

# Impact of Out-Migration on Demographics in Bihar: A Case Study of Darbhanga District

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**Abstract** - This study examines the impact of out-migration on demographic changes in rural Bihar. Darbhanga district is a predominantly rural district with more than 90 percent of population living in rural areas. This district is one of the highest out-migrant districts of Bihar. Agriculture is the main occupation of the people of this district. Due to unemployment and lack of economic opportunities in the district, people migrate to Delhi, Punjab, Gujarat and other States of India in search of employment opportunities. Out migration has brought a change in the demography of the district such as decline in population growth, increasing share of aging population, decreasing share of working population, etc.

**Key Words:** Migration, Economic Growth, Population Structure, Employment, Demographics

## 1. INTRODUCTION

Darbhangha is one of the 38 district of Bihar. It covers 2.42 % of the total area (94163 sq. km) of the state of Bihar. The population of Darbhanga is 39,37,385 with sex-ratio (911 female per 1000 male), population density 1728 persons per sq. km and literacy rate 56.56% (source: census 2011). The district is surrounded by Madhubani district in the north, Khagaria and Samastipur districts in the south, Saharsa district in the east and Muzaffarpur and Sitamarhi in the west. The main rivers of the district are Bagmati and Kamla. It rises in the Himalayas. The main occupation of the people in Darbhanga is Agriculture, Fisheries and daily wage labour. The main crops are Wheat, Paddy, Maize, Makhana (*Euryale ferox*) and Mango (Darbhanga District Health Society PIP (2012-13)). Darbhanga is one of the main 'Makhana' producing districts of Bihar. In 2006, the Ministry of Panchayati Raj, Government of India has named Darbhanga as one of the country's 250 most backward districts in the country. It is one of the 36 districts (out of total 38 districts) in Bihar currently receiving funds from the Backward Regions Grant Fund Programme (BRGF).

Darbhangha faces the bane of floods every year. Recurring floods have an adverse effect on the district's agricultural productivity every year. Majority of the district's population (over 90%) lives in rural areas (Source: Census 2011). The district is characterized by poor urban infrastructure and lack of industries due to which there are not enough non-farm based employment opportunities. Due to unemployment and lack of economic opportunities in the district, people in large number migrate to cities like Delhi, Punjab etc. for getting employment opportunities. Hence, Darbhanga has the largest number of out-migrants (6% of male are out-migrant out of total male population of the district, Census of India (2001)) among the district of Bihar. Against this backdrop, current study tries to examine the impacts of out-migration on demographic changes in Darbhanga, Bihar.

## 2. MATERIALS AND METHODS

The method used in this study is descriptive research. Secondary data from Census of India and Statistical Handbooks of Bihar has been used in the study. Based on the Census migration data, Darbhanga was identified as the high outmigration district of Bihar. To analyze the effect of outmigration on demography, demographic data from various rounds of Census was collected and analyzed. Darbhanga has predominantly high rural population and also has high out-migration. Any change in the district's demography could be due to out-migration.

Various demographic terms and data used in this analysis. These are TFR, CDR, MMR, CBR, and IMR. The Total Fertility Rate (TFR) is the number of births that can be expected to occur to a woman in a given area during her childbearing age (15-49 yrs). The Crude Death Rate (CDR) is the no. of deaths of persons per 1,000 mid-year population. Maternal Mortality Ratio (MMR) is the no. of deaths of women per 1,000 live births due to pregnancy or puerperal causes. The Crude Birth Rate (CBR) is the no. of births of persons per 1,000 mid-

year population and Infant Mortality Rate (IMR) is the no. of deaths of infants per 1,000 live births.

Sex ratio has been defined as the number of females per 1000 males in the population. It is expressed as 'number of females per 1000 males'. Some terms has been used in the study to describe the working population as per Census. These are Main Workers, Cultivators, Agricultural Laborers, Household laborers and Other Workers. Census of India has defined the 'Main Workers' are those workers who had worked for the major part of the reference period (i.e. 6 months or more). Similarly, a person is classified as 'Cultivator' if he or she is engaged in cultivation of land owned or held from Government or held from private persons for payment in money, kind or share. An 'Agricultural Laborers' is a person who works on another person's land for wages in money or kind or share. The 'Household industry workers' is defined as an industry conducted by one or more members of the household at home or within the village in rural areas and only within the precincts of the house where the household lives in urban areas. Household Industry relates to production, processing, servicing, repairing or making and selling (but not merely selling) of goods. It does not include professions such as a Pleader, Doctor, Musician, Dancer, Waterman, Astrologer, Dhobi, Barber, etc.

All workers, i.e., those who have been engaged in some economic activity during the last one year, but are not cultivators or agricultural laborers or in Household Industry, are 'Other Workers'. The type of workers that come under this category include all government servants, municipal employees, teachers, factory workers, plantation workers, etc. A person who did not at all work during the reference period was treated as non-worker.

### 3. RESULTS AND DISCUSSION

The determinants of demographic change are Fertility, Mortality and Migration. The fertility, which as express in terms of TFR value. The TFR of Darbhanga is comparatively high at 4.5 with respect to India's TFR of 2.3. The Mortality is expressed in terms of CDR. The CDR of Darbhanga is high at 8.8 in comparison to India at 7.6. The MMR is also comparatively high of Darbhanga with 312 with respect to India of 301. CBR and IMR of Darbhanga are almost similar to Bihar state. The detail is provided in Table 1:

**Table 1:** -Key Health Indicators status

	Darbhangha	Bihar	India
Crude Birth Rate (CBR)	26.5	26.7	22.5
Crude Death Rate (CDR)	8.8	7.2	7.6
Infant Mortality Rate (IMR)	48	48	50
Maternal Mortality Ratio (MMR)	312	256	301
Total Fertility Rate(TFR)	4.5	4.2	2.3

Source: Annual Health Survey 2012-13, India

During the year 2001, out of the total male outmigration of 1.8 million from the district of Bihar, one hundred thousand were from Darbhanga itself. In one decade (from 2001 to 2011) the population of Darbhanga increased only marginally from 3.3 million to 3.9 million. The decline in growth of population change of Darbhanga was recorded at 37% in comparison to Bihar 12% and India 18% in 2001-11 with respect to 1991-2001. The detail of population growth (%) 1981-91, 1991-2001 and 2001-2011 in Darbhanga, Bihar and India is provided in Table 2.

**Table 2:-** Population Growth (%) during 1981-91, 1991- 2001 and 2001-2011 in Darbhanga, Bihar and India  
(Population Growth in %)

	1981-91 (%)	1991-2001 (%)	2001-2011 (%)	Difference in Population Growth % during 1991-2001 to 2001-2011 (%)	Decline (%) in Population Growth % from 1991-2001 to 2001-2011
Darbhangha	25.04	30.85	19.47	11.38	37%
Bihar	23.38	28.62	25.07	3.55	12%
INDIA	23.51	21.56	17.64	3.92	18%

Source: Census of India, 2011

The impact of migration is seen on the age- structure of the population of Darbhanga. The age-distribution of population during 1991, 2001, and 2011 shows that over the years from 1991 to 2011, there is a decline in youth and working population (15-59 years) of Darbhanga and at the same time, increase in aged population (old age of 60 years and above) during 1991 to 2011. The aged (old age of 60 years and above) population of Darbhanga was 6.9% in 1991 which has increased to 7.6% in 2011. The working population between 25-34 years of age, as declined from 14.6% in 1991 to 13.8% in 2011. The detail of age-distribution of population during 1991, 2001 and 2011 in Bihar and Darbhanga is provided in Table 3.

**Table 3:-** Age-distribution of Population during 1991, 2001 and 2011 in Bihar and Darbhanga

Age-group	1991		2001		2011	
	Bihar	Darbhanga	Bihar	Darbhanga	Bihar	Darbhanga
	%	%	%	%	%	%
<15 yrs	40.8	41.3	41.8	41.9	40.1	40.2
15-24 yrs	16.4	16.2	16.4	16.6	16.8	17
25-34 yrs	14.2	14.6	13.8	13.7	14.1	13.8
35-44 yrs	11.3	11.4	11.2	11.4	11.2	11.1
45-54 yrs	7.7	7.4	7.5	7.4	7.3	7.5
55-59 yrs	2.3	2.4	2.5	2.4	2.7	2.8
60 and above ( incl. age not stated) yrs	7.2	6.9	6.8	6.7	7.8	7.6

Source: Census of India 1991, 2001 and 2011

Main Workers and Marginal Workers are classified by the four broad industrial categories, namely, (i) Cultivators, (ii) Agricultural Laborers, (iii) Household Industry Workers, and (iv) Other Workers and also Non-Workers. Around 69 percent of the population of Darbhanga are non-workers. Out of the 31 percent working population, around 19 percent are main workers and 12 percent are marginal workers. Census data shows that there is around 33% decline of main worker population in Darbhanga during 1991 to 2011. The Cultivators population has also declined to 36% in the district during the same period of 1991 to 2011. During the same period, main worker population declined in Bihar was around 30% while cultivator's population declined was around 38%. The distribution of main workers over the past 3 decades is given in Table 4.

**Table 4:-** Distribution of main worker (%) by cultivators, agriculture laborers and other workers over the year during 1991 to 2011 as per census data.

	1991		2001		2011	
	Darbhanga (%)	Bihar (%)	Darbhanga (%)	Bihar (%)	Darbhanga (%)	Bihar (%)
Main Workers	27.88	29.12	23.09	25.37	18.57	20.52
Cultivators	38.14	41.04	25.8	32.16	24.53	25.34
Agricultural labourers	45.57	43.17	44.94	42.84	41.23	44.65
Household	1.43	2.01	3.81	3.56	3.28	3.65
Other Workers	15	11.02	25.36	21.04	30.96	26.36

Source: Census of India 1991, 2001 and 2011

The TFR of Darbhanga (4.5) is relatively high in comparison to the national average of 2.3. The high TFR in Darbhanga is reflected by a dismal picture of women in Bihar marrying early, having their first child soon after marriage, and having two or three more children in close succession by the time they reach their late-20s. (Darbhanga District Health Society PIP (2012-13)). If birth and death rate over the year remains constant, then whatever changes happened in the population, it happened due to migration of the population. The decline growth of population change of Darbhanga was recorded at 37% in comparison to Bihar 12% and India 18% in 2001-11 with respect to 1991-2001. This high decline in Population Growth can be interpreted as due to migration.

The age distribution of population data during 1991 to 2011 shows that there is a decline in youth and working age population (15-59 yrs) and at the same time, increase in aged (old age of 60 yrs and above) population of

Darbhanga during 1991 to 2011. This is due to the high male outmigration of youth and working population from Darbhanga. Almost 14% of the youth population of the Darbhanga district migrates in search of jobs to the metropolitan cities like Kolkata, Mumbai, Delhi, Amritsar, etc (PIP, 2012-13).

The female work participation rate has increased substantially from 15.61% in 1991 to 22.53% in 2011 in Darbhanga. Male outmigration leads to an increase in the participation of females in the workforce and also an increase in female dominated families (Gulati, 1993; Amrita, 2011).

#### 4. CONCLUSIONS

Darbhanga district is a predominantly rural district with more than 90 percent of population living in rural areas. This district is one of the highest out-migrant districts of Bihar. Agriculture is the main occupation of the people of this district. Due to unemployment and lack of economic opportunities in the district, people migrate to Delhi, Punjab, Gujarat and other States of India in search of employment opportunities. Evidence from Darbhanga district show that out-migration has had a visible impact on the demographic changes in rural Bihar. Migration has resulted in a decline in population growth, increased share of aging population, decreased share of working population, increased female work participation etc.

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