

# Inai

## (Bihar)

— A Village Profile

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## **Inai (Bihar) — A Village Profile**

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## Foreword

The eastern region of India continues to have high concentration of poverty in terms of prevalence rates and total numbers. Reducing poverty in this region has been a major challenge and therefore, Bill and Melinda Gates Foundation deserves high appreciation for initiating a study on understanding the ways of reducing poverty in this region. NCAP is happy to be a partner in this significant study which is part of a mega project on “Tracking Change in Rural Poverty in Household and Village Economies in South Asia” being undertaken by International Crops Research Institute for Semi-Arid Tropics (ICRISAT), Hyderabad, in collaboration with International Rice Research Institute (IRRI), Manila, Philippines. The project aims at understanding the dynamic process for reducing poverty in the poverty-laden agro-ecologies of South Asia by tracking the household and village economies continuously.

NCAP will focus on three states, namely Bihar, Jharkhand and Odisha in eastern India with the overall objective of evolving appropriate and effective strategies for accelerated poverty reduction in the study area. For the implementation of project, 12 villages have been selected from these three states and as a first step a profile of each village will be prepared based on the prevailing socio-economic scenario of that village. The present profile is of village Inai in the Darbhanga district of Bihar. The successful implementation of this project would significantly contribute to our understanding of the complex poverty dynamism in the region.

I do acknowledge the funding support of Bill and Melinda Gates Foundation to this project. I compliment the project team for bringing out this publication and I am sure it would be a meaningful start for the implementation of this useful project. The information provided in this village profile will also be helpful to state as well as central departments of rural development.

Ramesh Chand  
Director  
NCAP, New Delhi



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Authors





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## An Overview of Inai Village

Inai is one of the oldest villages of Darbhanga district of Bihar. It is located in the Baheri block at a distance of about 30 kilometres from Darbhanga. This village has a fairly good road connectivity now with the construction of a pucca road to the block headquarters at Baheri. The total population of Inai is about 3600 comprising around 600 households. The educational level is awfully low in the village with average schooling of 3 years only. The educational infrastructure is poor and the primary school, established in 1936, continues to be a primary school even today. The traditional joint-family system has almost vanished in this village and nuclear-family system has become largely prevalent. The *purdah* system is still observed in this village and the social structure is male-dominated. It is a multi-caste village, dominated by the '*kurmi*' households. A majority of the households in Inai belong to the Hindu community with only a small percentage of Muslim households. Across social caste groups, there are only two social groups, viz. scheduled castes (SCs) and other backward castes (OBCs). The influence of '*Maithili*' culture can be clearly seen in the village. The dowry system and village feast system (in *Shradh*) are still social norms in the village.

The average landholding is very small in the Inai village, only 0.64 acre. Because of uneconomically small size of operational land, leasing-in and leasing-out of land are common in this village. The soil is largely clayey with some sandy loam and coarse sandy soils in this village. The main source of irrigation is the bore-wells. Over the years, the use of fertilizers has increased because the soil fertility is declining. However, subsistence farmers cannot afford to buy enough quantity of balanced fertilizers for their fields, which is affecting soil health and consequently, crop production and income.

In the Inai village, paddy, finger millets, horse bean, maize and sorghum were the main crops in the *kharif* season and urd, lethyus, potato and vegetables were the main crops in the *rabi* season up to mid-1970s. Wheat which was not an important crop, is presently grown on more than 40 per cent area in the *rabi* season. Area under horse gram, jowar, *kharif*-maize and lethyus has declined, whereas area under wheat, lentil, green peas and other vegetables has increased.

In the Inai village, livestock-rearing is an important activity and it is not limited to cattle and buffaloes only; goatery and poultry farming are also practised. But, despite a large number of animals, livestock healthcare facilities are practically non-existent in this village. Farmers do not have easy access to Artificial

Insemination centre and other veterinary services. Also, there is no institutional arrangement for milk marketing in the village.

The village agriculture is moving from manual to mechanised operations, but bullock ploughing is still prevalent in Inai. Due to weak economic base of majority of farmers, farm machinery is largely possessed by large households. The use of sprinkler and drip irrigation system has not started yet in this village.

Out-migration is common in the Inai village and on an average one person has migrated from each family in this village. The maximum (75%) out-migration is for daily wage employment and it is prevalent among all farm-sizes. The migration for higher education or salaried job is low due to low level of education in the village.

Non-farm employment has emerged as an important source of household income in Inai. It has even out-paced the agricultural income. Due to low economic base and low educational level, not much diversification is visible in the occupational pattern in this village.

The healthcare facilities are practically non-existent in the village Inai. The Primary Health Centre, established recently, has yet to become operational in true sense. The residents of this village have to go to Baheri or Darbhanga for availing a medical facility. Due to increasing intervention of chemicals in agriculture, changing lifestyles and diversifying food habits, several new diseases like gastritis, stomach cancer, mouth cancer, cardiological problems, etc. have emerged. These have made the life still difficult in this village.

The residents of Inai village do not have easy access to any organized agricultural market or any procurement centre for their agri-produce. There is no input dealer in the village and people go to Baheri or Darbhanga for purchasing fertilizers and other inputs.

Hence, it may concluded that the village Inai is still not much developed in terms of agriculture and educational infrastructure. The economic status of the most villagers is also low. However, there are signs of improvement which need institutional intervention for a faster development of this village. It has significant strength in cultivation of off-season vegetables and medicinal plants, setting-up of small-scale food processing units and milk marketing.

## 1. Introduction

A mega project on “**Tracking Change in Rural Poverty in Household and Village Economies in South Asia**” is being undertaken by National Centre for Agricultural Economics and Policy Research (NCAP), New Delhi and International Crops Research Institute for Semi-Arid Tropics (ICRISAT), Hyderabad. The project has been sponsored by Bill and Melinda Gates Foundation and aims at understanding the dynamic process for reducing poverty in the poverty-laden agro-ecologies of South Asia by tracking the household and village economies continuously.

The Eastern India being one of the most poverty-laden regions in terms of both prevalence rates and total numbers has been identified as one of the region for study under this project. Reducing poverty in Eastern India has been a big challenge and the successful implementation of this project is expected to contribute to our understanding of the complex poverty dynamism in the region. In Eastern India, the NCAP will focus on three states, namely Bihar, Jharkhand and Odisha.

The overall objective of the project is to help evolve appropriate and effective strategies for accelerated reduction of poverty in South Asia. Specific objectives of the project are:

- To enhance the availability of reliable household, individual and field-specific, high frequency, time series data in selected villages and at meso-level (e.g., district level) to address the dynamics of economic, social and institutional development, and
- To nurture policy analysis and strengthen capacity building for poverty reduction in South Asia, and Eastern Region of India is one of the regions.

Collection of longitudinal data on household, individual and field levels in selected villages is one of the major activities. Twelve villages have been selected in Eastern India for continuously tracking the changes in rural economies under the project. The Baghakole village of Patna district in Bihar is one of the selected villages. Before selection of sample households for continuous monitoring, the village census has been conducted in each selected village to understand the general and socio-economic profile of the village. This village profile is based on the village census carried out and qualitative information gathered by the project team.

## 2. The District Darbhanga

### 2.1. History

The name 'Bihar' is probably derived from the existence of a large number of *Buddhist* monasteries called '*Viharas*' in this part of the country in the twelfth century. Bihar has two distinct geographical regions, viz. south Bihar and north Bihar. In north Bihar, the *Maithili* culture predominates and reminds us about one of the great *Vaishnava poets*, *Vidyapati* who wrote devotional songs in the *Maithili* language.

The district of Darbhanga is a derivative of ancient Mithila or Tirhut, although two other districts Madhubani and Samastipur have been carved out from the older Darbhanga district. It is a central place in the territorial boundaries of north Bihar. *Madhubani* was the part of the Darbhanga district which has a rich tradition of wall paintings, based mainly on the tales of *Ram* and *Sita*; these have received a fresh lease of life in recent years. The paintings, done mainly by the women, have been attracting the attention of lovers of ancient and folk arts and are one of the traditional treasures which modern India has rediscovered and revived.

Presently, Darbhanga district is spread across a total geographical area of 2279 sq km. It is situated between longitude 85° 45' - 86° 25' East and latitude 25° 53' - 26° 27' North and is bounded by Madhubani district on the north, Samastipur district on the south, Saharsa district on the east, and Sitamarhi and Muzaffarpur districts on the west.

As per the Census of India 2011, the population of this district is 3,921,971 of which rural population is more than 90 per cent and urban population is less than 10 per cent. The literacy rate of the district is 58.26 per cent (male 68.58%, female 46.88%).

### 2.2. Natural Divisions

The district Darbhanga can be divided into four natural divisions. The eastern portion consisting of Ghanshyampur, Biraul and Kusheshwarsthan blocks contains fresh silt deposited by the Kosi river. This region was under the influence of Kosi floods till the construction of Kosi embankment in the Second Five-Year Plan. It contains large tracts of sandy land covered with wild marsh.

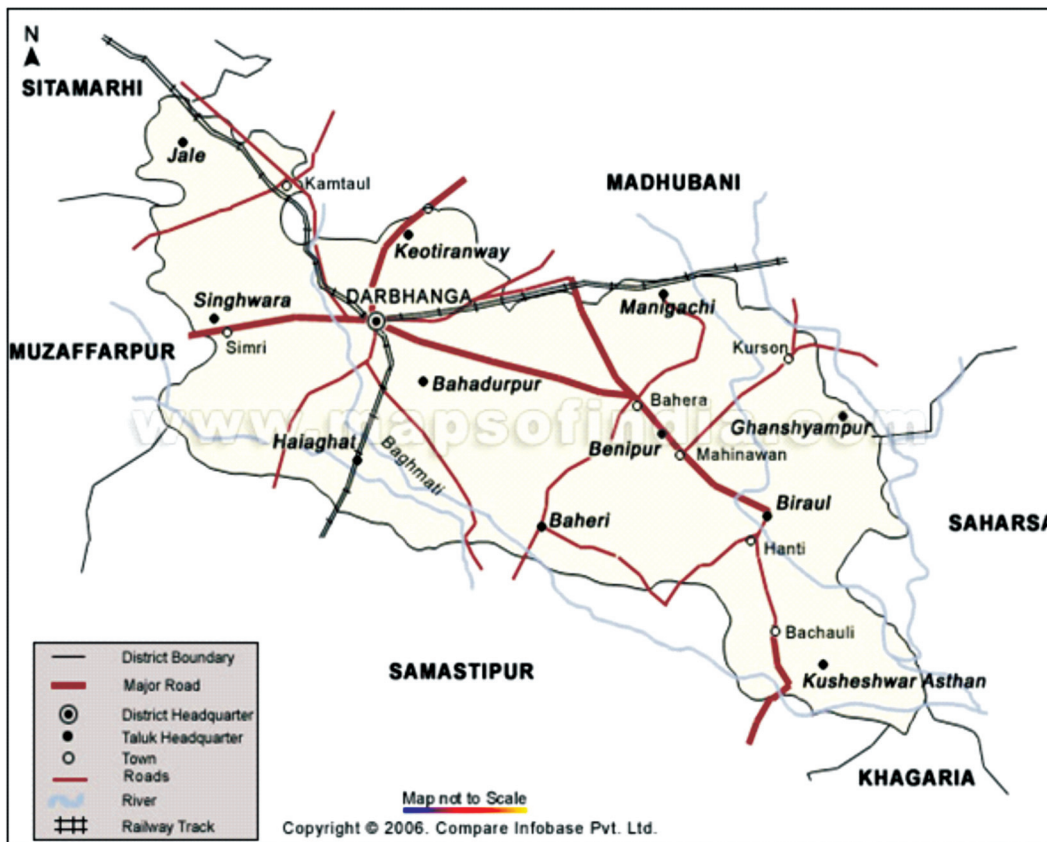


Figure 1: Road map to Darbhanga district

The second division comprises the anchals lying south of the Boorhi Gandak river and is the most fertile area in the district. It is on a higher level than other parts of the district and contains only a few marshes. It is well-suited to the *rabi* crops. The third natural region is the doab between the Boorhi Gandak and Baghmatai rivers and is consisted of low-lying areas dotted over by chaur and marshes. It gets floods almost every year. The fourth division covers the Sadar sub-division of the district. This tract is watered by numerous streams and contains some up-lands.

The district Darbhanga has a vast alluvial plain devoid of any hills. There is a gentle slope from north to south with a depression in the centre. Numerous rivers originating in the Himalayas, water this district. Out of these rivers, Kamla, Baghmatai, Kosi and Kareh are most important. The land in Darbhanga district is generally very fertile and there are hardly any uncultivated area. The district is, therefore, devoid of forests.





**Field investigator collecting data from a household**

### **2.3. Climate and Rainfall**

The district Darbhanga has semi-humid type of climate. The district has three well-marked seasons—winter, summer and rainy seasons. The cold weather begins in November and continues up to February, though March is also somewhat cool. Westerly winds begin to blow in the second half of March and temperature rises considerably. The month of May is the hottest when temperature goes up to 45 °C. Rain sets in towards the middle of June. With the advent of rainy season, temperature falls and humidity rises. The moist heat of rainy season is very oppressive up to August. The rains continue till the middle of October. The average rainfall is 1142.3 mm and around 92 per cent of the rainfall is received during the monsoon months. The rainfall has decreased over the years and there is a lowering of groundwater level in the district.

### **2.4. Language**

The main language spoken in this district is *Maithili*. Other languages spoken are: Hindi and Urdu. The number of residents conversant with English is small but increasing continuously.



## 2.5. Biodiversity

The district Darbhanga had a rich biodiversity till the end of 18<sup>th</sup> century. But, with intensive use of land and rapid growth of population, the forest areas have been cleared and several wild animals have become extinct. Among the trees found presently in the district are: Sisam, khair palmyra, khajur, mango, jackfruit, pipal and tamarind. The district also has some tracts of grasslands. Among the wild animals commonly seen are jackals. Foxes and wild cats are also met occasionally but wolves and hyenas are seen rarely.

Among the birds found in the district are various kinds of quails, partridges and ducks, snipes, cranes, storks and sparrows. Fish are plentiful. The common varieties are: Rohu, Bachwa, Tangra, Katla, Singhi and Boari. However, Hilsa is found occasionally.

## 3. The Village Inai

### 3.1. History

The village Inai falls under the Baheri block of Darbhanga district in Bihar. It has the history of 500 years. In the seventeenth century, there was a dense forest at the present location of Inai village. And therefore, the village was known as '*Bantari*', which means 'full of forest'. During the past 500 years, the village has been deserted and habilitated several times due to poor access to even essential commodities for maintaining the life.

It is believed that in the sixteenth century, one forward caste family came to the location of present Inai village and constructed a house on the *Dih* (upland) in the village, which was surrounded by the local river named Kamala. The family constructed a pond also for getting water for drinking as well as crop production and used it for the fisheries too. Soon after the construction of this pond, one of the sons of households-head died, and therefore this pond was regarded as ill-omened — a belief which still continues. The family was shocked so deeply that it deserted the village forever and thereafter no forward caste family ever came to settle in this village. But, this family started a system of realizing land rent from the cultivators of this village. After sometimes, a muslim family came to settle in this village and it also mobilized some other muslim families living in nearby places, to shift to this village. This family started realizing land rent from the cultivators in the village and the family-head became the *Zamindar* (land-owner) of the village.

### 3.2. Location

The village Inai (25° 27.958' N, 86° 04.722' E) is located 5 kilometres away from the block headquarters, Baheri and 30 kilometres away from the district headquarters, Darbhanga. It is situated on the embankment of a river, named 'Kamala'. This river rarely gets flooded (on an average once in 10 years) and therefore, the village Inai does not face the threat of frequent floods. The last devastating flood was observed in the year 2004 in this river. Flood adversely affects the standing crops but enriches the soil through the fresh clay it brings, which improves soil health and soil fertility.



**A farmer engaged in fishing at the village pond**

The village Inai is surrounded by four villages on all its four sides. The village Rajwara is on its north, Ram Nagar on its east, Denikhone on its west, and Pawara on its south.

### **3.3. Road Connectivity**

The village has a fairly good road connectivity now with the construction of a pucca road to the block headquarters Baheri in 2006. Baheri is well connected to places like Samastipur, Madhubani and district headquarters, Darbhanga through well-maintained roads.

### **3.4. Significant Events**

A chronological list of significant events, presented in Box 1, indicates the general development pathways of the Inai village.

### **3.5. Demographic Structure**

The number of total households is 590. The number of landless households in this village is very large, viz. 428 (72%), which shows that a large population of this village is resource-poor (Table 1). The average family size is worked out to be about 6 persons in the village; it is highest on small (6.4) and minimum on

**Box 1: Important Events in Inai Village**

Year	Event
1660	Perceived establishment of Inai village
1670	First pond dug out
1700	Establishment of <i>Dihwar Baba</i> temple (Local God)
1800	First well constructed
1936	Primary School started
1944	Post Office established
1945	Construction of a mosque
1952	Gram Panchayat established
1955	Public Distribution System started
1966	Use of improved seeds and fertilizers started
1970	Construction of a <i>math</i>
1975	First bore-well installed
1980	Access to 'Electricity' provided
1983	First tractor purchased
1983	A Primary Health Centre set up
1989	Gram Panchayat Building constructed
1989	Brick soling of village roads done
1993	Private School started
1995	First thresher purchased
1998	<i>Anganwadi</i> set up
1999	<i>Mahavir Mandir</i> constructed
2000	Mid-Day Meal programme started
2000	First Self-help Group (SHG) organized
2000	Poultry Farm set up
2002	Rice and flour mill started
2004	Severe flood
2004	<i>Durga Mandir</i> constructed
2005	<i>Matrytwa Labh Yojana</i> started
2006	Construction of road from Inai to Baheri
2007	MGNREG Scheme started
2007	<i>Mukhya Mantri Kanya Suraksha Yojana</i> started
2007	<i>Kanya Vivah Yojana</i> started
2010	Electricity connections provided to BPL families
2011	Whole village electrified
2011	Primary Health Centre established

medium (5.6) households. The average sex ratio is 882 in the village; it is highest on small (978) and lowest on medium (772) households, depicting a big difference in sex ratio across the household-size. The majority of households in this village have a nuclear family.

**Table 1: General characteristics of households in Inai village**

Particulars	Households				
	Landless*	Small	Medium	Large	All
Number	428	55	36	71	590
Age (years)	23.4	25.2	25.5	27.5	24.2
Education (years)	2.1	4.1	5.2	6.7	3.0
Family size (No.)	6.0	6.4	5.6	6.3	6.1
Male-headed households (%)	95.3	89.3	97.2	95.7	94.9
Sex ratio (per 1000 males)	879	978	772	878	882

\*The group 'landless' in this volume includes all such households which do not possess any land or possess land up to 0.5 acre only.

The average age is 24.2 years in the village; it is maximum (27.5 years) on large households, followed by medium (25.5 years), small (25.2 years) and landless (23.4 years) households. Thus, as household-size increases, the average age also increases. It is due to the stronger economic base of large households due to which they can afford to provide nutritious food and better healthcare and hygienic facilities to their family members.

There is a prevalence of male-headed households in the village (94.9%). Female-headed families constitute about 5.0 per cent of total households but about 11.0 per cent small households are headed by females in the village. It is mainly due to higher incidence of male migration on this class of households.

The total population of village in the year 2010 was 3596, comprising 1911 males and 1685 females. The population across landless households is very large, 2595 and least across medium households (Table 2).

**Table 2 : Male and female population in different household categories in Inai village (No.)**

Particulars	Households				
	Landless	Small	Medium	Large	All
Male	1381	179	114	237	1911
Female	1214	175	88	208	1685
All	2595	354	202	445	3596

### 3.6. Status of Education

The educational level is awfully low in the village Inai with a person undergoing the schooling for 3 years only on the overall basis. There is a distinct difference between large and landless households with respect to educational level. The average duration of schooling is much longer among large households (6.7 years) than among landless households (2.1 years). In fact, the schooling period has shown a direct relationship with household-size (Table 1).

The educational infrastructure is poor in the village Inai. A primary school which was established in the village in 1936, continues to be a primary level only, though in most of the villages in Bihar, the primary schools have been upgraded to the middle school level. Even in this school, infrastructure is poor; there are no desks for the students. A private school was started in the village in 1993 but it also imparts education only up to 5<sup>th</sup> class. The poor educational set-up is also one of the reasons of low educational level in this village.

In the year 2010, the literacy level was 55.6 per cent in the village Inai, and it was higher (66.4%) for males than females (43.0%). Farm-size-wise analysis of literacy has revealed that farm households with a larger land base are more literate than households with a low land base. The direct relationship between farm-size and literacy level is even more pronounced in the case of women literacy (Table 3).

**Table 3: Literacy level of different categories of households in Inai village: 2010**  
(in per cent)

Category	Households				
	Landless	Small	Medium	Large	All
All	47.9	65.4	74.1	81.7	55.6
Male	58.7	79.1	83.3	91.6	66.4
Female	35.1	51.3	62.7	70.2	43.0

There is a dearth of highly qualified and technically educated persons in the village. There is a strong need of development of educational infrastructure like middle and high schools, vocational training institute, etc. to improve the educational level and provide income opportunities to the people of this village.

### 3.7. Social Structure

The traditional joint-family system has almost vanished in the Inai village and nuclear-family system has become largely prevalent. The out-migrated male





**A class room in Inai school**

members visit their families on the occasions of festivals, marriages, family functions, deaths, etc.

The social structure in the village Inai, like most parts of the country, is male-dominated. All major decisions are taken by the males and women have very little say in these decisions. The male-headed households are around 95 per cent in the village. There are hardly 5 per cent households which are headed by



**Traditional cooking prevails in Inai**

a female, but their percentage in small households is higher; it is around 11 per cent. It is mainly because of higher incidence of male migration on this class of households coupled with existence of more nuclear families in the village.

The ‘*purdah*’ system is still prevalent in the village Inai. The young girls and daughter-in-laws are not allowed to move around in the village alone or go for a work in the fields. They are expected to move out of the house in the company of a senior family member—mother, mother-in-law, grandmother, father, etc.

### 3.8. Social and Resource Map

This map (Figure 2) shows the household pattern on the caste or community basis and all potential resource areas, especially for agriculture and its related activities, available in this village.

### 3.9. Community and Caste Structure

Community-wise, the households in the Inai village fall under two religions — Hindu and Muslim. A majority of the households belong to the Hindu community (83%) and the Muslim households are only about 17 per cent. In terms of landholding-size, all the households in medium category and more than 97 per cent of large households belong to the Hindu community. Across Muslim households, the majority (23%) belongs to the landless category, with only a few households belonging to small and large categories. There is no Muslim household in the medium farm-size category in this village (Table 4). All these data reveal that poverty is more prevalent across Muslim community in this village.

**Table 4 : Distribution of households by community in Inai village**

(in per cent)

Community	Households				
	Landless	Small	Medium	Large	All
Hindu	76.9	98.2	100.0	97.2	82.7
Muslim	23.1	1.8	0.0	2.8	17.3

*Note:* There is no Christian household in the village Inai

Inai is a multi-caste village, dominated by the ‘Kurmi’ households whose percentage is around 45 per cent in this village. Other main castes to which households of this village belong include: Kunjara and Das. Almost all the artisan-





castes reside in the village and these include: cobbler, potter, dhuniya, barber, carpenter and teli. Forward caste belonging to the Muslim community has a negligible presence in the village Inai.

Caste structure in the village Inai has shown that there are two social groups, viz. scheduled castes (SCs) and other backward castes (OBCs). Among these two castes, other backward castes constitute a higher proportion (58.6%) (Table 5). There is no household belonging to the scheduled tribes (STs) category. In terms of farm-size, the higher percentage of SC-households falls under the landless (53.7%) category, with around 7 per cent each in small and large categories. The incidence of other backward castes (OBCs) is seen in all the farm-sizes, it is maximum in medium (97.2%), followed closely by small (92.7%) and large (88.7%) households and is least in landless (46.0%) category.

**Table 5: Distribution of households by social caste group in Inai village**

(per cent)

Social group	Households				
	Landless	Small	Medium	Large	All
Scheduled castes (SCs)	53.7	7.3	2.8	7.1	40.7
Scheduled tribes (STs)	0.0	0.0	0.0	0.0	0.0
Forward castes	0.2	0.0	0.0	4.2	0.7
Other backward castes (OBCs)	46.0	92.7	97.2	88.7	58.6

### 3.10. Culture

The people of Inai village though not much educated in terms of schooling years, are highly civilized. They respect the elders. There is a complete religious harmony in the village. Hindu families participate in the festivals of Muslims and vice versa. The food habits and customs of all the residents of this village are similar, irrespective of their community. The staple food is rice and wheat. Rice, pulses, roti, fish and vegetables are the common items of the food basket in this village for both the communities.

There is all around ‘*Maithila*’ culture in the village Inai. The commonly spoken language is ‘*Maithili*’ by both Hindus and Muslims and ladies sing songs in this sweet language in groups on the occasions of marriages, festivals and other family functions.

The dowry system and village feast system are still prevalent in the village. The people are to incur a huge expenditure on the marriage of their daughters

and observance of '*Shradh*' (rituals after death of an elderly family member). All the households of the village and of nearby villages are offered food at the time of observance of '*Shradh*'. Such customs adversely affect the people of this village, particularly the small and marginal farmers, who have to sometime even sell or mortgage their land for observing the traditional rituals.



**The temple of Inai**

There are three temples and one mosque in the village. The first temple (a *Math*) was constructed in 1970 and the mosque was constructed in 1945 in this village

### **3.11. Migration**

People generally migrate from their place of living in search of a better livelihood. The out-migration from the Inai village is also considerable. Out of 590 households, there are 534 out-migrants from the village, that is from about 90 per cent households in the village there is one out-migrant. A special feature of out-migration seen in the Inai village is that it is prevalent on all farm-sizes and almost to the same extent. It is about 15 per cent on small farms, 17 per cent on large farms, 15 per cent on medium farms and 14 per cent on landless category (Table 6).

Purpose-wise analysis has revealed that migration is very high for daily wage employment across all farm-sizes. It is more than three-fourths of the total

**Table 6: Incidence of migration in Inai village**

(per cent)

Particulars	Households				
	Landless	Small	Medium	Large	All
Out-migration	14.00	18.08	15.35	17.08	14.86
<b>Purpose of living outside the village</b>					
Education	1.9	6.3	0.0	26.3	5.8
Salaried job	2.8	10.9	3.2	15.8	5.7
Daily wage employment	85.6	65.6	80.7	34.2	75.5
Own business	1.9	3.1	0.0	1.3	1.9
Searching job	0.0	1.6	0.0	6.6	1.1
Others	7.8	12.5	16.1	15.8	10.0

migration. As expected, out migration is maximum from landless households (85.5%) and minimum from large households (34.2%), which is contrary to the normally-observed pattern. The second category of households in migration for daily wage employment is medium households with around 81 per cent share and not the small households, which is at the third position with about 66 per cent incidence of migration in the Inai village. Due to poor educational facilities in the village, education is the second important purpose behind living outside the village, but it is merely about 6 per cent due to poor economic resources of households in general. As expected, it is highest from large farm-households (26.3%). The out-migration for a salaried job is around 5 per cent, and it is maximum among large households (16%). The out-migration for doing business is not even 2 per cent which shows the weak economic base of the residents of this village. Surprisingly, there is no migration for education as well as doing own business from the medium category of households of Inai village (Table 6).

The destinations of migrants for daily wage employment are: Punjab, Haryana, Western Uttar Pradesh, Gujarat, and almost all the metropolitan and big cities of the country.

The extent and purpose of migration point towards the need of creation of educational, including for technical education, infrastructure in the village.



## 4. Agriculture

### 4.1. Landholding and Land-use Pattern

The average size of landholding is very small in the Inai village, only 0.64 acre. It is maximum on large households (3.52 acre), followed by medium (1.25 acre), small (0.69 acre) and landless (0.10 acre) households (Table 7). The average per capita land is also very small in the village, 0.09 acre only. The per capita land on landless and small households has been worked out to be only 200 square metres and 900 square metres, respectively. The land availability is not only low, it is highly skewed. The large households constituting only 12 per cent of the total households, own 67 per cent of land of the village (Figure 3). About 50 per cent of cultivable land is owned by 20 households belonging to the 'kurmi' caste in the village.

**Table 7: The landholding pattern across different categories of households in Inai village**

Particulars	Households				
	Landless	Small	Medium	Large	All
Size of landholding (acre)	0.10	0.69	1.21	3.52	0.64
Operated land (acre)	0.09	0.58	1.07	3.13	0.56
Irrigated area (%)	81.8	92.1	92.9	94.2	92.4
Permanent fallow (%)	17.1	7.8	5.6	4.9	6.7

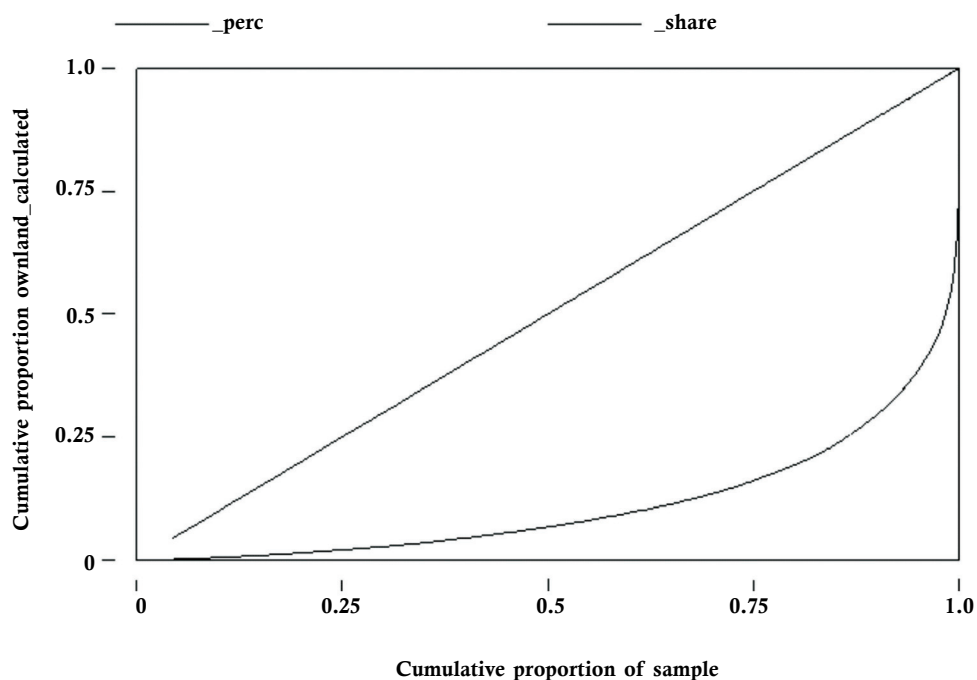
There is a very small area under permanent fallow (6.7%) in the village. It is maximum on landless (17.1%), followed by small (7.8%), medium (5.8%) and large (4.9%) households. Most of the permanent fallows are located near the embankment of Kamala River.

Because of uneconomically small size of operational land and out-migration of adult male members, leasing-in and leasing-out of land are common in the Inai village. It has been observed that 6.4 per cent of households have leased-out their land and interestingly enough, the same percentage (6.4%) of households have leased-in land from fellow farmers for cultivation. The percentage of households leasing-out land is maximum on large households (15.5%), followed by medium (11.1%), small (9.1%) and landless (4.2%) households (Table 8).

**Table 8 : Incidence of tenancy in Inai village**

Particulars	Households				
	Landless	Small	Medium	Large	All
<b>Households leasing land (%)</b>					
Leased-in	6.8	7.3	2.8	5.6	6.4
Leased-out	4.2	9.1	11.1	15.5	6.4
<b>Share in operated land (%)</b>					
Leased-in	32.4	7.0	0.7	1.4	5.4
Leased-out	28.7	18.3	7.3	8.3	11.5

In terms of share in operated land, it is observed to be maximum across landless households in both leased-in (32.4%) and leased-out (28.7%) land in the village. Such a high percentage of leasing-in and leasing-out of land points towards uneconomically small size of operational land and out-migration of male members.



**Figure 3: Lorenz curve of own land distribution in Inai village**

## 4.2. Soil and Irrigation

The soils of the Inai village may be categorized into three groups, viz. clayey, sandy loam and coarse sandy. About 80 per cent of land area is clayey and it is spread around the village. The area between the river Kamala and village Inai is sandy loam and the land situated near the embankment of this river is coarse sandy. There is a small '*chaur*' (waterlogged area) in the village and it is spread over about 50 acres of land. Soil depth varies from 2 feet to 4 feet in the village and water table varies from 30 feet to 40 feet.

The main source of irrigation is private tube-well. The first bore-well was installed in the village in 1975 and now there are 38 bore-wells in the village. There are four ponds in the village which are used for both irrigation and fisheries. The water of river Kamala is also used for irrigation and about 10 per cent of area situated near the embankment of the river is irrigated by the river water. Irrigation facility is though available on 92 per cent of operated area, the majority of farmers provide survival irrigation to crops. During the *kharif* season, paddy is grown largely on un-irrigated land, but some farmers do provide survival irrigation to their paddy crops. Irrigation infrastructure is largely used for the *rabi* crops, whereas in the *summer* crops, only a negligible area is under cultivation due to high cost of irrigation because of the use of a diesel pump-set. There is no community tube-well in the village.

The major concern of the people in the village is the declining soil fertility due to such factors as soil erosion, lack of crop rotation practice, poor soil management and injudicious use of fertilizers. It is seriously affecting crop yields and the overall food-security levels of the families in this village.

Over the years, the use of fertilizers has increased because the fertility of soil is declining. However, subsistence farmers cannot afford to buy enough quantity of fertilizers, particularly nutrient supplying inputs, for their fields, which is affecting soil health and consequently, crop production and income of these farmers. These trends are likely to continue if appropriate corrective measures are not introduced immediately.

## 4.3. Crops and Cropping Pattern

In the Inai village, paddy, finger millets, horse bean, maize and jowar (sorghum) were the main crops in the *kharif* season, whereas urd, khesari (lethyrus), potato and vegetables were the main crops in the *rabi* season up to mid-1970s. Wheat was an unimportant crop up to the 1970s. In the *summer* season, practically no crop was cultivated in the village up to mid-1970s.

Installation of tube-wells and availability of high-yielding seed varieties of paddy, wheat and maize have helped the farmers in changing their cropping pattern. Before mid-1970s, farmers used to grow local varieties of paddy, wheat and maize, but now the majority of farmers are using modern seed varieties of these crops. However, there is a poor access to quality modern seeds of these crops in the village. Earlier, finger millet was one of the principal crops in the village which is now grown on less than 1 per cent of the cropped area. Wheat, which was not an important crop in the village earlier, is now grown on more than 40 per cent of area in the *rabi* season. Area under horse gram, jowar, *kharif*-maize and lethyrus has declined, whereas area under wheat, lentil, green pea, vegetables (brinjal, tomato, cauliflower, onion, etc.) has increased in the village. The changing cropping pattern in the village Inai is depicted in Table 9.

**Table 9 : Changing cropping pattern in Inai village**

Crop season	Before mid-1970s	2010
<i>Kharif</i>	Paddy	Paddy
	Finger millet	Finger millet
	Horse gram	
	Maize	
	Jowar	
<i>Rabi</i>	Lethyrus	Wheat
	Gram	Winter maize
	Pea	Lentil
	Potato	Potato
	Urd	Coriander
		Mustard
		Brinjal
		Cauliflower
		Onion
		Garlic
<i>Summer</i>	No crop	Summer moong Summer vegetables

#### 4.4. Preference for Seed Varieties

Based on the seed characteristics like yield, irrigation-need, fertilizer-need, crop duration and taste of produce, the farmers in the Inai village select the seed variety for cultivation. The three main crops cultivated in Inai are: wheat, rice, and maize. The three seed varieties commonly used for wheat are: Raj Lakshmi,



UP262 and 234; for paddy are: Sarju 52, Swarna Mansoori and Nata Mansoori; and for maize are: Kargil, Raj Lakshmi and Kargil. The preference of farmers for the seed varieties of each of the above-mentioned three crops is depicted in Table 10.

**Table 10: Preference of farmers for seed varieties in Inai village**

Seed variety	High yield	Less irrigation	Less fertilizer	Short duration	Good taste	Preference of farmers
<b>Wheat</b>						
Raj Lakshmi	○○○	○○	○○○	○○	○○○	First
UP262	○○	○	○○	○○○	○○	Second
234	○	○○○	○	○	○	Third
<b>Rice</b>						
Sarju 52	△△△	△△	△△△	△△△	△△	First
Swarna Mansoori	△△	△△△	△△	△△	△△△	Second
Nata Mansoori	△	△	△	△	△	Third
<b>Maize</b>						
Kargil	□□□	□	□□	□□□	□□□	First
Raj Lakshmi	□	□□	□□□	□□	□□	Second
Rajendra	□□	□□□	□	□	□	Third

*Notes* : Symbols are only indicators of change and do not depict the extent of that change in real terms with time

## 4.5. Livestock

Livestock-rearing is an important activity in the Inai village. There are 281 cattle, 89 buffaloes and 141 goats in the village (Table 11). The possession of a cattle is accorded high preference by every household but its possession is maximum (146 cows) among landless households. On the overall basis, the possession of a cattle is 0.48 per households and of a buffalo is only 0.15 per household (Table 12). More than half of livestock population is possessed by the landless households, followed by large, small and medium households.

**Table 11: Rearing of different livestock species in Inai village**

(No.)

Livestoc	Households				
	Landless	Small	Medium	Large	All
Cattle	146	36	25	74	281
Buffalo	55	14	3	17	89
Goat	98	14	8	21	141
Sheep	1	0	0	0	1
Poultry	8	10	0	17	35
Others	1	0	0	0	1



In the cattle category of livestock, population of cows is much large than of bullocks, there being about 50 bullocks in the village. These bullocks are largely used for ploughing following the exchange system.

Interaction with residents in the Inai village revealed that the number of local breed of cows was much higher 40 years ago than at present. After the introduction of improved variety of cows during 1990s, the number of cross-bred cows is rising in the village. On the other hand, the number of buffaloes has decreased over time because buffalo-rearing is both capital-intensive and labour-



**Table 12 : Average size of livestock holding per household in Inai village**

(No.)

Particulars	Households				
	Landless	Small	Medium	Large	All
Cattle	0.34	0.65	0.69	1.04	0.48
Buffalo	0.13	0.25	0.08	0.24	0.15
Goat	0.23	0.25	0.22	0.30	0.24
Poultry	0.02	0.18	0.00	0.24	0.06

intensive. Poultry farming is also practised in the village since setting-up of the first poultry farm in 1990. It is not only prevalent among landless and small households but among large households also.

There is no institutional arrangement for milk marketing in the Inai village. Some milk vendors operate in the village who collect milk from different households and market it in the urban area.

Goatery is also practised in the Inai village. There are 141 goats in this village with average possession of 0.24 goat per household, which is more than of buffaloes (0.15 per household). However, its incidence is very high among landless households ( $\approx 70\%$ ), followed by large (15%), small (10%) and medium (5%) households. Contrary to most villages in Bihar, goatery is practised by large and medium households in Inai. It is due to the dominance of backward castes among large households. The analysis of livestock data has revealed that about 82 per cent of households belonging to the landless category own 68 per cent of cattle

and buffalo, whereas large households constituting 12 per cent of total households, own 24 per cent of cattle and buffalo in this village. Thus, there is a skewed ownership of livestock in the village, but it is less skewed than land ownership (Figure 4).

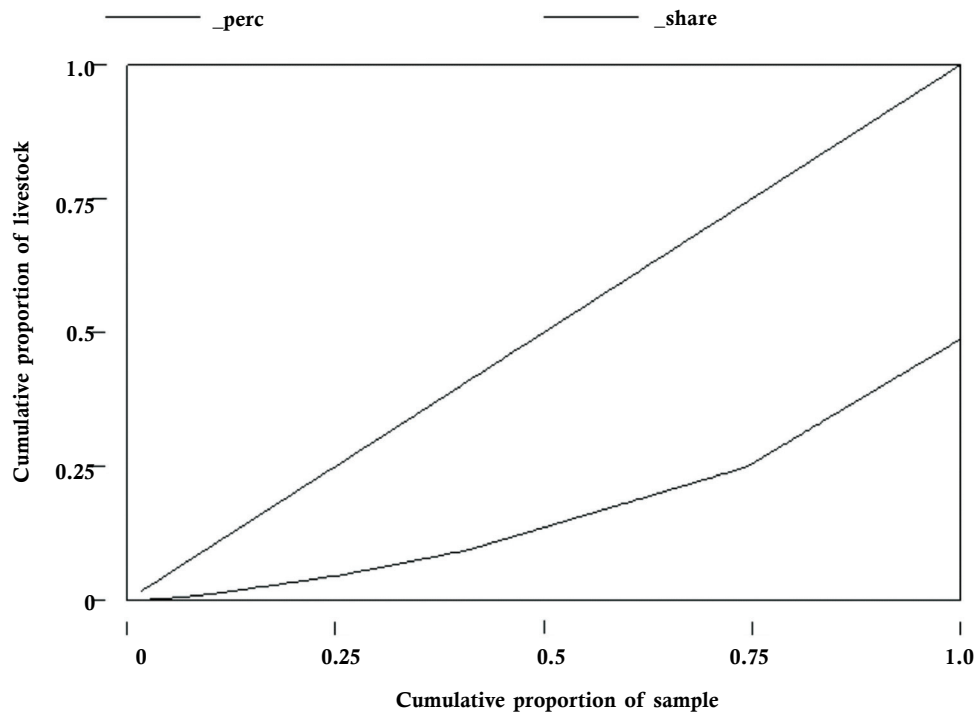


Figure 4: Lorenz curve of livestock, Inai

**Table 13: Share of different livestock species in total livestock value in Inai village**  
(Per cent)

Livestock	Households				
	Landless	Small	Medium	Large	All
Cattle	51.0	54.9	81.7	69.5	59.9
Buffalo	42.4	41.4	15.3	24.1	34.2
Goat	5.9	3.4	3.1	1.6	3.8
Sheep	0.1	0.0	0.0	0.0	0.0
Poultry	0.1	0.3	0.0	4.9	1.7
Total value (Rs)	2629	6778	4541	12057	4267

**Table 14 : Average number of farm machinery in Inai village**  
(No.)

Farm machinery	Households				
	Landless	Small	Medium	Large	All
Tractor	0.00	0.00	0.00	0.04	0.01
Harvesters & threshers	0.00	0.02	0.08	0.06	0.02
Irrigation motor	0.01	0.02	0.14	0.38	0.06
Sprinkler and drip irrigation	0.00	0.00	0.00	0.00	0.00
Bore-wells	0.14	0.11	0.14	0.58	0.19

In the Inai village, large households possess about one-fourth of the total livestock but their investment is very high, about 46 per cent of the total investment, indicating that large households possess improved varieties of cattle and buffaloes.

In spite of large number of animals, livestock healthcare facilities are meagre in the Inai village. The villagers have to go to the block headquarters to avail veterinary services like artificial insemination, vaccination, etc.

#### 4.6. Farm Machinery and Implements

Agriculture in Inai is still traditional but is moving towards mechanized farming. There are about 25 pairs of bullocks and farmers use bullock-drawn implements, namely desi-plough, spades, chaff-cutters, etc. in this village. The farm mechanization was started in 1983 when the first tractor was purchased in this village. Presently, there are eight tractors in this village and all these are possessed by the large households. They hire out tractors to fellow farmers for agricultural and non-agricultural purposes.





**Table 15: Farm-machinery per household in Inai village**

(Per cent)

Farm machinery	Households				
	Landless	Small	Medium	Large	All
Tractor	0.0	0.0	0.0	4.2	0.5
Harvesters & threshers	0.2	1.8	8.3	4.2	1.4
Irrigation motor	0.7	1.8	8.3	28.2	4.6
Sprinkler and drip irrigation	0.0	0.0	0.0	0.0	0.0
Bore-wells	13.8	9.1	13.9	36.6	16.1

In Inai, the first diesel engine was purchased in 1975 and presently, there are 25 diesel engines in the village. However, 5 of these 25 diesel engines are old and almost non-operational. The first thresher was also purchased in 1975 in this village. Generally, wheat threshing is done by the threshers but in the Inai village, thresher-owners (8 households) use these for threshing their pulses crops also. No household in this village owns a sprinkler and drip irrigation facility. In short, the status of farm machinery is very poor in the Inai village.

**Table 16: Household-wise share of major farm machines in total value of farm machinery in Inai village**

Farm machinery	Households				
	Landless	Small	Medium	Large	All
Tractor	0.0	0.0	0.0	10.6	8.7
Harvesters & threshers	0.9	5.8	14.1	0.8	2.0
Irrigation motor	4.4	7.6	13.6	8.0	8.1
Sprinkler and drip irrigation	0.0	0.0	0.0	0.0	0.0
Bore-wells	39.7	8.4	4.6	8.5	10.2
Others	55.0	78.2	67.7	72.0	70.9
Total value (Rs)	500	3121	5927	38373	5633

The farm machinery is mostly possessed by the large households. In value-terms, the average value of farm machinery per household is Rs 38000 among large households. The average value of farm machinery per household is only about Rs 6000 among medium households and Rs 3000 among small households.

## 5. Economic Status

Farming and livestock-rearing have been the main economic activities in the village Inai. But with land fragmentations, income from only these two activities does not provide livelihood security to the households in this village. Therefore, a majority of households have opted for non-farm employment to increase household income.

The majority of households in the village Inai belong to the category of 'Below Poverty Line'. Most of the houses in this village are made of bricks with roofs of soil tiles/paddy straw and are in highly depleted condition.

Remittances from out-migrants and non-farm employment constitute the important sources of livelihood in the village Inai, as in most villages of Bihar.

### 5.1. Sources of Income and Occupational Diversification

In the Inai village, agriculture, including livestock, was the main source of income, but the decline in income from crop production due to reasons already explained, has compelled the several residents of this village to seek alternative





**Table 17: Occupational diversification in Inai village**

Particulars	Households				
	Landless	Small	Medium	Large	All
Working population (No.)	691	90	63	107	951
<b>Share of different occupations in total working population (%)</b>					
Cultivator	5.1	31.1	31.7	36.5	13.2
Agricultural labourer	13.3	6.8	0.0	3.2	10.6
Non-farm worker	75.4	52.4	58.3	29.4	66.4
Salaried job	1.4	4.9	8.3	27.0	5.3
Other jobs	4.8	4.9	1.7	4.0	4.5

livelihood options. Poorer households have taken up non-farm employment or daily wage employment within the village or state or even outside the state. Thus, the diversified occupations may be categorized under five groups, viz. (i) Cultivator, (ii) Agricultural labourer, (iii) Non-farm worker, (iv) Salaried (including governments) job, and (v) Other miscellaneous jobs like auto-rickshaw plying, auto rickshaw repairing, milk vendoring, tailoring, etc. (Table 17). The recently launched MNREG Scheme of Government of India has been introduced in Inai village since 2007. But, as per the residents, it has not provided 100-day employment to even one eligible household in this village.

The total working population in Inai is 951, comprising 691 among landless, 90 among small, 63 among medium and 107 among large households. However, in terms of percentage of their respective population, it varies from 33 per cent to 40 per cent only with the overall percentage of about 38 per cent. About half of the population in Inai belongs to either below 16-year (children) or about 60-year (old) categories and most of them are non-workers. Therefore, work participation is much higher (above 50%) when only active adult population is considered for calculation of work participation in this village.

In terms of different occupations, the share of non-farm employment is very high (66%), followed by crop cultivation (13%), agricultural labourer (11%), salaried job (5%) and other miscellaneous jobs (5%). Due to poor economic base and low educational level, not much diversification has been observed in the occupational pattern in this village.

The adoption of non-farm employment is maximum, as expected, by landless households (75.4%), followed by medium (58.3%), small (52.4%) and large (29.4%) households. Among cultivators, the share of working population is maximum of large households (36.5%), and it decreases with decline in

landholding-size, becoming least (5%) on landless households. A notable feature is a significant share (27%) of large farm households in adopting salaried jobs; it is due to better educational facilities provided to the youths by these households. Agricultural labour is not an important livelihood option in the village Inai, as its share is only about 11 per cent, and the majority of them belongs to the landless category (13%). Low level of agricultural labour in the village is attributed to small size of landholdings and social structure of the village. Since in most of the households, family members themselves work on farms, they do not require labourforce for routine agri-operations, but for certain labour-intensive operations, they have to employ labour.



In short, non-farm employment has two-thirds share in different types of occupations and only one-third share is contributed by the remaining four occupations, viz. cultivator, agricultural labour, salaried job and miscellaneous jobs. Due to low economic base and low level of education, not much diversification is visible in the occupational pattern in this village.

According to the perception of people of Inai, large farmers of the village earn about 50 per cent of their income from agriculture, 25 per cent from salaried job and 25 per cent from all other sources. In the case of medium farmers, the income sources are about one-third each from agriculture, non-farm employment & salaried jobs and other miscellaneous jobs. In the case of small farmers, about



one-half income is from non-farm employment and the other half is from all other sources including farm income. For landless households, about two-third income comes from non-farm employment and one-third from all other sources, including farming and farm labouring.

As per the estimation of people of Inai, only about 10 per cent people of this village could be termed as 'rich' and the same percentage is of 'average' or 'medium' households, the remaining (75-80%) households are 'poor' only.

## 6. Healthcare and Sanitation

### 6.1. Drinking Water

The problem of poor health and occurrence of diseases is directly linked to the quality of drinking water. Most of the households (90%) in the Inai village have installed their own hand pumps for the supply of water and the remaining 10 per cent households which belong to the weaker section of the society, depend on public hand-pumps. There are four ponds in the village and these are now largely used for bathing and cleaning of animals. Thus, the village Inai seems to have facilities for drinking water. However, the quality of groundwater is a matter of concern.



### 6.2. Healthcare Facilities

The healthcare facilities in the Inai village are practically non-existent. The access to medical facilities is also not easy. A Primary Health Centre has been established recently (in 2011) in the village but it lacks infrastructural facilities and even the doctor does not visit this Centre regularly. For medical treatment, the residents of Inai go to public and private doctors in Baheri. In case of serious illness or emergency, the villagers have to travel 30-35 km to Darbhanga for a medical facility. There are two quacks in the village, who provide medical help



to villagers in case of minor ailments. The Government Hospital is located at a distance of about 35 km from the village in Darbhanga.

Polio vaccination to children is done regularly in the village Inai, but there is no arrangement for vaccination against other diseases. A few prosperous farmers, who have income from different sources, manage vaccination for their children at Darbhanga. The Government schemes like *Anganwadi*, mid-day meal and *Matrytwa Labh Yojna* were started in the years 1998, 2000 and 2005, respectively. These have shown a positive impact on general health of women & children and hygiene in the village.

The increasing intervention of chemicals in agriculture, changing lifestyles and diversifying food habits, have resulted in emergence of diseases like gastritis, stomach cancer, stomach-related problems, cardiological problems, etc., which were non-existent earlier.

### 6.3. Sanitation

The sanitation condition in the Inai village is poor. There is no public sanitation programme in operation in the village. The Gram Panchayat does not



undertake any sanitation activity in the village. Only about 5 per cent households have their own flush system or borehole latrines. The majority of households of this village squat in the open fields, which is not only indecent but in-sanitary also. The village street roads are muddy. Some efforts in generating awareness towards sanitation and hygiene are being made through the Anganwadi scheme in the village.

## 7. Markets, Transport and Communication

### 7.1. Markets

The residents of Inai village do not have easy access to any organized agricultural market. Two weekly markets are held in the village, on Tuesday and Saturday of every week. The commodities sold in these weekly markets include vegetables, common spices, foodgrains, cheap clothes, etc. A Primary Agricultural Co-operative Credit Society (PACS) was established in the village in the year 2009, but it is of no use to the farmers of Inai village as it does not have the license for purchasing of agricultural commodities or sale of agricultural inputs. Hence, it may be said that agricultural marketing in Inai is in the control of village traders and therefore farmers of this village have no other practical option but to sell their agri-produce to these local traders at a price lower than the procurement price of the produce.

The farmers of the Inai village do not have access to any procurement centre of either Food Corporation of India (FCI) or Government of Bihar. There is no input dealer in the village. For the purchase of chemical fertilizers and other inputs, superior quality foodgrains, and other consumers' goods, residents of this village are dependent on Baheri market which is 5 km away. For the purchase of quality goods, valuables, ornaments, etc. the people of this village go to Darbhanga market which is about 35 km away.

### 7.2. Transport

Transport facilities in the Inai village are meagre. The village is not located on any rail head and people have to travel 35 km for reaching the nearest railway station at Darbhanga. For all practical purposes, people have to go to Baheri which is located 5 km away from the village. Some auto-rickshaws ply between Inai and Baheri but their service is not regular. Bullock cart is still in use in the village for transporting agricultural commodities from Inai to Baheri. Some tractors are also used for transporting agricultural commodities, inputs, building materials like sand, cement, bricks, etc. and other household commodities.



### 7.3. Communication

Like all other infrastructural facilities, the communication facility in the Inai village was very poor till a few years ago. But, the mobile phone revolution has changed the situation in this village also. Almost every household, including the households of weaker section of society, has at least one mobile phone instrument and this has improved the connectivity of people of this village with the members who have gone out to earn livelihood. The out-migrated members, wherever they are, can also contact their family members through this facility. However, there is no land line telephone connection in the village.

Due to poor economic status coupled with erratic electric supply, all households in Inai village do not possess a radio set or a television set. There are only about two dozen radio-sets and one-dozen television sets in the village. Only 7 households subscribe to a Hindi newspaper in the village.

## 8. Welfare and Development Programmes

Several welfare programmes of the central and state governments are in operation in the Inai village. These include :

1. Agricultural Technology and Management Agency
2. Anganwadi Scheme
3. Balika Smridhi Yojna
4. Beej Gram Yojna
5. Cooperative Dairy
6. Diesel Subsidy Scheme
7. Handicapped Pension Scheme
8. Indira Awas Yojna
9. Integrated Scheme of Palm and Oilseed Management
10. Jaivik Khad Protsahan Yojna
11. Kabir Antyosthi Yojna
12. Kanya Vivah Yojna
13. Laxmibai Widow Pension Yojna
14. Mahatma Gandhi National Rural Employment Guarantee Scheme
15. Matrytwa Labh Yojna
16. Micro Mode Scheme
17. Mid-Day Meal Scheme
18. Mukhya Mantri Cycle Yojna
19. Mukhya Mantri Kanya Suraksha Yojna
20. Mukhya Mantri Tivr Beej Vistar Yojna
21. National Food Security Mission
22. Primary Agriculture Credit Scheme
23. Public Distribution System (PDS)
24. Rashtriya Bagwani Mission
25. Rashtriya Krishi Vikas Yojna
26. VREGS

The effect of some of these schemes has become visible like implementation of Mukhya Mantri Cycle Yojna has facilitated continuation of education, more so by girls, after the primary level in the native village, introduction of mid-day



meals has increased enrolment in schools, efforts towards generation of awareness regarding sanitation and hygiene practices through Anganwadi scheme, etc. However, a wider impact has yet to emerge.

Some other infrastructural activities in Inai are :

**Post Office** : There is a small post office in the village which was established in as early as 1944. It provides postal services to this village and the surrounding areas.

**Electricity Supply** : The access to electricity was provided in this village in 1980. But only a few households were able to utilize this facility. In 2010, electric connections were provided to all BPL households in this village and in 2011, the whole village has been electrified.

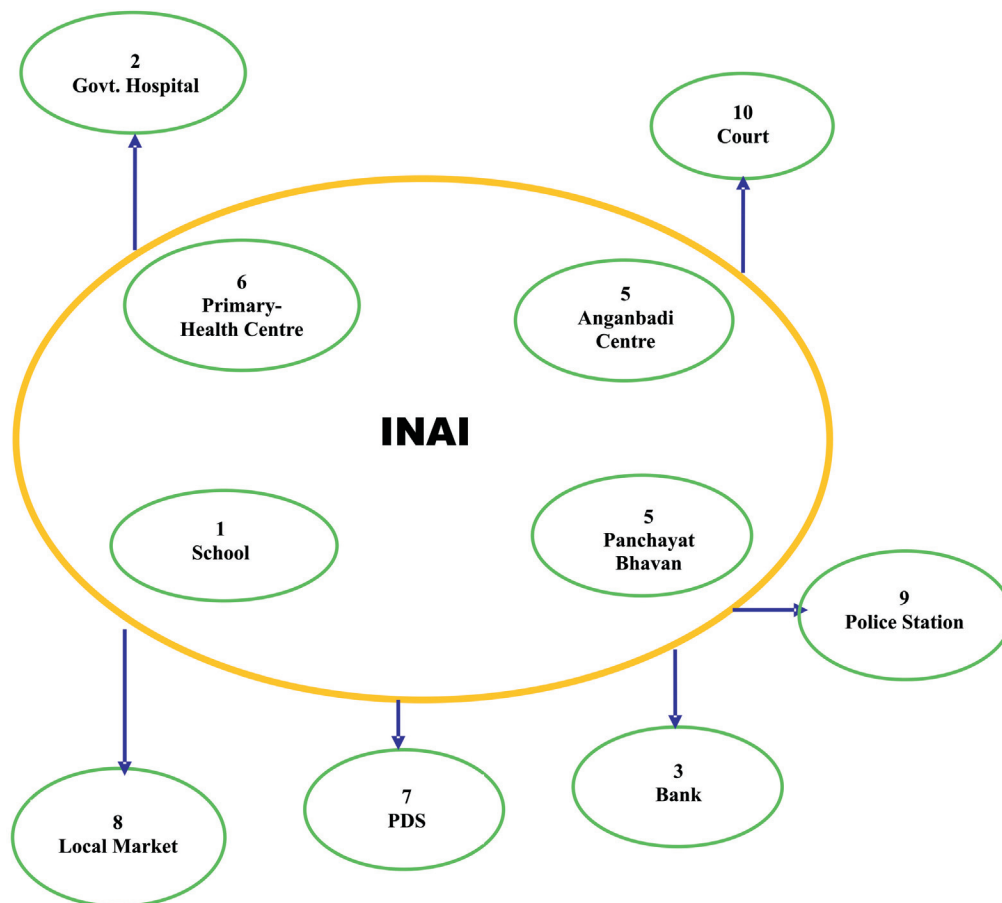
A glance of infrastructural facilities in the Inai village can be had from Table 18.

**Table 18 : Development indicators in Inai village**

Particulars	Number
Bore-wells	: 38
Ponds	: 4
Community tube-well	: Nil
Artificial Insemination Centre	: Nil
Veterinary Hospital	: Nil
Hospital	: Nil
Tractors	: 8
Diesel Engines	: 25
Threshers	: 8
Sprinkler and Drip Irrigation System	: Nil
Bullocks	: 50
Telephone Landline	: Nil
Cell Phone	: 80-90% of households
Primary Health Centre	: 1 (2011)
Primary Agricultural Cooperative Credit Society (PACS)	: 1 (Non-functional)
Input-supply Dealer	: Nil
Procurement Centre	: Nil
Radio sets	: About two dozen
Television sets	: One dozen
Newspapers subscribing households	: 7
Rice & flour mill	: 1
Dairy Cooperatives	: Nil
Private Doctors	: Nil

## 9. Households Preference for Different Public Institutions

The people of Inai regard 'School' (Figure 5) as the most important public institution, as they understand the value of education in the development of their family and the village. The next preference is given to the 'Hospital' by the villagers but they complain that there is no hospital in the village and they have to go to Darbhanga or Baheri for medical treatment.



**Figure 5 : Households preference for different public institutions**




















*Note :* The number shows the preferential ranking of villagers for different institutions, and the length of arrow shows the distance from the village, longer the size of arrow, farther it is from the village.

The other two most important institutions are: 'Bank' and '*Anganwadi*' Centre. There is no PDS centre in the village and for marketing, people have to go 5-10 km away from the village. Police Station and Court are regarded least important by the villagers as the farm community seems to be peaceful with almost no incidence of thefts, dacoity, fightings, etc.

## 10. Changes in Socio-economic and Ecological Indicators in Inai
















Based on rural development indicators, the changes in socio-economic and ecological status of the village Inai is depicted in Table 19. The perceived reasons for the change have also been depicted in Table 19.

**Table 19: Changes in socio-economic and ecological indicators in Inai village: 1970-2010**

Indicators	1970	1990	2010	Reasons
Soil fertility				Chemical interchange, Less use of organic manure, no crop
Number of crops				Lack of water, demonstration effect, lack of initiative
Fertilizer use			 	Decreasing soil fertility
Area of cultivation (Per capita)				Increasing population
Horticulture				Higher production of seasonable vegetables
Irrigation				Higher private investment in private boring and government initiative

Contd...

Table 19 contd.....

Indicators	1970	1990	2010	Reasons
Migration				Lack of employment and educational opportunities
Livestock-rearing				Increased government initiative
Diseases				Intervention of chemicals in crops increased
Forest cover				Human encroachments and clearing forests
Wild life				Decreasing forest cover and encroachment

Note: The symbols used in this table are only indicators of change and do not depict the extent of change in real terms over time.

## 11. Opportunities and Constraints

### 11.1. Opportunities

- The irrigation facilities in the Inai village may be utilized for crop diversification and cultivation of off-season vegetables in the village.
- With a number of working SHGs in the village, a right initiative can change the economic status of the village.
- Establishment of a polytechnic or technical training institute in the village will strengthen the technological capabilities of people, particularly the younger ones and will provide them income opportunities.
- With high milch livestock population, setting up of milk cooperatives in the village may add to the village economy.
- Setting-up of food processing units in or around the village will help in increasing income of the people by providing employment and saving post-harvest losses.

### 11.2. Constraints

- Lack of fodder availability in sufficient quantity in the village is a major constraint which limits livestock-rearing in this village.
- Lack of a strong healthcare and educational infrastructure is the main hurdle in the human development of the village.
- Addiction to alcohol and tobacco is highly prevalent in the village and it is one of the major causes of economic backwardness of this village. Increase in educational status and awareness generation about ill-effects of drinking and smoking may help in managing these evils.
- Lack of participation of women in decision-making and discrimination in education among boys and girls make women situation more vulnerable. Women empowerment programme may help in managing this social evil.
- Lack of sanitation facilities and poor awareness about the hygiene practices make villagers more susceptible to diseases.
- Lack of adequate transportation facilities is a big constraint in the development of this village.