Migration in West Bengal

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Contents:

Introduction

"Migration is an expression of human aspiration for dignity,

safety and a better future. It is part of the social fabric,

part of our very make-up as a human family"

Movement of people from one location to another, permanently or temporarily; basically in search of job is known as "Human Migration". Migration is certainly not a recent phenomenon; on the contrary, it has been part of the human history since its very beginning. People have migrated from one continent to the other, from country to country, or internally inside the same country.

Migration is a global phenomenon caused not only by economic factors but many other factors like social, political, cultural, environmental, health and education. The 2030 agenda (with core principle to "leave no one behind", including migrants) for Sustainable Development recognizes for the first time the contribution of migration to sustainable development. 11 out of 17 Sustainable Development Goals (SDGs) contain targets and indicators that are relevant to migration. The constitution of India (Article 19) gives the right to all citizens to move freely throughout the territory of India and to reside and settle in any part of the territory of India.

Migration is one of inevitable process in the economic development. Migration can be of two types: International Migration and Internal Migration. International migration deals with migration across the countries of the world, while internal migration deals with migration within the national boundary of a country. There are four streams of internal migration which are rural-rural, rural-urban, urban-rural and urban-urban. Among these four streams, rural-urban migration has certain distinct characteristics which affect developmental aspect of both places involved namely, place of origin and place of destination. It is well known that developmental disparities between rural and urban triggers rural-urban migration. People generally migrate from less developed rural countryside to more developed urban centers. The impact of migration can be assessed in several ways: welfare impacts, social impacts, economic impacts etc. For example, remittances send by the urban migrants to their native villages help them to evade poverty; increase consumption; invest more in agriculture, education, health; reduce the

burden of debt. Remittances have certain social impacts as well. These remittances may help to reduce economic inequality among the social groups in the area of origin. Displacement of surplus labour from the rural agricultural sector, through migration, increases the efficiency of rural farm sector in the labour surplus economy. On the other hand, skill migrants can contribute to the development of the urban sector at a faster rate through their active participation in the urban labour market.

West Bengal is a state in the eastern region of India along the Bay of Bengal. With over 91 million inhabitants, it is the fourth-most populous state and the fourteenth-largest state by area in India. Covering an area of 88,752 km2 (34,267 sq. mi), it is also the seventh-most populous country subdivision of the world. Part of the Bengal region of the Indian subcontinent, it borders Bangladesh in the east, and Nepal and Bhutan in the north. It also borders the Indian states of Odisha, Jharkhand, Bihar, Sikkim and Assam. The state capital is Kolkata, the seventh-largest city, and the third-largest metropolitan area in India.

The large scale out-migration of rural labour force from West Bengal is emerging as a conspicuous socio-economic phenomenon. The intrusion of service sector economy into agricultural economy in developing India causes agriculture unprofitable and a burden on family income also. Every year a large number of job seeking labours from villages and small towns cross West Bengal to join works of comparatively high wages in north, middle and south Indian states. This huge labour force which should be invested in west Bengal to drive its economic engine faster, has been expending in the progress of other states. It is just like "the lamp of my own house enlightening the neighbor's house". West Bengal rank fourth among states from where people migrate for work and employment, the census 2011 reveals. Between 2001 and 2011, nearly 5.8 lakh people migrated from Bengal looking for work, which is only after Uttar Pradesh (37.3 lakh), Bihar (22.6 lakh) and Rajasthan (6.6 lakh). Interestingly, this outbound migration pattern was both rural-urban: only 5,143 more people left rural Bengal than urban Bengal looking for work. But 2011 census data does not dig deeper into district-wise migration rates.

Motivation

"Migration is a powerful driver of economic growth, dynamism and understanding. It allows millions of people to seek new opportunities, benefiting communities of origin and destination alike."   - Antonio Guterres -

One of the important facts of study on population is the study of migration arising out of various social, economic or political reasons. Migration is one of the important paradigms of the changing socio-economic conditions of any region. Migrant labor is desirable and necessary to sustain economic growth and rise out of the current recession. Migration is important for the transfer of manpower and skills and provides the needed knowledge and innovation for global growth. It is noted that the proportion of migrants in West Bengal has increased from 27% in 1991 to 30% in 2001.

Migration has many positive impact such as, it fills gaps in demand for and supply of labour, efficiently allocates skilled labour, unskilled labour, and cheap labour. Economic wellbeing of migrants provides insurance against risk to households in the areas of origin, increases consumer expenditure and investment in health, education and assets formation. Migration enhances the knowledge and skills of migrants through exposure and interaction with the outside world. It also enhances chances employment and economic prosperity which in turn improves quality of life. The migrants also send extra income and remittance back home, thereby positively impacting their native place. Migrants helps to improve the social life of migrants, as they learn about new cultures, customs, and languages which helps to improve brotherhood among people and ensures greater equality and tolerance. Migration has also emerged as possible adaptive mechanism in the context of climate change and the occurrence of extreme weather events like floods, droughts, and cyclones.

Literature Review:

The economics of migration has drawn attention of many economists and social scientists over the years. Klein (2005) has explained the demographic differences between the migrant families and the families which remained in the place of origin using the fertility decision framework. Baumann et al (2012) found that expectations regarding unemployment rate do have effect on migration decision. In fact information regarding unemployment prevailing in the destination areas helps the family to decide about further migration. Mukherjee (2001) has pointed towards the quality of migrating people who are coming into the urban society and their participation in urban sector. The study suggests that majority of the people who are migrating into the urban sector are illiterate and of unskilled type. As a result they become unable to get a formal job in the urban formal job market. A major portion of this unskilled migrated labour force joins to the urban informal job market. Finally this low quality of migration has resulted into low quality urbanization in urban India which ultimately led to an urban decay. Mahapatro (2012) pointed out that interaction of various factors in the course of development can not only accentuate the pace of mobility but would lead to emergence of new migration patterns. Banu (2016) found that the long distance (inter-state and inter-district) rural-urban migrants are contributing more to the development of socio-economic condition of destination as compared to short distant rural-urban migrants (intra-district). Mahato (2005) argue that environmental crises in indigenous belts of habitation create difficulties in survival and ultimately force people to migrate.

In this section, the author summarize the literature that are drawn upon in this research in order to examine the migration. The definitions and matter of the topic have also been critically examined and compared from different authors and scholars. Moreover, the reasons and factors for migration have also been clearly stated. Rather than following a single guiding conceptual model, the author combined the use of multiple conceptual and theoretical models and approaches. Instead creating confusion, the interconnections between the different strands of literatures help us to understand the entirety of the subject migration.

Objectives:

The study is based on the secondary data from Census. The broad objectives of the study to analyze the change in pattern and factor responsible for migration. The study is based on the data of census 1991 and 2001. The specific objective of the present study are as follows-

- Examine the internal migration in various categories in India.
- Factors responsible for migration in India.
- Changes in inter-district migration in 1991 and 2001 in West Bengal.
- Changes in intra-district migration in 1991 and 2001 in West Bengal.
- Examine the trends of migrants according to duration of migration in West Bengal.
- Examine the trends of migration according to the reasons of migration in West Bengal.
- Regression Analysis to find the interrelation between inter-district rural to urban migration and percentage of urban population.

Methodology

Research on migration should be done on the basis of survey, which are undertaken to collect information. From that survey data, we have to form a descriptive statistics and then analyze the whole matter. Due to the present pandemic situation, it is not possible to conduct a survey and collect data. That's why this study is based on the secondary survey and existing literature.

The secondary data are collected from official website of census of India. As 2011 census data does not dig deeper into district-wise migration rates. So, the study is bases upon the data from 1991 and 2001 census. Using the data, this research study examine the issue in depth. The study also includes internal migration of India. This study is thoroughly analyzed with help of descriptive statistics, trends levels, bar diagram, pie chart and regression analysis.

Result and Discussion

➢ Migration in India:

             The study has considered different cases of internal migration. Internal migration implies migration, which take place within the territory of a country. The study has divided internal migration into four broad headings, namely intercensal (relating to the interval between two censuses), intercensal interstate, lifetime and lifetime interstate. These are again segregated into total migrants, male migrants, female migrants, rural male migrants and urban male migrants. A study of the following table will show that the overall mobility of the population has declined in all the four major cases.
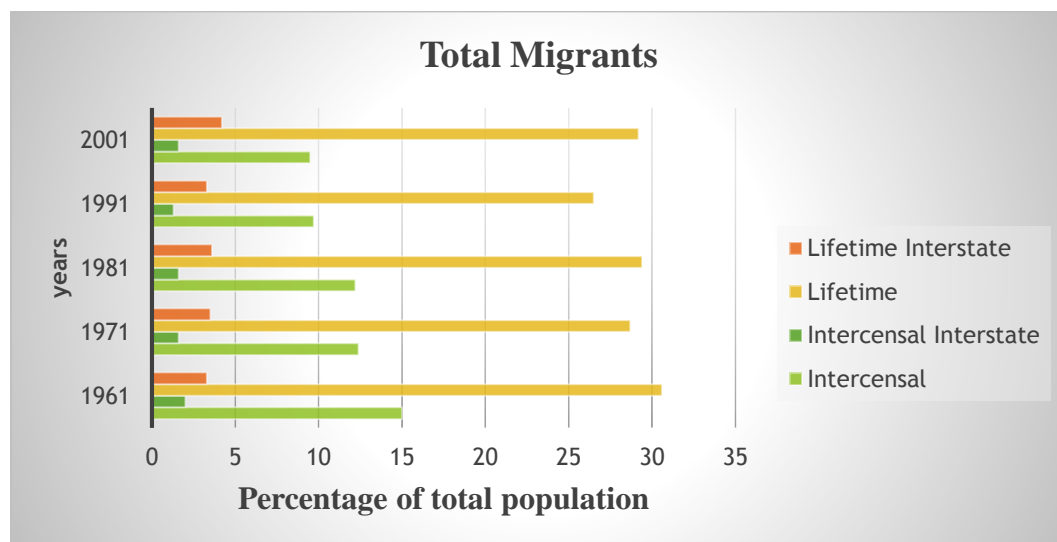
Table-1(a) Internal Migrants in Various Categories, 1961-2001

Total Migrants

	Percentage of Total Population				
Categories	1961	1971	1981	1991	2001
Intercensal	15	12.4	12.2	9.7	9.5
Intercensal Interstate	2	1.6	1.6	1.3	1.6
Lifetime	30.6	28.7	29.4	26.5	29.2
Lifetime Interstate	3.3	3.4	3.6	3.3	4.2

Source: Migration Tables 1961, 1971, 1981, 1991 and 2001– Debasis Chakraborty (2014).

Figure-(a)

The above table-1(a) and the respective bar diagram (figure-a) showing the India's overall internal migrant figure in various categories. The table suggest that in India there is a declining trend in almost all the categories except the lifetime interstate. For intercensal, we can see that it has decline from 15% in 1961 to 9.5% in 2001. For intercensal interstate, the decline in rate is almost constant in each year. From 1961 it was 2% and decrease to 1.6% in 1971 and 1.3% in 1991, but again increases a by 1.6% in 2001. In lifetime, the rate from 30.6% in 1961 decreases to 29.2% in 2001. Only lifetime intercensal type of migration has a slight increase from 3.3% in 1961 to 4.2% in 2001.
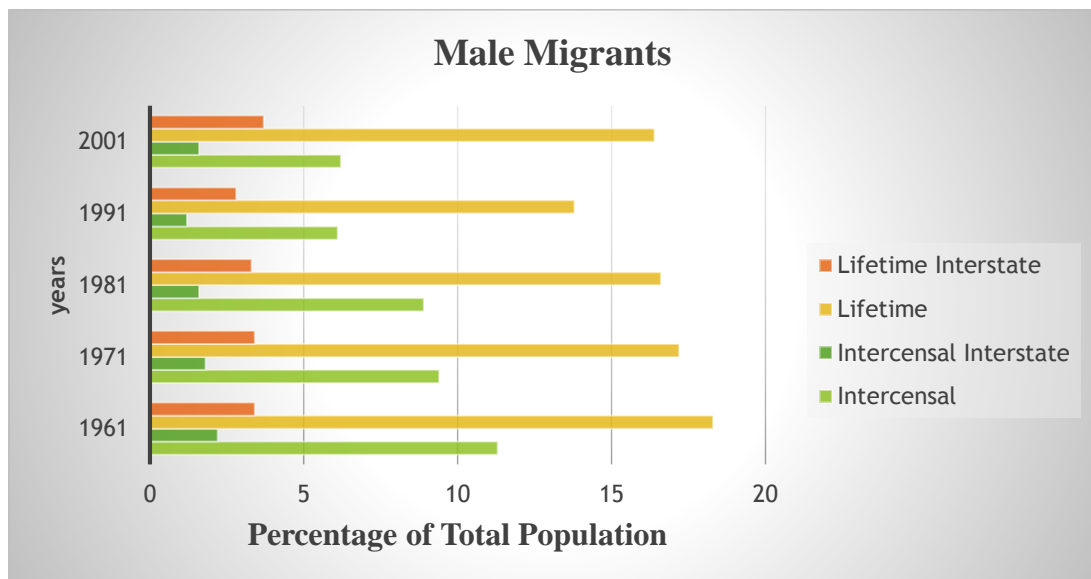
Table-1(b) Internal Migrants in Various Categories, 1961-2001

Male Migrants

Categories	Percentage of Total Population				
	1961	1971	1981	1991	2001
Intercensal	11.3	9.4	8.9	6.1	6.2
Intercensal Interstate	2.2	1.8	1.6	1.2	1.6
Lifetime	18.3	17.2	16.6	13.8	16.4
Lifetime Interstate	3.4	3.4	3.3	2.8	3.7

Source: Migration Tables 1961, 1971, 1981, 1991 and 2001– Debasis Chakraborty (2014).

Figure-(b)

The above table-1(b) and the respective bar diagram (figure-b) showing the India's male internal migrant figure in various categories. It can be seen that intercensal male migration has come down from 11.3% in 1961 to almost 6% in 2001.Intercensal interstate male migrants decreased from 2.2% in 1961 to 1.6% in 2001. Lifetime male migrants decreased from 18.3% in 1961 to 16.4% in 2001. Only lifetime interstate male migrants have a negligible increase from 3.4% in 1961 to 3.7% in 2001.
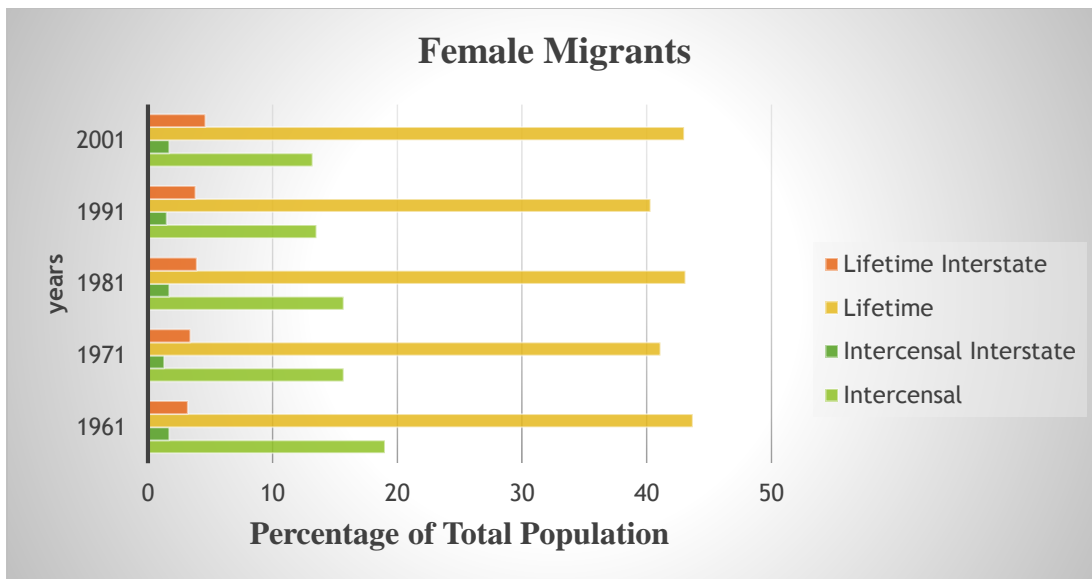
Table-1(c) Internal Migrants in Various Categories, 1961-2001

Female Migrants

Categories	Percentage of Total Population				
	1961	1971	1981	1991	2001
Intercensal	19	15.7	15.7	13.5	13.2
Intercensal Interstate	1.7	1.3	1.7	1.5	1.7
Lifetime	43.7	41.1	43.1	40.3	43
Lifetime Interstate	3.2	3.4	3.9	3.8	4.6

Source: Migration Tables 1961, 1971, 1981, 1991 and 2001– Debasis Chakraborty (2014).

Figure-(c)

The above table-1(c) and the respective bar diagram (figure-c) showing the India's female internal migrant figure in various categories. The picture for female migrants is

pretty gloomy. Except the lifetime migration all streams of female migration has very negligible contribution. The reason of female having higher proportion of lifetime migration is that they basically migrate as the spouse of their male partner. They mainly migrate if their husband gets a permanent or semi-permanent job.

From the census data of 1981, 1991 and 2001 it can be seen that percentage of migrants reporting economic factors as the cause of migration decreased considerably. From the following table it can be seen that over the years the factors responsible for migration had remained more or less same. Except business all other factors can be seen available in all the three censuses. Business as a factor of migration was first introduced in 1991 census (see table-2).

Table-2 Factors Responsible For Migration

Census 1981	Census 1991	Census 2001
1.Employment	1.Employment	1.Work/Employment
2.Education	2. Business	2.Business
3. Family Moved	3.Education	3. Education
4. Marriage	4. Family Moved	4. Marriage
5. Others	5.Marriage	5. Moved with birth
	6. Natural calamities like drought, floods etc.	6. Moved with household
	7.Others	7. Any other reason

Source: Migration tables 1991 and 2001- Anindita Sengupta (2011)

➤ Migration in West Bengal:

Here, we will discuss the trend and pattern of internal migration in various districts of West Bengal. Both intra-district as well as inter-district trend in internal migration has been analyzed. We will also discuss the duration of migration and reasons for migration.

- Inter-District Migration-

In the table(table-3) given below, showing the Rural to Rural(R-R), Rural to Urban (R-U), Urban to Rural (U-R) and Urban to Urban (U-U) migration percentage of various districts in West Bengal.

Table-3 Trend of Inter-District Migration in West Bengal (Percentage of Total Population of migrant Workforce)

Districts	1991				2001				Change			
	R-R	R-U	U-R	U-U	R-R	R-U	U-R	U-U	R-R	R-U	U-R	U-U
Coach Bihar	2.46	0.49	1.76	0.93	2.36	0.68	1.98	0.70	-0.10	0.19	0.22	-0.23
Jalpaiguri	3.29	2.59	4.08	4.23	6.75	3.70	7.22	2.47	3.46	1.11	3.14	-1.76
Darjeeling	1.43	2.54	1.84	3.79	2.34	2.13	2.40	1.84	0.91	-0.14	0.56	-1.95
West Dinajpur	5.05	1.32	2.30	2.17	4.56	1.40	1.75	1.04	-0.49	0.07	-0.54	-1.13
Maldah	2.62	1.22	1.86	1.62	2.68	0.93	1.99	0.81	0.06	-0.29	0.13	-0.81
Murshidabad	7.96	2.10	3.54	2.71	6.59	1.90	3.43	1.40	-1.37	-0.20	-0.11	-1.31
Nadia	8.03	4.46	10.34	7.15	7.94	3.96	9.38	4.31	-0.09	-0.50	-0.95	-2.85
N 24 Parganas	5.26	17.68	12.86	19.47	6.14	19.90	11.16	44.08	0.87	2.22	-1.69	24.61
S 24 Parganas	8.18	3.51	16.67	6.26	6.72	3.91	14.17	6.77	-1.46	0.39	-2.49	0.50
Calcutta	0.00	19.53	0.00	9.95	0.00	20.05	0.00	6.27	0.00	0.53	0.00	-3.68
Howrah	4.48	9.18	4.83	6.74	4.00	8.81	5.49	7.58	-0.48	-0.37	0.66	0.85
Hooghly	9.86	8.38	9.76	7.87	11.42	9.48	13.32	11.14	1.55	1.10	3.56	3.27

|												
Midnapore	8.48	4.03	9.34	5.87	6.75	2.98	7.72	2.32	-1.74	-1.05	-1.63	-3.55
Bankura	8.14	1.38	4.97	1.81	8.04	0.93	5.76	0.78	-0.09	-0.46	0.79	-1.03
Puruliya	3.16	1.11	2.24	1.98	2.86	1.01	1.79	0.92	-0.30	-0.11	-0.45	-1.06
Burdwan	14.20	18.63	9.50	15.41	14.40	16.61	7.52	6.48	0.20	-2.02	-1.98	-8.94
Birbhum	7.42	1.83	4.12	2.04	6.45	1.63	4.90	1.10	-0.97	-0.21	0.78	-0.94
West Bengal	100	100	100	100	100	100	100	100	00	00	00	00

Source: Census of India, 1991 and 2001 migration tables- Raju Sarkar, 2017.

Above table represents the inter-district migration trend in West Bengal. It reveals that most of the districts have higher share of rural-rural migration in both the census years. Comparing 2001 with 1991, Calcutta (now Kolkata) has 0% rural to rural migration in both the years, whereas, Burdwan has the highest of 14.20% of rural to rural migration in 1991 and it has increased by 0.20% in 2001, highest among all the districts. Hooghly has the second highest rural to rural migration of 9.86% in 1991 and increased to 11.42% in 2001. Darjeeling has the second lowest rural to rural migration, i.e., 1.43in 1991 and increased to 2.34% in 2001. Coming to rural to urban migration, Calcutta tops the chart in both the years, in 1991 it has 19.53% of rural to urban migration and increases by 0.53% in 2001. Burdwan has the second highest of 18.63% migration in 1991 and decreased by 2.02% in 2001. Whereas, North 24 Parganas has 17.68% of migration in 1991 and increased by 2.22% in 2001 and became the second highest in among the district. Coach Bihar has the lowest percentage of migration i.e., 0.49% in 1991 and 0.68% in 2001. In case of urban to rural migration, South 24 Parganas has the highest percentage of migrant i.e. 16.67% in 1991 and 14.175 in 2001. Whereas, Calcutta has the lowest of 0% urban to rural migrants in both years. In urban to urban migration, North 24 Parganas has the highest percentage of urban to urban migrant in both the years, i.e., 19.47% in 1991 and 44.08% in 2001. Whereas, Coach Bihar has the lowest among all the districts in both the year, i.e., 0.93% in 1991 and 0.70% in 2001.

The last column represents the change in all migration streams for all the districts from 1991 to 2001. It states that from 1991 to 2001 in most of the districts there has

been a decline in inter-district mobility across all the streams. District-wise N-24 Parganas has highest increase in rural-urban migration (2.22 percent) and Burdwan has highest decrease in rural-urban migration in 2001 than in 1991 (2.02 percent).

Figure-(i)

Inter-District Migration, 1991
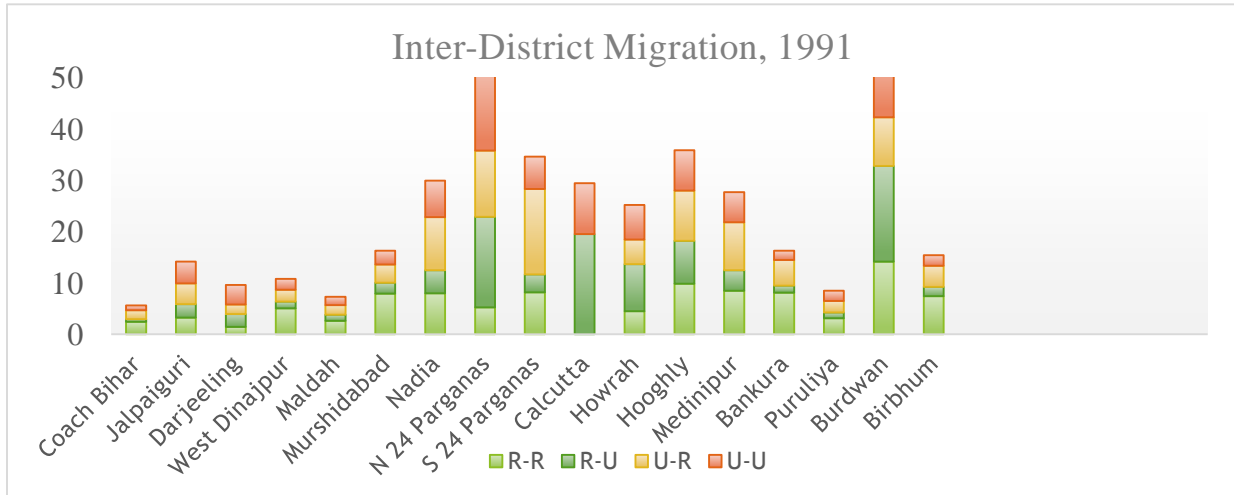
The given bar diagram (figure-i and figure-ii) showing the movement of migration from rural to rural, rural to urban, urban to rural and urban to urban among the various districts of West Bengal, according to the migration table of 1991 and 2001.

Figure-(ii)

Inter-District igration, 2001
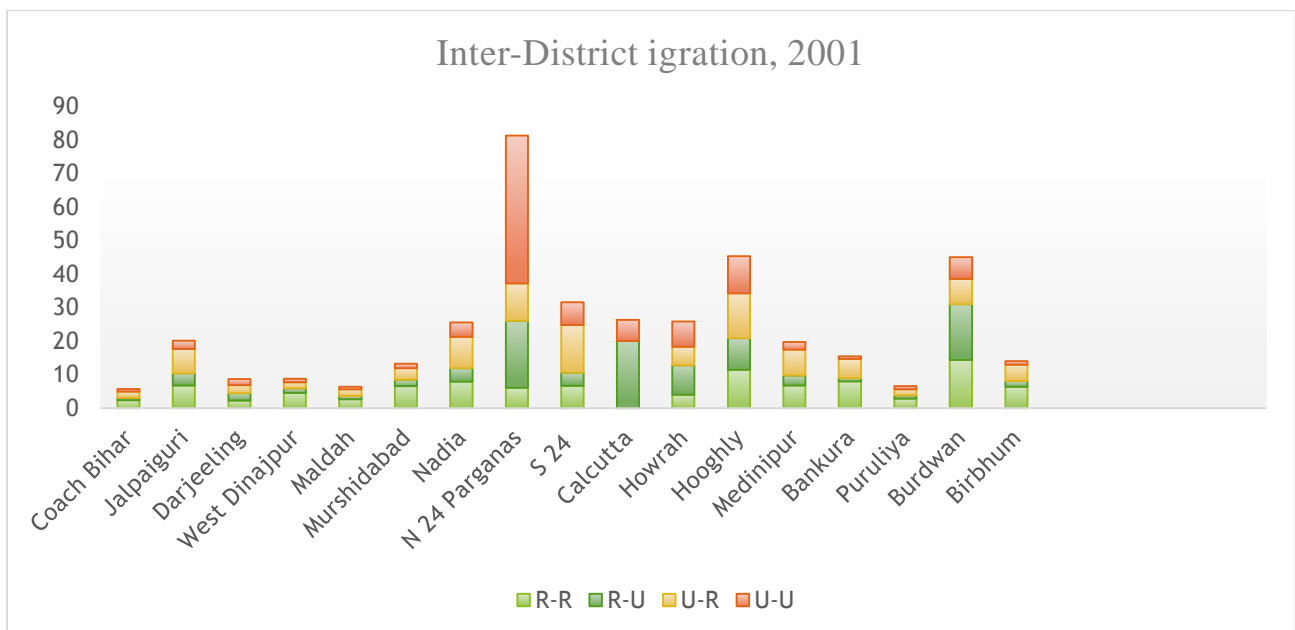
- Intra-District Migration-

The below table(table-4), showing the Rural to Rural(R-R), Rural to Urban (R-U), Urban to Rural (U-R) and Urban to Urban (U-U) migration percentage of within the districts in West Bengal.

Table-4 Trend of Intra-District Migration in West Bengal (Percentage of Total Population of migrant Workforce)

Districts	1991				2001				Change			
	R-R	R-U	U-R	U-U	R-R	R-U	U-R	U-U	R-R	R-U	U-R	U-U
Coach Bihar	90.30	6.61	1.99	1.10	87.27	5.33	5.22	2.17	-3.03	-1.28	3.23	1.08
Jalpaiguri	82.47	11.90	2.96	2.66	79.10	9.73	6.41	4.76	-3.37	-2.18	3.45	2.10
Darjeeling	68.06	10.31	7.87	13.77	67.39	8.63	8.11	15.87	-0.66	-1.68	0.25	2.10
West Dinajpur	87.03	7.95	2.53	2.49	88.65	5.42	3.98	1.95	1.62	-2.53	1.45	-0.55
Maldah	92.11	4.90	1.87	1.12	91.83	3.86	2.48	1.83	-0.28	-1.04	0.61	0.71
Murshidabad	87.39	8.73	2.34	1.54	85.09	10.04	3.02	1.85	-2.30	1.31	0.68	0.31
Nadia	78.59	10.81	6.06	4.54	78.51	9.96	5.34	6.19	-0.08	-0.85	-0.72	1.65
N 24 Parganas	66.82	17.81	5.51	9.86	51.08	18.14	4.10	26.67	-15.73	0.33	-1.40	16.81
S 24 Parganas	89.27	6.87	2.51	1.35	87.02	8.50	2.42	2.05	-2.24	1.64	-0.09	0.70
Howrah	65.70	26.81	2.79	4.69	65.15	19.24	4.25	11.37	-0.56	-7.57	1.45	6.67
Hooghly	81.02	13.43	2.72	2.83	71.37	10.52	5.14	12.97	-9.65	-2.90	2.42	10.13
Midnapore	89.41	6.09	2.95	1.55	87.87	6.29	3.42	2.41	-1.54	0.20	0.48	0.86

Bankura	89.24	5.68	3.70	1.38	90.00	3.14	6.00	0.86	0.76	-2.54	2.30	-0.52
Puruliya	91.38	5.22	2.27	1.12	91.86	5.16	1.70	1.28	0.48	-0.06	-0.57	0.15
Burdwan	75.10	15.18	2.91	6.81	71.77	15.13	4.95	8.14	-3.33	-0.05	2.04	1.33
Birbhum	86.75	7.45	4.31	1.49	85.47	7.52	5.07	1.95	-1.28	0.07	0.76	0.46
West Bengal	83.45	10.12	3.23	3.20	79.94	9.69	3.95	6.42	-3.51	-0.43	0.72	3.22

Source: Census of India, 1991 and 2001 migration tables- Raju Sarkar, 2017.

Above table (Table-4) represents the intra-district migration trend in West Bengal in 1991 and 2001. From the table we can see in the case of inter-districts, the role of rural to rural migration is predominant in West Bengal and within the district also, in both census years. What is more important is that it has declined across most of the districts from 1991 to 2001. This decrease is highest for Howrah (-7.57 percent) and it increased most for S-24 Parganas (1.64 percent). Overall rural-urban migration declined in West Bengal from 10.12 percent in 1991 to 9.69 percent in 2001. Howrah has the highest of 26.81% in 1991 and decreased by 7.57% in 2001. In case of urban to rural migration, Darjeeling has the highest of 7.87% in 1991 and 8.11% in 2001. Overall urban to rural migration increased in West Bengal from 3.23% in 1991 to 3.95% in 2001. Coming to urban to urban migration, the overall increase in West Bengal was from 3.20% in 1991 to 6.42% in 2001. Darjeeling has the highest of 13.77% in 1991 and North 24 Paraganas has the highest of 26.67% in 2001.
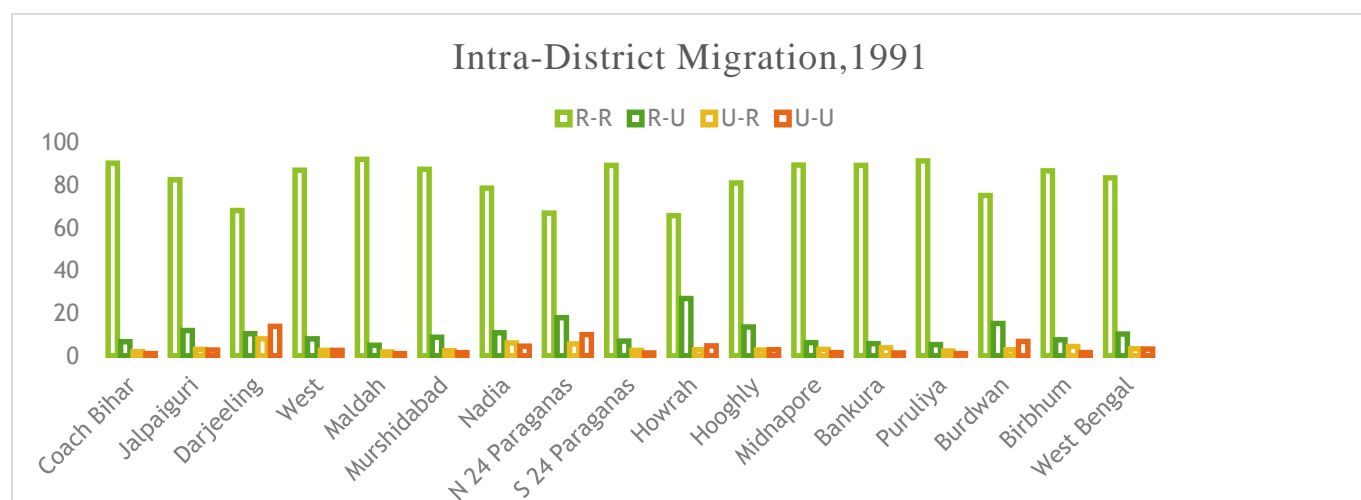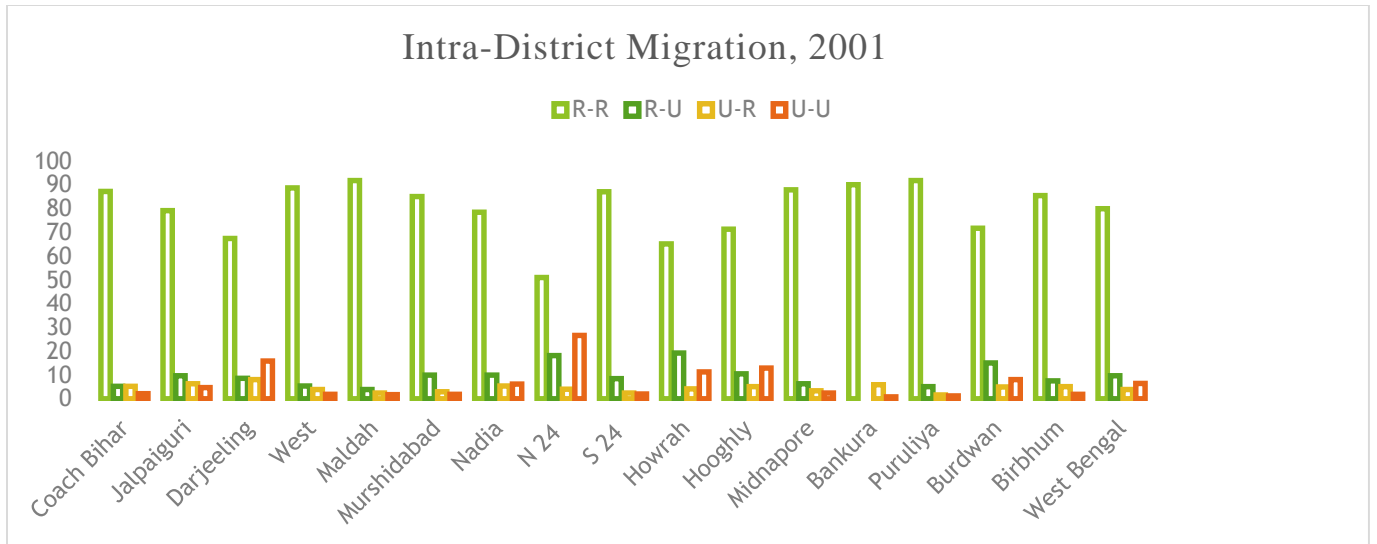
Figure- (iii)

Figure- (iv)

The given bar diagram (figure-iii and figure- iv), showing the movement of migration from rural to rural, rural to urban, urban to rural and urban to urban among the various districts of West Bengal, according to the migration table of 1991 and 2001.

- Duration of Migration-

Now, we will focus on the duration of migration. According to census, migration duration has been classified into five categories, duration of migration less than one year, between one to four years, from five to nine years, from ten to nineteen years and above twenty years. Table-5 depicts the trend of migrants regarding duration of migration in 1991 and 2001.

Table-5 Trend of Migrants according to Duration of Migration (in Percentage)

Year	Streams	Duration of Migration				
		Less than 1 year	1-4 years	5-9 years	10-19 years	20+ years
1991	Male	2.3	15.7	14.2	26.47	33.61
	Female	1.75	16.88	17.04	28.73	29.97
	Total	2.01	16.32	15.67	27.64	31.73
	Male	2.48	13.32	12.79	24.43	41.51

2001	Female	2.03	14.75	14.64	28.07	35.85
	Total	2.24	14.07	13.76	26.35	38.52

Source: Migration Tables, 1991 and 2001- Debasis Chakraborty, 2014.

Figure-(v)   **Figure-(vi)**

Duration of Migration, 1991
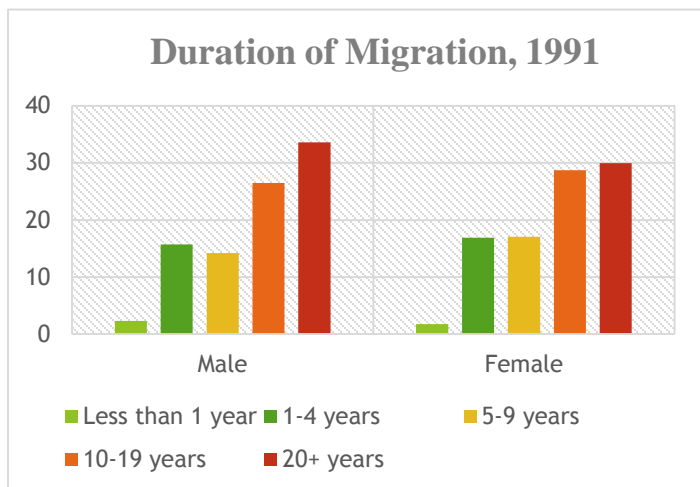
Duration of Migration, 2001
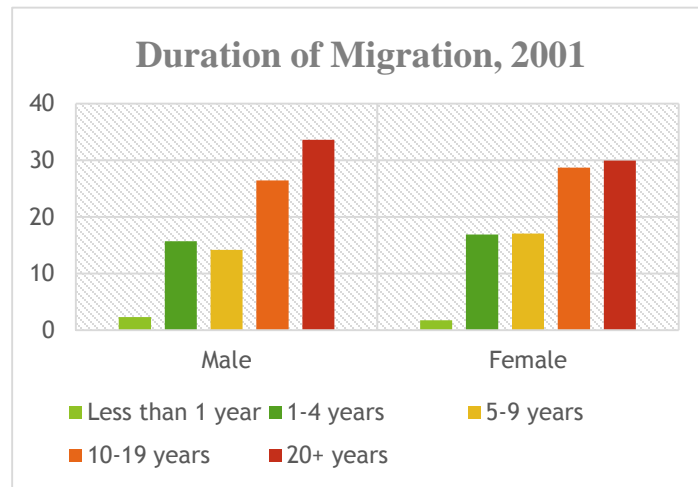
From the above table and bar diagrams (table-5 and figure-v, vi), it has been that overtime migrants with longest duration (more than twenty years) has increased from 31.73% in 1991 to 38.52% in 2001 and migration with shortest duration (duration with less than 1 year) has increased from 2.01% in 19991 to 2.24% in 2001. Duration of female migration is higher than male migrants from one year to nineteen years.

- Reasons for Migration-

According to census, migration duration has been classified into seven categories, i.e., employment, business, education, family moved, marriage, natural calamities and others. Table-6, represents the share of various reasons for migration in total migration from rural to urban in West Bengal in 1991 and 2001.

Table-6.1 Trend of Male Migrants according to Reasons for Migration (in Percentage)

Year	Male						
	Employment	**Business**	**Education**	**Family Moved**	**Marriage**	**Natural Calamities**	**Others**
1991	17.45	3.80	3.46	35.70	2.87	0.57	36.14

| 2001 | 46.98 | 6.22 | 2.82 | 0.91 | 4.18 | 21.53 | 17.35 |

Source: Migration Tables from Census of India, 1991 and 2001- Kingsuk Maity, 2018.
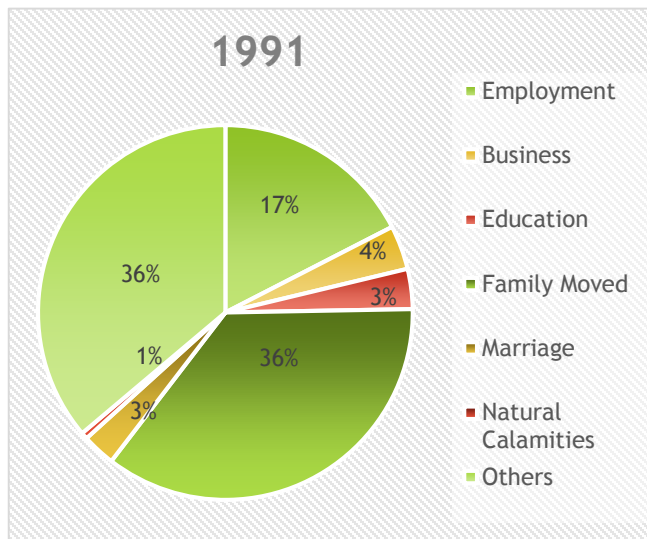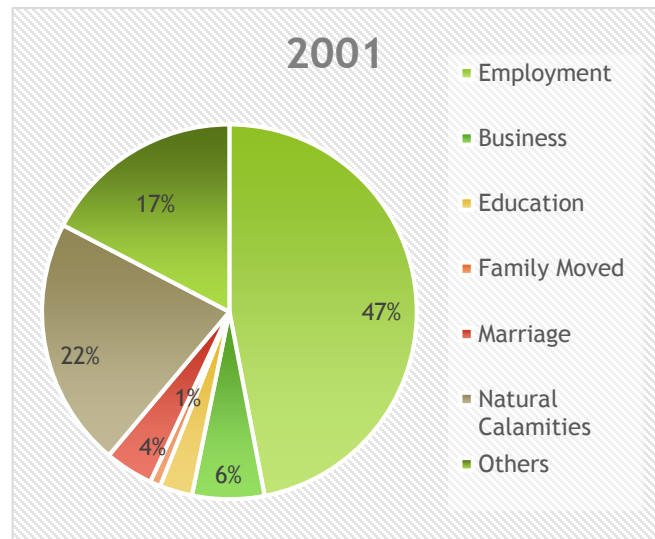

Figure-(vii)

Figure-(viii)

Above table 6.1, represents the reasons for male migration according to 1991 and 2001. The table suggests that in 1991, the dominant reason for male migration was family moved and it was decreased to 0.91% in 2001. In 2001, employment was the main reason of male migration, it has increased from 17.45% in 1991 to 46.985 in 2001. In 1991, the reason for male migration due to natural calamities was 0.57%, which has increased to 21.53% and became one of dominant reason for male migration in 2001. Migration of male due to business purpose has also increased from 3.80% in 1991 to 6.22% in 2001. Migration due to marriage has also increased from 2.87% in 1991 to 4.18% in 2001. Figure-(vii) and (viii), the pie chart represents the share of reason for male migration in 1991 and 2001 respectively.

Table-6.2 Trend of Female Migrants according to Reasons for Migration (in Percentage)

Year	Female						
	Employment	**Business**	**Education**	**Family Moved**	**Marriage**	**Natural Calamities**	**Others**
1991	2.08	0.32	0.69	15.68	68.18	0.19	12.85

| 2001 | 3.51 | 0.36 | 0.62 | 59.89 | 2.34 | 22.77 | 10.51 |

Source: Migration Tables from Census of India, 1991 and 2001- Kingsuk Maity, 2018.
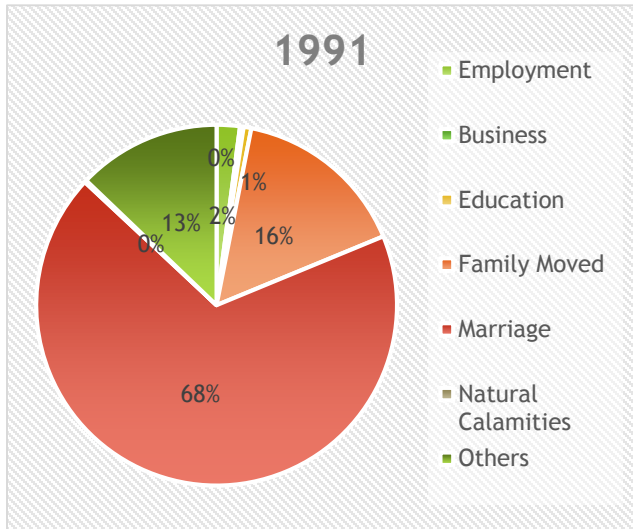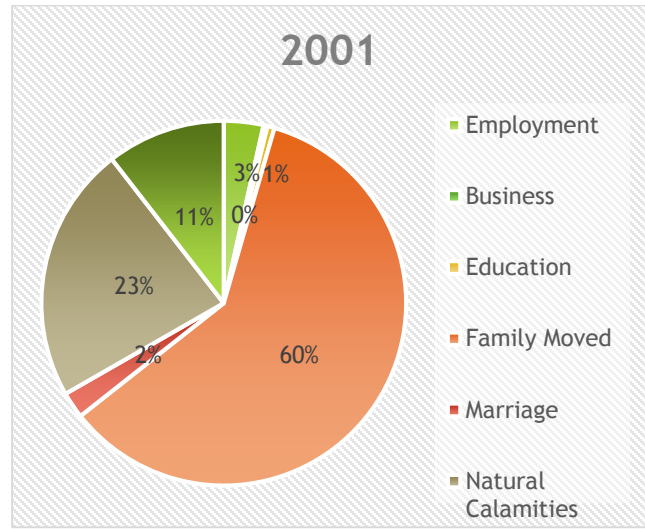

Figure-(ix)

Figure-(x)

Above table 6.2, represents the reasons for female migration according to 1991 and 2001. From the table we can see that, in 1991 marriage was the most dominant reason for female migration, which has decreased from 68.18% to 2.34% in 2001. In 2001, the family moved was the most vital reason for female migration, it has increased from 15.68% in 1991 to 59.89% in 2001. Female migration for business purpose has not increase much (0.32% in 1991 and 0.36% in 2001) and for education, it has decreased from 0.69% in 1991 to 0.62% in 2001. Migration for natural calamities which was 0.195 in 1991 has increased to 22.77% in 2001. Migration for educational purpose has increased from 2.08% in 1991 to 3.51% in 2001. Figure-(ix) and (x), the pie chart represents the share of reason for female migration in 1991 and 2001 respectively.

Table-6.3 Trend of Total Migrants according to Reasons for Migration (in Percentage)

Year	Total						
	Employment	**Business**	**Education**	**Family Moved**	**Marriage**	**Natural Calamities**	**Others**
1991	7.05	1.45	1.59	22.15	47.09	0.31	20.38

2001	24.02	3.13	1.66	32.06	3.21	22.19	13.74

Source: Migration Tables from Census of India, 1991 and 2001- Kingsuk Maity, 2018
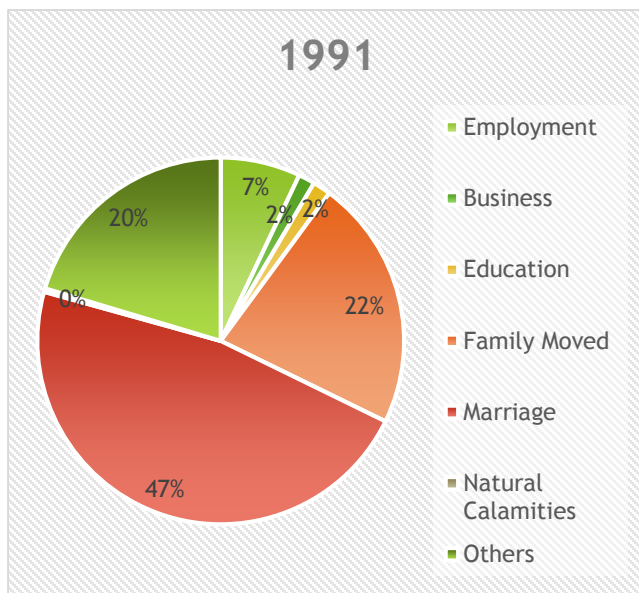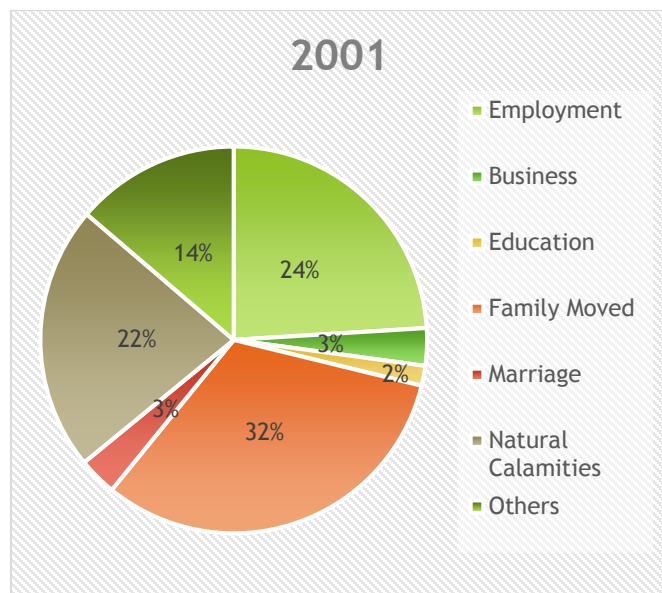

Figure-(xi)

Figure-(xii)

Above table 6.2, represents the reasons for overall migration according to 1991 and 2001. It reveals that in totality, in 1991, the dominant reason for migration was marriage, which was about 47.09% and it was decreased to 3.21% in 2001. Second most vital reason was family moved, which was about 22.15% in 1991 and became the most dominant reason in 2001, as it increased to 32.06%. Migration due to natural calamities has increased from 0.31% in 1991 to 22.19% in 2001.Overall migration for employment purpose has increased from 7.05% in 1991 to 24.02% in 1991. Figure-(xi) and (xii), the pie chart represents the share of reason for overall migration in 1991 and 2001 respectively.

- Regression Analysis:

Here, we have shown the interrelation of inter-district rural to urban migration with percentage of urban population. Data related to percentage of urban population is collected from census 2001.

Table-8, Percentage of inter-district rural to urban migration and percentage of urban population 2001.

Districts	Inter-district Rural to Urban	Percentage of Urban Population	Districts	Inter-district Rural to Urban	Percentage of Urban Population
Coach Bihar	0.68	10.25	Calcutta	20.05	100
Jalpaiguri	3.7	27	Howrah	8.8	63.3
Darjeeling	2.13	38.99	Hooghly	9.48	38.62
West Dinajpur	1.4	13.1	Midnapore	2.98	11.84
Maldah	0.93	13.8	Bankura	0.93	8.36
Murshidabad	1.9	19.78	Puruliya	1.01	12.75
Nadia	3.96	27.81	Burdwan	16.61	39.87
N 24 Paraganas	19.9	57.59	Birbhum	1.63	12.8
S 24 Paraganas	3.91	25.61			

Source: Census of India, 2001- Nafisa Banu, 2016

In determining the interrelation, the study fits a simple linear regression model where the inter-district migration from rural to urban is the dependent variable and is regressed upon percentage of urban population, which is the explanatory variables. The model specification is as follows:

$Y_i = \alpha + \beta X_i + \xi_i$ --------- (1)

Where, i = 1, 2, 3, …., 17;

Y_i = inter-district rural to urban migration; X_i = percentage of urban population; α and β are unknown parameters; and ξ_i is the disturbance term.

Estimating the equation (1) by OLS method, we get

$\widehat{Y_i} = \hat{\alpha} + \hat{\beta} X_i$ ---------- (2)

$\hat{\alpha}$ and $\hat{\beta}$ are the numerical estimate of α and β,

$\widehat{Y_i}$, gives the estimated values of Y_i for different values of X_i

And obtain the estimated residual $e_i = \xi_i$,

$e_i = Y_i - \widehat{Y_i} = \widehat{Y_i} - \hat{\alpha} - \hat{\beta} X_i$ ------- (3)

Estimated values are:

$\bar{Y} = 5.88$,

$\bar{X} = 30.67$,

$\sum x_i^2 = 9482$, $\sum y_i^2 = 722.50$, $\sum x_i y_i = 2214.71$,

$\sum e_i^2 = 205.21$

Estimated values of slope parameters are:

$\hat{\alpha}$-1.28, $\hat{\beta} = 0.23$

Hypothesis testing:

For testing the significance of $\hat{\beta}$ we have to test the validity of null hypothesis (H_N) that the value of true population parameter β is zero against the alternative hypothesis (H_A) is greater than zero (as we have a prior knowledge that β is positive). We set our hypothesis as:

$H_N: \beta = 0$

$H_N: \beta > 0$ (one-tailed test)

Now, we have to compute t-value, which is denoted by t*. The formula used for computation of t* is:

$$t* = \frac{(\hat{\beta} - \beta)}{SE(\beta')} = \frac{(\hat{\beta})}{SE(\beta')} \text{ (under } H_N: \beta = 0)$$

Where, $SE(\hat{\beta})$ is the standard error of $\hat{\beta}$.

Estimated value of $Var(\hat{\beta}) = 0.0014$ and $SE(\hat{\beta}) = 0.038$.

Estimated value of t* is 6.15. Now we have to compare the value of t* with the critical value t- value from the t-table for significance of λ (under one-tailed) and degrees of freedom n-2. Here n is the number of observation i.e., 17

At 5% level of significance: t_λ, (n-2) is 1.753.

We can see that |t*| > t_λ, (n-2), i.e., absolute value of computed-t is greater than the value of critical-t at 5% level of significant λ and degrees of freedom 17. So, null

hypothesis (H_N) is rejected, which conclude that β' is statistically significant at the 5% level of significance λ.

Now, we measure the goodness of fit of the estimated equation by using the squared-r (i.e., r^2) statistic, where r is the value of correlation coefficient between Y_i and X_i.

$$r^2 = 1 - \frac{\sum e_i^2}{\sum y_i^2}$$

Estimated value of r^2 is 0.72.

From the value r^2, we can clearly see that 72% of of dependent variable is explained by explanatory variable. From this analysis we can conclude that, inter-district rural to urban migration have positively significant relationship with percentage of urban population. It means that the increase in inter-district rural-urban migration stream tend to increase the percentage of urban population and decrease population of rural area.

Policy Suggestion:

Based on the study, the present section put forwards some of the policies that can be implemented as a tool of economic development in both rural and urban areas.

- Steps must be taken to boost up the urban service sector as it is the most attractive sector for urban in-migrants. Pro-migrant policies including some economic and social benefits e.g. free health insurance, employees' provident fund, greater loan facilities at lower rate etc. must be provided to the migrants so that it helps the labours as well as self-employed persons of urban informal sector.

- Policies must be formed to upgrade the level of agricultural efficiency of rural farm sector so that rural people get sufficient surplus from the agriculture sector and contain themselves in the rural region. This will retard rural-urban migration and slow down population mobility. This will enhance dynamism in the rural sector and will eventually reduce the disparity between rural and urban sectors.

- Government might take policies to promote rural Supplemental Security Income (SSI) which are one of the major backbones of rural economy. They should be provided soft credit, better business infrastructure and rationing of inputs as well as output prices can create favorable conditions for the development of SSIs and this will certainly enhance livelihood opportunities of the rural masses.

- Minimize the distress nature of migration by adopting pro-poor development strategies in backward areas, including providing sustainable livelihood opportunities, increased access to land, common property resources, social and physical infrastructure and governance institutions in sending areas and strengthening programs such as MGNREGA, food security programs and creating opportunities for access to credit.

- Well education facilities, empower villagers by giving employment, gram panchayat should be creating facilities for benefit of village people, better health facilities etc. It will minimize the migration of village people towards cities.

Conclusion:

Present analysis shows that there has been changing scenario of migration streams from 1991 to 2001 in West Bengal. Emergence of new towns, increasing transport and communications, increasing employment opportunities in the urban areas are the major factors for the increase of proportion of rural-urban, urban –urban migration during the study period. The male and female migration rates are closely inter-connected irrespective of whether they migrate as accompanists of the males, and the study also noted that the migration of single males, single females are also increasingly moving out in search of jobs rural-urban migration contributes to increasing population in urban area of West Bengal.

There has been a fall in intra-district rural-urban migration in West Bengal in 2001 (9.69 %) compare to 1991 (10.12 %). Highest intra-district rural-urban migration is shown in Howrah (26.81% in 1991 and 19.24% in 2001) and North 24 Parganas (17.815 in1991 and 18.14% in 2001). Least intra-district rural-urban migration shown in Maldah (4.90%) in 1991 and Puruliya (1.70%) in 2001. Highest inter-district rural- urban migration is shown in Calcutta (19.53%) and Burdwan (18.63%) in 1991 and Calcutta (20.05%) and North 24 Parganas (19.90%) in 2001. Least inter-district rural-urban migration is shown in Coach Bihar 0.49% in 1991 and 0.68% in 2001. Migration with duration more than 20 years has increased in 2001 (38.52%) compare to 1991 (31.73%). Marriage was the most dominant reason for migration in 1991, whereas in 2001 employment became one of the most dominant reason for migration. For male, Employment is the main reason of migration in 2001, whereas for female family moved is the main reason.

From the regression analysis, we have concluded that inter-district rural to urban migration has a positive impact on percentage of urban population. That means, increase in the inter-district rural to urban migration increases the urban population. We can also say that increase in inter-district rural to urban migration decreases the percentage of rural population.

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