, balance fertilization, weed management practices, and timely adoption of plant protection measures



The first mustard crop in the village

Frontline Demonstrations conducted on various crops/enterprises

Sr. No	Crop	No. of Beneficiaries			Total
		2003	2004	2005	
1.	Cereals (Paddy, Wheat)	13	13	16	42
2.	Pulses (Black Gram, Pigeon Pea, Chickpea)	0	23	11	34
3.	Oil Seeds (Mustard, Sesame)	09	17	19	45
4.	Vegetable & Spices	06	40	18	64
5.	Fruits (Papaya, Aonla, Lemon)	00	02	23	25
6.	Kitchen Garden	12	10	15	37
	Total	37	105	102	247

Livestock up-gradation



To improve the genetic potential of local non-descript livestock in the village, 1 *Murrah* bull for buffaloes, one *Sahiwal* bull for cows and 1 *Barbari* buck for goats was made available to the villagers. The services of these males are available for all villagers on a payment basis.

Improved breeds of livestock supplied to the village

Sr. No.	Particulars	Breed	No.
1	Bull	<i>Murrah</i>	01
2	Bull	<i>Sahiwal</i>	01
3	Buck	<i>Barbari</i>	01
4	Cock	<i>Cockrail</i>	03

Animal Health Camp

To educate the farmers about the importance of vaccination in livestock, the KVK organized 3 animal health camps.

Animal Health Camps	No. of Animal Vaccinated		
	2003	2004	2005
3	200	277	288

Seed production programme

The KVK at Majhgawan educated the farmers on seed production technologies. These farmers produced seeds under the close supervision and guidance of the scientists. The farmers reserved the seeds for the next sowing in a larger area. Surplus seeds were sold, and provided a good income to the growers. To educate the farmers about the importance of vaccination in livestock, the KVK organized 3 animal health camps.

Sr. No.	Crop	Seed Production (Q)	Area covered under high yielding varieties in the village(acre)
1.	Gram	46	102.0
2.	Paddy	39	102
3.	Wheat	109	112.5
4.	Mustard	23	58.0
6.	Pigeon pea	14	35.0
7.	Spices	17.68	7.25
8.	Vegetable	3.80	11.00

1.5 & 2.5 acre farming system model

With a view to increased income from small holdings and to ensure a better standard of living, 1.5 and 2.5 acre models were successfully demonstrated on Shamser Singh Gond and Rajender Singh Gond's fields. These farmers are now in a position to save Rs. 7,000.00 & 15,000.00 annually after meeting their family expenditure.

Self Help Groups (SHGs)

As migration of youth from the village was a major problem, Self Help Groups (SHGs) were formed for rural youth to encourage entrepreneurship and income generation. Micro financing of Rs. 25,000.00 was provided to 24 rural youth.

Sr. No	Particulars	No.
A.	Agricultural based	7
B.	Non-agricultural based	6
	Grand total:	13

Activities undertaken for employment generation in the village

Activities	No. of Programmes	No. of Beneficiaries
'Employment Opportunity Awareness' campaign in the village.	1	59
Motivational camps for unemployed rural youths.	2	28
Interactions between rural youth/experts.	9	59
Unemployed rural youth <i>sammelan</i> (Fairs).	1	28
Formation of (<i>Tarun Mandal</i>) Rural Youth Committees.	1	10
Formation of SHGs.	13	65
Value addition skill development programmes.	3	15
Value addition of farm and forest produce.	13	83
Training to improve the skills of traditional artisans.	3	15
Need-based income generation training programmes for unemployed rural youths.	12	34
Entrepreneurial development of villagers.	2	7
Micro-financing.	24	24
Low cost housing.	2	2

Activities being performed by SHGs

- Value addition of farm and forest produce
- Flour mill
- Vegetable cultivation
- Spice cultivation
- Forest produce collection
- Herbal collection
- Goat rearing
- Tyre puncture and cycle repairing
- *Visatkhana* and refreshment centre
- Tent House
- Diesel engine
- Thresher
- Traditional artisans (Blacksmith)

Besides motivating farmers to adopt improved production technologies and rural youth to start income generating enterprises at the village level, they were exposed to production techniques at the KVK and Udyamita Vidyapeeth.



Income generating SHGs in the village. Making Banana Chips (above), and tailoring (right)



Activities undertaken to improve the health and hygiene conditions in the village

Activities	No. of Programmes	No. of Beneficiaries
Awareness Programme for villagers about the ill-effects of unhealthy habits.	9	83 families
Health Awareness Campaign.	15	83 families
Treatment of common ailments and diseases through <i>Dadi Maa Ka Batua</i>	1	39
Organizing regular vaccination programmes for children and pregnant mothers	6	49
Motivational programmes for Family Planning.	7	34
Health and Dental camps.	5	184
Fruit tree plantations near houses, in wastelands and village community lands.	3	6089
Formation of <i>Gramin Vikas Samiti</i> (Village Development Committee).	1	15
Kitchen Gardens.	26	26
Motivational programme for families to start small savings.	83	83
Formation of <i>Tarunodaya Mandal</i> (Rural Youths Committee).	1	12
Healthy Child Competition Programme.	12	38
<i>Garbshth Shishu Sanskar</i> (Pre-natal education) programme.	36	19
Women and childcare awareness programmes.	36	53
Motivational program for villagers for participation in keeping the village neat and clean.	17	83 families
Regular Vaccination programmes for children and pregnant mothers.	36	53
Educational programmes for villagers to keep a neat and clean atmosphere in the village.	3	83 families
Plantation of <i>Tulsi</i> and <i>Gudchi</i> plants in each and every house	3	83 families
Construction of soak pits and water drains	12	20
Plantation of avenue trees along village roads.	3	56
Wall writing & CD shows	6	83families
'Neat and clean' household competitions	6	83families
Construction of low cost toilets.		83 families
Village level programmes for health and hygiene issues at regular intervals in public areas.	15	83families
Cleaning of drinking water bodies at regular intervals.	9	83families

Activities undertaken to improve education, adult literacy and resolving disputes

Activities	No. of Programmes	No. of Beneficiaries
Separate classes for child labour.	1	15
<i>Bal Sanskar Kendras</i> (Children Education Centres).	1	25
Adult Literacy classes.	1	64
Motivational camps for children not going to school.	6	28
Cultural and sports competitions.	3	29
Close personal contact with families in dispute.	3	6
Regular meetings of villagers.	36	83families
Organizing <i>Sahbhoj</i> (Eating Together with Neighbours).	6	83families
Organizing social gatherings at the village level.	6	5670
Motivational programmes for villagers to collectively share each other's joy and sorrow.	45	83families
Campaign to make the village free of unhealthy habits.	3	83families
Village development funds.	1	Rs 35,000.00
Programmes for recognizing and celebrating the most exemplary person in the village.	6	24
Organizing community-based ceremonies to respect old people in the village.	6	38



An Adult Literacy Class being conducted in Patna Kala

The Bal Sanskar Kendra in Patna Kala



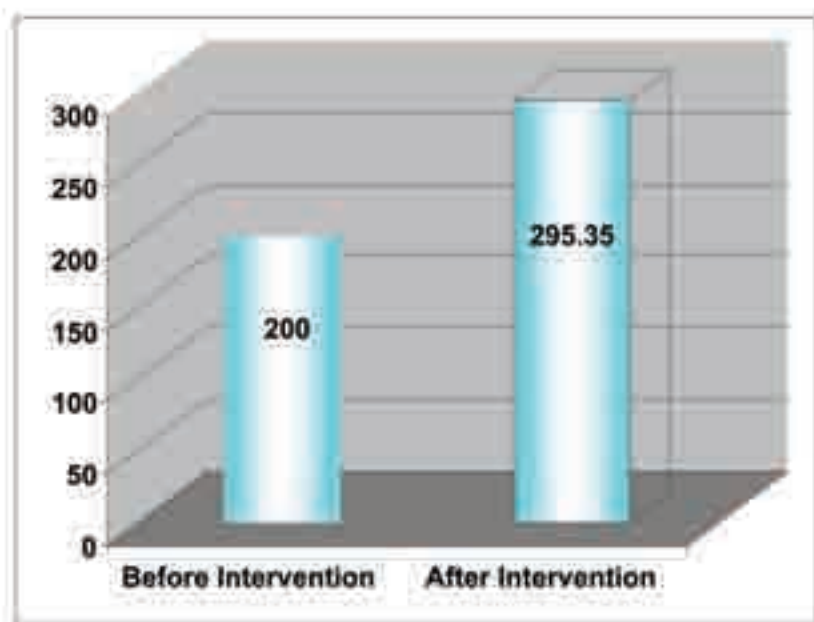
Output of Activities

The integrated approach adopted for the comprehensive development of the village has not only improved the socio-economic conditions of farm families, but changed the complete dynamic of the village. The villagers were cleaner, healthier, more aware of their rights and less inclined to be bullied by local toughs.

Prior to implementation agriculture was rain-fed, but with the implementation of watershed development activities, the groundwater level in the wells has shown a steady increase, and farmers who used to migrate to cities/towns have started farming.

Impact on Increase in Cultivable area (acre)

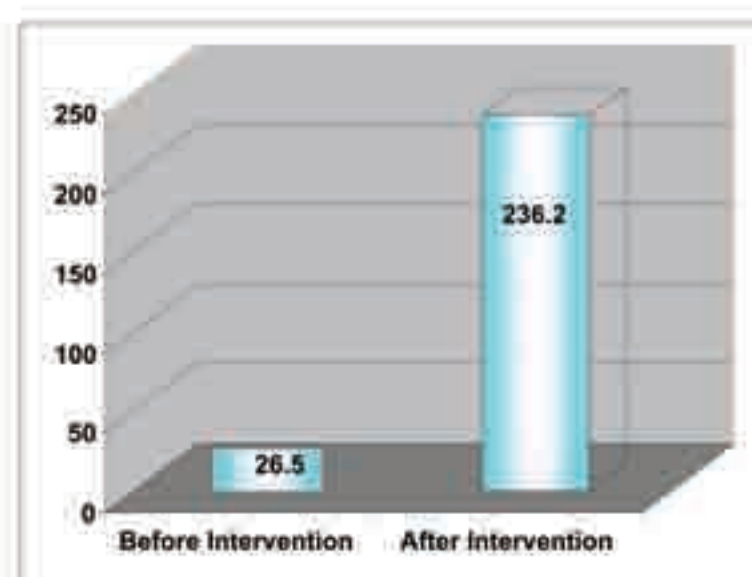
After the intervention of the KVK in the village, the area under cultivation has increased. Farmer not only brought fallow and 'culturable' wastelands under cultivation but also started taking 2 crop. This was mainly due to the introduction of short duration improved seed varieties and an increase in the irrigated area in the village.



Increase in Cultivable Area (acres)

Increase in irrigated area (acre)

Before intervention, only 26.50 acres (13.25 %) out of the total of 200 acre under cultivation was irrigated. The total irrigated area increased to 236.2 acre (79.99%).



Increase in Irrigated Area (acres)

Change in Cropping Pattern

The combined influence of on-field demonstrations in association with irrigation facilities and a change in the attitude of farmers towards the new production technologies, transformed the production scenario. By using improved and high yielding seed varieties the area under cash crops in the village increased significantly.

Crops	Before KVK intervention (2002)	After KVK intervention (2006)	Change (Acres)
Pigeon Pea + Sorghum	5.5	5.00	(-) 0.50
Paddy	82.0	130.50	48.50
Sesame	-	15.5	15.5
Black gram	-	9.8	9.8
Wheat	129.5	112.50	(-) 17.0
Barley + Chickpea	13.5	-	(-) 13.5
Pigeon Pea	-	22.00	22.00
Chickpea	31.0	104.25	73.25
Mustard	6.5	38.00	31.50
Vegetables	-	13.60	13.60



Chickpea emerging as a cash crop in the village

Increase in productivity

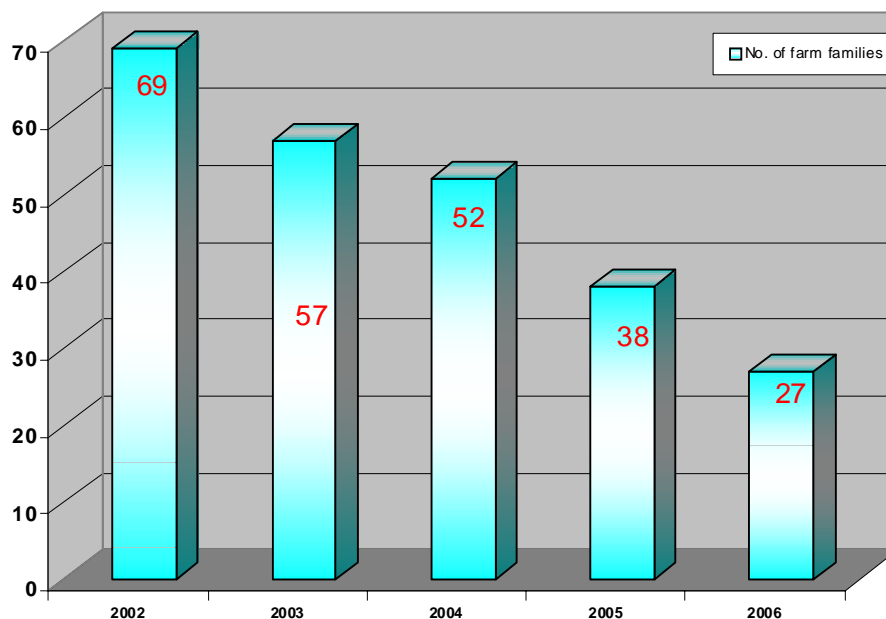
The implementation of various interventions to enhance agricultural productivity was very effective in altering the productive capacity of the land, as well as meeting the food requirements of farmers' families. A substantial increase in yield was recorded by discarding traditional farming practice. This increase in yield was due to intensive use of land and diversification of cropping pattern.

Increase in productivity (Quintal/acre) of various crops

Crops	Before KVK intervention (2002)	After KVK intervention (2006)	Increase
Pigeon Pea + Sorghum	2.0	3.98	1.98
Paddy	3.35	6.15	2.80
Wheat	4.20	8.45	4.25
Barley	2.96	-	-
Pigeon Pea	-	3.60	3.60
Chickpea	2.61	4.30	1.69
Mustard	1.46	2.95	1.49
Vegetables	-	65.50	65.50

Decrease in Mortgaged Farms

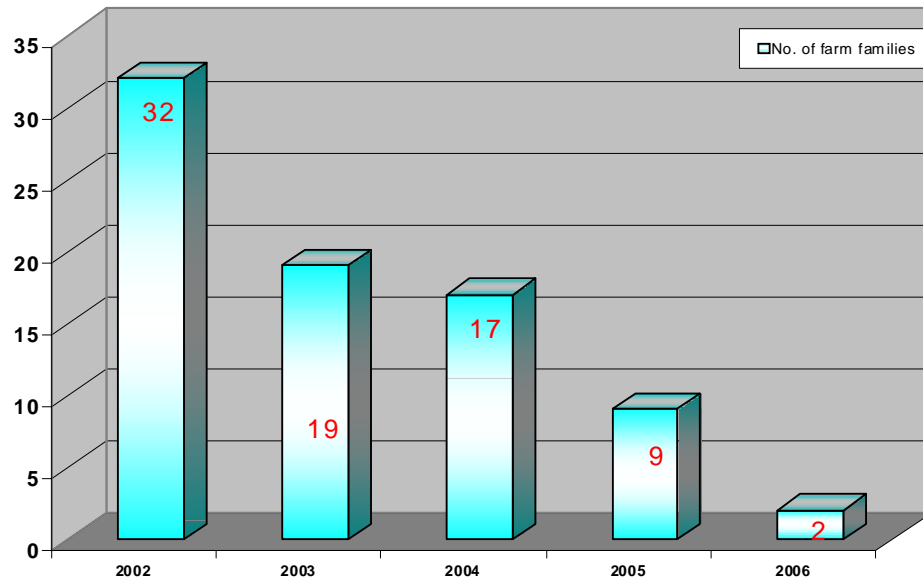
As the incomes of the farmers increased, 42 of the 69 farmers redeemed their farms from the local money lenders. The remaining 27 have partially cleared their loans.



Impact of activities on curtailing farm mortgages

Decrease in migration to towns/cities

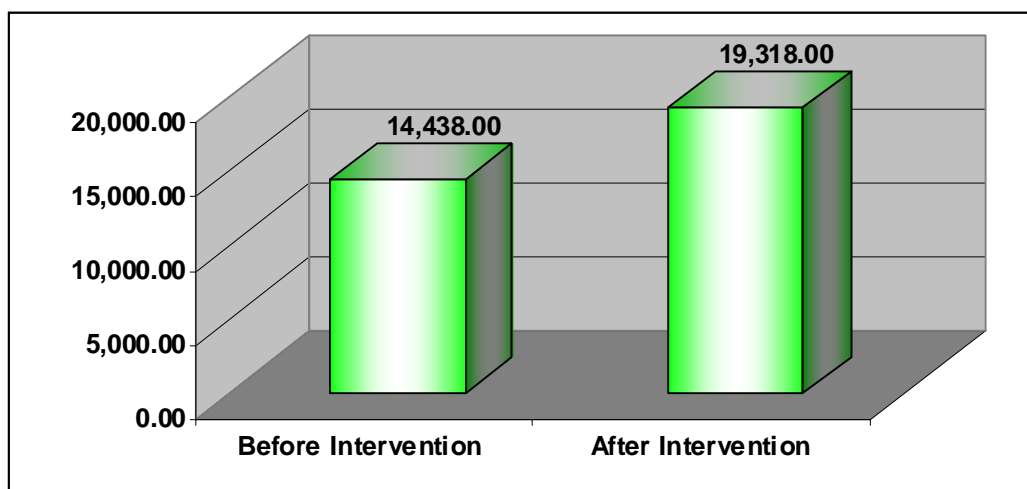
As incomes in the village, through both farming and value addition of farm and forest produce increased, villagers no longer needed to migrate to towns and cities for supplementary income.



Impact of activities on checking migration of farm families

Average increase in family incomes

The cumulative effect of various activities undertaken in the village for improving the socio-economic status of the villagers showed a marked influence on the income of farm families. The average family income has increased by 33.40% within a period of 4 years. This increase in income was mainly due to an increase in agriculture production.



Increase in family income

Change in Social Aspect

The activities undertaken for self-reliance in the village, not only improved the economic condition of the village but also brought basic change in the attitude of tribal families towards their education, health and self-confidence. The villagers have a sense of pride and are better geared for a fruitful and cooperative life. In the beginning of the campaign, 28 children in the village were not going to school. But with improvement in the lifestyle of the villagers, every family has started sending their children to school. Even most of the tribal families have started to send their children to Chitrakoot and Satna for better education. The villagers are living in harmony.

Sarve Bhavantu Sukhinah

