

Rural Management in Action - Caselets Volume 6



BIHAR



Rural Management in Action

Caselets Volume 6



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सत्यमेव जयते

Editorial Board

Dr W G Prasanna Kumar

Dr K N Rekha

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Ministry of Education, Government of India

5-10-174, Shakkar Bhavan, Ground Floor, Fateh Maidan Road, Hyderabad - 500 004

Telangana State. Tel: 040-23422112, 23212120, Fax: 040-23212114

E-mail : editor@mgncre.org Website : www.mgncre.org

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About the Book

This book is a compilation of few issues and rural concerns of one of the most backward states of India i.e. Bihar. Bihar had a glorious past, a golden era in the history of ancient India. Its glorious history can boast of being the founding place of two major religions of world, Jain Dharma and Boudh Dharma. It has also a place in Sikhism as 10th and last guru of Sikh religion Guru Gobind Singh Ji was from Patliputra (Patna). Soon after independence in the ranking of various states of India, Bihar figured in top states in revenues and per capita income.

Bihar state started lagging behind among states and a major reason was the Central Government's biased rule of Rail Freight equalisation which came in to force in the year 1952. Due to the law, the essential raw materials freight will be the same all over India. This was the biggest hurdle in industrialisation of Bihar. Another problem of rural backwardness of Bihar was over dependence of population on agriculture which employs 80% of total population. However, agriculture itself is dependent on the fate of rain, famine and floods. It has now made some inroads in vegetables, fruits and Dairy products. The biggest problem of rural Bihar is migration of its workforce to other states of the country. Their distressed migration is due to non-availability of work for them in Bihar, so for survival and earning of livelihood they are migrating to other industrialised states of India.

Economic Development of a state is directly proportional to its basic facilities to its people; be it, health, education, clean drinking water, and sanitization. Bihar has a dilapidated health system. Primary health centres to district sadar hospitals are not equipped with state-of-the-art equipment and specialist doctors. Recently a question was raised in Vidhan Sabha that 18 district hospitals out of 38 districts are not having ICUs with ventilators which broadly states the status of the Health care system of Bihar. AIIMS Patna has started functioning with partial services since last year which is a ray of hope for the state. The subject of three caselets are carefully picked up to demonstrate the three real problems of rural Bihar. Three caselets are a true story with true life experiences of some of the relatives and known people in the villages of Bihar.

I thank the contributor Anjali Yadav, MBA (Rural Management) student, XSRM to this book for her outstanding insights. Also, I would like to thank MGNCRE Team members for extending their extreme support in completing this textbook.

Dr. W. G. Prasanna Kumar
Chairman, MGNCRE

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About Bihar

Bihar is an important state of the Republic of India, situated in eastern part of the country. The word Bihar is derived from 'Vihar' which means abode for Buddhist monks in ancient and medieval India. Bihar was full of Buddhist Viharas in ancient and medieval India and that was the inspiration behind its name. Bihar has a very rich history and once remained the epic centre of India. Gupta Dynasty and the Maurya Empire termed as the golden period of ancient Indian history. In that period Buddhism arose in the region which is widely adhered to religion in the world. The Mauryan Empire, which originated from Magadha in 325 BC, was founded by Chandragupta Maurya, who was born in Magadha. It had its capital at Pataliputra (modern Patna).

In the pre-Independent Era, Bihar was the part of the Bengal Presidency of British rule. Its fertile land and skilled labourers attracted the British. That time a number of agriculture-based industries had been started in Bihar by foreign entrepreneurs. Bihar remained a part of the Bengal Presidency of British rule till 1912 when Bihar and Orissa were carved out as a separate province. Further in 1934 Bihar and Orissa were made separate provinces. Again, on 15th November 2000, the southern part of the minerally rich area was carved out of Bihar and named Jharkhand.

Bihar is the 3rd most populous state with a population of 10.41 Crore consisting 5.44 Crore male, 4.97 Crore female. (Census 2011). It's 12th largest state by the size of its territory which is 94,163.00 sq. kms. It is a completely landlocked state by Nepal at its northern side, South-East Side – West Bengal, West Side – Uttar Pradesh and South Side – Jharkhand.

Bihar has predominantly three rich cultures such as Bhojpuri, Magadhi, Maithili. The three are also the main regional languages in Bihar. However, Hindi is the language of state and Urdu as a second language. English is also a prominent language in Bihar and its educational institutions and also widely spoken by educated people.

Bihar predominantly a state with most of its population resides in rural areas. Only its around 11% population resides in the urban areas which is just better than Himachal Pradesh in the country. Its rural Area spread is about 92257 Sq. KM and urban Area – 1095.49 Sq.KM.

Patna (Ancient name – Patliputra) is the capital of Bihar state, which is situated at the bank of Ganga river. Patna has remained an epic centre of Bihar politics and also was capital of Maurya Dynasty in ancient India.

Culture

Bihar has broadly three cultures which is considered rich and prevails in most of the state. Magadh Area formed by in and around districts of Patna. Bhojpuri spoken areas are Shahabad, Saran, Chapra&Champaran. Similarly, Mithilanchal is the broadly northern part of Bihar, where Maithili is spoken. All three cultures are intermingling with each other and do not have any regional conflict for their culture. All three regional languages are understandable by the majority population who understand Hindi.

Madhubani paintings (Mithila Painting) is a world-acclaimed painting which is widely practiced in Mithilanchal area. Its origin is Madhubani District of Bihar and many artistes have won national awards. Bihar has a robust Bhojpuri Film Industry in Patna & Mumbai. Bhojpuri films and songs are widely

appreciated in the entire Hindi heartland of the country and also elsewhere. Magadhi films and Maithili films are also produced.

Chhath, Holi, Dussehra, Diwali are some of the most celebrated festivals of Bihar. Chhath a mega festival is celebrated by praying rising and setting sun is a unique festival celebrated by Biharis all over India and the world.

Literacy

Bihar is one of the most backward states in literacy. The literacy rate of Bihar is 63.82% far below the average literacy rate of country which is 74% (Census 2011). The male literacy rate of Bihar is 73.39 % and female literacy 53.33%. In the last two decades, its literacy has increased around 20%. There is great inequality in the wealth of people of Bihar as well as literacy and education. On one side Bihar produces the majority of bureaucrats, engineers, and doctors at the same time it has one of the largest illiterates/unskilled work-force migrated all over the country.

Educational Infrastructure

Historically Bihar can boast of being a major center of learning in ancient India like education centres universities of Nalanda & Vikram Shila which were ruined by Muslim rulers. However, Bihar saw a revival of its education system during British Rule Patna University, the seventh oldest university of the Indian subcontinent was established in 1917. Some other centres of high learning established under British rule are Patna College, Bihar School of Engineering, now known as NIT Patna. Prince of Wales Medical College now PMCH (Patna Medical College Hospital) Recently AIIMS Patna was made functioning near Phulwarisharif. Dr. Rajendra Prasad Central Agriculture University is another institution of national repute. Bihar has recently set up with help of centre, IIT Patna, Patna Centre of BIT Meshra Dhanbad, NIFT Patna, etc.

Migration

Bihar being a backward state and most importantly after carving out minerally and industry reach Jharkhand from Bihar, Bihar is now left with its Agriculture plane which is considered fertile alongside the Ganga river. However, only a few districts have a better irrigation system. Most of the districts of North Bihar are either suffers from famine or flood almost every year. Many rivers that originate from Nepal submerge almost entire north Bihar causing big loss of man, animal, and crops. These prevalent situation in Bihar forces lakhs of migrant workers to migrate to other industrialized parts of the country. Many times, they also face discrimination and prejudices, particularly in Maharashtra, Gujrat, Punjab, Haryana, Assam, etc.

Rural Concerns of the State

Agriculture accounts for 23% of the Bihar state's economy, industry 17% and service 60%. Though contribution of agriculture in the economy of Bihar is 23% however major enterprise of Bihar is Agriculture (Singh 2017). About 80% of the state's population is employed in agriculture, which is above the national average (IBEF 2020). The main agricultural products are litchi, guava, mango, pineapple, brinjal, lady's finger, cauliflower, cabbage, rice, wheat, sugarcane, and sunflower. Among the states of India, Bihar is the fourth-largest producer of vegetables and the eighth-largest producer of fruits.

Main concern of agriculture in the state is that, though good soil and favorable climatic conditions favor agriculture in Bihar but non availability of structured irrigation system, agriculture of Bihar is totally

dependent on rain. Every year rains are not adequate and on time which renders drought in almost all parts of Bihar.

Northern part of Bihar is flooded with rivers coming from Nepal. Koshi, Gandak etc. rivers play havoc in Bihar and render people homeless and agriculture crops are destroyed by flood. As per an article of newspaper (The Times of India. 14 October 2008) Standing crops worth Rs 800 crore were destroyed in the five northern districts of Saharsa, Supaul, Madhepura, Araria and Purnia. Three lakh hectares of cropland were submerged under flood water. Up to 3,500 people have been reported as missing. Major reason of flood which submerges approx. 68000 sq.km area of total Bihar area of 94000 sq.km are the rivers like Narayani, Bagmati, Koshi etc. flowing from Nepal mountains to the plane of Bihar as there is no treaty between India and Nepal to restrict the water, Nepal releases water as and when they get pressure on their dam.

Bihar Government trying to mitigate above problems of flood. Bihar government is taking up an ambitious plan of embankments and has built over 3000 km of embankments in Bihar over the last few decades, but the same is not sufficient because the flooding propensity has increased by 2.5 times during the same time period, not to mention that embankments failed during each major flooding event.

In 1954, when the Bihar flood policy was first introduced, Bihar had approximately 160 km of embankments. At this time, the flood-prone area in the state was estimated to be 2.5 million hectares. Upon the completion of the system of embankments, 3,465 km of embankments had been constructed and were administered by the Water Resources Department (WRD).

The main problem for Rural Bihar is joblessness, acute hunger, and agricultural failure due to drought or flooding. As per state government information approximately 1.50 Crore family are seeking Below Poverty Line (BPL) status for this reason (Ahmad 2010). There is a huge number of disadvantaged people and it is hard to care for by society.

Massive migration from rural Bihar is closely related to poverty due to very small to no industries dependency, a fact-finding study for the 2008 Koshi floods, prepared by a civil society organization of experts such as Dr. Sudhir Sharma, Dr. Dinesh Kumar Mishra, and Dr. Gopal Krishna, highlighted that while India has constructed more than 3000 kilometers of embankments in Bihar over the last few decades, the flooding tendency increased by 2.5 times, not to mention that embankments collapsed at each major flooding event.

Successful Stories

The following caselets are part of real experiences of people residing in rural areas. Going through the caselets, you will come to know the struggle rural people go through and how they manage to drive up through their concerns and find a way to fight with their problems.

In the stories you will see how Mr. Kumar comes up with a tremendous idea for earning his living and he also mobilizes the community with the idea. You will also see how Rachna and her parents fight for her medical issues. Nandlal being married at early age faces difficulties in managing his family and becomes a migrant worker. At the end you will come across a success story of Mr. Dadan Singh's organic farming entrepreneurship.

Unemployment and Chhena Business in Rohtas District

Caselet 1

Introduction to the Village

Rohtas District is an agrarian district of Bihar. It is the most literate district of Bihar after Patna. It also has the most per capita income after Patna. Its main source of income is agriculture, which comprises mainly well-irrigated (Sone canalization) fertile agricultural land. Main Crops of Rohtas district are paddy, wheat, maize, other rabi crops, sugar cane, vegetables, etc. Rohtas district is popularly known as 'Rice bowl of Bihar' due to its bumper cultivation of paddy.

This district was until 1980, a well-industrialized district. Dalmia Nagar was one of the major industrial hubs of the Rohtas district. It had sugar, vegetable oil, cement, paper, and chemical factories known as Rohtas Industries however same is closed long back in 1980. Many sugar mills like at Bikramganj, Sanjhauli and other places were closed by 1975. Bihar Government is not taking any steps to establish new Sugar Mills.

In the north of the district, there is a small Rurban¹ 'Notified Area'² named 'Koath', which in due course became Town Panchayat. It was initially made notified area after including nearby villages of Yogini, Fatehganj, Nawabganj, Diliyan, Gangati many small hamlets (deras& tolas) of these villages. It has 12 wards comprising of Koath and above villages. Koath has a population of 18890 as per the census of 2011 out of which 9815 are males and 9075 are females. If past trends of population increase in 10 years taken, its population should be roughly 21000. It has female sex ratio of 925 against the state average of 918. It has a literacy rate of 66.36 % above the state average of 61.80%. 76.32 % male and 55.48% female are literate. (Source: census2011) (Refer Table 1.1 in Annexure)

Challenge

Approximately 70% of the population is unemployed or not engaged in gainful employment. The major activity of the village is agriculture however dense population and division of agriculture lands make agriculture activities a source of mere subsistence and not gainful employment. Only few employment opportunities are available in the Rohtas district, due to which people are still not able to improve their standard of living. Except for agriculture activities, people do not have options to earn extra income to improve their living. As the inflation is increasing day by day, people are not able to manage their living only by earning from agriculture and the person having small land cover cannot sustain without having some other source of income. As agriculture lands are divided into small farms (due to family partitions), Agri activities are undertaken on lower scales thus agriculture has remained mainly for subsistence. Large scale commercial agriculture cannot be undertaken due to the small size of farms. The majority of small and marginal farmers have these issues. This compels people to move to other industrialized states to earn some money. They move to other states in search of jobs between sowing and harvesting of crops.

Mostly youth remain unemployed. Majorly women's participation is less because of social issues residing in the villages and also all household work such as domestic animal rearing, taking care of children and farming depends on the women. (Refer Figure 1.1 in Annexure)

¹Rural + Urban = Rurban - A location that has both rural and urban characteristics

²Town Panchayat was earlier known as Notified Area. (AdhisuchitKshetra)

Koath also lacks educational institutions. Apart from a government affiliated higher secondary school it does not have any college, institutions for technical studies and other advanced studies. One school is not sufficient to cater to the populace and maintain the quality of education. A good private school is also not available in the area to provide quality education.

Between 2000 and 2010, the most striking change in men's employment structure was the increase in the regular employment share from 13.3% to 19.7%, which means an increase of 6.4 percentage points or 48%. If only primary employment is considered, which is a better reference for calculating the value of regular employment, daily employment currently constitutes 27% of all men's work compared to 19.1% in 2000. It is gradually found to be the source of regular employment away from the villages and outside agriculture. Migrants have diversified their destinations and their occupation sectors since the last decade. There has been a decrease in the proportion of male migrants going to Punjab and Haryana for agricultural work, and the number going to urban centers to work in factories or services.

The structure of women's work shows a marked increase in self-employment over the same period. This is attributed to women's increased participation in farming and animal husbandry while men migrate, and their status upgraded to from unpaid family workers (which constitutes two-thirds of women's population) to self-employment). Regular employment rose from 1.4% to 3.6%, with some openings in the health and education sectors, including teacher jobs, Accredited Social Health Activists (ASHAs) and Anganwadi workers. Regular employment among women is progressing slowly, as there are limited opportunities in the villages outside of agriculture. The relative decline in casual employment can be explained in part by an effect on income.

Dantwala (1975) discusses that many adult household members do not seek a job because they know there is no chance that they will be able to obtain a suitable job. Non-participation can therefore be just another term for unemployment. Unemployment estimated in reference to one week. The unemployed have been described as jobless and finding and/or available work. In what follows, the unemployment data were analyzed with reference only to the previous week-as in this case the problem of memory lapse is the least. Unemployment in the labor force is measured in terms of man-days.

It was noted that 510 (430 males and 80 females) of the 1626 persons in the sample worked in the reference week in the villages of Bihar, making up 51% of the male population and 10% of the female population. In terms of man-days in labor-power, male unemployment was 17.2% and female unemployment was 48.6%.

Sourav Das (2018) opine that the youth unemployment rate has many reasons. The triggers were triggered by issues related to work and labor market structure. The trend of internships and other temporary work for youth has also risen, which has a significant impact on youth unemployment rates.

Youth unemployment factors are as follows:

- Uncompromising labor markets
- Increased education expectations
- Family impact
- Job Shortage
- Mismatch of skills
- Temporary contracts
- Lack of information
- Social issues

- Cultural influence
- Lack of credit facilities
- Inadequate training for work
- Emphasis solely on the formal sector
- Slow growth of economy
- Women's security and social restrictions
- Increase in population growth and decrease in mortality

Response

Mr. Vijay Kumar lives in Fateganj. It is a small village (Ward no. 1 of Koath town panchayat) in Rohtas district. He is the son of a farmer. His family had never done any other work for a living other than farming and cattle rearing. Fortunately, he was the first generation of his family to do schooling and graduation. After graduation, he was in search of a job for a few years but despite his best efforts, he could not get a job in his residing district. He was not able to move to a farther place than his village and district because his parents were old and needed support. Mr. Kumar, being a member of a farming family knew how to do farming, so he got engaged in it. Soon he got married and the responsibility of getting his sister married was also on him. He realized that farming was not sufficient for his family's sustenance.

One day he went to a relative's place near Ara, Head Quarter of adjoining Bhojpuri District. There he came to know that his relatives are engaged in making Chhena (Cottage Cheese) used to manufacture sweets like Rosogulla, Chhena ka tikiya other sweets which have good demand in Bihar and local districts and use to sell it to sweet shop keepers. Chhena making was very easy and cost-effective. He learnt the preparation method of Chhena and also visited the nearby market with relatives to understand the marketability and income generation.

After returning to his native place, without wasting any time he approached the local market to enquire about the Chhena business and he was amazed that already few farmers are doing the same. He communicated with a sweet shop and the very next day he promised to bring Chhena to Koath local market which is just 1 KM from his village.

Chhena Making Process: Milk is boiled and Alum³(Fitkari) water is added to it, which makes water contents and milk separated. Then thick milk contents are separated from the water. The same water is kept which can be used the next day for making chhena. (Refer Figure -1.2,1.3,1.4,1.5 in annexure)

Actions Taken

Mr. Kumar wondered why people from his village didn't do this business. He decided to take the initiative to start with the Chhena business. He was quick in action as he was already having one milch buffalo and a cow. Most of his friends in his village were having 1-2 milch buffaloes. Almost all villages which are part of town panchayat Koath have now started this easy but good income business.

Economics

One local breed buffalo usually gives milk of 10-12 Liters (Both Times of Day - Morning and evening) for six months after bearing calf. It varies from buffalo to buffalo for 1-2 months. One buffalo cost 40000-60000/- as per her milk quantity. 4 liters of milk usually produce 1 KG Chhena. Mr. Kumar was already

³Alum- Known as "Fitkari" in hindi, mixed with water to make alkaline water which is mixed with milk to make Chhena.

having one buffalo and a desi cow. He could afford to buy one more buffalo for Rs.45000/- from his savings. Cow's milk was left for family consumption and he could collect 20 liters of milk and could produce Chhena of 5 Kgs. The Chhena rate is Rs. 110-140 as per the season (like marriage seasons) and demand in the market. The usual rate is Rs.120/- per kg.

He was able to make 600/- from Chhena per day. Out of that 100-150 will be used for animal fodders. As he is a farmer his lands are sufficient for basic fodders for animals and he only purchase Khali (oil cakes of mustered, flax or linseed, eaten by animals). He roughly saves Rs.400/- per day, which is Rs.12000/- per month. It has become household activities of the Koath area and other nearby places and even in Rohtas District and Bihar. Due to this activity, people keep milch buffalo & cows the whole year which also provides them with nutritious milk which they keep for family consumption.

Lessons Learnt

From the above case, we learn that how rural people find their way of living in small scale activities. Rural people are the best innovators who try to get the best from the resources available to them.

Questions for Discussion

1. How can the villagers expand the Chhena business?
2. Is any malpractice possible in this business? If yes, describe it?
3. Can the Chhena business term as a long-term business?

Course Positioning

The above case can be used in understanding the rural livelihood system and the chhena production gives the idea of rural production systems. The pricing of chhena can be linked to costing management. Also, this caselet can be used in discussions about rural entrepreneurship.

Medical Issues in Narhi Village, Agiaon Bazar, Bhojpur District

Caselet 2

Introduction to the Village

Narhi (Nadhi) Village is situated (Post office, Police station, and Block Agiaon Bazar) in Piro Sub-Division of Bhojpur District (HQ: Arrah). Narhi a large village, is a fully agrarian hamlet with lower and medium-income group farmers. It has nearly 511 families as per the census of India - 2011. It's situated 5 KM away from Agiaon Bazar and connected with pakka⁴ village road.

According to the Census of India - 2011 (Refer Table-2.1 in annexure), Narhi's population in 2011 is 3469; of which 1845 are male and 1624 are female. The literacy rate of Narhi village is 66.12% (a little higher than the state average of 61.80 %) out of which 81.95 % male and 48.35% female are literate.

Narhi Village's sex ratio is 880 per 1,000 males. The child sex ratio is 832 for every 1000 boys. (Source: Census 2011)

Challenge

Narhi village is a large village as far as the population is concerned and does not have sub-center (to take care of the extremely rural masses). The nearest sub-center is situated at Agiaon Bazar which is 5 km away. Apart from sub-center, there is no public or private hospital available neither in Narhi nor in Agiaon Bazar. Only a few unqualified (RMP)doctors (Medical practitioners without any formal degree)and 2-3 medical stores are catering to the rural masses of Agiaon and nearby villages.

First Public health care (PHC) is situated at Piro Block which is 10 KM away from Narhi and private transport is available from Agiaon Bazar to Piro (distance 5 KM). Ara is the district Head Quarter where Sadar Hospital is available with almost all facilities. People migrate from villages to Arrah for two reasons. One is in order to pursue higher education, and the other one is for medical treatments.

However, many hospitals and clinic doctors in Ara have a history of giving treatment without proper diagnosis and identification of disease. Common villagers who come to visit doctors from faraway places have trust in city doctors as village doctors are of no help in complicated health issues. There are also cases of fraud medical practices like running a clinic without a proper license or the doctors are unqualified and have started practicing by working for a while under a doctor as a compounder in the hospitals.

Bihar has the highest dependence on private health-care services among Indian states, the lowest government spending on health and an estimated 22 lakh households face "catastrophic" health expenditure, a new analysis of central government data has suggested. The analysis, based on the Union statistics and programme implementation ministry's National Sample Survey Office (NSSO) data, says Bihar spends Rs 348 per person per year on health, less than half India's average of Rs 724 per person per year (Refer Figure-2.1 in annexure)

Rachna a 16 years old girl of Narhi village fell sick with high fever at the age of 14. She first visited private unqualified practitioners available at Agiaon bazar and she was prescribed some medicine and injection to subsidise her fever. However, it started recurring on regular intervals and likewise her fever

⁴Pakka - Not gravel but a tarmac road.

lasted for two months intermittently. Her parents got uneasy as she was losing her weight though on slow pace.

She visited PHC Piro with her father and undergone some primary tests, however reason of frequent fever, weight loss was not diagnosed properly and the doctor continued with general medicine for fever and related issues. Again, her fever continued now more frequently however she used to get well in between for a day or two. Likewise, another two months passed.

Response

After that her family members took her to a doctor Dr. Rashmi Singh (surgeon and physician) runs a local clinic in Arrah and locally famous for better knowledge and treatment. Doctor prescribed some tests and on the outcome of same she prescribed some medicine. Her health slowly started improving. She joined her school back. For 5-6 months she consumed the medicines prescribed by Dr. Rashmi Singh and she improved but not to a great extent and she again encountered high fever, cough, and her health again started to deteriorate.

“Marta kyanahikarta” (A sufferer does everything to get better) she took opinion from at least 3-4 doctors, some opined that she was suffering from typhoid on the basis of test results accordingly she was administered medicines. After a small relief, her conditions remain the same. In a nutshell, it can be said that doctors were not able to diagnose and prescribe medicine which could suit her and cure.

Actions Taken

Her parents then decided to go to Patna for check-ups. She went to one of the good hospitals in Patna named Shivam Hospital and Research Institute and consulted Dr. Shanti Roy. Dr. Shanti didn't ask her to perform or take any tests, but straight away she prescribed one-month medicine. She got some temporary relief due to the heavy dose of medicine but the situation remained all the same like, fever, vomiting, pain in the lower part of the body. Likewise, she consumed medicine for 3 months but she couldn't get well.

It was not that Rachna was suffering from very dangerous and complicated diseases but her diagnosis was flawed and proper medicine was not prescribed to cure her. Her parents then contacted their close relative at Delhi who asked them to immediately rush to Delhi as she was in sufferings for almost 6 months. There she was taken to Vallabhai Patel Chest Institute, Near Delhi University in North Delhi, by her relative. There she was referred to some basic checkups and to our surprise and despair; she was diagnosed with TB (tuberculosis). Doctors also surprised that how the disease was not detected even though it contacted in the past three months. The medication started and Rachna got cured with prescribed doses in three months.

They also consulted another doctor Dr. Khetrupal for other complications and with proper medication, in a short period of 3 months; she became healthy and started gaining her lost weight. She could have been diagnosed properly in PHC Piro too, as PHCs are equipped with detection of TB and DOTS are available on all centres in the country.

Lessons Learnt

The above case tells us about the condition of medical facilities in rural areas. Due to such practices in

hospitals, people have superstitious beliefs and they prefer spending on some Priest rather than showing to a doctor for their health issues. If people will have constant health issues then they would not be able to work for their livelihood.

Questions for Discussion

1. How can the situation of fraud doctors be rectified?
2. How can the services of CHCs and PHCs be improved?
3. Why do doctors risk people's life by giving the wrong treatments?

Course Positioning

The case can help us understand the quality of medical facilities in rural areas because health is a part of livelihood. Knowing the condition of PHCs and CHCs of villages would fit the case under development administration and policy course.

Causes of Migration in Mariyan Village, Buxar District

Caselet 3

Introduction to the Village

Mariyan is a large village located in Buxar district and block Nawanagar, Bihar with a total residence of 508 families. The Mariyan village has 3291 inhabitants of which 1675 are males while 1616 are females as per the Population Census 2011. Children age 0-6 in Mariyan village population is 644, which makes up 19.57 percent of the village's total population. Mariyan village's average sex ratio is 965 which is higher than the state average of 918 in Bihar. For the Mariyan, the child sex ratio as per census is 856, below the Bihar average of 935.

Compared with Bihar, Mariyan village has a higher literacy rate. In 2011 Mariyan village's literacy rate was 65.28 percent compared to Bihar's 61.80 percent. In Mariyan Male literacy is 81.10% while female literacy is 49.36%. Out of the total population in Mariyan village, 1115 were engaged in work activities. 26.01 percent of employees classify their job as Main Job (Employment or Earning for more than 6 months), while 73.99 percent engaged in marginal activity providing a living for less than 6 months. Of the 1115 workers employed in the Main Work, 163 were farmers (owners or co-owners), while 55 were farmworkers. (Source: Census 2011) (Refer Table-3.1 in annexure)

Challenge

Bihar migrants are doing less agricultural work than in the past, and are increasingly moving to work in the construction sector instead. Labor migration is the overwhelming majority of migration in Bihar. Men go to work for 2-3 months, before going back home for 3-4 months. This suggests urbanization is not necessarily inevitable. If this keeps on happening then people will stop practicing agriculture and would move to urban areas to do labour work because it is comparatively easy than investing in agriculture and getting no returns.

Various Problems Leading to Migration in Bihar

1. Weak returns from subsistence farming and agricultural distress due to monsoon failure, premature rains, flash floods, etc. make farmers lose their faith in farming and push them to move to cities for better jobs.
2. Building, manufacturing and other urban services are booming particularly because globalization looks better for him than low rural wages and returns.
3. Village education penetration turns educated youth into looking for better ways of life in urban areas and metros.
4. Lack of growth in non-farming job opportunities in rural areas due to low purchasing power and lack of such a consumer culture as in cities both urge people to move to cities to start new businesses.
5. Like the caste system, social restrictions in employment also make people resort to migration to cities where they can freely work under urban anonymity.
6. The loss of common village resources, such as ponds, woods, pasture lands, etc., for which the marginalized communities and tribal relied on their subsistence, made them look into cities to survive.

Nand Lal is the only son of his parents along with three sisters. He studied in a local village school and

passed 10 with the second division. He took admission in a private college affiliated to Veer Kunwar Singh University Ara. He graduated in 2017 in science subjects again with the second division. During the course of graduation, he also joined Government's Skill development programme and acquired skills of an electrician. He also while studying acquired experience working in small electrical firms.

It is socially prevalent in the rural areas of Bihar that boys and girls get married in their teens even without completing their education and securing a job. The same thing happened to Nand Lal and he was married in the year 2016 when he was just 19 years old & still studying. By the time he graduated in 2017, he was the father of a baby girl. Sooner he graduated, the tension of getting a job was slowly mounting. His parents and other family members started pressurizing him for getting a job and take care of the family. Actually, this is the social trend in Bihar and Mariyan was no different. Parents get their children to marry in teenage and then start pressurizing to get a job. This exerted a lot of pressure on Nand Lal and he decided to migrate to other places and engage in labour work and earn quick money to support his family. Marriage of his two younger sisters was also a matter of concern. His father was engaged in Agriculture work whose income was barely sufficient to take care of a family of 8. He has a small landholding of two bighas and paddy and wheat are the main crops. The income was just adequate for subsistence and any eventuality or health problem will throw the family high and dry.

Response

Nand Lal was already in the pressure of getting a job, it was time-consuming for preparing for competitive exams as at least a year is required for the preparation for SSC, Railway, Defense, etc. He started searching for an electrician job in the nearby town Buxar, Ara & capital Patna. However, 6 months lapsed he could not get a job. He was offered a job with small electrical firms but the salary was so meager that even he would not have maintained himself in town. In this process, 6 months more were lapsed.

Starting his own electrician shop in town was not possible as he was unable to bring initial capital and sufficient money to rent a shop and other resources. Even if he borrows and opens a shop, there is no guarantee that he will start making income and profit so soon. Nand Lal was in tremendous pressure of not getting a job, parents' pressure and now his wife also started telling to earn for the sake of their daughter for her upbringing and education.

Actions Taken

Nand Lal came in the contact of his elder sister's husband (Brother in law) Mr. Raghunath, who had already migrated in a similar situation to Delhi NCR 3 years back. With a sense of love and affection, relationship and understanding of the problem of Nand Lal's family, Mr. Raghunath asked him to come to Manesar near Gurugram (NCR of Delhi). Without wasting any time Nand Lal started preparation for going to Manesar. Nand Lal was also sad because he was knowing that if he migrates, he will lonely for the first time from his family. His mother who used to always enquire about his wellbeing, love & care of parents, care of two younger sisters, love & affection of his wife and his love for his small baby have to be sacrificed.

Moreover, he was almost sure that his study, preparation for the competitive exam will take a back seat because after 8 hours of labour work he will not be able to study. He has to now accept his destiny and has to languish for his whole life. He has seen many bright youths of his village and in relation have started earning a livelihood and ruined their dream to become successful in their life.

Nand Lal migrated to Manesar in mid of 2019 and stayed with his relative for 15 days and started

searching for a job. At last, he received a job of preparation of concrete by machine in a builder firm. He worked with very little pay for three months and acquired experience before his absorption to the firm. To start with he was offered a salary of Rs.14000/- a month which he feels that he is lucky as his other known people are working on a salary of 10000/- to 12000/-.

(Refer Annexure to know more about migration)

Lessons Learnt

As migrants comprise the population's most productive force, the ones left behind are folk aged people, children, and women. Without active members, it is women who are required to take responsibility for households and make decisions related to farming and household activities. The process of shifting women's roles from worker to household manager due to migration is also observed, but the crown has several thorns. Due to the absence of male family members, women face many administrative, cultural, social, and personal problems. They faced more difficulties in day-to-day work. For example, in the absence of household male family members, hiring labor is routine work but cultivation activity that is required. Migration has both positive and negative impacts on society. It can be considered that if a person migrates from his household for a better job. He might be earning good money but, his family is left out to live on its own.

Questions for Discussion

1. What is the status of government schemes like MGNREGA in providing employment opportunities?
2. How does migration affect the states?
3. What are the consequences of considering migration as negative or positive?
4. How does migration affect the economy of a state or country?

Course Positioning

The caselet can be used to understand the reasons why people migrate from rural areas to urban areas. This can also help us in understanding the subjects such as Community Mobilisation and Institution Building, Development Administration and policies, and Rural livelihood systems.

Importance of Agricultural Literacy and Organic Farming

Caselet 4

Introduction to the Village

Masahariya is a large village in Buxar district's Chaugain Block, Bihar with a total of 408 families residing there. The village of Masahariya has a population of 2679 of which 1320 are males while 1359 are females according to the 2011 Population Census.

In the village of Masahariya the population of children 0-6 years old is 427, which makes up 15.94 percent of the village's total population. Masahariya village average sex ratio is 1030 which is higher than the state average of 918 in Bihar. The Masahariya child sex ratio according to the census is 923, lower than the Bihar average of 935. Compared with Bihar, Masahariya village has a higher literacy rate. In 2011, Masahariya village literacy rate was 72.56 percent compared with Bihar's 61.80 percent. Male literacy in Masahariya is 85.61%, while female literacy is 60.14%.

Of the total population, 1531 were engaged in work activities at Masahariya village. 31.03 percent of employees classify their job as Main Job (Employment or Earning for more than 6 months) while 68.97 percent engaged in marginal operation providing living for less than 6 months. Of the 1531 workers working in the Main Employment, 273 were farmers (owners or co-owners), while 138 were agricultural workers. (Source: Census 2011) (Refer table 4.1 in annexure)

Challenge

Change is always painful and human tendency is to keep the status quo. Farmers are not any different and they try to remain in the way they are. The farmers are so rigid in following the conventional methods of farming, that they don't want to try new technologies or techniques which will supplement their income multifold. This is one of the reasons why India has though increased its output with the help of fertilizers and chemicals but income generation is very low. Another facet of this problem is that farmers don't have proper education of organic farming techniques, its market, soil conservation by using organic fertilizers, its health benefit, and high income. Still, government bodies and NGOs are not able to reach a large number of villages and allay their apprehensions.

Mr. Dadan Singh lives in a small village in Bihar called Masahriya in Buxar district. He lives with his parents, wife and 3 daughters. Working as an agriculturist for about 22 years with an Orthodox & conventional agriculture technique prevailing in major part of India, he was able to earn a meager income as he cultivates paddy and wheat which fetches him low income compared to his amount of labor, time and investment.

He once visited Delhi to his brother-in-law's house with his wife for celebrating Raksha Bandhan and spent a few days in Delhi to see the places and experience the city life. His brother-in-law is a branch manager at State Bank of India. One day he was talking to his niece (daughter of his brother in law) about her job. She was working in an organic farming company as an accounts manager as well as the organizer of farm melas on weekends.

Mr. Singh visited the weekend farm mela⁵ with his niece and was surprised to see the way organic farming was done over there. Every piece of land was in use and a very different permaculture⁶ design was followed to grow various fruits and vegetables. The company was doing well with this idea and was earning decent profits. He developed the curiosity for organic farming after getting a brief from the technical team about the importance of organic farming in time to come. After getting first-hand information on 'why and how' of organic farming he left for Bihar.

The first roadblock in his mission was small pieces of land scattered all the side of the village in small areas of say 0.75 or 1 acre. However, he was having 1 acre of land in one place and was ideal to start the new venture.

Mr. Singh called all his fellow farmers, friends. He reached out to those people who were progressive in farming and less reluctant in adopting the changes. He put forth his experience and first-hand information on Organic Farming, its growing relevance, acceptability, and its health benefits. To his disbelief friends, whom he was considering progressive farmers could not get convinced of the idea. Farmers raised questions "yahan 20 rupayemeinek kilo chawal miltahai, Rs.80-100/- meikaunkharidega, sabji Rs.60-80-100/- meikaunkharidega." (*The rate of 1 kg rice is Rs. 20/- over here in the village, who will give Rs.80-100/- for it and who will buy vegetables for Rs. 60-80-100/-?*) It was perceived by Mr. Singh that apprehension among fellow farmers was due to lack of awareness and knowledge. It was all a new arena for the farmers in the village.

Constraints / Challenges faced by Mr. Singh

1. Lack of awareness
2. Shortage of Biomass and Biofertilizers
3. Infrastructure was not supporting like scattered and small landholdings, rain-fed irrigation, etc.
4. Cost of cultivation was high vis a vis conventional farming
5. The problem of marketing and sale of produce.
6. Arrangement of Finance

Response

Mr. Singh discussed the challenges with his brother-in-law and decided to go alone. His brother in law suggested visiting the National Project on Organic Farming (NPOF) Ghaziabad which has its centre at Patna along with fellow farmers. He was delighted that (NPOF) has its regional center at Patna, which was very near to his village and he will be able to advance his knowledge from time to time. NPOF is engaged in the promotion of organic farming in the country through technical capacity building, human resource development, transfer of technology, promotion and production of quality organic and biological inputs. It also acts as a nodal quality control laboratory for the analysis of biofertilizers and organic fertilizers as per the requirement of the Fertilizer Control Order (FCO, 1985).

⁵Mela- A fair/s

⁶Permaculture- Permaculture is a set of design principles centred on the thinking, simulation or direct use of patterns and resilient features observed in natural ecosystems as a whole. It uses these principles from regenerative agriculture, rehabilitation, and community resilience in a growing number of fields.

Resolution / Response Suggested

1. Lack of awareness was overcome by a visit to the NPOF Patna centre and Block Development Office (BLOCK) at Dumraon just 10 km to his village. There is an officer of progressive farming, to facilitate instilling an idea, how to go about, basic training, and marketing & produce sales.
2. An officer at the block suggested purchasing initially from the nearby market and further, the same will be prepared by Mr. Singh within 6 months.
3. This was shortened as Mr. Singh was having land of 2 acres at one place and electric connection and he got water bore ready.
4. The cost of cultivation was marginally high but sales price was much higher than conventional products
5. During the discussion, the officer at block suggested that for selling his products all infrastructures were intact. Bihar Govt has already developed districts along river Ganges as 'ORGANIC CORRIDOR' and BUXAR district falls in those districts.
6. His brother in law facilitated contact with Micro Finance Marketing Officer (MFMO) from a leading Bank. Banks having tellers made products for organic farming. Due to Bank finance Certification Charges and input cost was met and the margin was available to him as a small surplus.

Actions Taken

Mr. Singh got his 1 acre of land ready, fenced it. Perennial water connection was not a problem. He decided to grow vegetables; mainly Potato, tomato, onion, and pumpkin which are having good demand in the area. In the meantime, Mr. Singh applied for the 'India Organic Certification' from APEDA which will give a certificate in 03 years after checking the chemical traces and other harmful residues in the vegetables.

Snapshot of Activities Taken Up

- Creation of bed in the shape of preference.
- Digging the soil 8-10 inches deep.
- Raised the bed to 4 inches to 6 inches up. Therefore, it provided 12 to 16-inch depth- to allow roots to grow.
- The bed depth depending on the vegetable varieties.
- Mixing of compost fertilizer with the soil. The minimum ratio maintained 1:1.

Refer Table No. 4.2 and 4.3 to know the cost incurred and income earned by Mr. Singh in Organic Vegetable Farming.

Snapshot of Further Activities

- Further Mr. Singh planted guava trees on the circumference of land. It is growing and will start bearing fruit in one year.
- Shri Singh is getting good help in marketing and selling the produce from Government body.
- Mr. Singh is able to generate a good cash surplus year on year which was not possible from conventional farming despite more efforts.

Concept of Organic Farming

Organic farming is a method that naturally includes plant cultivation and animal rearing. This method includes the use of biological materials to avoid synthetic substances in order to preserve soil fertility and ecological balance and thus minimize pollution and waste. It depends on concepts of ecologically balanced farming such as crop rotation, green manure, organic waste, biological pest control, mineral, and rock additives. Organic farming uses pesticides and fertilizers when deemed natural and prevents the use of different petrochemical fertilizers and pesticides. Refer annexure to know the difference between Organic Farming and Conventional Farming.

Lessons Learnt

Mr. Singh's friends were not able to understand him because they were not aware about the resources available for them and they were also not ready to take any risks in spending their money, which shows the need of rural management education for the people of the village.

Questions for Discussion

1. How can the other farmers of the village be motivated to do organic farming? In context of the case.
2. Why are the farmers not aware of training centres near them?
3. Why do the farmers think that they will incur more expenses in organic farming than conventional farming?
4. According to you the farmer should shift to organic farming techniques or keep on doing conventional farming?

Course Positioning

The above caselet would be appropriate in studying the Rural livelihood systems, Rural Production Systems and Rural Entrepreneurship. In rural livelihood systems, there is a theory of "Livelihood mapping" in which we understand the risk and vulnerability of rural people and local market conditions, tools and techniques for resource mapping and Map Capabilities. The theory basically helps to know the activities of the people in their daily life.

Summary of the Rural Concerns

From the above cases, we read how rural people find their way of life in activities of small scale. Rural people are the best innovators who are seeking to make the most out of the opportunities that are available. People have superstitious beliefs because of bad practices in hospitals and by physicians, so they tend to spend on some priest rather than telling a doctor about their health problems. If people are going to have chronic health issues then they will not be able to work for their living.

While migrant workers represent the most successful force of the population, old aged people, children and women are the ones who are left behind at villages. As the head of the family is away for the work in other state/district, it is women who are expected to take responsibility for households and make farming and household-related decisions. It can also be observed that the cycle of changing women's positions from worker to household manager due to migration, but there are some thorns on the crown. Women face many financial, economic, social, and personal problems because of the absence of male family members. They faced further day-to-day work difficulties.

Migration impacts society in both positive and negative ways. If a person migrates from his household for a better job it can be considered. He may earn good money, but he's going farther away from his family to live alone. Some of these issues remind us our requirement and responsibility in improving the livelihood of rural areas. Due to shortage of organic farming skills the rural people are not aware about the resources available for them to grow their crops and vegetables and they are also not ready to take any risks in spending their money, which shows that the need of rural management education for the people of the village is more necessary than urban people.

Conclusion

The cases show us a gist of rural sufferings and from the cases we can also infer that rural people have their own ways to handle the situations positively. Non availability of work is a problem not only bound to rural areas but also a major problem in urban areas. In order to fight this problem, only depending on the government won't be a solution. Figuring out and exploring new ways to earn can help us fight this problem. Mr. Kumar's story gives a road map of how one can utilize the available resources optimally. Many people in Bihar's livelihood are based on such small-scale activities. Medical sector is the weakest in the state and medical frauds are seen frequently in the news and this is one of the biggest threats in the health sector of the country. In order to control such issues, the law and education may play a vital role in controlling such practices. It is necessary to look into this matter because no individual has the right to play with anyone's life.

Also considering migration, it leaves an immense impact on the micro and macro level in society. If we aim to develop a village, it is very essential to create livelihood within the village so that the people will reside in the village. If people keep on migrating then the number of ghost villages will keep on increasing as the time will pass. From the last caselet we can say that farmers need to be open to new techniques of farming. At the same point, the government should keep taking initiatives in creating awareness to the farmers about the available schemes, methodologies and different ways of farming to increase production of valuable crops.

Way Forward

Few points on future Opportunities:

- As per recent report Bihar has its 58 % of population below the age of 25 years. To channelise these young hands industrialisation of Bihar is the need.
- Bihar is to be given Special Economic status which includes various tax holidays for industrialists which would prompt many industrialists to set up industry in Bihar.
- Industries of agriculture and its allied activities are to be set up like cold storages for vegetables preservation, Tomato ketchup industries, Litchi juice making and packing industries etc.
- Sugar factories are to be revived which have turned defunct in the past two decades. Agriculture based industries like the one in Dalmianagar are to be revived and new industries are to be set up.
- Moreover, entrepreneurship curriculum is to be included in school and junior college syllabus which will encourage students to become entrepreneurs.
- Dairy business has big potential in Bihar. Though it seems to be doing good but it has potential to double its revenue and employ more people in rearing of buffaloes, cows, processing of milks, milk powders, making of paneer and sweets.
- Agriculture reforms are another way out. Water resources of Bihar have become bane for its population. However, a great vision and comprehensive plan with help of Central government to channelize the waters and diverting the flood waters to another areas of state and other state of country where there is drought and famine will turn same destructing water to boon.

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Annexures

ON THE JOB

Rural unemployment rises



MAHESH VYAS

September was expected, the magnitude of the reversal surprises us. October is a month of festivals and the demand for casual labour, of the kind that usually gets absorbed in agricultural activities, is expected to remain high. We had therefore expected the rural unemployment to rise from the 6 per cent level of September to around 7 per cent. But, the data show a rise to over 8 per cent and that is surprising and disappointing.

The data seem to suggest that while employment opportunities in rural India declined in the first two weeks of October, labour did not leave the labour markets. They continued to look for jobs. The labour participation rate was 44.3 per cent in the first two weeks of October. This is the same as it was in the month of September.

But, employment opportunities had declined. The employment rate declined, from 41.6 per cent in September to 40.7 per cent in the first two weeks of October, which is the same as the average of the preceding three months. The employment rate has reverted to its average after having spiked momentarily in September.

Rationally, it can be expected that labour would retreat partially, during the remaining weeks of October as it becomes evident to them that job opportunities have declined. This would lead to a fall in the labour participation rate which in turn could reduce the rural unemployment rate. We, therefore, expect the rural unemployment rate to decline a bit, from its 8.2 per cent level in the first half.

It is assumed in the above projections that the employment rate would continue to remain around 40.7 per cent and that the festival season till Diwali would have no further impact. This assumption could well turn out to be true because

the first two weeks of October already include a part of the festival season.

The unemployment rate is higher in urban India. The average unemployment rate during the first two weeks of October was 9 per cent. This is lower than the urban unemployment rate in August and September which were 9.7 per cent and 9.6 per cent, respectively.

The small fall in the urban unemployment rate is welcome. It is not an insignificant fall.

The urban unemployment rate shot up sharply in the quarter ended September 2019. After remaining stable at 8.1 per cent in two consecutive quarters, March and June 2019, it shot up to 9.3 per cent in the quarter ended September. The recent urban unemployment figures suggest some weakening of its upward trajectory.

First, the September 2019 urban unemployment rate at 9.6 per cent was lower than it was in August. And, the September 2019 estimate was influenced by an unusual spike in the last week. This spike of the last week is offset by a sharp fall in the rate in the first week of October.

Urban unemployment rate data for the past few weeks are somewhat noisy. It had peaked at 10.8 per cent during the week ended September 29. But then it fell to 8.5 per cent in the next week before scaling up to 9.4 per cent in the week of October 13. The fall in September and then the fall in the first two weeks of October indicate that the urban unemployment rate could be stabilising at a little over 9 per cent but below 10 per cent.

But the urban unemployment rate at 9 to 10 per cent is too high. The rate comparable to the official definition could be 12-13 per cent. It is imperative that these rates come down substantially.

The author is the MD & CEO of CMIE

Figure1.1: Mahesh Vyas, Rural Unemployment Rises, 15th October 2019 Business Standard

Working population of Koath: In Koath Nagar panchayat out of the total population, 5793 were engaged in work activities.

Table 1.1: Census 2011 data, Koath, Rohtas, Bihar

ITEMS	TOTAL	MALE	FEMALE
Main workers	3474	3021	453
Cultivators	885	852	33
Agriculture laborers	1106	1062	44
Household Industries	297	93	204
Other workers	1186	1014	172
Marginal workers	2319	1552	767
Non - working	13097	5242	7855

Making of Chhena



Figure 1.2: Mixing Alum with hot milk



Figure 1.3: Water content and milk content gets separated



Figure 1.4: Milk Content filtered by a thin cloth



Figure 1.5: Tied in the same cloth and taken to the market to sell.

Table 2.1: Nadhi Village census 2011 data, Bhojpur District, Bihar

Particulars	Total	Male	Female
Total No. of Houses	511	-	-
Population	3,469	1,845	1,624
Child (0-6)	579	316	263
Schedule Caste	884	481	403
Schedule Tribe	0	0	0
Literacy	66.12 %	81.95 %	48.35 %
Total Workers	1,154	934	220
Main Worker	815	-	-
Marginal Worker	339	169	170

CHECK THE MEDICAL BILL		
Category	Bihar	India (average)
Spent on health per person per year	Rs 348	Rs 724
Proportion of private in-patient cases	44.6%	56.6%
Proportion of private out-patient cases	91.5%	74.5%
Population covered by health insurance	6.2%	15.2%
Households with catastrophic health expenditure	11%	13%

Source: Brookings India analysis of Union statistics and programme implementation ministry's National Sample Survey Office data

Figure 2.1: Nishant Sinha, revealed: What ails health in Bihar, 12th December 2016 The Telegraph

Table 3.1: Mariyan Village census 2011 data, Buxar District, Bihar

Particulars	Total	Male	Female
Total No. of Houses	508	-	-
Population	3,291	1,675	1,616
Child (0-6)	644	347	297
Schedule Caste	471	236	235
Schedule Tribe	0	0	0
Literacy	65.28 %	81.10 %	49.36 %
Total Workers	1,115	758	357
Main Worker	290	-	-
Marginal Worker	825	492	333

States	All Duration of Resident			Inter-censal Migrants		
	Persons	Males	Females	Persons	Males	Females
Jammu & Kashmir	0.2	0.3	0.2	0.3	0.4	0.3
Himachal Pradesh	0.4	0.6	0.2	0.8	1.1	0.4
Punjab	4.5	5.7	2.9	6.7	8.2	4.1
Uttaranchal	0.8	0.9	0.7	1	1.2	0.8
Haryana	4.5	5.1	3.7	6.9	7.6	5.8
Delhi	13.8	16.3	10.3	18.9	20.8	15.7
Rajasthan	1.5	1.7	1.3	2.3	2.5	2
Uttar Pradesh	11.8	6.5	19.2	10	6.8	15.5
North-East (ex. Assam inc. Sikkim)	1.1	1.3	0.8	1	1.1	1
Assam	2.4	2.8	1.9	1.6	1.6	1.4
West Bengal	21.4	22.5	19.8	13.3	12	15.6
Jharkhand	20.5	16.3	26.5	13.8	9.7	20.7
Orissa	1.5	1.5	1.5	1.3	1.2	1.4
Chhattisgarh	1.6	1.6	1.7	1.5	1.3	1.8
Madhya Pradesh	1.8	1.7	1.9	2	1.8	2.2
Gujarat	2.8	3.5	1.8	4.6	5.7	2.8
Maharashtra	6.9	8.9	4	10.2	12.6	6.1
Andhra Pradesh	0.6	0.6	0.6	0.7	0.7	0.7
Karnataka	0.5	0.7	0.3	0.9	1.1	0.5
Goa	0.1	0.1	0.1	0.1	0.2	0.1
Kerala	0.1	0.1	0.1	0.1	0.1	0.1
Tamil Nadu	0.2	0.2	0.2	0.3	0.3	0.2
Union Territories (except Delhi)	1	1.3	0.5	1.6	2	0.8
Total	100	100	100	100	100	100

Source: Census of India, 2001, D-2

Figure 3.1: Percentage Distribution of Out-migrants from Bihar to the Other States

About Migration

Over time, we have observed changes in cultures across various nations around the world. Either the increase in the number of people living in an area or the decrease in that number would be about these variations. This movement of people in and out of populations is what we call migration. Migration is not a recent find. It's been done all through history. This movement has affected the culture, lifestyle, and political standing of a nation. Others may have moved to a new area to inhabit that location. And there is more to migration than increasing or decreasing the number of people living in a particular place.

Pull and Push factors of Migration

Pull factors are the factors attracting or encouraging individuals to leave their place of origin. Among other things, these would include better living conditions, job opportunities, enjoyment, better medical care, the feeling of religious or political freedom, education, attractive climates, and better marriage chances.

Push factors are the factors that might cause the individuals to leave their place of origin. These would include, among others, few or insufficient job opportunities, inadequate conditions, famine, political fear, poor medical care, desire for liberty, poor housing, condemned housing, war, death threats, and natural disasters.

Destination of Out- Migrants from Bihar

The table (refer to **Figure-3.1 in annexure**) shows the destination location of out-migrants and intercensal migrants in other Indian states. West-Bengal (21.4 percent), Jharkhand (20.5 percent), Delhi (13.8 percent), Uttar Pradesh (11.8 percent), Maharashtra (6.9 percent), Punjab (4.5 percent), Haryana (4.5 percent), Gujarat (2.8 percent) and Assam (2.4 percent) are the states in which the larger proportions of out-migrants were enumerated. Intercensal out-migrants' destination differs from the destination of all migrants' duration.

First became Delhi, which is the third main destination for out-migrants. Among the major destinations are Delhi (18.9%), Maharashtra (10.2%), Haryana (6.9%), Punjab (6.7%) and Gujarat (4.6%) and the states where the proportion of intercensal migrants is lower are West Bengal (13.3%), Jharkhand (13.8%), and West Bengal (13.3%) and Gujarat (13.8%), respectively. It suggests that the out-migrant movement direction has shifted from eastern India to the country's other regions. In the case of West Bengal and Jharkhand, the difference in the case of male migrants migrating for employment purposes is more dramatic. The percentage distribution for male and female migrants separately for intercensal migrants shows that for bordering states such as Jharkhand (9.7% for males, 20.7% for females), West Bengal (12% for males, 15.6% for females) and Uttar Pradesh (6.8% for males, 15.5% for females), the proportion of female migrants is higher than the proportion of male migrants migrating particulate matter.

In the case of distant states, the proportion of male out-migrants outnumbers the proportion of female out-migrants, such as Delhi (20.8% for male, 15.5% for female), Maharashtra (12.6% for male, 6.1% for female), Punjab (8.2% for male, 4.1% for female), Haryana (7.6% for male, 5.8% for female), and Gujarat (5.7% for male, 2.8% for female).

Table 4.1:Masahariya Village census 2011 data, Buxar District, Bihar

Particulars	Total	Male	Female
Total No. of Houses	408	-	-
Population	2,679	1,320	1,359
Child (0-6)	427	222	205
Schedule Caste	20	8	12
Schedule Tribe	0	0	0
Literacy	72.56 %	85.61 %	60.14 %
Total Workers	1,531	724	807
Main Worker	475	-	-
Marginal Worker	1,056	325	731

Table 4.2: Initial cost associated with Organic Vegetable Farming

S.No.	Item / Activity	Cost for two acres
1.	Ploughing, cleaning, and basic soil preparations.	10000/-
2.	Mixing of vermi compost, manure, and preparation of soil.	25000/-
3.	Seeding and propagation Potatoes Seeds -9000/-, Onion Seedlings Rs.9000/- etc. Pumpkin and tomato seedlings -7000/-	25000/-
4.	Irrigation and weeding and other labor activities	10000/-
5.	Harvest and other labor	10000/-
6.	Marketing, freight to carry the produce to the nearby centre of Govt of Bihar.	10000/-
7.	Interest on Loan from the bank (Rs.1.00 Lac)	10000/-
8.	Certification Charges*	14000/-
	Total Cost (open field farming)	114000/-

* Certification charges of Rs.40000/- was paid in three years and a certificate obtained.

Table 4.3:Income earned by Mr. Singh from Organic farming

S.No.	Vegetable Crop	Harvest in a year (each)	Income in Rs.
1.	Potato / Onion (0.50 Acre)	Once in a year (each)	85000/- (Potatoes) 95000/- (Onions)
2.	Tomato (0.25 Acre)	Twice in a year	55000/-
	Pumpkin (0.25 Acre)	Twice in a year	35000/-
		Total	270000/-

Organic Farming vs Conventional Farming

Before seed is seeded, the farmer will have to treat his farm using severe chemicals to exterminate any naturally current fungicides in conventional farming technique. He will use petroleum-based fertilizers to fertilize the soil. On the other side, by sprinkling natural fertilizers such as manure, bone meal or shellfish fertilizer, the organic farmer will prepare and enrich his land before sowing.

The conventional farmer will soak the plants in fungicides and pesticides before planting seeds in order to maintain insects and pests in the bay. In irrigation water, chemical substances are also integrated to avoid insects from stealing the seeds planted. On the other side, the organic farmer will not soak his plants in any chemical solution or use water with added chemicals to irrigate the freshly grown plants. In reality, with council water, which is usually chlorinated to kill any bacteria, he will not even irrigate. He will rely on natural rain or harvest for dry months and stored rainwater for use.

The conventional farmer will use weedicide to exterminate weeds when the seeds have sprung up and it's time to get rid of weeds. No such chemicals will be used by the organic farmer to get rid of the weed issue. He goes to weed the farm physically, though it's very labor-intensive. Better yet, a flame weeder can be used by the organic farmer to exterminate plants or use pets to eat away weed. It is a no-brainer when it comes to consumption that anyone consuming standard farmer's products will absorb the pesticide and weedicide residues into the body, which could lead to the development of hazardous illnesses such as cancer. People know that they have to care about their health, and that's why they go organic in massive numbers today.

Editors' Profile

Dr W G Prasanna Kumar

Dr. W G Prasanna Kumar, Chairman, Mahatma Gandhi National Council of Rural Education (MGNCRE) prides in calling himself a *Public Servant* working for Climate Change. His expertise in Disaster Management has him in the advisory panels of several state and national level departments. He is also an expert advisor for the government of Telangana in its Disaster Response Force endeavour. A master trainer for Civil Services candidates, he conducts intensive training programs periodically at the behest of nationally recognized training institutes. He is currently actively involved in promoting higher education curriculum addressing rural concerns in India. **"Villagers to be producers not just consumers"** is his conviction that drives him to work for rural challenges. He aspires for an adaptive disaster risk resilient and eco-responsible India. The Curriculum on MBA in Waste Management and Social Entrepreneurship, and BBA and MBA in Rural Management are his major academic achievements dedicated to India's rural concerns. This has culminated in several collaboration MOUs for introduction of MBA/BBA Rural Management in Higher Education Institutions across India.

Dr. Prasanna Kumar excels in taking a vision and making it a reality and a plan into action, driven by a strong motive to achieve. He has translated positive intentions into tangible results. Being clear on the vision, defining a pathway, setting of the track with a clear destination point and quickly taking corrective actions as and when needed – are his prime qualities that make him an Achiever.

Under Dr. W G Prasanna Kumar's leadership MGNCRE has done nationally recognized instrumental work in building rural resilience including rural community engagement and Nai Talim - Experiential Learning. He has guided and helped MGNCRE in making key decisions and implementing agenda in several areas including Nai Talim (Experiential Learning), Community Engagement, Rural Immersion Programmes, Swachhta Action Plan activities, Industry-Academia Meets and Exhibitions on Waste Management, Comprehensive Sanitation Management in villages by working with Higher Educational Institutions, making curricular interventions in Waste Management and Rural Management, compiling Text Books on Waste Management and Rural Management, UNICEF (WASH) activities and several other related impactful activities. MGNCRE has become an interface for Government of India for promoting academic activity focusing on the rural concerns, being an advisor and a curriculum development agency for the Government of India. The Council is also now an RCI for Unnat Bharat Abhiyan.

Another pathbreaking achievement has been the formation of **Cells** through online workshops for institutionalising the efforts of MGNCRE. Vocational Education-Nai Talim-Experiential Learning (VENTEL) discuss MGNCRE's interventions in HEIs and making Vocational Education as a Teaching Methodology; Workshops on Social Entrepreneurship, Swachhta and Rural Engagement related activities in Higher Education Institutions has paid dividends and the key roles of the HEIs is highly appreciated by the Ministry. Building continuity and sustainability is being done through Social Entrepreneurship, Swachhta & Rural Engagement Cells (SES REC). Institutional level Rural Entrepreneurship Development Cells (REDC) Workshops/ FPO/FPC-Business Schools Connect Cells (FBSC) are organized with the objectives of

Functionality of RED Cell; Preparation and Implementation of Business Plan and grooming students to be Rural Entrepreneurs.

A man with many firsts to his credit, and an incredible record of accomplishments, Dr. W G Prasanna Kumar is currently guiding MGNCRE in building a resilient rural India.

Dr K N Rekha

Dr K N Rekha, is a PhD Graduate from IIT Madras. She has 14 years of experience in training and education Industry. She works at Mahatma Gandhi National Council of Rural Education (MGNCRE), Hyderabad as Senior Faculty. She is involved in curriculum development on Rural Management and Waste Management. Prior to this, she worked as a researcher at Indian School of Business, Hyderabad, a short stint at Centre for Organisation Development (COD), Hyderabad. She has co-authored a book on “Introduction to Mentoring”, written book chapters, peer-reviewed research papers, book reviews, Case studies, and caselets in the area of HR/OB. She also presented papers in various national and international conferences. Her research areas include Mentoring, Leadership, Change Management, and Coaching. She was also invited as a guest speaker at prominent institutions like IIT Hyderabad.

Author’s Profile

Ms. Anjali Yadav

Ms. Anjali Yadav is currently pursuing M.B.A in Rural management from Xavier School of Rural Management (Batch 2019-21). She received her Bachelor’s degree in Commerce (B.com. Hons.) from Satyawati College (Eve.), University of Delhi. She had prepared a project report on demonetization named A General Perception on Demonetization: A Special Reference to Delhi University College Teachers in the year 2017, which was well recognized by the faculties of the university. Apart from academics Ms. Yadav is a Certified Dancer and has done her diploma in Flamenco dance form (Level-1). She has her keen interests in organic farming, photography, social service and learning new languages. She is also a volunteer in The Art of Living Foundation in which she helps in organizing meditation sessions and has interned with the foundation in teaching slum children. Ms. Yadav aspires to become an entrepreneur and have a start-up concentrating on “People growing their own organic food at any length and breadth of space in their houses”. This idea of hers had grabbed her first position in E-start up Boot Camp by Start-up Orissa held at Xavier University, Bhubaneswar.



Mahatma Gandhi National Council of Rural Education (MGNCRE)

Department of Higher Education
Ministry of Human Resource Development, Government of India





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Mahatma Gandhi National Council of Rural Education

Department of Higher Education
Ministry of Education, Government of India



O40 - 2321 2120



admin@mgncre.in
www.mgncre.in



#5-10-174, Shakkar Bhavan, Fateh Maidan Lane
Band Colony, Basheer Bagh,
Hyderabad-500004