

Female In-Migration To The Selected Indian Megacities: A Geospatial Trend Analysis During The Early New Economic Era

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Abstract:

Background: This paper attempts to analyze the trend of female migration in the selected Indian mega cities during the early new economic era (1991 - 2011). Temporal change over spatial dimension and its impact assessment is significant in recent migration studies. Early migration theories have revealed that lesser women migrated over longer distances, but the situation has undergone a rapid change during the late 20th century. Besides marriage, employment in organized and unorganized sectors and opportunities in higher education have reversed the situation in present day India.

Material and Methods: This study has focused on top six Indian megacities namely Mumbai, Delhi, Kolkata, Chennai, Bangalore and Hyderabad which attracts large number of female migrants from within the country and overseas. The problem is descriptively analysed with the help of data collected from the Census of India, Principal Component Analysis (PCA) from SPSS software, choropleth mapping, and other suitable cartographic and statistical techniques. Mapping of flow diagram and spatial variation has been constructed on ARC-GIS software.

Results: Migrants approach from the peripheral rural districts and eventually disrupt the demographic parameters of the urban area. Mumbai and Delhi shows an increasing trend of female in-migration whereas there has been a decline in the same for cities like Chennai and Kolkata. The present trend and status of women migration draws a greater attention of the Indian planners, geographers, demographers, economists, and sociologists.

Conclusion: Migration amongst Indian women has undoubtedly brought in a remarkable change in demographic composition to attain sustainable economic and social development.

Key Words: Women Migration, Indian Megacities, Employment Opportunity, Education, Marriage

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I. Introduction

Migration of labourers in a generalized vision often contributes to the idea of movement of people, mainly in search of new opportunities, employment and shelter. However, the trend has been altered and the recent migration trends do show a considerable movement of females (Vause and Toman, 2015). Women previously migrated out of necessity. However, voluntary migration is also common in the modern era (Lutz, 2010). To analyse the general trend of female migration, interpretation of various causes and consequences are required as circumstantial evidences. As the International Labour Organization (ILO) depicts that participation of women in migration depends on the social roles played by women, their societal outcomes and capacity to take decisions (Berhanu and White, 2000; BangandMitra, 2011). As we deliberate on women's work and their economic participation to the society and state, we become aware of the potential that a woman holds (Desai and Thakkar, 2001; Cortes, 2015). The societal perception about working women has changed, as their occupation has undergone a paradigm shift in the new economic era (1991 – 2011). Women are no more concentrated only on female oriented jobs and a great change has also taken place in female marginalisation of opportunities (Keshri, and Bhagat, 2012; Chandrasekhar, 2011). Nowadays, opportunities are varied, and therefore, women are establishing themselves with a diverse synthesis from household startups to managerial and entrepreneurial

jobs. Thus, female migration apart from being causative in nature, has also undergone a rapid transformation in the form of OAG i.e. opportunities at a glance.

Movement of females was restricted as gender biasness was quite common in the migratory trend of the developing nations (Agesa and Agesa, 1999; Baudasse and Bazillier, 2014; Ruysen, and Salomone, 2018). Developed nations have undergone both structural and technological changes and therefore this study has become quite relevant in the modern time. The female migration is primarily a response to real and perceived spatial inequalities in socio-economic opportunities that are themselves the result of uneven sectoral and regional development (Connell, 1984; Ferrant, and Tuccio, 2015). It is evident from various case studies that women's migration is now taking place increasingly for employment purposes (Singh, 1984). The emergence of gender segregated labour markets due to globalisation creates demand for females' labourers in export processing zones, garment industries (informal labour market) which act as a pull factor for females to migrate (Shanti, 2006; Sharp, 2021; Docquier et al. 2012). Vishalakshi K (2016) in her article has classified female migration into - a) Autonomous female migration; b) Relay Migration; and c) Family Migration. It is true, that migratory trend of females has always been an epitome of interest and the pull push effect of metropolis, with the female empowerment has undergone a drastic change in this part (Bhagat, 2010). The most significant reason for the migration of women in the metro city of India is marriage for which 47.45% of women migrate (Biswas et al., 2019; NSSO, 2001 and 2010) followed by moved with household (29.41%) (Donato, 1993, Cerrutti & Massey, 2001), business (11.87%) (Sultana & Fatima, 2017; Kofman, 2000), education (7.002 %) and moved after birth (3.96%). The most surprising thing is that less than 1% of women migrate due to employment (Boyle, et al. 2001; Raghuram, 2008; Bello-Bravo, 2015). Men and women show differences in their migratory behaviours face different opportunities and have to cope with different risks and challenges, such as vulnerability to human rights abuses, exploitation, discrimination and specific health risks (Kofman Raghuram, 2022; Dey and Modak, 2015). The female migrants of prominent cities of India exhibit a similar kind of trend of migration.

II. Material and Methods

The present research work is an amalgamation of both quantitative and qualitative approach to answer the research questions about female migration in Indian perspective. Mostly secondary data as collected from various government and non-government organizations are taken into account. Migration data on D3 series from Census of India of megacities during the new economic era (1991, 2001 and 2011) has been considered. Considering, the vast Indian Territory and complex demographic structure, only selective Indian states have been considered as the part of the study. Whereas, smaller states from North-East India and central territories has been excluded in this paper. The push and pull factors clarifies the trend in female migration towards the top six Indian megacities namely Delhi, Mumbai, Kolkata, Chennai, Bangalore, and Hyderabad. Simple thematic flow diagram and choropleth mapping based on ARC-GIS software has been prepared for better understanding of the trend of migration. To understand the main causes of migration, factor analysis of the selected variables i.e. marriage, moved with household, business, education, moved after birth, and employment have been extracted through principal component analysis. Calculation of absolute and compound growth rate of female migrants shows the trend of the same at successive decades.

Geopolitically India is located in a strategic position in south Asia with major global destinations. India is surrounded by Pakistan and Afghanistan in the west; Nepal, Tibet and Bhutan in the north; Bangladesh and Myanmar in the east and Sri Lanka, Bay of Bengal, Arabian Sea and Indian Ocean in the south. With a total area of 3.287 million square kilometres, India ranks 7th in the world. As per 2011 population census India ranks 2nd after China with a total population of 1210.2 million. India extends between 68°7'E to 97°2'E and 84°N to 37°6'N with Tropic of Cancer passing through the middle of it. To understand the internal migration pattern of women from rural to urban area, top six megacities of India is taken into consideration. Areas of study in this paper include Delhi from northern India, Mumbai from western India, Kolkata from eastern India, Chennai, Bangalore and Hyderabad from southern India (Fig 1)



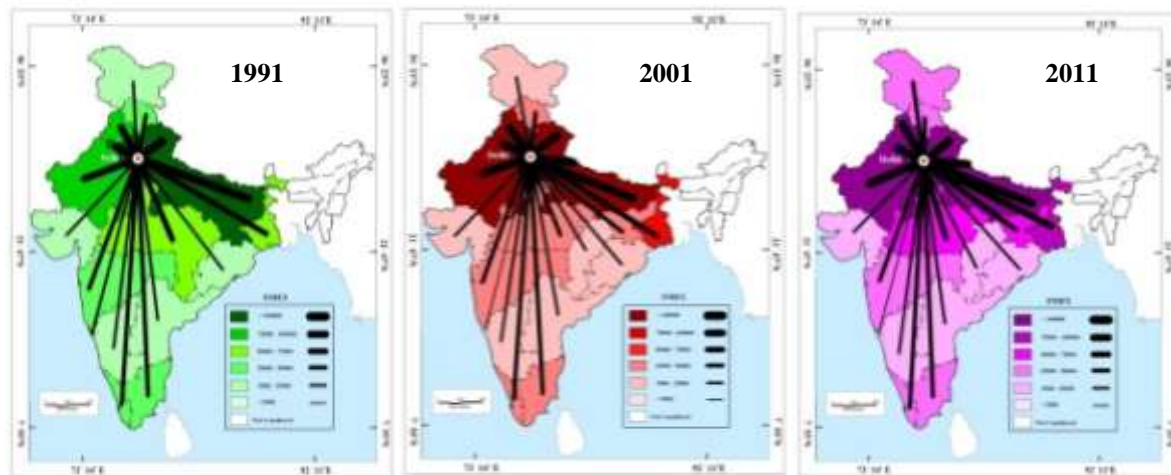
Figure No 1 Locational attribute of the study area

Source: NATMO, 2019

III. Results

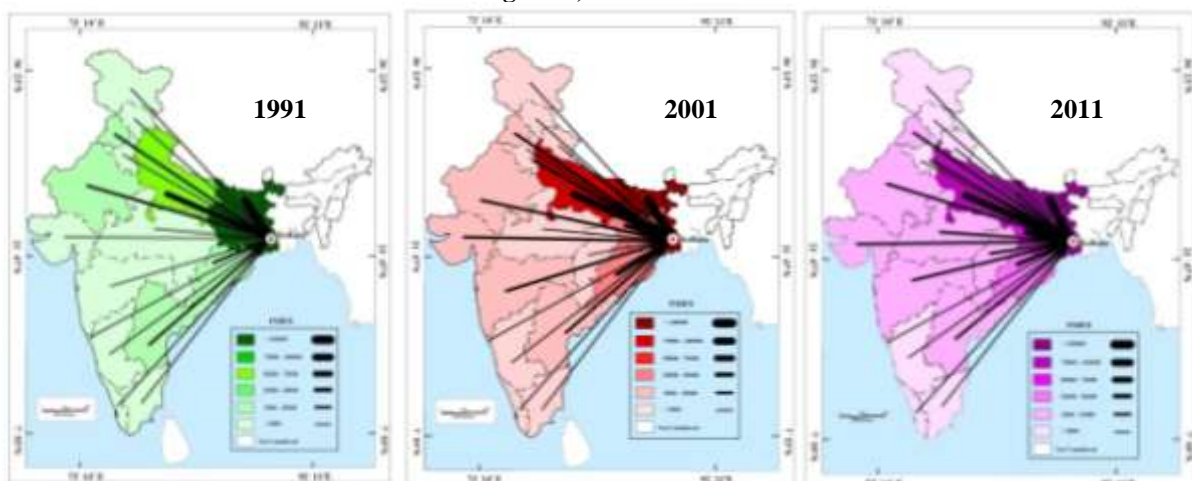
Spatial difference and temporal change analysis

Figure No 2a 2b 2c: Temporal change and spatial difference of female in-migration towards Delhi during 1991, 2001 and 2011



Delhi being the NCR of India attracts large number of migrants from different corners of India. It was the largest destination for female migration among the megacities. Uttar Pradesh alone has contributed 48.61 % of migration in 1991 (Fig 2a) followed by Haryana (14.37 %) and Punjab (8.81 %). Continuous and rapid economic development in and around Delhi has created opportunities for large number of female migrants in both organised and unorganised sectors. The absolute growth rate was 61.85 % in 1991 to 2001 (Table 1). But there was a sharp decline in the growth for the period of 2001-2011 with 35.62 % absolute growth. Except Uttar Pradesh, the share of migrants has declined in Haryana (12.03 %, 12.18 %) and Punjab (5.77 %, 4.45 %) in 2001 (Fig 2b) and 2011 (Fig 2c) respectively. Pressure of over population, saturated job opportunities were some of the reasons behind this declining trend. Besides in 2011, Bihar (14.70 %), West Bengal (2.97 %) and Madhya Pradesh (2.20 %) showed increasing trend of female migration. Delhi absorbed female migrants from far off Indian states like Kerala and Tamil Nadu also.

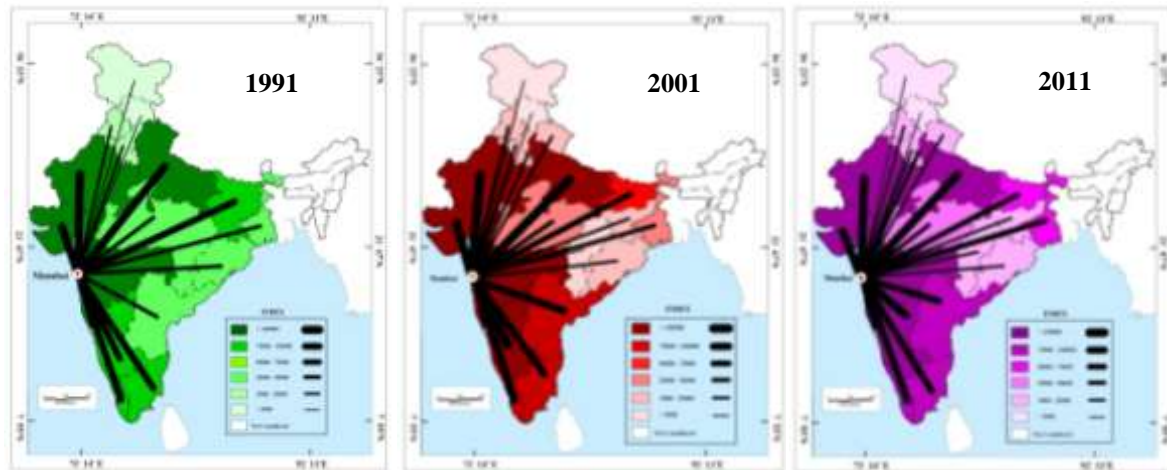
Figure No 3a 3b 3c: Temporal change and spatial difference of female in-migration towards Kolkata during 1991, 2001 and 2011



Kolkata, the former capital and an important port city of India with rich history of economic development provided a range of opportunities for migrants. Bihar (51.73 %) alone had contributed half of the female migrants in 1991 (Fig 3a). But in the next consecutive decades it had a slight declining trend with 46.85% and 50.59 % migrants in 2001 (Fig 3b) and 2011 (Fig 3c) respectively. Bihar, followed by Uttar Pradesh (20.19%) and Odisha (5.26%), were the major contributors of female migrants. The past development of jute, textile, iron and steel, leather and other labour intensive industries provided ample amount of job opportunities for female workers. The cultural and educational heritage of the city has also pulled a considerable number of female migrants. But the recent shut down of several industries, slow growth of economic development and

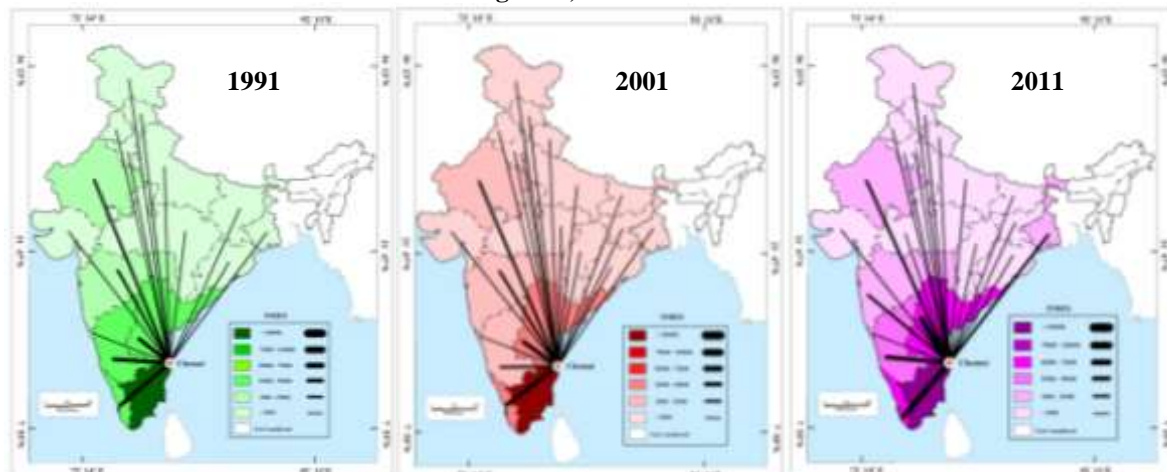
political unrest has negatively affected the opportunities for migrants. It was observed that adjacent states like Bihar, Odisha, Jharkhand and Uttar Pradesh almost shared 80% of the female migrants. But female migration rate has declined from 37.32% in 1991-2001 to 10.60% in 2001-2011 (Table 1). Except Jharkhand, all other states showed a declining trend of female migration towards Kolkata.

Figure No 4a 4b 4c: Temporal change and spatial difference of female in-migration towards Mumbai during 1991, 2001 and 2011



The second largest destination of female migrants among the megacities is the ‘Business City of India’, Mumbai. The most important trading centre of west coast of India received 26.61% of female migrants from Uttar Pradesh, the highest which was preceded by Gujarat (24.49%) and Karnataka (13.36%) in 1991 (Fig 4a). Large scale industries like petrochemicals, textile etc., headquarters of major trading and banking sectors, educational institute has attracted exodus number of skilled labours as well as unskilled labours in unorganised sector like constructional work and other. It was 35.02% female migrants shared by Uttar Pradesh in 2011 (Fig 4c) and 17.03% and 10.05% shared by Gujarat and Karnataka respectively. But the total female migration has declined from 62.55% to 22.28% in the period 1991-2011 (Table 1). The zone of influence of Mumbai in terms of total migration was also affected by distance decay effect like other megacities.

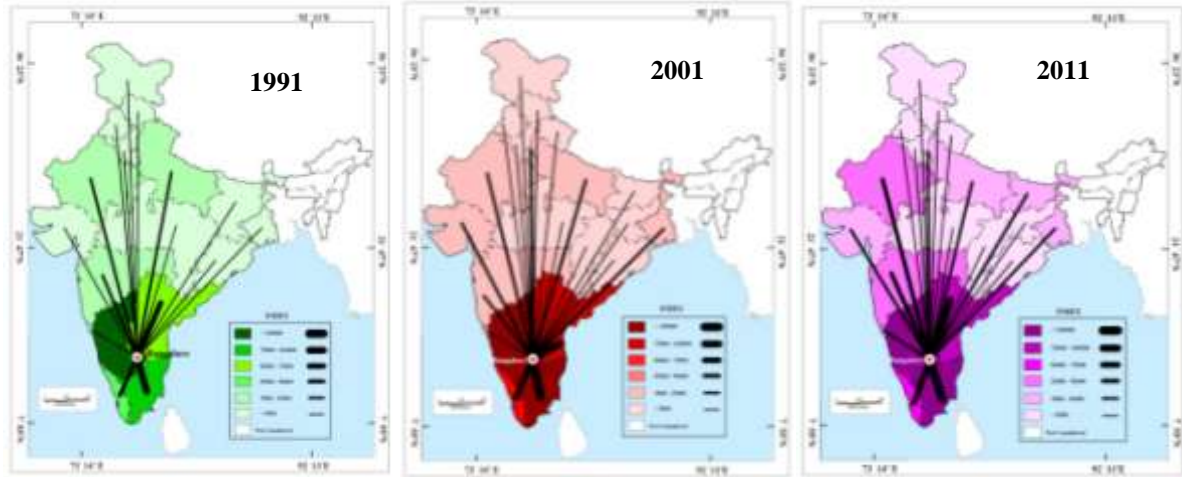
Figure No 5a 5b 5c: Temporal change and spatial difference of female in-migration towards Chennai during 1991, 2001 and 2011



Chennai, ‘The Detroit of India’, a leading automobile industrial hub in the south eastern coast is an obvious choice for skilled and unskilled labours. Besides automobile industry, the port city is rapidly developing as an IT hub that pulled educated and skilled labours from the different segments of India. Kerala with 30.62% female migrant in 1991 (Fig 5a) stood at the top but with the declining trend, the share became 28.07% in 2001 (Fig 5b) and 21.87% in 2011 (Fig 5c). Kerala followed by Andhra Pradesh (29.11%) and Karnataka (12.03%) in 1991 but with increasing trend in female migration, Andhra Pradesh and Karnataka shared 29.14% and 12.62% in 2011 respectively. The total female migration showed a very high decadal growth with 81.57%

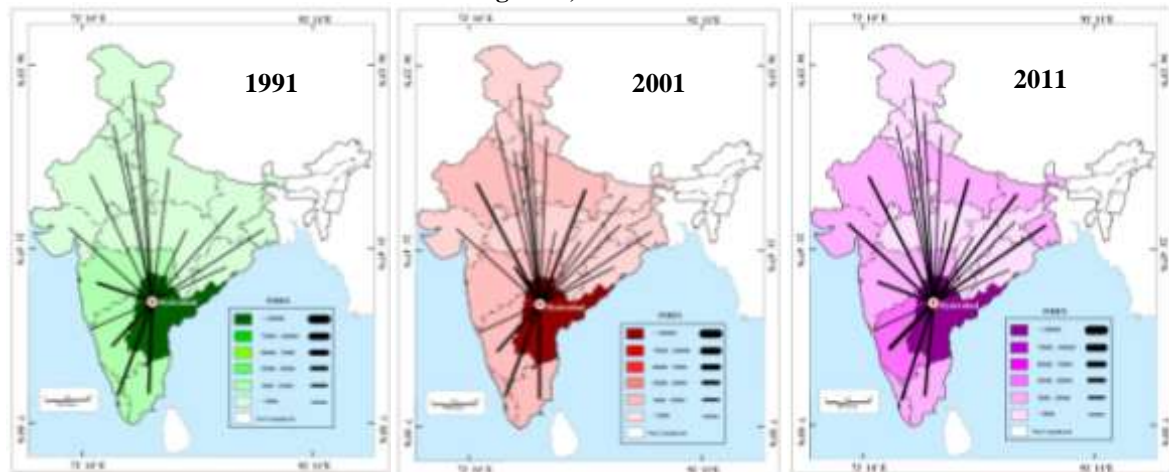
for the period of 2001 to 2011 (Table 1). Adjacent states with high literacy and surplus skilled labours contributed more of female migrants but Chennai had a large zone of influence for female migration.

Figure No 6a 6b 6c: Temporal change and spatial difference of female in-migration towards Bangalore during 1991, 2001 and 2011



The most important information and technology industrial hub of India, commonly known as “The Silicon Valley of India” Bangalore became a highly preferred destination for skilled migrants. The total female migration grew rapidly with 54.98% in the period of 1991-2001 and it became 98.61% in the period of 2001-2011, which was the highest decadal growth in selected megacities (Table 1). Tamil Nadu with 49.36% share of female migrants in 1991 (Fig 6a) stood top in the list but surprisingly showed a declining trend. It was 43.64% and 35.49% in 2001 (Fig 6b) and 2011 (Fig 6c) respectively. Karnataka and Kerala were the next two highest contributing states with 17.47% and 13.82% in 1991. But a contrasting trend was seen where Karnataka showed a stable growth, whereas Kerala showed a slow decline in the share of female migrants. But the most striking fact is that all other states irrespective of their distance from Bengaluru, shared an ever increasing female in-migration.

Figure No 7a 7b 7c: Temporal change and spatial difference of female in-migration towards Hyderabad during 1991, 2001 and 2011



The ‘City of Pearls’, Hyderabad is an important port city with rich trading heritage in the 19th century. But it was the least preferred destination for female migrants in the selected megacities of India. The decadal change in female migration of the city was 1.59% in the period of 1991 to 2001. The recent development in biotechnology and pharmaceuticals, technological parks and educational industries, the inflow of female migrants took a rapid increase with 58.48% in the period of 2001-2011 (Table 1). Karnataka was the highest contributing states with 23.40% in 1991 (Fig 7a) and with a stable increase; the share became 23.77% in 2011 (Fig 7c). Maharashtra and Tamil Nadu were the next two highest contributing states with 19.24% and 15.79% share in 1991, but both showed declining trend with 17.29% and 10.23% in 2011 respectively. A negative

correlation of the distance-decay effect was observed as female migration from Rajasthan, Uttar Pradesh, Odisha, Bihar and West Bengal was on the rise in the last decade.

Table No 1 Growth rate of in-migration to the selected megacities during 1991 to 2011

Megacities	Census Years			Absolute Growth Rate		Compound Growth Rate	
	1991	2001	2011	1991-2001	2001-2011	1991-2001	2001-2011
Delhi	13,37,198	21,64,233	29,35,094	61.85	35.62	4.93	3.09
Mumbai	9,73,397	15,82,275	19,34,790	62.55	22.28	4.98	2.03
Kolkata	2,99,425	4,11,165	4,54,733	37.32	10.6	3.22	1.01
Hyderabad	1,04,129	1,05,783	1,67,650	1.59	58.48	0.16	4.71
Chennai	1,64,875	1,45,307	2,63,831	-11.87	81.57	-1.26	6.15
Bangalore	2,33,730	3,62,227	7,19,429	54.98	98.61	4.48	7.1

Source: Computed by the author from Census of India, 1991, 2001, 2011

Causes of Female Migration

Females in our country migrate due to various factors of which marriage and moving with the household is dominant. Migrating due to work, to pursue higher education, for business network, to establish political career, and even for solo travelling, a substantial number of women have stepped out of their homes (Desai and Thakkar, 2001). According to a recently released 2011 census, 47% of India's total migration is due to marriage, of which 98% is female. For this reason, every year many girls, especially in rural areas, drop out of school and work, due to marriage. A quantitative change has been observed lately where the female dropouts from school have decreased resulting in higher percentage of female literates in few pockets of India. This is due to various central and state government schemes specially designed for the girl child.

A correlation matrix is an array of numerical values that examines one univariate and gives another variable correlation coefficient. The correlation coefficient between a variable and itself is 1, so the main diagonal of the correlation matrix contains 1s (Light black colour line in Table-2).

Table No 2 Correlation Matrix^a

Variables		Marriage	Moved with household	Business	Education	Moved after birth	Employment
Correlation	Marriage	1.000	.033	-.587	-.450	.208	-.577
	Moved with household	.033	1.000	-.297	-.332	-.750	-.227
	Business	-.587	-.297	1.000	.309	-.078	.715
	Education	-.450	-.332	.309	1.000	.090	.790
	Moved after birth	.208	-.750	-.078	.090	1.000	.037
	Employment	-.577	-.227	.715	.790	.037	1.000

a. Determinant = .006

Kaiser-Meyer-Olkin (KMO) measures sampling adequacy which should be close to 0.5 for satisfactory factor analysis. Kaiser (1974) recommended a KMO value of 0.5 as a minimum which is rarely acceptable, a KMO value between 0.7-0.8 is acceptable and a KMO value greater than 0.9 is very good. The table-3 below shows the KMO value of 0.778 which falls between 0.7-0.8. That is, the value is acceptable.

Table No 3 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.778
Bartlett's Test of Sphericity	Approx. Chi-Square	41.920
	Df	15
	Sig.	.000

Bartlett's test is another indicator that highlights the strong relationship between variables. This makes the null hypothesis that the correlation matrix is an identity matrix. Identity matrix is a type of matrix where all diagonal elements are 1 and off diagonal elements are close to zero (Table 2). Table – 3 shows that the value of Bartlett's test is 0.000 which means that the null hypothesis cannot be accepted. It can be said that the

correlation matrix is not an identity matrix. In this study, the value of KMO is more than 0.5 and the value of Bartlett's test is less than 0.05 which means that the data is suitable for factor analysis.

Table No 4 Communalities

Variables	Initial	Extraction
Marriage	1.000	.687
Moved with household	1.000	.883
Business	1.000	.648
Education	1.000	.628
Moved after birth	1.000	.894
Employment	1.000	.872

Extraction Method: Principal Component Analysis

Amount of variance of the variables is accounted for by the extracted factors in factor analysis which is represented by the communalities. For the next step of factor analysis, the value of communalities should be greater than 0.5. Table – 4 shows that 89.4% of the variance in moved after birth is accounted for by the extracted factors and 62.8% of the variance in education is accounted for by the extracted factors.

TableNo 5 Total variances explained, initial Eigenvalues, extracted factors and rotated factors

Component	Initial Eigen Values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.847	47.452	47.452	2.847	47.452	47.452	2.781	46.346	46.346
2	1.765	29.419	76.871	1.765	29.419	76.871	1.832	30.525	76.871
3	.712	11.874	88.745						
4	.420	7.002	95.747						
5	.239	3.979	99.726						
6	.016	.274	100.000						

Extraction Method : Principal Component Analysis

The initial Eigenvalues and extraction sums of squared loadings have been considered from table – 5 to explain the cause of female migration in India. The initial Eigen value of more than 1 is required to identify the causes or factors among the selected variables. It can be seen that the initial Eigenvalue values of the first component and the second component are 2.847 and 1.765 respectively which are greater than 1. On the other hand, the percentage of variance of extraction sums of squared loadings shows that component-1 accounts for 47.452% of the variance among the selected variables and component-2 accounts for 29.419%. Among the selected six factors, these two components i.e. marriage (component-1) and moved with household (component-2) are playing an important role for female migration in India. These two factors together accounted for 76.871% of the variance in the selected variables for female migration.

IV. Discussions

Regional development in India was elevated mostly under the influence of new economic era in the late 20th century. Liberalization, privatization and globalization as a tripod opened up economic opportunities across the country. Various government and non-government institutions at various capacity extended job opportunities irrespective of education level, gender and caste discrimination, and technological knowhow. The situation led to unrestricted influx of rural semi skilled illiterate marginal workers in urban areas mostly in the top megacities like Mumbai Delhi and Kolkata in order to ensure an employment status. Development in transportation through rail and road network teamed with communication network through electronic media influenced women along with men to venture beyond their short term migration route and destinations. Eventually with improvement in communication technology safety and security issues of the women outside home were also effectively addressed. In 2001 government of India launched the Golden Quadrilateral National Highway which connects the top four Indian megacities along with North-South-East-West corridor project that changed the transport scenario of the entire country. Delhi as the capital city, Mumbai as the commercial hub, Kolkata as the cultural centre, Bangalore and Hyderabad as the Information technology region attracted huge number of job aspirants from rural India. But significantly marriage remained the dominant cause for women to migrate in the country. Business, attaining higher education, moving with household etc. are the major causes for women to migrate

over long distance. Women from the most densely populated states like Uttar Pradesh, Bihar, and West Bengal continued to migrate in large numbers both seasonally and permanently. During the early 21st century the trend continued intensively and the focus shifted from Delhi-Mumbai-Kolkata to Delhi-Mumbai-Bangalore. Kolkata and Chennai gradually became less attractive due to declining job opportunities and poor economic growth. Central Indian states like Madhya Pradesh, Chhattisgarh remained outside the threshold of the service area of these megacities. Regional imbalance in terms of economic growth, urban infrastructure, Industrialization is major concerns that hinder female migration to certain pockets of the country. Empowered women from across the country have catered to idea of social capital. Women working in organized and unorganized sectors have contributed towards improving the education status of the younger generation. They help fight demographic issues and have reflected significant changes such as improvement in sex ratio, reduced infant mortality rate, delayed age of marriage, control over teenage pregnancies etc, which has eventually raised the status of the women in the country.

V. Conclusion

The female migrants as per the analysis have out-migrated from the source area to the destination area. However, metropolises have always been a centre of attraction as they have a profound resource base coupled with several facilities. Female migration from north Indian states of India is on the rise due to the improvement of status of women in the aforesaid region. Educational opportunities, employment opportunities, social security have laid the foundation for females to migrate. With the modernisation and increase in social security, high salaried jobs in multinational companies, significant position in concerned organizations have been lucrative for the female population. However, one must remember, that Indian females are just like water tight compartments. They often have to manage both personal and professional ethos and thus migratory movements mostly depends upon the immediate micro circumstances that has been imbibed within them. Migration amongst women has become a popular option with every passing day due to improvement in educational standards, quality of life, and equal opportunities. This has acted as an impetus and has boosted confidence amongst women.

References

- [1]. Agesa, J. and Agesa, R. U. (1999). Gender Differences in the Incidence of Rural to Urban Migration: Evidence from Kenya. *The Journal of Development Studies*, 35(6): 36-58
- [2]. Bang, J. and Mitra, A. (2011): Gender bias and the female brain drain, *Applied Economics Letters*, 18(9): 289-833
- [3]. Bello-Bravo, J. (2015). Rural-Urban migration: A path for empowering women through entrepreneurial activities in West Africa. *Journal of Global Entrepreneurship Research*. 5, 9. <https://doi.org/10.1186/s40497-015-0027-6>
- [4]. Baudasse, T. and Bazillier, R. (2014). Gender Inequality and Emigration: Push factor or Selection process? *International Economics*, 139 (1): 1-32
- [5]. Berhanu, B. and White, M. (2000). War, Famine, and Female Migration in Ethiopia, 1960–1989, *Economic Development and Cultural Change*, 49(1):91-113
- [6]. Bhagat, R.B. (2008). Assessing the Measurement of Internal Migration in India. *Asian and Pacific Journal of Migration*, 17(1): 91-102 <https://doi.org/10.1177/011719680801700105>
- [7]. Bhagat, R.B. (2010): Internal migration in India: Are the underprivileged migrating more? *Asia Pacific Population Journal*, 25 (1): 31–49.
- [8]. Bhagat, R.B. (2016). Changing pattern of internal migration in India. In C.Z. Guilmoto and G.W. Jones (Eds.), *Contemporary demographic transformation in China, India and Indonesia*. 239-254. <https://doi.org/10.1007/978-3-319-24783-0>
- [9]. Biswas, R. K., Kabir, E. and Khan, H. T. A. (2019). Causes of Urban Migration in Bangladesh: Evidence from the Urban Health Survey. *Population Research and Policy Review*. 38: 593 – 614. <https://doi.org/10.1007/s11113-019-09532-3>
- [10]. Boyle, P., Cooke, T.J., Halfacree, K., & Smith, D. (2001). A cross-national comparison of the impact of family migration on women's employment status. *Demography*, 38 (2): 201–213. doi: <https://doi.org/10.1353/dem.2001.0012>
- [11]. Census of India. (1991) Data Highlights: Migration Tables. D-3 series. New Delhi: Office of the Registrar General and Census Commissioner. Accessed on 30 October 2019 <https://censusindia.gov.in/DigitalLibrary/MFTableSeries.aspx>
- [12]. Census of India. (2001) Data Highlights: Migration Tables. D-3 series. New Delhi: Office of the Registrar General and Census Commissioner. Accessed on 30 October 2019 <https://censusindia.gov.in/DigitalLibrary/MFTableSeries.aspx>
- [13]. Census of India. (2011) Data Highlights: Migration Tables. D-3 series. New Delhi: Office of the Registrar General and Census Commissioner. Accessed on 30 October 2019 <https://censusindia.gov.in/DigitalLibrary/MFTableSeries.aspx>
- [14]. Cerrutti, M. and Massey, D. S. (2001). On the auspices of female migration to the United States. *Demography*. 38: 187–200. <https://doi.org/10.1353/dem.2001.0013>
- [15]. Chandrasekhar, S. (2011). Workers commuting between the rural and urban: estimates from NSSO Data, *Economic and Political Weekly*, 46 (46): 22–25.
- [16]. Conell, John (1984). Status on subjugal women Migration and Development in the South Pacific. *International Migration Review*, 18 (4): 966.
- [17]. Cortes, P. (2015). The Feminization of International Migration and its Effects on the Children Left Behind: Evidence from the Philippines, *World Development*, 65: 62–78
- [18]. Desai, N., and Thakkar, U. (2001). Women in Indian Society. *National Book Trust*. India. ISBN 978-81-237-3677-8
- [19]. Dey, F. and Modak, S. (2015). “Crime against Women in Kolkata: A Spatial Difference and Temporal Change Analysis.” *International Journal of Science, Environment and Technology*, 4(4): 1139 – 1152. ISSN: 2278-3687 (O) and 2277-663X (P)
- [20]. Donato, K. M. (1993). Current Trends and Patterns of Female Migration: Evidence from Mexico. *The International Migration Review*, 27(4), 748–771. <https://doi.org/10.2307/2546911>
- [21]. Docquier, F., Marfouk, A., Salomone, S., and Sekkat, K. (2012). Are Skilled Women More Migratory than Skilled Men? *World Development*, 40(2): 251-265

- [22]. Ferrant, G. and Tuccio, M. (2015). South–South Migration and Discrimination against Women in Social Institutions: A Two-way Relationship, *World Development*, 72: 240-254
- [23]. Keshri, K. and Bhagat, R.B. (2012). Temporary and seasonal migration: regional patterns, characteristics and associated factors, *Economic and Political Weekly*, 47 (4): 81–88.
- [24]. Kofman, E. (2000). The invisibility of skilled female migrants and gender relations in studies of skilled migration in Europe. *Population, Space and Place*. 6(1): 45 – 59.
- [25]. Kofman, E. and Raghuram, P. (2022). Gender and Migration. In: Scholten, P. (eds) *Introduction to Migration Studies*. IMISCOE Research Series. Springer. Cham.
- [26]. Kone, L.Z., Maggie, Y.L., Mattoo, A., Ozden, C., & Sharma, S. (2018). Internal borders and migration in India. *Journal of Economic Geography*, 18(4): 729-759. <https://doi.org/10.1093/jeg/lbx045>
- [27]. Lutz, H. (2010). Gender in the migratory process. *Journal of Ethnic and Migration Studies*. 36(10): 1647 – 1663
- [28]. Mahapatra, S.R. (2010). Patterns and determinants of female migration in India: insights from census. Working paper series, *Institute for Social and Economic Change* (246), retrieved from <http://www.iseac.ac.in/WP%20246%20-%20Sandhya.pdf>
- [29]. National Atlas and Thematic Mapping Organization (2019). Selected Megacities of India. Govt. of India
- [30]. National Sample Survey Office (NSSO) (2001). Migration in India 1999–2000, Ministry of Statistics and Programme Implementation, Government of India, New Delhi. Retrieved from https://mospi.gov.in/sites/default/files/publication_reports/470_final.pdf
- [31]. National Sample Survey Office (NSSO) (2010). Migration in India 2007–08, Ministry of Statistics and Programme Implementation, Government of India, New Delhi. Retrieved from https://www.mospi.gov.in/sites/default/files/publication_reports/533_final.pdf
- [32]. Raghuram, P. (2008). Migrant women in male-dominated sectors of the labour market: A research agenda. *Population, Space and Place*. 14(1): 43 – 57
- [33]. Ruysen, I. and Salomone, S. (2018). Female migration: A way out of discrimination?., *Journal of Development Economics*, 130: 224-241
- [34]. Shanti, K (1991). Issues relating to economic migration of females. *The Indian journal of labour Economics*, 34 (4): 335-46
- [35]. Sharp, M. (2021). The labour market impacts of female internal migration: Evidence from the end of Apartheid, *Regional Science and Urban Economics*, Elsevier, 91. <https://doi.org/10.1016/j.regsciurbeco.2020.10362>
- [36]. Singh, A M (1984). Rural to Urban migration of women in India: Patterns and Implications. In J T Fawcett et al (eds), *Women in the Cities of South Asia: Migration and Urban Adaptation*. Boulder, Colorado: West view press.
- [37]. Singh, T. and Singh, J. (2016). Female Migration in India. *International Journal of Multidisciplinary Research Centre*, 2(4), 54-62. Retrieved from https://www.researchgate.net/publication/322764657_FEMALE_MIGRATION_IN_INDIA
- [38]. Sultana, H. and Fatima, A. (2017). Factors influencing migration of female workers: a case of Bangladesh. *IZA Journal of Development and Migration*. 7, 4. <https://doi.org/10.1186/s40176-017-0090-6>
- [39]. Vause, S. and Toma, S. (2015). Is the feminization of international migration really on the rise? The case of flows from the Democratic Republic of Congo and Senegal. *Population*. 70(1): 29 – 63