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Editorial Note

This issue of Population Geography is dedicated to the research accomplished by young and budding Geographers of India. The quality of their work in the field of Population Geography is duly acknowledged. Covering diverse themes, the five papers included in this issue, have been contributed by those who are either working as Assistant Professors in the university system or are aspiring for such positions. The Editorial Board of Population Geography and the Executive Committee of the Association of Population Geographers of India (APGI) reaffirm their resolve to encourage the young and promising geographers from India and abroad for publishing their good quality research in Population Geography.

The research themes explored in these five papers offer a great variety. A special note is taken of the sub-regional level inequalities in child and maternal health care services. Social infrastructure development is covered by another paper. The differentials in socio-economic transformation of different sub-castes within the broad category of scheduled caste population by another paper generate a great interest. The role of language in social integration, with a case study of Bengali community, is also highlighted by a study. The seasonal and temporary migration of rural male working force forms the subject matter of still another paper. These papers span over four different states of Rajasthan, Madhya Pradesh, Punjab, and West Bengal, and the National Capital Territory of Delhi.

The traditional as well as modern techniques of data analysis and interpretation have been put into service by the authors. The findings of these studies are worthy of special attention. These are to be noted for their applied value.

Finally, a word about the Map Series, a regular feature of Population Geography journal. This time it highlights the spread of Hindi speaking people outside the Hindi-zone. A notable revelation is that the number of Hindi speaking people in the South Indian states is eight times of that of the speakers of Dravidian languages in the Hindi Zone. This is contrary to a popular perception. Indeed economic compulsions carry forceful impulsions to pave their way through linguistic barriers.

Surya Kant
Editor

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LEVELS OF MATERNAL AND CHILD HEALTH CARE IN RAJASTHAN: A DISTRICT-LEVEL ANALYSIS

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Abstract: The paper examines inequalities in the level of maternal and child health care in Rajasthan at the district level. Using data available from various secondary sources including *Statistical Yearbook of Rajasthan*, *National Family Health Survey*, *Annual Health Survey,* and *Census of India, 2011*, the study picked up twelve indicators of maternal and child health and prepared a composite index with the help of Z-score method to conclude that there are wide inter-district inequalities in the level of maternal and child health care in the state.

Apart from geo-physical and social factors, the role of female education, and awareness emerged as an important factor in this context. In addition, *Janani Suraksha Yojana*, a central government sponsored scheme under the National Health Mission, has been responsible not only for encouraging institutional deliveries, for cash incentives attached with it, but also in creating maternal and child health care infrastructure in several districts of the state. While more urbanized and higher female education districts such as Kota, Jaipur, Ajmer, Sikar, and Jhunjhunun districts displayed a high level of maternal and child health, the reverse was true for hill tribal and desert districts of Banswara, Dungarpur, Chittaurgarh, Jalor, Jaisalmer, Barmer, and Karauli districts.

Keywords: Antenatal Care, Institutional delivery, Anaemia, Infant Mortality Rate, Maternal Mortality Ratio, Total Fertility Rate.

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Introduction

Notwithstanding the efforts made by various government and non-government agencies, maternal and child health care remains a challenging task of the healthcare delivery system in the world, especially in the low and middle-income group of countries. The global consensus relating to maternal and child health was outlined in 2000 in the form of the Millennium Development Goals (MDGs), and then as the Sustainable Development Goals (SDGs) in 2015 (see UN, 2015).

The pregnancy and childbirth are considered as the special events in the life of a woman. However, this is the period when she is more vulnerable to morbidity and mortality. Both the mother and the child constitute a vulnerable group or special risk group in a community. This is more so with those residing in the rural, hill tribal, and desert areas, where the access to healthcare is constrained by a variety of factors linked with geography, ecology, economic, sociology and governance of such places. In areas with a vast population and relatively scarce resources, the women remain all the more marginalized. India is one of such country, where women are treated like natural resources such as water, air and land. (Mies, 1988).

India is amongst among the countries having high Maternal Mortality Ratio (MMR). The impact of the kinship system and patriarchy on fertility and female status is also conditioned by some other factors like social ethos and economic development (Gill, 2013). India has, however, experienced a considerable improvement in maternal and child health care since the millennium declaration of 2000. Nonetheless, inequalities in these services still persist across the states and the districts within the states (Mohapatra and Gomare, 2019).

There are alarming statistical figures relating to women and child health in India. It is revealed that every seven minutes, an Indian woman dies from complications related to pregnancy and childbirth. Most of the causes of maternal deaths are well known, and are largely preventable if the access to and utilization of available maternal health services is increased (Kumar, *et al*, 2018). The four factors of Availability, accessibility, acceptability and affordability of maternal services are essential to reduce maternal mortality as well as morbidity (Singhal, 2015). The MMRs vary across the states, with the large north Indian states contributing a disproportionately large share in deaths. Uttar Pradesh and Rajasthan, for example, have high rates of fertility and maternal mortality while Kerala and Tamil Nadu have low rates, comparable with middle-income countries. The geographical vastness and socio-cultural diversity of India contribute to such differentials. The status of women is generally low in India, except in the southern and north-eastern states (Vora *et al*, 2009).

Urban-rural inequalities in health care services are glaring in India. Moreover, there are sharp urban to urban and rural to rural areas disparities in almost all the states (Suman and Bhutani, 2017). This is further compounded by the significant disparity in the usage of maternal and child healthcare services across the districts of India (Awasthi *et al*, 2016). The eight socio-economically backward states of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttaranchal, and Uttar Pradesh, referred to as the Empowered Action Group (EAG) states, lag behind in the demographic development, having the highest level of infant mortality rate in the country. Neonatal mortality constitutes about 60.0 per cent in total infant mortality in India, being the highest in the EAG states (Arokiasamy and Gautam, 2008).

Rajasthan, the largest area sized state of India (Fig.1), has varied physical and socio-cultural settings. In terms of relief, the state has a vast sea of sand and dunes in the west, the Aravalli hills in the centre, plains in the north and east and the plateau in the south-east part (Saxena, 2018). Administratively, the state is currently divided into 33 districts, varying widely not only in areas and population sizes but also along with socio-economic development. The northern part is characterized by commercial grain farming with a high concentration of scheduled castes population (mostly agricultural labourers) in contrast southern and south-eastern parts having a high concentration of scheduled tribes. In 2011, the shares of scheduled castes and scheduled tribes in the state were 17.8 per cent and 13.5 per cent (2011), respectively. In other words, roughly one-third of the population is composed of schedule population (castes/tribes). Given the topographic settings of the state, the accessibility to health care facilities in general and maternal and child care, in particular, is limited.

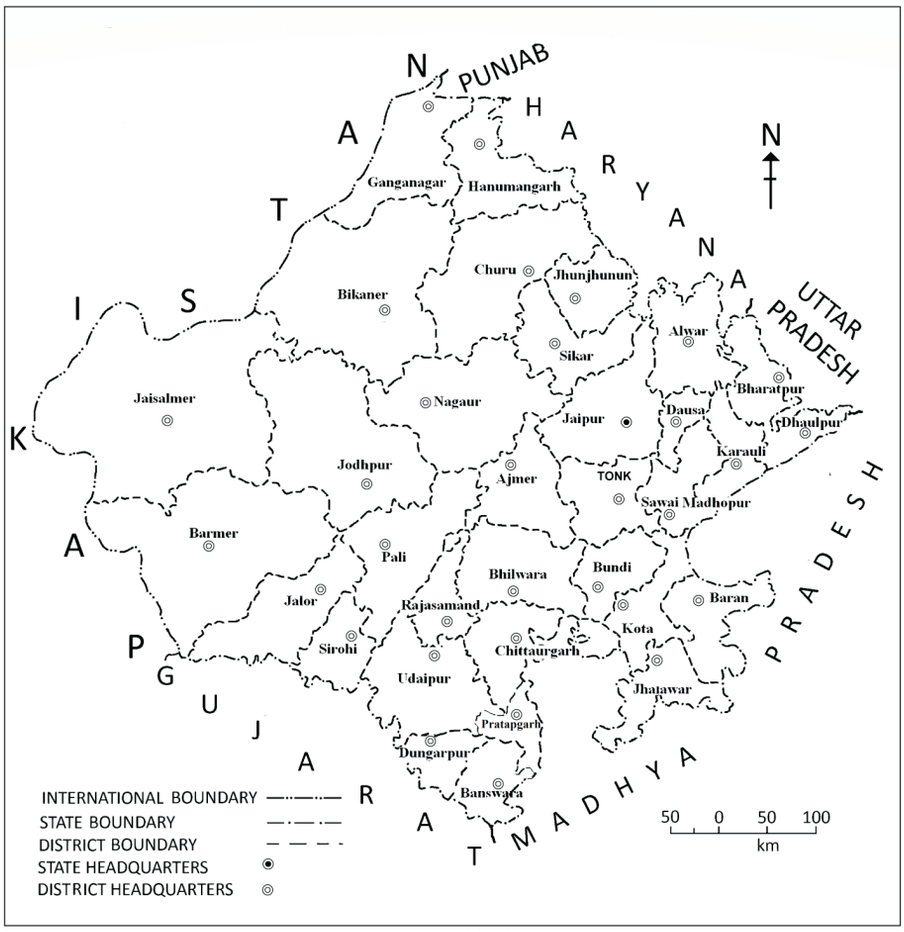

FIG. 1

Salient demographic characteristics of the state include population increase of 21.3 per cent during the latest census decade (2001-11), child sex ratio (0-6 years) of 888 females per thousand males, female literacy of 52.1 per cent, and the gender gap in literacy of 27.1 per cent. NFHS-4 reveals that 84.0 per cent of total deliveries are institutional with a TFR of 2.4. According to sample registration survey of 2012-13, the infant mortality rate is 55 and the maternal mortality ratio 199 per lakh live births (India: 167). If the demographic development is to be defined as an improvement in the quality of the population in a given area (Kant, 1990), Rajasthan state is at the low level of its development.

Taking a cue from the above statements, the present paper attempts to examine the maternal and child health care services in the state of Rajasthan in the light of the following objectives.

Objectives

The present study has the following objectives. It intends to-

1. Study the existing pattern of maternal and child health care in Rajasthan and to provide suggestions to improve maternal and child health in the state.
2. Identify the level of maternal and child health care at the district level and existing disparities therein, and
3. Examine the factors working behind such inequalities in levels of maternal and child health.

Materials and methods

The study is mainly based on secondary data collected from *Statistical Yearbook of Rajasthan, 2018*, *National Family Health Survey-4 (NFHS-4)*, *Annual Health Survey 2012-13* and *Census of India, 2011*.

A total of 12 indicators have been picked up to study the level of maternal and child health at the district level (Table 1). The ten of the 12 indicators used in the present study are those have already been by the National Family Health-4 to assess the level of maternal and child health at the national level. The National Family Health Survey (NFHS) of India is one of the most extensive surveys conducted in the world to collect data/information on population and health parameters.

In selection of these indicators, an attempt has been to capture the major dimensions of maternal and child health in the study area. However, the study makes no claim of preparing an all-inclusive list of indicators in this context. The absolute value of these indicators is presented in Appendix-I. A modified form of the Z-Score method, previously used by Bhatia and Rai (2004), has been pressed into service to prepare the index for individual indicator and also the composite index in levels of maternal and child health at the district level.

Table 1: List of indicators used to measure levels of maternal and child health care

X_1	Institutional deliveries to total births in past five years (in %)	X_7	% of women having any anaemia to women aged 15-49 yrs.
X_2	Vaccination coverage (% of children of 12-23 months receiving vaccinations to total children)	X_8	% of women with BMI <18.5 (total thin) to women aged 15-49
X_3	% of women having four or more Antenatal Care visits to total women with live birth in the five years preceding to survey	X_9	% of women with BMI ≥25.0 (overweight or obese) to women aged 15-49
X_4	% of women receiving two or more TT injections during the pregnancy (for most recent live birth)	X_{10}	Infant Mortality Rate
X_5	% of women taking Iron and Folic Acid (IFA) for at least 100days during pregnancy	X_{11}	Maternal Mortality Ratio (MMR)
X_6	% of children having any anaemia to total children in 6-59 months age	X_{12}	Total Fertility Rate

Source: Annual Health Survey (AHS), 2012-13 for indicator no. X_{10}, Sample Registration Survey, 2015-17 for indicator no. X_{11}, and National Family Health Survey (NFHS-4), 2015-16 for the remaining

The methodological steps have been illustrated through the following example:

Let $[X_{ij}]$ be the data matrix

where, i = 1, 2, . . . n (number of areal units) and
j = 1, 2, . . . k (number of indicators)

Since $[X_{ij}]$ come from different population distributions and they might be recorded in different units of measurement, they are not quite suitable for simple addition to obtain the composite index. Therefore, $[X_{ij}]$ is transformed to $[Z_{ij}]$ as follows:

$$[Z_{ij}] = \frac{X_{ij} - \bar{X}_j}{S_j}$$

where, $\bar{X}_j$ = mean of the j^{th} indicator
S_j = standard deviation of the j^{th} indicator
$[Z_{ij}]$ = the matrix of standardized indicators

From $[Z_{ij}]$ the best value of each indicator has been identified as Z_{oj}. The best value will be either maximum/minimum value of the concerned indicator depending upon the direction of the impact of indicator on the level of development. For obtaining the pattern of development, P_{ij} has been computed as follows.

$$P_{ij} = (Z_{ij} - Z_{oj})^2$$

The level of development C_i is obtained as

$$C_i = [\sum_{j=1}^{k} P_{ij}/(C.V.)_j]^{1/2}$$

Where $(C.V.)_j$ is the coefficient of variation of the j^{th} indicator in X_i.
Composite index D_i is computed as

$$D_i = C_i/C$$

where, i = 1, 2, . . . n and $C = \bar{C} + 3S_i$

($\bar{C}$ = Mean of C_i and S_i = Standard Deviation of C_i)

It may be noted here that the small value of D_i will indicate to a high level of development whereas the high value of D_i will indicate a low level of development. Finally, for classifying the districts in various categories ranging from 'very low' to 'very high' level of development, a suitable fractile classification of districts from the assumed distribution of mean of the composite indices have been made as follows:

Composite Index Value	Development Level
≤ Mean- S.D.	Very high
(Mean - S.D.) to Mean	High
Mean to (Mean + S.D.)	Moderate
(Mean + S.D.) to (Mean + 2S.D.)	Low
> Mean + 2S.D.	Very Low

Discussion and results

The composite index of maternal and child health care involved with the use of above-listed indicators and using Z-score method for all the thirty-three districts in the state differ widely. The index value ranged from 0.36 for Jhunjhunun district, bordering Haryana state, to 0.97 for Barmer district, falling along the international border with Pakistan. Twelve of 33 districts in the state have this value higher than 0.60 and the four districts of Udaipur, Jalor, Jaisalmer and Barmer have this value more than double of the lowest value district of Jhunjhunun. It is to be noted here that lower the index value for a district higher the level of maternal and child health care there and vice versa. In other words, Jhunjhunun district has the highest and Barmer district, the lowest level of maternal and child health care in the state. On the basis of the composite index value, thirty-three districts in the state have been classified into three categories:

A. High level of maternal and child health (index value <0.50)

B. Moderate level of maternal and child health (index value 0.50-0.60)

C. Low level of maternal and child health (index value >0.60)

A. High level (index value less than 0.50)

Nine districts making less than one-third in total thirty-three districts in the state recorded high level of maternal and child health care. The index value ranged from a minimum of 0.36 for Jhunjhunun district to a maximum of 0.49 for Tonk district. In other words, among these nine districts maternal and child health care was of the highest quality in Jhunjhunun district and of the lowest quality in Tonk district. Other districts in this category included Jaipur, Kota, Ganganagar, Sikar, Hanumangarh, Ajmer and Churu districts (Table 2 and Fig. 2). All these districts are relatively more urbanized and female literacy rate is also high. For example, Kota district has not only the highest female literacy rate of 66.3 per cent but also the highest level of urbanization (52.1 per cent) in the entire state. Kota's infant mortality rate (IMR) of 36 is the lowest in the state. Jhunjhunun district has the highest literacy rate in the entire state. Jaipur district having state capital headquarters of the state is also not far behind on this count. Sikar district has the highest availability of health care facilities (31.4 health institutions per lakh population). In dunes occupied Churu district road connectivity of villages facilitate the utilization of maternal and child care facilities. Easy accessibility of rural population to health care facilities resulted in a high level of maternal and child health in this district. Ganganagar and Hanumangarh, the two commercial agriculture districts, have high level of maternal and child health care facilities.

Table 2: Classification of districts according to level of maternal and child health care in Rajasthan	
Level	**Name of District**
High (< 0.50)	Jhunjhunun (0.36), Jaipur 0.39), Kota (0.40), Sikar (0.41), Ganganagar (0.41), Hanumangarh (0.42), Ajmer (0.45), Churu (0.45), and Tonk (0.49) **Total=9**
Moderate (0.50-0.60)	Bikaner (0.50), Pali (0.50), Nagaur (0.52), Dausa (0.52), Baran (0.53), Jhalawar (0.53) , Alwar (0.54), Bhilwara (0.56), Pratapgarh (0.56), Jodhpur (0.56), Bharatpur (0.57), and Rajsamand (0.59) **Total=12**
Low (0.72-0.85)	Bundi (0.62), Dhaulpur (0.65), Chittaurgarh (0.65), Sirohi (0.65), Banswara (0.66), Dungarpur (0.68), Karauli (0.70), Sawai Madhopur (0.71), Udaipur (0.77), Jalor (0.82), Jaisalmer (0.83), and Barmer (0.97) **Total=12**

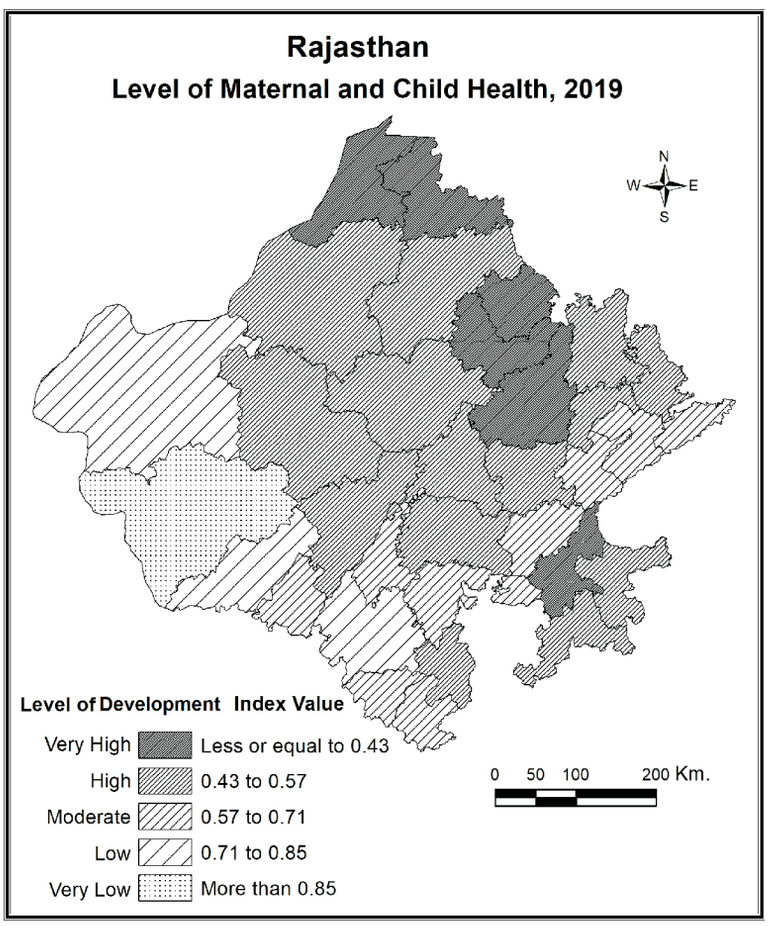

FIG.2

A number of studies confirm the significant role of female education in creating awareness about women health, better knowledge of the availability, use, and access to maternal health care services (see Navneetham et al, 2002; Pallikadavath et al, 2004). On the

other hand, urban living increases the likelihood of institutional delivery and assistance during delivery (see Govindasamy and Ramesh, 1997; Bhatia and Cleland, 1995).

In the present study, female literacy and urbanization find strong positive association with composite index value of maternal and child health at the district level (r=0.77), enforcing the role of female literacy in maternal and child health.

B. Moderate level (index value 0.50-0.60)

Another twelve districts, making more than one-third of total districts in the state, fall in moderate category of maternal and child health care. The index value ranged from a low of 0.50 for Bikaner district to a high of 0.59 for Rajsamand district (Table 2). In other words, Bikaner was at the top and Rajsamand at the bottom in maternal and child health care in this category of districts. Other districts included in this category are Pali, Dausa, Nagaur, Baran, Jhalawar, Alwar, Bhilwara, Jodhpur, Pratapgarh, and Bharatpur. These districts were distributed in all parts of the state.

The *Janani Suraksha Yojana,* initiated in 2005 under the National Health Mission, has played an important role in creation of maternal and child health care infrastructure in a number of districts included in this category. Under the scheme, pregnant women having delivery in government/accredited private medical/health institutions receive a fixed amount directly in their accounts for maternal and neonatal health care. The main objective of this scheme is to reduce maternal and neonatal mortality by promoting institutional delivery among poor pregnant women in rural and urban areas both.

According to information available from National Family Health Survey-4, Baran district of this category registered highest percentage (97.0 per cent) of institutional deliveries and also registered fairly high on other demographic indicators. Alwar, and Bikaner districts have high female literacy rate. Bhilwara and Pali districts, as the centres of the textile industry, Alwar district being in the National Capital Region (NCR), and Bharatpur and Dausa having good agricultural base draw some advantage on this count. Low level of female literacy in Nagaur (47.8 per cent), Jhalawar (46.5 per cent), Tonk (45.4 per cent), Bhilwara (47.2 per cent) and Jodhpur (51.8 per cent) districts has worked negatively. Further, in Jhalawar district more than one-tenth of population is made of tribes.

C. Low level (index value more than 0.60)

The remaining twelve or more than one-third of total districts in the state falls in the category of low level in maternal and child health care. Included in this category are the districts of Bundi, Chittaurgarh, Dhaulpur, Sirohi, Banswara, Dungarpur, Karauli, Sawai Madhopur, Udaipur, Jalor, Jaisalmer, and Barmer. Index value among the districts of this category ranged from a low of 0.62 for Bundi district to high of 0.97 for Barmer district (Table 2). Evidently, inter-district differentials in maternal and child health care among the districts included in this category are the widest of the three categories of districts in the state. Mostly distributed in peripheral parts of the state, majority of districts in this category suffers from physical or social or both types of handicaps. Districts located in the western part of the state, such as Barmer, Jaisalmer, and Jalor have desert topography, and the districts located in the southern part such as Chittaurgarh, Udaipur, Banswara, Dungarpur, and Sirohi have hill

topography. Further, some of the districts including Banswara, Dungarpur, Karauli, Sawai Madhopur, Bundi and Sirohi have large shares of tribals in their population. For example, more than seven in each ten persons in districts of Banswara and Dungarpur, and nearly a half of Udaipur district's population belong to tribals. In Karauli, Sawai Madhopur, Bundi and Sirohi districts such population made more than one-fifth of total population. It has been noted that the tribal women, who mostly work in construction activities or labourers in agriculture sector on daily wages, are less used to go for institutional deliveries (Desai and Jain 1994). On one hand, there are certain taboos among tribals prohibiting institutional deliveries and one the other hand there are few healthcare centres located in tribal areas due to low paying capacity of tribals. Moreover, instances of absenteeism among their health professionals posted in government health centres/dispensaries located in tribal areas have also been noticed (see Saha, 2003). For topographical reasons, poor accessibility also comes in the way.

Jalor district of this category has the highest (72) infant mortality rate among all the districts of the state. The lowest female literacy rate (38.5 per cent) in the entire state has also been observed here. Another district of low female literacy (48.4 per cent) is Jaisalmer. According to information available from the National Family Health Survey-4, Jaisalmer district registered the lowest share (49.8 per cent) of institutional deliveries. Poor road connectivity in rural areas poses another serious challenge. Rural road connectivity is the district is 62.1 per cent, against the state average of 79.81 per cent. It is estimated that an ANM (auxiliary nurse midwife) in Jaisalmer district has to cover a far greater area than her counterpart in Bharatpur district for challenges posed by topographic handicaps (Kothari, 1989).

Barmer district, having the lowest level of maternal and child health in the entire state, registered the highest population growth (32.5 per cent) during 2001-2011 with low rates of general (56.5 per cent) and female literacy (40.6 per cent), but high infant mortality rate (70) and total fertility rate (4.5). Low survival chances of newborn babies encourage higher the total fertility rate.

Conclusions

Reduction in maternal and neonatal mortality is the greatest challenge before the country especially in regions and their sub-regions, where institutional delivery rates are quite low. Rajasthan is among the states, where institutional delivery rate is not only low but also there are wide inter-district differentials in this regard. Among thirty-three districts in the state, the level of maternal and child health care different very widely. At least more than one-third of districts distributed in western, southern and southeastern parts of the state have low to very low level of maternal and child health. On the other side of the scale, districts in the central and northeastern parts of the states have relatively high level of maternal and child health. The rest of the districts have moderate level of maternal and child health. Physical and social handicaps in the form of desert conditions in the western part and hill topography along with concentration of tribal population in the southern part of the state present have played a negative role in this regard. Poor accessible due to topographical constraints especially in rural areas coupled with social taboos among the tribals have been working against the

institutional delivery in hill tribal and desert prone districts of the state. Low level of female literacy and awareness has also been responsible for all this.

Against this, districts having urban-industrial base along with commercial agriculture have performed far better on this count. Female education and aware found a strong positive association with maternal and child health at the district level. In recent years, Janani Suraksha Yojana, a centrally sponsored scheme under the National He alth Mission has also played an important role in increasing maternal and child health care infrastructure in some of the districts in the state, especially those falling under the moderate category of maternal and child health. On the whole, five districts of Jhunjhunun, Jaipur, Kota, Ganganagar, and Sikar are at top in maternal and child health, while the reverse is true for Barmer, Jaisalmer, Jalor, Udiapur and Sawai Madhopur districts.

In future, greater focus must be placed on areas still suffering from physical and social handicaps. Otherwise, geography will remain their destiny even in the India of 21st century.

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Appendix-I: Absolute value of indicators used to calculate level of maternal and child health care in Rajasthan												
District/Division	X1*	X2*	X3*	X4*	X5*	X6*	X7*	X8*	X9*	X10***	X11**	X12*
Ajmer Division												
Ajmer	87.2	67	51.4	89.6	9.0	68.7	53.4	24.7	16.8	50	192	2.9
Bhilwara	81.8	67	41.9	91.3	31.7	71.7	56.0	24.3	14.1	64	195	2.8
Nagaur	87.0	44	42.2	77.7	11.8	50.8	38.2	25.2	14.1	52	202	2.8
Tonk	93.6	76	49.5	84.3	19.5	74.3	62.5	32.7	10.5	57	241	2.9
Bharatpur Division												
Bharatpur	79.6	51	17.2	77.5	5.3	56.4	41.6	25.1	14.4	49	183	3.1
Dhaulpur	85.4	56	30.7	76.2	12.8	50.1	46.5	29.8	10.3	58	205	4.1
Karauli	88.3	55	29.3	74.2	11.9	52.8	38.1	32.2	10.2	69	212	3.8
Sawai Madhopur	87.4	46	33.8	71.7	8.2	49.8	38.5	30.0	11.2	67	192	3.7
Bikaner Division												
Bikaner	73.4	56	38.2	84.3	10.5	51.2	43.0	23.7	15.4	47	207	3.0
Churu	80.6	57	18.3	87.4	17.7	42.2	34.1	26.8	13.5	48	200	2.8
Ganganagar	88.8	80	52.1	85.7	31.3	40.2	34.8	21.1	20.5	52	112	2.6
Hanumangarh	84.2	62	24.7	82.9	15.5	46.2	33.9	23.0	14.8	45	132	2.8
Jaipur Division												
Alwar	81.9	47	21.7	80.1	13.0	54.0	40.2	25.4	13.0	52	190	2.8
Dausa	89.5	57	28.3	74.4	17.8	45.2	27.1	29.6	10.2	53	206	2.8
Jaipur	93.9	58	58.7	83.1	31.2	49.5	27.1	22.7	17.4	50	180	2.7
Jhunjhunun	96.9	65	45.4	85.4	30.1	46.2	38.3	19.3	17.3	48	162	2.7
Sikar	92.0	57	49.1	88.4	16.6	48.8	32.8	23.2	18.4	50	190	2.7
Jodhpur Division												
Barmer	60.2	36	16.2	63.4	10.6	60.1	42.7	26.1	11.7	70	238	4.5
Jaisalmer	49.8	39	18.4	66.5	10.4	42.5	33.6	25.8	12.8	50	194	3.3
Jalor	83.9	36	31.0	73.8	21.2	67.0	58.7	31.2	9.3	72	212	3.7
Jodhpur	72.7	42	40.2	79.7	14.7	63.6	44.3	20.8	18.2	46	217	2.8
Pali	83.1	58	47.8	86.3	16.0	53.4	49.0	32.6	14.5	54	207	3.2
Sirohi	84.2	47	31.7	82.0	18.4	69.7	59.8	34.2	10.1	65	218	3.1
Kota Division												
Baran	97.0	68	46.2	91.4	8.5	76.3	66.3	30.7	9.7	55	203	3.1
Bundi	92.4	63	30.3	85.2	10.8	80.0	63.7	33.5	10.9	65	181	2.8
Jhalawar	93.9	75	36.5	91.5	19.3	76.6	58.8	28.6	8.6	63	187	3.0
Kota	92.1	71	58.7	86.7	31.2	73.8	59.6	26.4	20.6	36	122	2.5
Udaipur Division												
Banswara	93.1	46	43.4	87.5	13.5	84.6	76.3	33.3	9.0	57	211	4.0
Chittaurgarh	85.6	42	22.7	83.7	16.1	71.1	60.3	28.7	17.6	63	192	2.6
Dungarpur	86.4	66	45.9	87.1	8.9	76.0	73.2	38.1	6.2	63	232	3.6
Pratapgarh	89.5	66	30.7	89.9	30.3	75.8	63.2	35.0	7.8	63	205	2.6
Rajsamand	84.6	60	39.2	87.0	8.6	75.9	62.0	28.5	12.5	59	245	3.5
Udaipur	73.7	44	45.9	76.7	19.5	79.1	69.7	37.7	10.4	63	256	3.8
Rajasthan	**84.0**	**55**	**39.0**	**81.9**	**64.6**	**60.3**	**46.8**	**27.0**	**14.1**	**55**	**199**	**2.4**

Source: *International Institute for Population Sciences & ICF (2017). *National Family Health Survey (NFHS-4), 2015-16: India*, Mumbai, IIPS.

**Sample Registration System (2019). *Special Bulletin on Maternal Mortality in India 2015-17*. Registrar General and Census Commissioner of India, New Delhi.

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Note: Figures for indicators $X_{1 \text{ to } X9}$ are in percentage and for X_{10} per 1000 thousand live births, for $_{X11}$ deaths per lakh live births and for $_{X12}$ number of children per women.

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DISPARITIES IN LEVEL OF SOCIAL INFRASTRUCTURE DEVELOPMENT IN BUNDELKHAND REGION (MADHYA PRADESH): A BLOCK LEVEL ANALYSIS

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Abstract: The paper has investigated inequalities in level of social infrastructure development in Bundelkhand region of Madhya Pradesh by making development block as the unit of study. The study based on the secondary sources obtained data from the Census of India, Socio-Economic Caste Census and other government department websites. The twelve indicators from different dimensions of social infrastructure have been used to map and analysis data/information at the block level using z-score method to prepare the composite index of social infrastructure level.

The forty development blocks in the study region have been classified into the four levels of social infrastructure development: relatively high, moderate, less and the least developed blocks. There are wide inter-block disparities in the level of social infrastructure development in the study area, ranging from the highest level (score value being 0.85) for Nowgong block to the lowest level (score value being -0.63) for Banda block. Relatively high developed blocks have better natural resource base and relatively plain topography and fertile soils and vice versa, indicating the role of physical resource base and topography in social infrastructure development. Interestingly, development blocks falling either in close proximity to district headquarters or district headquarters being located inside the development area displayed low or least level of social infrastructure development, confirming the impact of backwash effect on the development of social infrastructure especially relating to health and educational facilities.

***Keywords**:* Social infrastructure, Regional disparities, Bundelkhand Region, Composite score, Backwash effect

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Introduction

Social infrastructure, which encompasses basic facilities and services like education, health, sanitation, drinking water supply etc., enhances social wellbeing leading to overall human development of a region. Broadly speaking, economic development depends not only on the expansion of a societ!'s production capacit! but also on the availability of social and economic opportunities, playing a crucial role in human development.

One of the aims of development is to remove the economic and social disparity among societies with development in human capabilities which in turn depends on basic education, health services and opportunity of social cooperation.

The disparity in development is a multidimensional phenomenon and the outcome of unbalanced regional development, reflected through economic, socio-cultural and demographic characteristics (Dinesha, 2015). The spatial variation in availability and access to infrastructure results in spatial disparities in living standards both within and between regions and localities (Madu, 2007). According to one study (Mohanty, Bhanumurthy and Dastidar, 2017) divergence in the physical resource base is considered a major factor behind the wide and persistent regional growth imbalances in India. In another study, Looney and Frederiksen (1981) concluded that the availability of infrastructure provides the base for an increase of income and employment in the local economy, playing a major role to uplift the quality of the life of the local people. Dadibhavi (1991), while examining disparities in social infrastructure in the major states of India in the dimensions of educational and health facilities opined that over the years there has been remarkable progress in the development of social infrastructure facilities. Rising regional inequalities have several repercussions on economic and political stability in the country (Nagaraj, 2000). Therefore, it is important to understand the determinants of development for sub-national regions. Additionally, physical and social infrastructure facilities proved to be highly critical factors in determining the inter-state level of development (Ghosh and De, 2005). Literature has also highlighted the favorable impact of enhanced availability and quality of not just physical but also social infrastructure development on human capital and consequently on productivity levels, earning capabilities, and social welfare particularly for the poor (Calderon and Serven, 2014). A study by Majumder (2012) looked at the impact of infrastructure on poverty and inequality show inequality increased along with physical infrastructure and the expansion of regional infrastructural facilities enhanced average consumption levels and reduced the proportion of people living below the poverty line. In a study on western Rajasthan, Sharma (2017) used multiple factor analysis to analyse spatial variation in the level of development. The CMIE (2010) analysed social infrastructural index as a weighted average of various components of infrastructure amenities. Socio-economic disparities between regions are a manifestation of factors which are predominantly structural and embedded within the social, economic, cultural, historical, political, and environmental milieu of the area and form an inherent part of the society. The task of the social geographer is, therefore, not just to decipher spatial variations but also the threads of structural variations underlying them that differentiate them (Burke, 2004).

Briefly, literature review in the preceding paragraphs makes it evidently clear that there are several studies on development and disparities by now but micro-level studies on rural and backward areas are only a few in the existing literature. In view of all this, the present study attempts an examination of disparities in the level of social infrastructure development at the development block level by taking Bundelkhand region of Madhya Pradesh as a case study. In India, development block is a rural development unit at the local level.

The study area

The Bundelkhand region is a histo-geographical region, extending in Madhya Pradesh and Uttar Pradesh states. It has an area of 71,619 km^2 and a population of 18.31 million in 2011.

Of this, 41,330 km^2 area making about 58.0 per cent of the total and a population of 8.65 million persons, coming to 47.2 per cent of total population fall in Madhya Pradesh. Evidently, the higher share of the area against the lower share of the population of Bundelkhand comes in a share of Madhya Pradesh. Administratively, it is divided into 13 districts of Jhansi, Jalaun, Lalitpur, Hamirpur, Mahoba, Banda, Chitrakoot, Datia, Tikamgarh, Chhatarpur, Damoh, Panna and Sagar. The first seven districts fall in Uttar Pradesh and the latter six in Madhya Pradesh state. The latter six districts, divided further into the forty development blocks, have been selected for the present study (Fig. 1).

In 2011, 8.65 million persons, accounting for about 12.0 per cent of the total population, were living on 41,330 km^2 area, making 13.4 per cent in total area of Madhya Pradesh. The population density of Bundelkhand region was 209 persons/km^2, against the state average of 236 persons/km^2. General literacy rate being 68.1 per cent, males were more literate (77.8 per cent) than people are literate than females (57.26 per cent). The sex ratio of 885 females per thousand males is much lower than the neighbouring state of Uttar Pradesh (912) as well as the state average (931). The national average of 943 is much higher than all the three.

It is a predominantly rural and agriculture area. The agricultural economy is also very poor in this region, due to undulating topography and poor quality of soils. Only half of the total geographical area is under agriculture on which more than four-fifths (80.8 per cent) of the total population is dependent. It is a drought-prone area, covered under the centrally sponsored scheme of Drought Prone Area Development Programme (DPAP). Unfortunately, however, various development schemes implemented under DPAP failed to eradicate poverty and backwardness from the region.

Access to sanitation conditions is quite poor. Only about one-fourth (25.0 per cent) population has access. Less than half of the households are electrified and three-fifths or 60.0 per cent of households get drinking water from hand pumps, which do fall in the category of potable drinking water. Inadequate and poor-quality social and economic infrastructure is one of the most important factors of regional backwardness.

Objectives

In the light of the preceding statements, the objective of the study is to identify the level of social infrastructure development at the development block level and spatial variations therein along with the factors working behind inequalities in the development at the micro-scale, and suggest an appropriate strategy for balanced social infrastructure in the region. Major objectives of the study are to:

1. Analyse the micro-regional (Block-level) disparities in social-infrastructural development in the study region and
2. Identify the most significant factors for social-infrastructure development in the study area.

Research questions

The study raises the following research questions for their answer with the help of data analysis.

1. What will the position of the peripherally located development blocks in level of infrastructure development vis-à-vis those located in the central part or in close proximity to district headquarters?
2. What has been the role of the physical resource base in the development of social infrastructure?

Data sources and methodology

The present study, based on secondary sources, collected data from the District Census Handbook, 2011 and Socio-Economic Caste (SEC) Census, 2011. Other relevant data have been picked up from the Directorate of Economics and Statistics, Government of Madhya Pradesh, Revenue Board, Govt. of Madhya Pradesh, and the official websites of different government departments of Madhya Pradesh state.

The twelve indicators have been used to measure disparity in the level of social infrastructure development (see Table 1). In all, there are the forty development blocks in the six districts of the study region.

The composite index method has been used to prepare an overall level of social infrastructure development at the block level. The Z-score method has been put to practice for calculating the z-score value for all the twelve indicators. The steps involved in the calculation of z-score have been explained in the following:

- Selection of indicators (Variables X).
- Computation of mean ( ) and mean (X- =d) and standard deviation (SD= $\sqrt{\Sigma D^2/N}$) of selected indicators.
- Calculation of Standard Scores (I) (d/SD).
- Gross Value calculation by summing all the value of Standard Score.
- Composite index scores, dividing the Gross value by the total number of indicators.

Table 1: Indicators of social infrastructure, Bundelkhand Region, 2011

Variable Number	Social infrastructure Indicators
X_1	No. of Educational Institution per 10,000 Persons
X_2	No. of Public distribution system (PDS) shops per 10,000 Persons
X_3	No. of Maternity and Child Welfare centre (MCW) per 10,000 Persons
X_4	Percentage of villages having Charitable non-govt. hospital/Nursing homes
X_5	Self-Help Group (SHG) per 10,000 Persons
X_6	Percentage of villages having ASHA (Accredited Social Health Activist)
X_7	Percentage of villages having Anganwadi/Nutritional Centres
X_8	Percentage of villages having Community bio-gas or recycle of waste for productive use
X_9	Percentage of villages having community Toilet Facilities
X_{10}	Percentage of villages of having Public library and public reading room
X_{11}	Percentage of villages with Community Centre
X_{12}	No. of Commercial & Co-operative Banks Per 10,000 Persons

The actual values of the indicators and their composite index scores are displayed in Appendix-I, and Appendix-II, respectively. Through composite index, different level of social development at micro-level (i.e. Community Development Block) is determined.

Result and Discussion

The composite score for Bundelkhand region is -0.101 with an average of -0.0025 for each block. Data presented in table 2, shows the wide range of 1.48 scores in the value of the Composite Index (CI) at the block level. CI value for Nowgong block (Chhatarpur district) was 0.85 while it was -0.63 for Banda block (Sagar district). Based on the score of CI values, the 40 development blocks of the Bundelkhand region of Madhya Pradesh have been grouped into four categories as; relatively developed, moderately developed, low developed and least developed (Appendix-II).

Table 2: Classification of blocks according to the level of social infrastructure development, 2011

Composite Index	Level of Development	Name of the CD Blocks
Above 0.40	Relatively Developed	Nowgong (0.85), Malhera (0.71), Laundi (0.64), Ajaigarh (0.51), Rajnagar (0.49), and Rahatgarh (0.43)
0.00 to 0.40	Moderately Developed	Seondha (0.35), Sagar (0.32), Chhatarpur (0.25), Kesli (0.23), Barigarh (0.23), Niwari (0.18), Buxwaha (0.17), Gunnor(0.13), Palera (0.12), Patharia (0.09), Datia (0.07), Jaisinagar (0.07), Patera (0.05), and Pawai (0.04)
-0.40 to 0.00	Less Developed	Bhander (-0.001), Jabera (-0.03), Gaurihar (-0.04), Malthon (-0.1), Jatara (-0.14), Hatta (-0.17), Panna (-0.18), Shahgarh (-0.23), Shahnagar (-0.29), Khurai (-0.31), Deori (-0.38), and Prithvipur (-0.39)
Below -0.40	Least Developed	Bijawar (-0.40), Tikamgarh (-0.41), Bina (-0.42), Damoh (-0.42), Baldeogarh(-0.44), Tendukheda(-0.50), Rehli(-0.55), and Banda(-0.63)

Source: *Computed by author*

Relatively Developed

Only six or fifteen per cent of the total blocks in the study region, having a composite score index value of >0.40 falls in this category (Fig. 1). The index value ranged from a high of 0.85 for Nowgong to a low of 0.43 for Rahatgarh Block, giving a range difference of 0.42 between the two. Other blocks in this category are Malhera, Laundi, Ajaigarh and Rajnagar. Except Rahatgarh, all these blocks are concentrated in the northern part of the study area and four of them (Nowgong, Malhera, Laundi and Rajnagar) belong to chhatarpur district. Ajaigarh block is in Panna district and Rahatgarh in Sagar district. Nowgong block has emerged as the highest developed block of the study area on account of recording better facilities in terms of having the highest number of 0.52 Maternity and Child Welfare centre (MCW) per 10,000 persons. It has better health and public library facilities. Nearly nine-

tenths of villages have ASHA (Accredited Social Health Activist) and nearly one-fourth (23.0 per cent) of villages Public library facility. Malhera block, ranked next only to Nowgong block, fared average the regional level on seven of eight indicators. It has a better public distribution system, small female finance and local health system. Lundhi block falls in this category mainly due to better public distribution system, maternity and child welfare centre services, self-help groups, and Anganwadi centres. Ajaigarh block fared well on health, Anganwadi Centre and community bio-gas or recycle of waste for productive use. Rajnagar block topped in Community Centre facilities and also fared well in Anganwadi centres. Rahatgarh block has well-developed education infrastructure.

The support of physical resource base and topograph! can't be overlooked in the case the development blocks placed in relatively high infrastructure development categories. The northern part of the region have a relatively plain physiographic structure of the Gangatic alluvial fringe region, well-drained by the river system, fertile soils, better irrigation network, higher percentage of net sown area, and agro-based and cottage industries. Hence, a positive association between the physical resource base and level of social Infrastructure development is evidently clear.

Moderately Developed

The fourteen of total forty blocks fall in this category. The index value ranged from a high of 0.35 for Seondha to a low of only 0.04 for Pawai block, giving a range difference of 0.31 between the two. Of these blocks, Seondha (0.35) and Datia (0.07) falls in Datia district, Sagar, Kesli and Jaisinagarin Sagar district, Chhatarpur, Buxwaha and Gunnorin Chhatarpur district, Barigarh, Niwari and Palera in Tikamgarh district, Patharia and Patera in Damoh district and Pawai in Panna district (Fig. 1). In this way, development blocks from all the districts fall in this category but the majority or nine of fourteen blocks of them fall in three districts of Sagar, Chhatarpur and Tikamgarh districts. Interestingly, in Sagar, Chhatarpur, and Datia development blocks of this category, the district headquarters with the same names are also located, indicating a backwash effect rather than the spread effect of the node having the district headquarters.

Geographically speaking, most of the blocks of this category are located in the northern and south-western parts of the region (Fig.1), having relatively plain topography, sufficient groundwater for irrigation and fertile soil. Gunnor, Pawai, and kesli blocks score high on education facilities and public distribution system; Patharia and Seondha blocks on maternity and child welfare services; Kesli and Sagar blocks on charitable non-govt. hospital/nursing home infrastructures; and Patera, Buxwaha, and Barigarhon self-help group. Buxwaha has ranked first in the public library facilities. Likewise, Patera block ranked first in banking services. On the whole, the moderately developed blocks have an adequate level of educational, health, community, women and child welfare services.

Less Developed

In all, twelve of forty blocks fall in this category. Administratively, Bhander block falls in Datia district; Malthon, Shahgarh, Khuraiand Deori in Sagar district; Panna and Shahnagar in Panna district; Jabera and Hatta in Damoh district; Jatara and Prithvipur in Tikamgarh

district; and Gauriharin Chhatarpur district (Table 3). Again, all six districts are represented in this category. In addition, Panna block of Panna district is also a part of this category, again confirming the backwash effect of the district headquarters on social infrastructure development.

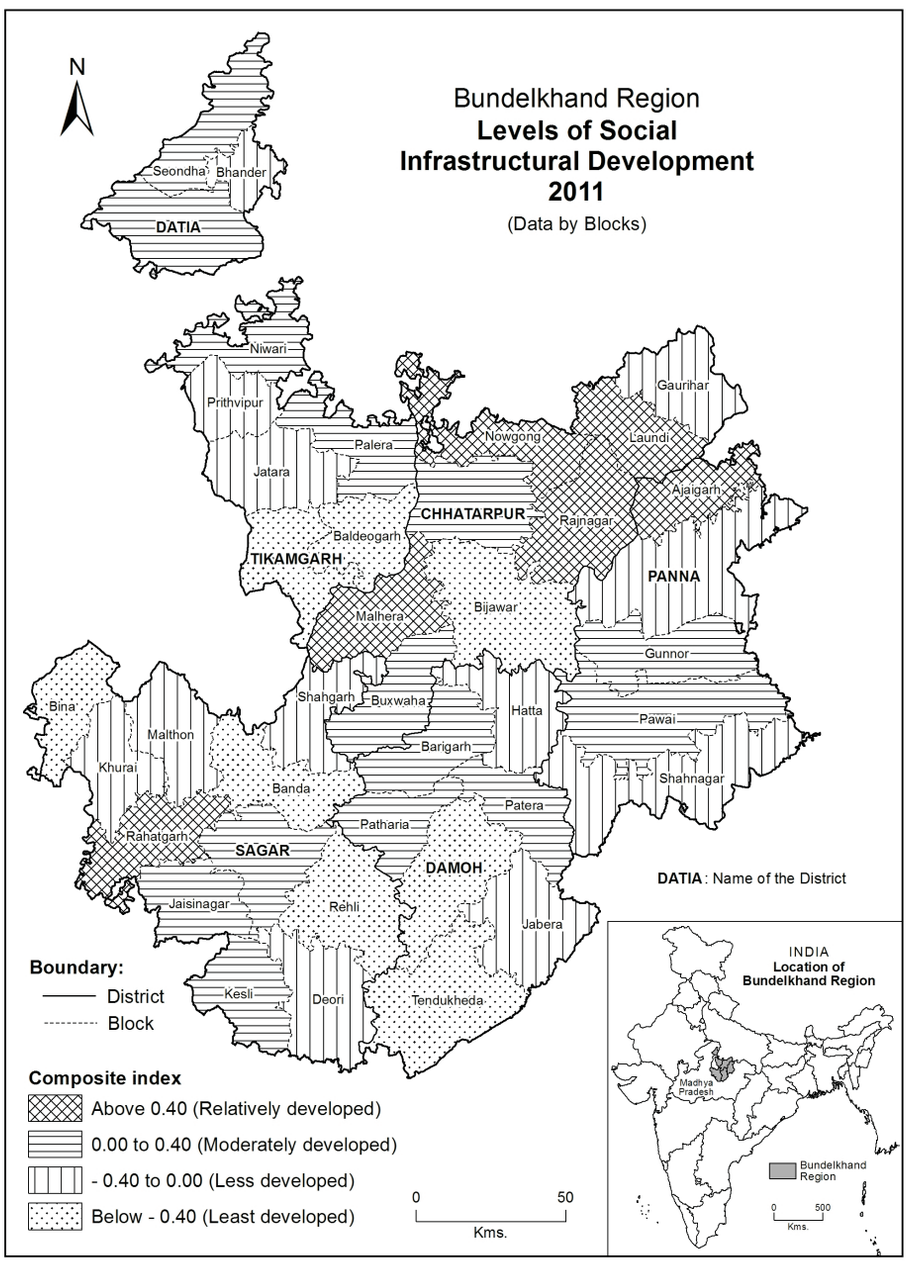

FIG. 1

Physiographically, this part of the region is characterized by the dense forest cover, higher share of barren land, poor quality of soils and low level of the groundwater table. Agriculture is relatively poor here, but the mining of minerals and stone quarrying has emerges as the major economic activity. Jatara, Gaurihar and Prithvipur blocks are lagging far behind in educational institutions. Similarly, Khurai and Gaurihar blocks are far behind in maternity and child welfare facilities. Bhander block is quite poor in the public distribution system. Similarly, Malthon and Khurai blocks are highly poor in terms of the banking system. The development blocks falling in this category rank low on maximum numbers of indicators. The neglect of rural areas in providing social infrastructure by the public sector is evidently clear.

Least Developed

Eight or one-fifth of the total blocks of the region falls in the category of least development blocks. The index value ranged from a high of -0.40 for Bijawar block to a low of -0.63 for Banda block, giving a range difference of -0.23. The blocks including in this category belonged to Chhatarpur (Bijawar block), Tikamgarh (Tikamgarh, and Baldeogarh), Sagar (Bina, Rehli and Banda) and Damoh (Damoh and Tendukheda) districts. In other words, the four of the six districts in the region were represented in this category (Fig. 1). Some of these blocks have the tribal population in large size. Being the location, accessibility is one of the serious handicaps in the way of providing developmental infrastructure. Moreover, the purchasing power of the local population is also low. Baldeogarh and Banda blocks are lagging in educational institutions. The same is true for Baldeogarh and Tikamgarh blocks in the public distribution system. Bina and Rehli blocks stand at the bottom in terms of Anganwadi/Nutritional Centres. In addition, a number of physiographic constraints including unfavorable topography, poor quality of soil, and inadequate water come in the way of socio-economic progress.

Conclusions

Bundelkhand, which was among the most backward parts of Madhya Pradesh, has continued to remain so even today. The most surprising part of its story of backwardness is that there are wide intra-regional disparities in development. The level of rural social infrastructure development differs widely among the forty development blocks in the region. As indicated by z-score values of the most developed development (Nowgong, 0.85) and the least developed block (Banda, -0.63), there is a several-fold distance between the two. The former block is located in Chhatarpur district and the latter in the Sagar district. The dominant majority of development blocks, 26 of total 40, fall either in the moderately developed or low developed category. Such type of development blocks were distributed in all the six districts of the region.

Only six or fifteen per cent of the total blocks, having a composite score index value of > 0.40, have a relatively high level of social infrastructure development. On the other side of the scale, the eight or one-fifth of the total blocks were the least developed on this count.

The role of the physical resource base and topography available in the development blocks on the level of social infrastructure development of different blocks was evidently

clear. The development blocks having a relatively high level of social infrastructure development were located in the northern part of the region. This part of the region has a relatively plain physiographic structure of Gangetic alluvial plain, well-drained by the river system, fertile soils, better irrigation network, higher percentage of net sown area, and agro-based and cottage industries. The reverse was true of the least developed blocks. A positive association between the physical resource base and level of social Infrastructure development was clearly marked.

Interestingly, development blocks falling in the close proximity of district headquarters or having district headquarters within them recorded the low or least level of social infrastructure development due to the backward effect of city/town having the district headquarters.

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Appendix I: **Bundelkhand Region: Social Infrastructure Indicators values by development blocks, , 2011**

District	Blocks		Social Infrastructure Indicators											
			X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}
Datia	1	Seondha	20.0	2.1	0.3	2.3	7.6	83.8	77.5	3.1	2.3	13.5	5.0	0.7
	2	Datia	22.0	0.9	0.3	0.8	5.6	89.0	82.7	1.6	4.3	8.3	5.9	0.5
	3	Bhander	21.2	1.1	0.3	0.0	4.0	85.8	78.7	5.2	0.7	7.1	5.8	0.9
Tikamgarh	4	Niwari	15.7	2.4	0.5	0.0	5.0	78.4	79.9	2.2	3.6	25.2	19.4	0.4
	5	Prithvipur	19.1	1.5	0.4	0.0	3.8	81.7	76.0	0.0	0.0	7.8	10.6	0.5
	6	Jatara	16.4	2.1	0.2	1.5	4.9	75.5	74.5	0.0	6.6	14.8	14.3	0.3
	7	Palera	17.0	2.6	0.2	2.0	5.1	86.7	84.0	0.7	0.7	17.3	19.3	0.5
	8	Baldeogarh	16.0	1.9	0.14	1.2	5.7	82.7	85.8	0.0	0.6	4.3	8.6	0.2
	9	Tikamgarh	18.1	1.9	0.2	0.0	5.6	85.6	77.0	0.0	0.0	5.2	8.0	0.5
Chhatarpur	10	Gaurihar	17.5	3.7	0.1	3.3	5.4	79.5	75.5	0.0	1.3	9.9	17.9	0.3
	11	Laundi	19.6	4.2	0.2	0.6	7.5	87.2	85.3	0.6	3.2	24.4	21.8	0.6
	12	Nowgong	19.2	4.4	0.5	0.8	5.5	88.1	85.7	2.4	6.4	23.0	21.4	0.3
	13	Chhatarpur	19.0	3.8	0.1	0.7	5.3	87.5	85.5	3.3	0.7	15.8	19.1	0.6
	14	Rajnagar	18.3	4.2	0.1	0.7	5.2	89.3	90.7	2.9	1.4	21.4	34.3	0.3
	15	Malhera	19.8	4.7	0.2	1.8	7.5	87.7	80.4	3.7	3.7	23.9	23.9	0.2
	16	Bijawar	21.2	3.6	0.0	0.6	7.1	75.0	68.4	0.0	0.0	8.3	9.5	0.4
	17	Buxwaha	24.0	4.3	0.1	0.0	9.2	76.3	62.6	0.0	0.8	25.2	29.0	0.3
Sagar	18	Bina	22.4	3.3	0.0	2.3	3.5	74.6	62.7	2.3	2.3	1.7	6.8	0.3
	19	Khurai	21.8	4.3	0.0	0.0	7.6	75.9	63.6	2.1	2.7	3.7	7.5	0.2
	20	Malthon	21.9	3.3	0.1	1.6	7.7	82.4	64.3	0.5	2.1	10.4	8.8	0.2
	21	Banda	15.9	3.6	0.0	0.0	6.1	82.1	65.4	0.0	1.7	1.1	10.1	0.2
	22	Shahgarh	20.0	3.0	0.2	2.3	5.7	68.7	64.1	5.5	0.8	7.0	5.5	0.3
	23	Rahatgarh	25.4	3.9	0.2	1.4	6.6	80.1	68.3	6.6	4.3	3.8	6.2	0.7
	24	Jaisinagar	19.7	4.3	0.2	0.0	6.0	88.6	74.5	0.0	2.7	6.0	13.4	0.5
	25	Sagar	17.9	3.6	0.1	3.1	4.6	75.3	79.0	5.6	5.6	12.3	19.8	0.3
	26	Rehli	20.2	4.5	0.0	1.6	4.7	64.9	62.9	2.5	2.0	1.2	9.8	0.1
	27	Kesli	25.5	4.9	0.2	3.2	8.3	83.1	61.9	2.1	1.6	2.7	2.6	0.3
	28	Deori	24.3	3.2	0.1	0.4	7.5	74.1	47.4	2.4	1.6	2.0	17.7	0.3
Damoh	29	Hatta	23.7	3.1	0.3	0.0	10.7	69.6	69.6	0.0	0.6	1.3	4.4	0.6
	30	Patera	19.9	2.5	0.1	0.0	10.4	89.9	78.6	0.0	0.6	3.1	4.4	1.0
	31	Barigarh	23.1	4.2	0.1	0.0	8.8	86.0	74.7	0.0	2.7	4.7	16.7	0.6
	32	Patharia	20.0	3.7	0.4	0.0	5.6	84.0	84.0	0.0	3.0	2.3	4.6	0.8
	33	Damoh	22.6	3.2	0.1	0.0	7.0	76.9	71.8	0.0	0.0	2.5	5.0	0.5
	34	Jabera	21.1	3.1	0.2	0.0	8.6	86.3	75.3	0.0	0.0	4.7	6.3	0.8
	35	Tendukheda	23.0	2.7	0.1	0.0	6.4	73.4	71.2	0.0	0.0	0.5	2.7	0.7
Panna	36	Ajaigarh	25.0	4.0	0.2	0.8	6.0	90.0	92.5	7.5	3.3	3.3	0.8	0.3
	37	Panna	28.3	3.6	0.5	0.4	4.6	72.0	70.7	0.9	0.9	0.9	3.6	0.3
	38	Gunnor	31.5	3.9	0.3	1.3	5.6	80.2	84.1	0.9	1.8	1.8	2.2	0.3
	39	Pawai	27.5	4.4	0.3	1.4	6.5	79.8	77.9	1.9	1.0	3.4	0.0	0.1
	40	Shahnagar	25.1	4.3	0.2	0.0	4.2	80.4	80.9	0.0	0.4	0.9	3.5	0.4

Sources: 1. Census of India (2011). *District Census Handbook, 2011*. For different districts
2. Govt. of India (2011). *Socio-Economic Caste 2011*, Ministry of Rural Development, New Delhi

Appendix II: Composite index scores of social infrastructure indicators by development blocks

District	Blocks		Standard Index Scores (I) of Social Infrastructure Indicators												GV	CI
			X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}		
Datia	1	Seondha	-0.4	-1.2	0.9	1.3	0.8	0.4	0.3	0.7	0.2	0.6	-0.7	1.4	4.3	**0.35**
	2	Datia	0.2	-2.5	0.7	-0.1	-0.4	1.2	0.8	-0.0	1.4	-0.0	-0.6	0.3	0.9	0.1
	3	Bhander	-0.0	-2.3	0.9	-0.9	-1.4	0.8	0.4	1.7	-0.7	-0.2	-0.6	2.3	-0.0	-0.0
Tikamgarh	4	Niwari	-1.6	-1.0	2.2	-0.9	-0.7	-0.4	0.5	0.2	1.0	2.1	1.0	-0.4	2.1	0.2
	5	Prithvipur	-0.6	-1.8	1.6	-0.9	-1.5	0.1	0.1	-0.8	-1.1	-0.1	-0.0	0.4	-4.6	-0.4
	6	Jatara	-1.4	-1.2	-0.2	0.6	-0.8	-0.8	-0.0	-0.8	2.7	0.8	0.4	-0.7	-1.5	-0.1
	7	Palera	-1.2	-0.7	0.2	1.1	-0.7	0.9	1.0	-0.5	-0.7	1.1	1.0	0.1	1.5	0.1
	8	Baldeogarh	-1.5	-1.5	-0.3	0.3	-0.4	0.3	1.2	-0.8	-0.8	-0.5	-0.3	-1.1	-5.3	-0.4
	9	Tikamgarh	-0.9	-1.4	0.2	-0.9	-0.4	0.7	0.2	-0.8	-1.1	-0.4	-0.4	0.3	-4.9	-0.4
Chhatarpur	10	Gaurihar	-1.0	0.3	-0.9	2.4	-0.5	-0.2	0.1	-0.8	-0.4	0.2	0.9	-0.4	-0.5	-0.0
	11	Laundi	-0.5	0.9	0.5	-0.3	0.7	1.0	1.1	-0.5	0.7	2.0	1.3	0.8	7.7	0.6
	12	Nowgong	-0.6	1.1	2.6	-0.1	-0.5	1.1	1.2	0.4	2.5	1.9	1.3	-0.6	10.2	0.9
	13	Chhatarpur	-0.6	0.4	-1.0	-0.3	-0.6	1.0	1.1	0.8	-0.7	0.9	1.0	0.8	2.9	0.3
	14	Rajnagar	-0.8	0.9	-0.3	-0.2	-0.6	1.3	1.7	0.6	-0.3	1.7	2.9	-0.7	6.0	0.5
	15	Malhera	-0.4	1.3	-0.1	0.9	0.7	1.0	0.6	1.0	1.0	2.0	1.6	-1.2	8.5	0.7
	16	Bijawar	-0.0	0.2	-1.4	-0.3	0.5	-0.9	-0.7	-0.8	-1.1	-0.0	-0.2	-0.1	-4.8	-0.4
	17	Buxwaha	0.8	0.9	-0.5	-0.9	1.7	-0.7	-1.3	-0.8	-0.7	2.1	2.2	-0.8	2.0	0.2
Sagar	18	Bina	0.3	-0.1	-1.4	1.3	-1.7	-1.0	-1.3	0.3	0.2	-0.9	-0.5	-0.4	-5.0	-0.4
	19	Khurai	0.2	0.9	-1.4	-0.9	0.8	-0.8	-1.2	0.2	0.4	-0.6	-0.4	-1.0	-3.7	-0.3
	20	Malthon	0.2	0.0	-0.4	0.6	0.8	0.2	-1.1	-0.6	0.1	0.3	-0.3	-1.1	-1.2	-0.1
	21	Banda	-1.5	0.3	-1.4	-0.9	-0.1	0.2	-1.0	-0.8	-0.2	-0.9	-0.1	-1.2	-7.6	-0.6
	22	Shahgarh	-0.4	-0.3	-0.2	1.4	-0.3	-1.9	-1.2	1.9	-0.7	-0.2	-0.7	-0.5	-2.9	-0.2
	23	Rahatgarh	1.2	0.5	0.0	0.5	0.2	-0.1	-0.7	2.4	1.3	-0.6	-0.6	1.1	5.2	0.4
	24	Jaisinagar	-0.4	0.9	0.3	-0.9	-0.2	1.2	-0.0	-0.8	0.4	-0.3	0.3	0.4	0.8	0.1
	25	Sagar	-0.9	0.3	-1.0	2.2	-1.0	-0.9	0.4	1.9	2.1	0.5	1.1	-0.8	3.8	0.3
	26	Rehli	-0.3	1.1	-1.4	0.7	-1.0	-2.5	-1.3	0.4	0.1	-0.9	-0.1	-1.5	-6.7	-0.6
	27	Kesli	1.2	1.5	-0.1	2.2	1.2	0.3	-1.4	0.2	-0.2	-0.7	-1.0	-0.4	2.9	0.2
	28	Deori	0.9	-0.2	-0.9	-0.5	0.7	-1.1	-2.9	0.3	-0.2	-0.8	0.8	-0.8	-4.6	-0.4
Damoh	29	Hatta	0.7	-0.3	0.6	-0.9	2.6	-1.8	-0.6	-0.8	-0.8	-0.9	-0.8	0.8	-2.11	-0.2
	30	Patera	-0.4	-0.9	-0.8	-0.9	2.2	1.4	0.4	-0.8	-0.8	-0.7	-0.8	2.4	0.7	0.1
	31	Barigarh	0.5	0.8	-0.3	-0.9	1.4	0.8	-0.0	-0.8	0.4	-0.5	0.7	0.6	2.8	0.2
	32	Patharia	-0.4	0.3	1.3	-0.9	-0.4	0.5	1.0	-0.8	0.6	-0.8	-0.8	1.5	1.2	0.1
	33	Damoh	0.4	-0.1	-0.5	-0.9	0.3	-0.6	-0.3	-0.8	-1.1	-0.7	-0.7	0.2	-5.1	-0.4
	34	Jabera	-0.1	-0.3	0.1	-0.9	1.3	0.8	0.0	-0.8	-1.1	-0.5	-0.6	1.5	-0.4	-0.0
	35	Tendukheda	0.5	-0.7	-0.9	-0.9	0.1	-1.2	-0.4	-0.8	-1.1	-1.0	-1.0	1.3	-6.0	-0.5
Panna	36	Ajaigarh	1.0	0.7	0.2	-0.1	-0.2	1.4	1.9	2.8	0.8	-0.6	-1.2	-0.5	6.2	0.5
	37	Panna	2.0	0.2	2.2	-0.5	-1.0	-1.4	-0.4	-0.4	-0.6	-1.0	-0.9	-0.4	-2.2	-0.2
	38	Gunnor	3.0	0.5	0.5	0.4	-0.4	-0.1	1.0	-0.4	-0.1	-0.9	-1.1	-0.8	1.6	0.1
	39	Pawai	1.8	1.1	0.8	0.5	0.1	-0.2	0.3	0.1	-0.6	-0.6	-1.3	-1.5	0.5	0.0
	40	Shahnagar	1.1	0.9	-0.2	-0.9	-1.2	-0.1	0.6	-0.8	-0.9	-1.0	-0.9	-0.2	-3.5	-0.3

Note: GV= Gross Value, CI= Composite Inde Score, X1…Xn = Standard Index Scores (I) of Social Infrastructure Indicators
Source: Computed by author.

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URBANISATION AMONG SCHEDULED CASTES IN PUNJAB: A STUDY OF INTER -CASTE DIFFERENTIALS

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Abstract: Mobility of Scheduled Caste (SC) population from rural to urban areas indicates a major step in the direction of their socio-economic transformation. Exposure to urban way of life empowers SC communities, makes them aware about their rights, and opens various livelihood opportunities that are, hitherto, not available to these communities in rural areas. However, level of urbanisation differs among the SC communities, and it is not a function of total population of the community. To establish this axiom, four major scheduled castes, namely Ad Dharmi, Balmiki, Chamars and Mazhabi, who, together, constitute more than 80.0 per cent of total SC population in Punjab, have been considered and spatio-temporal trend of urbanisation among these communities have been examined. Degree of urbanisation has been worked out by computing percentage share of urban population in total population. The census data for the decades from 1971 to 2011 formed the data base for this study. Census of India, 2011 shows that Balmiki, the fourth ranking caste in the matter of total population, occupies the top position in case of urbanisation and Mazhabi is the least urbanised caste, although it outnumbers all other castes in case of total population. The same trend prevailed in 1971 also. The Balmiki community continues to be the most urbanised group in all five census periods. This study is expected to help in planning for urban development as well as development of scheduled caste population in Punjab.

Keywords: Inter-caste differentials, Urban mobility, Socio-Economic transformation

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Introduction

The mobility of SC population from rural to urban areas indicates to a major step in the direction of their socio-economic transformation. In urban areas, they get a great opportunity to interact, exchange and unite with each other to fight for their common causes. The caste based deprivation and the social and spatial segregation often faced openly by them in rural areas get greatly minimized in urban areas. Hence, urban living is generally more conducive to their socio-economic transformation and political mobilization. That is the reason for several studies conducted by different scholars on socio-economic transformation of SC population in India very often considers the degree of urbanisation among SCs as one of the strongest indicators to examine their transformation.

In the existing literature there are several studies on different socio-economic and demographic aspects of SC population in India. In a study of south India, Gist (1954) stated that the caste-based differentials are associated with several other social differentials. He

noted that the caste is inextricably linked with several other facets of Indian society, representing a strongly conservative force sanctioned by custom and belief. The study, however, predicted that the system is bound to crumble under the impact of industrial technology, economic reforms and political change. Whether India remains a democratic society or drifts into some form of totalitarianism, the inevitable changes that lie ahead will tend to sap the caste system of its traditional vitality. Ramaswamy (1974) examined the traditional occupations of SCs, and expressed concern over the slow pace of occupational mobility among such castes, because the SCs still continue overwhelmingly in their traditional occupations especially in rural areas. Even in the urban areas only a fraction of the posts in the administration, reserved for them, are actually filled. Similarly, D'Souza (1975) expressed his concern over the slow pace of economic transformation among the SCs and existence of socio-economic inequalities. He advocated for effective measures to bring about the desired transformation in the Indian society.

In a study focusing on SC population in Punjab, Jodhka and Kumar (2007) classified them into three clusters: (i) Mazhabi Sikhs and the Balmikis/Bhangis (making 41.90 per cent), (ii) Ad Dharmis and Chamars/Ravidasis/RamdasiSikhs (41.59 per cent) and the remaining 33 SC castes (16.51 per cent) of the total SC population in Punjab. In another study, Judge and Bal (2008) found caste a deeply rooted phenomenon in the collective consciousness of SCs. While the traditional caste occupational structure has changed, caste endogamy remains the norm. Jodhka (2009) adopting the historical perspective on caste and religion in Punjab studied the evolving caste and religion based identity among the Punjabi Ravidasis. Stroope (2011) studied the role of religious bonding as the social wealth in India to conclude that religious bonding might be better understood as rooted in the interaction of caste dynamics and changes in the urban environment, rather than as the result of greater affluence. Puri (2003) studied the trade-off between the doctrinal principles of Sikh religion and the ruling social and political interests in the context of the changes taking place in society and economy of Punjab to conclude that there is need to interrogate caste further in varied settings of religion and region. Gosal (2003) interrogated the association between rural-urban mobility of the SC population and their social and economic welfare during post-Independence period. Thorat and Newman (2007) studied discrimination against SCs in the formal labor market. They documented widespread discrimination against SCs and the underlying attitudinal orientations-based on caste and religion contributing to inequality in employment and wages in the modern/formal sector of India's economy. Singh (2009)

examined the progress made with regard to social (health, housing, workforce participation, availability of basic amenities and wage employment under income generation schemes), educational and occupational status. Using data available from the secondary sources, he found that there has been a positive change on various socio-economic parameters but it touches merely less than a half of their population. Bharti (2010) examined the socio-economic condition of SCs in post-Independent India to conclude that even after the six decades of independence, the socio-economic conditions of the SCs are still poor, especially in rural areas.

The Punjab, where rural economy and society have been greatly transformed in the post Green-Revolution phase and is regarded as the core area of declining untouchability under the influence of the Sikhism, makes an ideal case to undertake a study of socio-economic transformation among the SC population. Literacy/education, rural-urban mobility, and occupational transformation in rural areas among scheduled caste population are considered as the strong indicators of their socio-economic transformation (Kant, 2001). SC population is not only far behind the non-SC population in socio-economic transformation but also there are wide inter-caste variations among these castes.

In 2011, SC population made 8.86 million or about 32.0 per cent in total 27.74 million population of Punjab. This was not only the highest share of SC population among all the states and union territories in India but also nearly double of the national average of 16.6 per cent. Within Punjab, SC population share ranged from a maximum of 42.5 per cent in Shahid Bhagat Singh Nagar (Nawanshehr) to a minimum of 21.7 per cent in Sahibzada Ajit Singh Nagar (Mohali). This indicates that all the districts of the state have the proportional share of SC population higher than the national average. There are 39 sub-castes of SCs in the state. Two of them, Mahatam Rai Sikh and Mochi, notified in 2007 after the conduct of 2001 Census, were enumerated for the first time in 2011 Census. However, 13 important SC castes subsume more than 92.0 per cent of total SC population in the state. The Mazhabis and the Chamars, in combine, make more than half (53.2 per cent) of the total Dalit population in the state.

In 2011, more than one-third or 37.0 per cent of population of Punjab was living in urban area. This share was only 27.0 per cent for SC population. Evidently, SC population is less urbanized in comparison to the total population of Punjab. Even at the national level, the shares for the two populations were quite different (31.0 per cent for total, and 24.0 per cent for SC population. Further, degree of urbanization between SC and Non-SC population

differ more widely. In 2011, about 42.0 per cent of non-SC population was living in the urban areas of Punjab. This share was only 28.0 per cent for SC population in the State. At the national level, the two figures were 32.7 per cent and 23.6 per cent, respectively.

Within the N-W region, Punjab ranks fourth after Chandigarh (U.T.), NCT of Delhi and Haryana. It was ahead only of Jammu and Kashmir and Himachal Pradesh.

Briefly, SC population in Punjab is predominantly rural, since only about 27.0 per cent of them were living in urban areas. Against this, more than two-fifths or 42.0 per cent of non-SC population in the state were residing in urban areas. However, SC urban share in Punjab was higher than that of the national average (about 24.0 per cent) for all such population in India.

Equally important issue is wide inter-caste differentials in level of urbanisation among SC castes in Punjab. In 2011, More than 90.0 per cent of persons of Dagi, Deha, and Dhogri castes were living in urban areas. Against this, the share was less than 4.0 per cent for Mahatam/Rai Sikh caste.

Taking a cue from the above statements, the present study makes a spatio-temporal analysis of urbanisation among SCs in Punjab with a focus on inter-caste variations in level of urbanisation among SCs.

The research questions

In the light of the above, the present poses the following research questions for their answer with the help of data mapping and analysis:-

1. What has been the trend and pattern of SC population urbanisation in Punjab?
2. How the level of urbanisation in Punjab differ between SC and Non-SC castes. Whether the urbanisation gap between the two segments of state has increased/decreased over the period and what factors have contributed to this? and
3. Which of the SC castes are more urbanised than others and what are factors working behind all this? What has been role played by the nature of occupations performed by different SC castes in shaping the level of urbanisation among different SC castes in Punjab?

Data sources and methodology

The study was mainly based on secondary sources of data. The Census of India has been collecting and publishing data on various demographic and socio-economic attributes of SC population in India. The *Special Tables on Scheduled Castes*, published from Census

Commissioner and Registrar General of India, New Delhi following each Census decade provide a variety of demographic data on SC population. The data available from the *General Population Tables and the Special Tables on Scheduled Castes* pertaining to rural-urban composition have been pressed into service for conducting the present study.

For studying differentials in SC urbanisation, differential index technique was pressed into service. Among several techniques available in the existing literature (see Sopher, 1974; Kundu and Rao, 1986; Krishan and Shyam, 1978; D'Souza, 1980), a slight modified version of Victor D'Souza's method , was pressed into service (see also Premsagar, 1990). The details of calculating the index are as follows.

$DI = 100[1-(Yi/Xi)]$

Where DI = stands for differential Index.

Xi = stands for the ratio of the property of one item in the i^{th} areal units.

Yi = stands for the ratio of the property of other item in the i^{th} areal units.

For preparing the maps, an essential tool with geographers to understand the spatial distribution and associations of any geographical phenomenon, choropleth technique was used to map of urban SC population at the district level.

The study covers the five Census decades, from 1971 to 2011. The decade of 1971 was selected for the two reasons: (i) it is first Census decade after Punjab acquired the present politico-administrative shape following its linguistic reorganization in 1966, and (ii) Green-Revolution struck on Punjab soils in 1966 and its results becoming visible on ground around 1971. The Green-Revolution radically transformed both the economy and society of Punjab, and SC population was no exception to this. The 2011 is the latest census decade for which such data are available. The district formed the unit of study. There were 20 districts in the state at the time of 2011 Census. Earlier in 1971, the number of districts was only 11 districts.

Results and Discussion

In 2011, 37.0 per cent population of Punjab was living in urban area. This share was only about 27.0 per cent for SC population. Evidently, SC population is less urbanized in comparison to Punjab, in general. These differences get further accentuated if we compare SC and non-SC population, separately. In Punjab, 42.6 per cent non-SC and 26.7 per cent SC population are urban. Evidently, urban mobility gap between these two segments of population is quite wide. However, if we exclude the two newly added castes in SC list of Punjab, Mochi and Mahatam/Rai Sikh, and included in non-SC list, this ratio differs. The

share of urban SCs goes up and that of non-SC population comes down. This reduces the gap between the two populations (see Table 1).

Table 1: Punjab: Change in urban percentage shares of SC and non-SC population, 1971-2011

Year	Non-SC Population	SC Population	Differential Index value
1971	26.70	14.70	44.94
1981	30.97	18.74	39.50
1991	33.10	20.55	37.92
2001	37.81	24.34	35.63
2011	42.56	26.67	37.33
2011#	41.54	28.04	32.50

Source: (i) Census of India. *Social and Cultural Tables, Part II-C (i)*, for 1971, 1981, 1991, 2001 census decades, and (ii) Census of India (2011),Primary Census Abstract Data Tables (India & States/UTs-District level), Registrar General and Census Commissioner of India, New Delhi (downloaded from (http://www.censusindia.gov.in/2011census/population_enumeration.html).
Excluded Mochi and Mahatam/Rai Sikh castes, included for the first time in 2011 Census.

Briefly, SC population in Punjab is predominantly rural, since only about 27.0 per cent of them were living in urban areas. Against this, more than two-fifths or 42.0 per cent of non-SC population in the state were residing in urban areas. However, SC urban share in Punjab was higher than the national average (about 24.0 per cent) for all SCs in India. Within northwest region, Punjab was ahead only of Jammu and Kashmir and Himachal Pradesh, on this count.

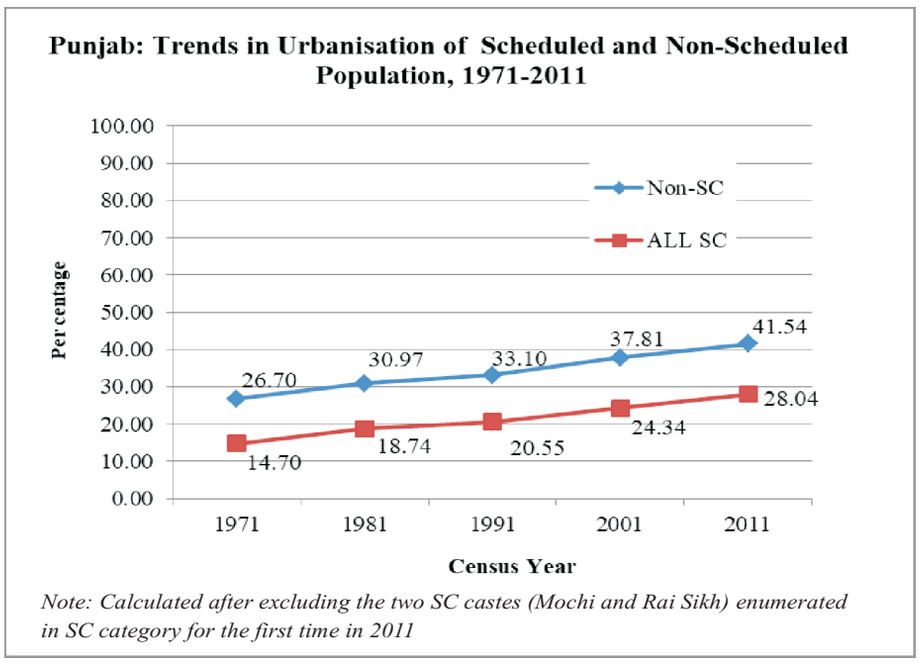
Urbanisation during 1971-2011: SC versus Non-SC Population

In 1971, only about 15.0 per cent of SC population in Punjab was urban by residence. This share was about 27.0 per cent non-SC population of Punjab. Obviously, there had been a wide gap between the two segments of population in the state.

In 1981, this share for SC population rose to 18.7 per cent, registering about 4.0 per cent points increase. Against this, urban share of Non-SC population increased to about 31.0 per cent. Although the urbanisation gap between the SC and non-SC communities was wide still, but registered a marginal decline in comparison to 1971. In 1991, when 20.6 per cent SC population was living in urban Punjab, decadal increase (1981-91) was less than 2.0 per cent, against an increase of 4.0 per cent earlier during 1971-81. Increase in case of non-SC population was also on similar lines, but the margin of difference declined (Table 1).

The next decade of 1991-2001, which was marked with economic liberalization in India, boosted the urbanisation process in the state for SCs and non-SCs both. The share of urban SCs rose to 24.3 per cent in 2001 from 20.6 per cent in 1991. During the same period,

non-SC population urban share increased to 37.8 per cent from 33.1 per cent. As evident from C.V. index value, the gap in urban share between SC and non-SC population also declined in this decade, speaking of a healthy trend.



Source: As Table 4.0

Fig. 1

In 2011, when SC urban share went up to about 27.0 per cent from 24.3 per cent in 2001, registering an increase of more than 2.0 per cent points, the urban share of non-SC population in the state rose to about 43.0 per cent from about 38.0 per cent. Evidently, non-SC urban share grew faster than SC urban share during 2001-2011, widening the gap between SC and non-SC urban shares. However, if the two new SC castes, namely, Mochi and Mahatam/Rai Sikh, added first time in SC category in 2011, are excluded from SC category population and considered a part of non-SC category population, it reveals that SC urban share increased to 28.0 per cent rather than to 26.7 per cent between 2001-2011 and that of non-SC population to 41.5 per cent instead of 42.6 per cent during this period. Then, we find a decline in gap between SC and non-SC urban shares during 2001-2011 (Fig. 1).

Looking from another angle, we find that SC population urban share almost doubled during 1971-2011: from 14.7 per cent to 28.0 per cent. Against this, non-SC population share registered an increase of only about one and a half time during this period: from 26.7 per cent to 41.5 per cent during this period. Evidently, the relatively higher increase in share of urban

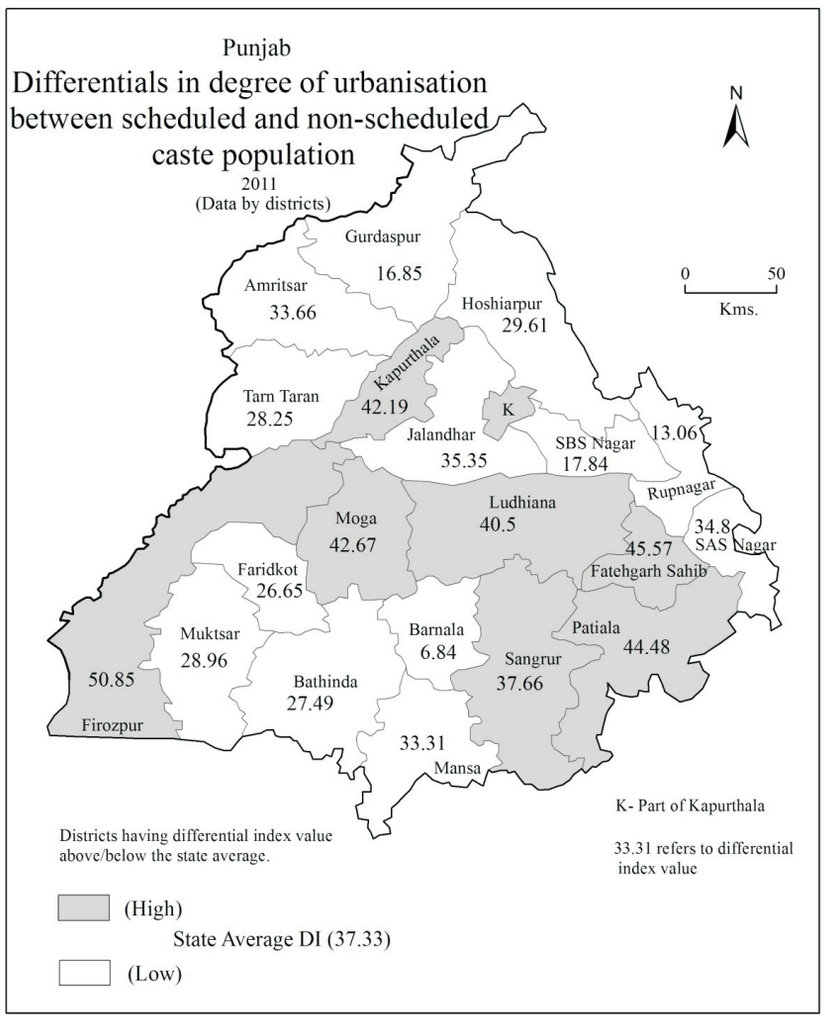
SCs contributed to narrowing down the gap between the two segments of Punjab population. Definitely, it indicates to a healthy trend. Of course, there can be the differences in quality of urban life between SC and non-SC population in the state.

Differentials at the district level

The level of urbanisation among SC and non-SC population differed widely across districts in 2011. While nearly two-fifths of total SC population in three districts of Amritsar, Jalandhar and Ludhiana was residing in urban areas, this share was only one-tenth in Tarn Taran district.

Table 2: Punjab: Contrasts in shares of urban SCs by districts, 2011
Districts where share of urban SC population was higher than one-fourth or 25.0 per cent in 2011
Jalandhar (39.69), Amritsar (39.68), Ludhiana (39.41), SAS Nagar (38.62), Barnala (30.50), Faridkot (28.76), Bathinda (28.62), Patiala (25.09) **Total: 8**
Districts where share of urban SC population was lower than one-fifth or 20.0 per cent in 2011
Fatehgarh Sahib (19.70), SBS Nagar (18.21), Firozpur (17.04), Hoshiarpur (16.59), Mansa (15.96), Moga (15.50), Tarn Taran (10.04) **Total: 7**
Note: Remaining five districts have urban SC share in between the two limits.

In eight out of the 20 districts in the state, the share of SC urban population was one-fourth in total SC population. In all such districts, SC urban share was also higher than the average for the all SC population in the state. Against this, share of SC urban population was less than one-fifth in the seven districts of the state (Table 2).



Source: As Table 4.1

Fig. 2

The majority of urban-industrial districts in the state has relatively higher share of urban SC population. Locationally, such districts fall in the central corridor, the Grand Trunk road as well as Mumbai-Delhi-Amritsar rail route passing through it. Against this, districts with low SC urbanisation were located either in north-eastern Shivalik hill track or south-western Punjab, having rural and agricultural setting. The same pattern can be seen even in case of non-SC population in the state. In other words, urbanisation of SC population in the state finds a broad conformity with that of the general and non-SC population in the state.

Table 3:Punjab: Differentials in urbanisation of SC and Non-SC by districts, 2011

Sr. No	Name of districts	Non-SC	SC	Differential Index
		(in per cent)		
1	Gurdaspur	29.96	24.91	16.85
2	Kapurthala	40.44	23.38	42.19
3	Jalandhar	61.39	39.69	35.35
4	Hoshiarpur	23.56	16.59	29.61
5	Shahid Bhagat Singh Nagar	22.16	18.21	17.84
6	Fatehgarh Sahib	36.20	19.70	45.57
7	Ludhiana	66.24	39.41	40.50
8	Moga	27.03	15.50	42.67
9	Firozpur	34.67	17.04	50.85
10	Muktsar	31.87	22.64	28.96
11	Faridkot	39.22	28.76	26.65
12	Bathinda	39.47	28.62	27.49
13	Mansa	23.94	15.96	33.31
14	Patiala	45.20	25.09	44.48
15	Amritsar	59.82	39.68	33.66
16	Tarn Taran	14.00	10.04	28.25
17	Rupnagar	26.90	23.39	13.06
18	Sahibzada Ajit Singh Nagar	59.24	38.62	34.80
19	Sangrur	34.83	21.71	37.66
20	Barnala	32.74	30.50	6.84
0	**PUNJAB**	**42.56**	**26.67**	**37.33**

Source: Calculated from Census of India (2011),Primary Census Abstract Data Tables (India & States/UTs-District level) (Excel Formate) downloaded from Internet (http://www.censusindia.gov.in/2011census/population_enumeration.html).

Notwithstanding a broad conformity between urbanisation pattern of SC and non-SC population in the state, there are wide inter-district differentials in the state. Differential index value varied from a high of 50.85 for Firozpur district to only 6.84 for Barnala district, both located in the south-western part of the state, also known as Malwa region. Average differential index value being 37.33, seven out of 20 districts in the state had this value higher than the average for all SCs in 2011. Interestingly, except Kapurthala district, all the other districts this category fall in south-western or Malwa region. These included Fatehgarh Sahib, Ludhiana, Moga, Firozpur, Patiala and Sangrur districts (Table 3).

On the other side of the scale, three of the four districts having differential index value of less than a half of the average value were located in north-eastern foot-hill zone. These districts included Gurdaspur, SBS Nagar, and Ropar. Five urban-industrial districts in the state namely Jalandhar, Ludhiana, Amritsar, Patiala, and SAS Nagar registered relatively high differentials index value (Fig.2).

Briefly, while spatial pattern of urbanisation among SC and non-SC population in the state conform to each other, there are wide inter-district differentials in level of urbanisation

between SC and non-SC population; however more pronounced in districts falling in south-western zone or Malwa region, while the reverse was true of districts located in north-eastern foothill region. Also, the relatively urban-industrial districts in the state recorded higher differentials in urbanisation level of SC and non-SC population.

Differentials within SCs

There are wide inter-caste differentials in degree of urbanisation within SCs. Over a period of time, several SC castes are getting more urbanised than others in the state.

In 2011, all the Dagis and more than 90.0 per cent of Dehas and Dhogris were living in urban Punjab. This ratio was only 3.5 per cent among Mahatam/Rai Sikhs. However, some of the SC castes in the state are quite small in number. For example, the total number of Dagis was just 29.

By 2011, all the 39 SC castes in the state had their representation in urban Punjab. However, the situation was quite different earlier in 1971. For example, the two SC castes, namely Kori and Dumna, were completely rural in 1971. Then, some of the SC castes were completely rural in a few districts of state. For example, of the total 18 SC castes living in Kapurthala district in 1971 census, only 16 had representation in urban areas.

In view of all this, 12 SC castes, each having at least 1.0 per cent share in the total SC population of the state in 2011, have been taken for detailed analysis. However, of them, Mahatam/Rai Sikh caste was included for the first time at the time of 2011 Census in SC list of castes (Table 4). Therefore, we are left only with eleven SC castes to study the trends and the level of urbanisation among SCs in Punjab.

In 1971, Dhanak, with 63.1 per cent of their population living in urban areas, was the most urbanized and the Bauria/Bawaria with only 3.0 per cent was least urbanised among the major SC caste in Punjab. About 15.0 per cent being the average for all SC population in the state, five of the eleven major SC castes had higher urbanisation than the state average. These castes included Dhanak, Kabirpanthi, Megh, Balmiki, and Dumna. The level of urbanization among the first four castes was higher even than the average (26.70 per cent) for non-SC castes (see Tables 1 and 4).

Table 4: Punjab: Trends in urbanisation of major SC castes, 1971-2011
(in percentage)

Sr. No	Name of SC	2011	Rank 2011	2001	1991	1981	1971	Rank 1971
1	Dhanak	71.31	1	68.84	67.12	72.94	63.13	1
2	Kabirpanthi	68.53	2	58.56	46.77	40.91	35.85	3
3	Megh	43.54	3	47.61	50.39	49.68	50.47	2
4	Balmiki	39.89	4	35.00	31.79	30.72	27.08	4
5	Dumna	33.45	5	28.96	26.86	25.10	23.04	5
6	Chamar	30.20	6	25.05	19.83	16.57	12.31	7
7	Sansi	26.97	7	18.90	16.99	11.71	9.13	9
8	Ad Dharmi	21.43	8	19.85	15.44	14.99	12.86	6
9	Bazigar	21.07	9	19.59	15.91	14.25	11.30	8
10	Mazhabi	18.29	10	16.03	12.39	10.66	7.91	10
11	Bauria, Bawaria	10.82	11	8.51	8.11	5.99	2.79	11
12	Mahatam, Rai Sikh#	3.49	12	-	-	-	-	-
0	**All SC**	**26.67**		**24.34**	**20.55**	**18.74**	**14.70**	

Source: Census of India (1971). Social and Cultural Tables, Part II-C (i), Registrar General and Census Commissioner of India, New Delhi. And Socio and Cultural tables for 1981, 1991, 2001 census. (ii) Census of India (2011), **A-10 Individual Scheduled Caste Primary Census Abstract Data and its Appendix,** downloaded from Internet (http://www.censusindia.gov.in/2011census/population_enumeration.html)
The caste was notified in SC category in 2007 and enumerated for the first time in 2011 census

All the SC castes having high level of urbanisation are generally engaged in non-farm activities. For example, Meghs are working in trade or involved in manufacturing activities and even employed for white-collar jobs, having urban orientation. Similarly, Kabirpanthis were traditionally weavers, moved now to urban areas for employment in government/ private services and in manufacturing activities. It seems that the nature of occupation of a caste and its leaving in urban or rural area find a close association with each other.

On the other, Sansi, Mazhabi and Bauria/Bawaria castes are overwhelmingly rural by residence. In their case, less than one person of every ten persons resides in urban areas. Mazhabi, the largest SC caste in the state, is predominantly rural. The majority of workers from this caste are engaged in farm activities, working mostly as agricultural labourers. However, Ad Dharmi, the third largest SC caste in the state, has high literacy level and occupational diversification as well. But fall in category of low urbanised SC castes in the state. Only about 13.0 per cent of Ad Dharmis are urbanised. What explains this? In fact, Ad Dharmis are highly concentrated in Jalandhar, Nawan Shehr, Hoshiarpur and Kapurthala districts of Bist doab. In other parts of the state especially in the districts of Malwa region their population is quite low. In these districts, they have been working as government employees or have migrated for better employment/business activities. In areas of their concentration, Ad Dharmis are predominantly rural. However in areas of their scattered distribution, they are highly urbanised. For example, in Hoshiarpur and SBS Nagar districts,

where Ad Dharmis are highly concentrated, less than one-fifths or 20.0 per cent of total Ad Dharmis are living in urban areas. Against this, in five districts such as Bathinda, Patiala, Faridkot, SAS Nagar and Tarn Taran , where Ad Dharmi population is small in number, more than 80.0 per cent of Ad Dharmis are in urban areas. Evidently, Ad Dharmi, a relatively high literate and occupationally diversified caste of Punjab, is highly rural by residence in areas of their geographical concentration. Briefly, majority of Dhanaks and Meghs of Punjab were urbanised in 1971. Against this, overwhelming majority of Sansis, Mazhabis, and Bawarias were rural by residence.

By 1981, SC share of urban population rose to 18.74 per cent from 14.70 per cent in 1971, registering an increase of 4.0 per cent. However, the majority of Dhanaks were living in urban areas. Megh, the other caste having the majority of its population in urban areas in 1971, recorded a decline in its urban share, resulting in decline of the share of urban Meghs to 49.7 per cent in 1981 from 50.5 per cent in 1971. However, the noted feature of urbanisation trend among major SC castes in Punjab was that all castes, except the Megh, registered an increase in their urban shares and all but Bawaria caste registered their urban share in two digits. The highest increase was registered in case of the Dhanak caste, having the highest share (72.9 per cent) of urban population. Against this, Dumna caste registered the lowest increase of about 2.0 per cent. As already stated, Megh caste registered a decline in its share of urban population. On the whole, five castes out of the eleven major SC castes had urban share above the state average for all such castes and six castes remained below it. The same was true for 1971.

By 1991 when urban SC share registered an increase of less than 2.0 per cent, from 18.74 per cent in 1981 to 20.55 per cent in 1991, inter-caste differentials in urbanisation were considerably reduced. The range difference between the most and the least urbanized SC castes declined to less than 60.0 per cent in 1991 from 67.0 per cent earlier in 1981. Now, the most urabanised SC caste (Dhanak) recorded 67.1 per cent and the least urbanized SC caste (Bawaria) recorded 8.1 per cent. Decline in urbanisation share of Dhanaks was largely responsible for reduction in range difference: In 1991, 67.1 per cent Dhanaks were urban in 1991, against about 73.0 per cent in 1981. However, urbanisation among other SC castes registered increase but at a slower pace. Relatively higher increase was registered in case of Kabirpanthis, Sansis and Chamars. The opposite was true for Meghs, Balmikis, Ad Dharmis and Dumnas.

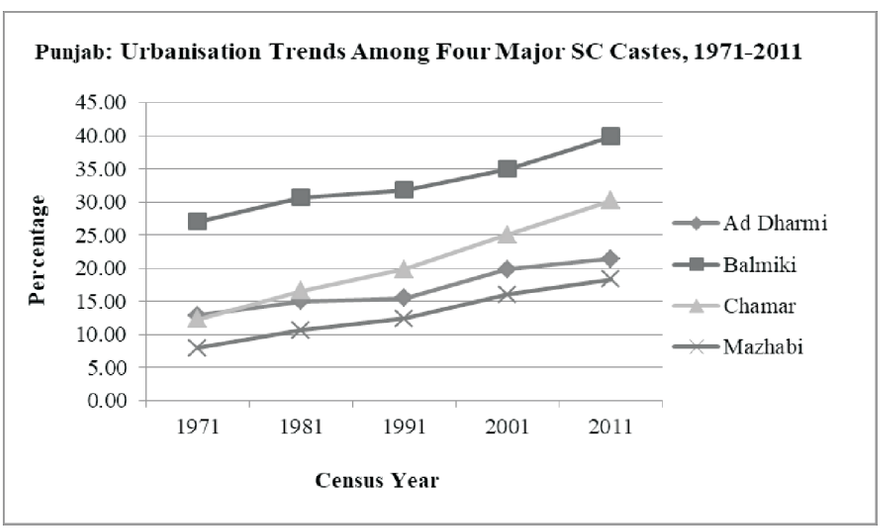
After a slow growth of urbanisation among SCs during 1981-1991, the next decade of 1991-2001 registered a relatively higher increase. However, it differed widely across the major SC castes. Overall degree of SC urbanisation in Punjab rose to 24.3 per cent in 2001 from 20.6 per cent in 1991.

Among the major SC castes, the highest increase of about 12.0 per cent was recorded in the case of Kabirpanthis followed by the Chamars with more than 5.0 per cent and Ad Dharmis by about 4.0 per cent. Against this, Dhanaks and Bawarias registered only a marginal increase. Notably, there has been a decline in share of urban Meghs from 50.4 per cent in 1991 to 47.6 per cent in 2001. Among 11 major SC castes Megh caste was relegated to the third position in 2001 from the second in 1991. Now, it was replaced by the Kabirpanthi caste. While in 1991, Dhanaks and Meghs were the two SC communities having the majority population in urban areas. By 2001, Dhanak caste was joined by Kabirpanthia at the cost of the Megh. As usual, Bawaria caste continued to be at the lowest position all through from 1971 to 2001.

During the latest census decade (2001-2011), there has been a slow increase in urban SC share from 24.3 per cent in 2001 to 26.7 per cent in 2011. This is attributed mainly to inclusion of Mahatam/Rai Sikh caste in SC list during 2011 census. This caste, mainly concentrated in Firozpur, Faridkot and Tarn Taran districts of Punjab, is largely rural by residence and agricultural by occupation. In 2011, only less than 4.0 per cent of its population was living in urban areas. Bawaria, the least urbanised major SC caste all along during 1971-2001, had about 11.0 per cent of its population living in urban areas in 2011, against less than 4.0 per cent share for Mahatam/Rai Sikhs. If, Mahatam/Rai Sikh caste is excluded from calculation of urban SC share, SC urban share goes up by about 2.0 per cent: from 26.7 per cent to 28.0 per cent in 2011. Secondly, inter-caste as well as SC and non-SC caste differentials in degree of urbanisation also come down significantly. In 2011, Dhanak caste with 71.3 per cent share of urban population was at the top and Mahatam/Rai Sikh caste with only 3.5 per cent was at the bottom among 12 major SC castes. Dhanak and Kabirpanthi were the two SC castes having majority of SC population living in urban areas. Further all but Meghs recorded increase in their shares of urban population during 2001-2011. Kabirpanthis recorded the highest increase in their urbanisation share followed by Sansis, Chamars and Balmikis. On the other hand, Ad Dharmis, Bazigars, Mazhabis and Bawarias registered low increase in their urban shares. As earlier in 2001, Dhanak and Kabirpanthis were the two castes having majority of their population in urban areas. On the other hand, Mazhabi,

Bawaria and Mahatam/Rai Sikh were the three castes, in whose case, less than one-fifth of their population was residing in urban areas.

On the whole, Kabirpanthi, Chamar, Sansi, Bawaria, Bazigar and Mazhabi castes represent a case of increasing trend in urbanisation, against this Ad Dharmi, Balmiki, Dumna, Dhanak and Megh castes represent slow growing/ stagnant/decreasing trend in urbanisation. Of the five top ranking SC castes, in population size, namely Mazhabi, Chamar, Balmiki, Ad Dharmi and Mahatam/ Rai Sikh, the first two castes represent increasing trend in urbanisation (see Fig.3) and the last three castes represent the slow growing or stagnating trend in urbanisation during four decade i.e. 1971-2011. However, the most unfortunate part of the urbanisation story of SC castes in Punjab is that none of the five top ranking castes display high level of urbanisation. Among them, Balmiki is the only caste where nearly 40.0 per cent or two-fifth population was living in urban areas in 2011. On the other side of the scale, more than 96.0 per cent of Mahatam/Rai Sikhs, the fifth largest SC caste, were living in rural areas. In sum, not only the major SC castes in Punjab were highly rural by residence but there were also wide inter-caste differentials in degree of urbanisation.



Source: As Table 4.3

Fig. 3

Conclusions and major findings

With about 32.0 per cent share of scheduled castes in its total population of 27.7 million persons, Punjab ranks at the top among all the states and union territories in India on this count. This segment of Punjab's population not only more rural and agricultural in

comparison to Non-SC population in the state, but also there are wide inter-district as well as inter-caste variations in the level of SC urbanisation.

In 2011, only about 27.0 per cent of SC population was urban in comparison to 37.0 per cent urbanisation in the state as a whole. The level of urbanisation was as high as 42.0 per cent for non-SC population. However, the share of urban SC population grew relatively faster than that of Non-SC population in state during 1971-2011. Urban SC share increased by two times against one and a half times for non-SC population, resulting in a marginal decline in the gap between the urban shares of two segments population in Punjab. This is definitely a healthy trend. Of course, there can be the differences in quality of urban life between SC and non-SC population.

While nearly two-fifths of total SC population in three districts of Amritsar, Jalandhar and Ludhiana is residing in urban areas, this share was only one-tenth in Tarn Taran district. In districts falling in the central corridor and the Grand Trunk road as well as Mumbai-Delhi-Amritsar rail route passing from there, level of SC urbanisation is high, in general. Against this, districts with low SC urbanisation are located either in north-eastern Shivalik hill track or south-western Punjab, having rural and agricultural setting.

Inter-district variations in urbanisation between SCs and non-SCs in the state are more pronounced in districts falling in south-western zone or Malwa region, while the reverse is true of districts located in north-eastern foothill region. Also, the relatively urban-industrial districts in the state recorded higher differentials in urbanisation among SC and non-SC population.

The top ranking population sized SC castes in the state are more rural in areas of their concentration/dominance, against being more urbanised in areas, where they are sparsely distributed. Ad Dharmi caste is a typical caste of being predominantly urban in areas of their sparse distribution against being predominantly rural in areas of their concentration. In SBS Nagar and Hoshiarpur districts, where Adi Dharmis are highly concentrated, they are the least urbanised, while in Moga, Mansa, Bathinda, Sangrur, SAS Nagar and Barnala districts, where are their shares marginal, were predominantly urban.

On one hand, SC urbanisation level broadly conform conforms to that of the general population in different parts of the state. On the other hand, it conforms to their occupational structure. SC castes engaged in non-farm economic activities especially in services are more urbanised. Against this, those working in farm sector especially as agricultural labourers or

casual/independent workers are predominantly rural. The Meghs, working in trade/manufacturing activities and even in white-collar jobs, along with the Kabirpanthis, the traditional weavers gradually moving to urban jobs are among the most urbanised SC castes. Against this, Sansi, Mazhabi, Mahatam/Rai Sikh and Bauria/Bawaria castes are overwhelmingly rural. Mazhabi, the largest SC caste in the state, is predominantly rural.

Urbanisation trend during 1971-2011 reveals that Kabirpanthi, Chamar, Sansi, Bawaria, and Bazigar castes represent a case of increasing trend in urbanisation, against this Ad Dharmi, Balmiki, Dumna, Dhanak and Megh caste of slow growing/stagnating. None of the top ranking four SC castes in the state, Ad Dharmi, Balmiki, Chamar and Mazhabi, display a high level of urbanisation. Balmiki, the most urbanised SC caste in the state, has only about two-fifth of its population urban.

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SUSTAINING LINGUISTIC AND CULTURAL IDENTITY : A STUDY OF MODES AND STYLES ADOPTED BY BENGALI COMMUNITY IN DELHI

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Abstract: The present study attempts to illustrate how language contributed in the formation of social identity of Bengalis in Delhi. Also, it elucidates on the concept of integration as discussed by various scholars along with the role language plays in bridging the gap between the levels of integration of migrants with the host society.

The study is primarily based on the large sets of data and information collected through interviews, surveys and focus groups from Bengali Associations, Bengali libraries and 1200 Bengali households of Chittaranjan Park during November-December 2016. The social identity of these Bengali migrants was meticulously assessed from the prism of language, by studying variety of ways and measures undertaken by this community to keep their roots thriving. The present study illumines with the help of integration score derived from cross tabulating the selected six variables as to how language has made low, medium and high levels of integration for these Bengali migrants within the 'Melting Pot' of the nation, i.e. Delhi.

Keywords: Language, Social identity, Integration, Bengali migrants

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Introduction

Social identity dynamics play a vital role when the issue of migration arises. It explains how people perceive themselves as members of a particular social group and how those perceptions influence opinions (Tajfel 1978; Tajfel and Turner 1986). Social identity may be broadly defined as the sum total of the various ways of living that are built by a group of human beings. These principles of living, customs, practices and traditions are transmitted from one generation to the next. Although there are various attributes such as religion, food, tradition and clothing that are needed to bind and preserve the social identity of any migrant community, one of the often observed aspects, considered to be the most significant corner stone in providing a unique identity to any migrant group, is the language. Not merely in maintaining the identity of the migrant community, language plays a key role in the process of integration of the migrants within the host society (Spencer et al., 2016). It is considered to be the first mechanism that helps connecting immigrants to an alien environment i.e. places other than one's own. Flubacher (2013) used the metaphor "language" as the key to

integration explaining that language is an instrument which not only enables migrants to achieve integration through smoother means but also helps in overcoming barriers in communication and failed attempts at socialization. Integration is automatically attainable, he concluded, once these barriers are eliminated through language acquisition.

Research Objectives

The main objectives of the present study are to examine the language in terms of the role it plays in the formation of social identity, and act as a vehicle to integrate a migrant community with the host society with specific reference to the Bengali community in Chittaranjan Park in the NCT of Delhi with a focus on modes and styles adopted by the Bengali community.

The Chittaranjan Park, located in the south district of National Capital Territory of Delhi i.e. NCT of Delhi, was originally established under the name of East Pakistan Displaced Persons Colony (EPDP). It was exclusively allotted to the migrants from East Bengal yet over the period of time the demography of Chittaranjan Park changed. Today one can find here more West Bengal-rooted-Bengalis than the Bengalis belonging to East Bengal (Today's Bangladesh). Over years, this community of Bengalis, descendants of original migrants from West Bengal became so deep rooted within this particular piece of land that its habitation in an alien city became centripetal to its culture. So much so that, even after redistribution of Bengalis in various other parts of Delhi, Chittaranjan Park is synonym of Bengali culture including addas, panchphoron, shukti, hilsa, puchkas, chop, jhaalmuri and political discussions over smoke and caffeine. Chittaranjan Park has, therefore, been chosen as the study area where the Bengali community is inter-twined with the host society and expresses its identity distinctly.

Data Sources and Methodology

The study is based on data/information collected with the help of snowball technique survey conducted during November-December 2016. All information pertaining to language/s of Bengali community and ways of its integration with the host society was collected through a well-structured questionnaire from 1200 Bengali families residing in Chittaranjan Park known as, "Mini Kolkata of Delhi". Additional information was also collected with the help of personal detailed interviews and focus group interviews. Moreover, office of the Municipal Corporation of Delhi was also visited for related information. The social identity of Bengali community through the means of language was studied with the help of the following dimensions:

- Language spoken at home
- Means of communication and interaction
- Language spoken by the younger generation
- Familiarity with the native language among members of the younger generation
- Mode of preserving language among children

For identifying the integration level the following six variables were taken into account:

- Attitude and behavior of the host society

- Migrant's descendants' preference to settle permanently in Delhi
- Preference of settlement in their native place in the future
- Frequency of inviting their non-Bengali friends and relatives to their residence
- Frequency of visiting non- Bengali friends and relatives
- Their relation with the host society

Besides, the spatial expressions of their identity like schools, temples, libraries, community centres, membership and participation in their ethnic associations have been shown with the help of maps drawn with the help of ARC GIS 9.3 software.

In order to find out the mechanisms of integration of Bengali community in Delhi the primary data collected from 1200 families was arranged and processed using SPSS Statistics software. With the help of all the information and data collected about social acceptance of Bengalis by the host society an integration score was tabulated for the above mentioned six variables.

The integration score ranging from 0 -12 thus attained was divided into 3 levels of low (less than 4), medium (4-8) and high (above 8) integration. In addition to this, Chi square was calculated and cross tabulation was done between the integration score and different variables such as language of social identity among Bengalis in order to examine the level of significance and integration of Bengalis in the host society.

In the following, the discussion is organized in two parts. The first part focuses on language and social identity and the second on language and integration, supported by the empirical evidences emerging from analysis of data collected through the fieldwork conducted in Chittaranjan Park of Delhi.

Language and Social Identity

To a layman, language is a medium of communication. With its enhanced usage, the world has shrunk. Be it an international migration or national migration, people are moving out of their ancestral birth place to the new homelands carrying their own distinct identities. Any loss of the migrant community's own language undermines both their social structure as well as the disappearance of their group's culture (Thaplawala, 2009). Therefore, language is considered to be the most significant corner stone of any culture. It cements a unique identity of a migrant group which helps them to express specific needs and concerns in the respective society. Moreover, language and culture also play a vital role in promoting and protecting the rights and identities of indigenous people (The United Nations, 2012) as it requires more of symbolic significance of identifying them with their group (Khubchandani, 1972). Since language acts as a fundamental marker of indigenous peoples' distinctiveness and cohesiveness, it forms an essential part of peoples' ways of life, culture and identities.

Furthermore, the National Congress of Australia's First Peoples affirmed that the loss of language is the loss of the ability to describe the landscape and the migrants' place in it. It stated that language plays a fundamental element in binding communities together as a culture and as individuals in society (The National Congress of Australia's First Peoples, 2011). Additionally, language also helps migrant communities to maintain their identities and

culture. It helps them to identify where they fit in society and to whom they are related. (The National Congress of Australia's First Peoples, 2011).

Accentuating the importance of languages as Turner (2012) has mentioned, in order to know, to relate and to understand one self, the prime step is to learn one's own language first than any other language because it not only recognizes 'who' we are but also 'what' we are .As, for any migrant group, not only does language play a critical role in retaining the identity and spirit among the members of the community and their connection to the native land, it also gives a sense of belongingness to them. Thus, language is considered to be the only powerful tool to fill the generation gap between the migrants (The National Congress of Australia's First Peoples, 2011).

Therefore, it may be highlighted that for the settlement of any migrant community in the destination region, language has often provided an initial basis for social cohesion. It is the desire to preserve an identity which is a high priority within the cultural fabric of any human being. It has an emotional connection which makes one want to die with what one was born.

Delhi encompasses a significant population with diverse cultural backgrounds from different parts of the country such as Tamil Nadu, Uttar Pradesh, Bihar, Haryana etc. This makes Delhi a blended hub of varieties of culture and hence provides language a vital role to play in distinguishing these linguistic and cultural groups from each other within the host society. What is evident from Bengali community in Delhi is their desire to preserve their cultural identity and individuality. For this particular reason of preservation, Bengalis have adopted various measures. For instance, they primarily use their own native language as a medium of communication amongst themselves since they believe that their language plays a major role in enhancing their rich cultural heritage (Table 1).

Table 1: **Bengali Migrants in Delhi: Languages Spoken**

Language Spoken Comfortably	**No. of Respondents**	**Percentage**
Bengali	930	77.5
English	240	20.0
Hindi	30	2.5
Total	1200	100

Source: Computed from Field Survey conducted in 2016

Thus, to preserve this spark of a distinctive cultural identity alive, the old school (older generation) would talk to the new school (younger generation) in Bangla i.e. the Bengali language. As high as 80 percent of the Bengalis prefer communicating with their children in Bengali so as to let them learn their language, since the neighborhood, friends or schools are not always Bengali speaking (Table 2).

However, while interacting socially, politi cally or professionally with different non Bengali linguistic groups, the Bengalis make use of different languages, prominently English followed by Hindi. Though Bengalis do not find it obligatory to switch over to a non-Bengali language i.e. English and Hindi to survive in a city which is known for its multilingual inhabitants (Bengali is the fourth largest speaking language after Hindi, Punjabi and Urdu in

Delhi, Census, 2001), yet they do accept the fact that knowing the local language is very important, especially to engage in effective interactions with local communities. Whether they congregate in a public or private place, wherever they meet a Bengali, they invariably communicate in their vernacular, as it brings the feeling of belongingness. It is this belongingness that brings an atmosphere which reflects familiarity. Nonetheless, it is highly commendable that Bengalis have not been influenced or burdened by the diverse population of Delhi, holding and retain their identity through the expression of language.

Table 1: **Bengali Migrants in Delhi: Languages Spoken**

Language Spoken at home	No. of Respondents	Percentage
Bengali	960	80.0
English	210	17.5
Hindi	30	2.5
Total	1200	100

Source: Computed from Field Survey conducted in 2016

Bengalis place significant emphasis to the sustainability of their language. To preserve their cultural identity, they follow various ways for its sustenance. These may include: (i) learning Bengali language through satellite sources (ii) using literary material like newspapers, magazines, books and fiction to enhance knowledge of Bengali literature (iii) participating in various Bengali events, activities and festivals (Table 3). Besides these common modes and means of interaction and communication, Bengalis interact enthusiastically at the Addas (Fig.4) which are formed by the community for deliberating on various issues of socio-cultural and political interest (Fig.1).

Table 3: **Bengali Migrants in Delhi: Means of Communication and Interaction**

Satellite Sources	Television	Internet	Mobile Applications
	750	360	90
Literary Material	Newspaper	Magazines	Books and Novels
	240	600	360
Participation in various Activities/Festivals	Festivals	Cultural Events	Social Gatherings
	300	210	690

Source: Based on field survey conducted in 2016

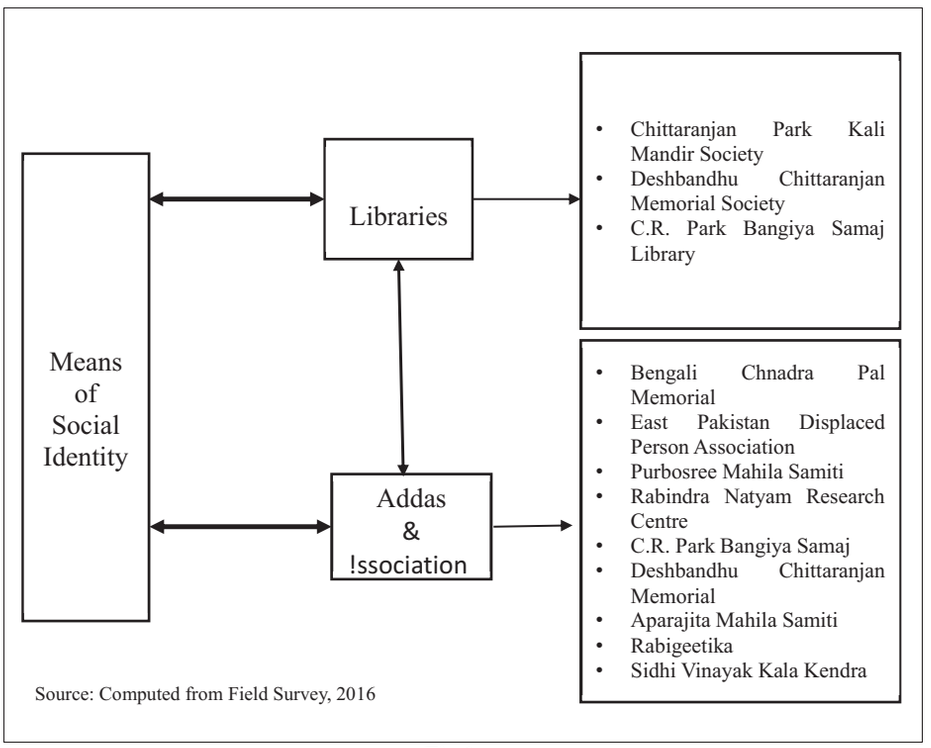


Fig.1

Not only Bengali people, but also their institutions like libraries, academic bodies, associations etc. in and around Chittaranjan Park are playing a significant role in the direction of preserving the social identity of Bengali community.

Hundreds of Bengali books including complete works of Nobel Laureate Rabindranath Tagore and modern authors like Ashutosh Mukhopadhyay, are avail able in the three popular libraries in Chittaranjan Park for consultation by local residents (Fig.2).

All the three libraries are located inside the Bengali Associations (see Fig.2). The first library i.e. Chittaranjan Park Kali Mandir Society is located within the premises of Kali Mandir in Chittaranjan Park. Similarly, the other two libraries i.e. Deshbandhu Chittaranjan Memorial Society and C.R. Park Bangiya Samaj Library are also found within the Bengali associations i.e. Deshbandhu Chittranjan Memorial and C.R. Park Bangiya Samaj. These libraries are as old as Bengali associations which are deeply rooted in Bengali history and culture.

Inside the Kali Mandir complex, there is an old library where people can be seen reading Bengali dailies and weekly magazines. Another library is being managed by the Deshbandhu Chittaranjan Memorial Society. It has a count of many rare books, which are more than 100 years old. While some of these books have been donated by library visitors and community members, the others have been brought from Kolkata.

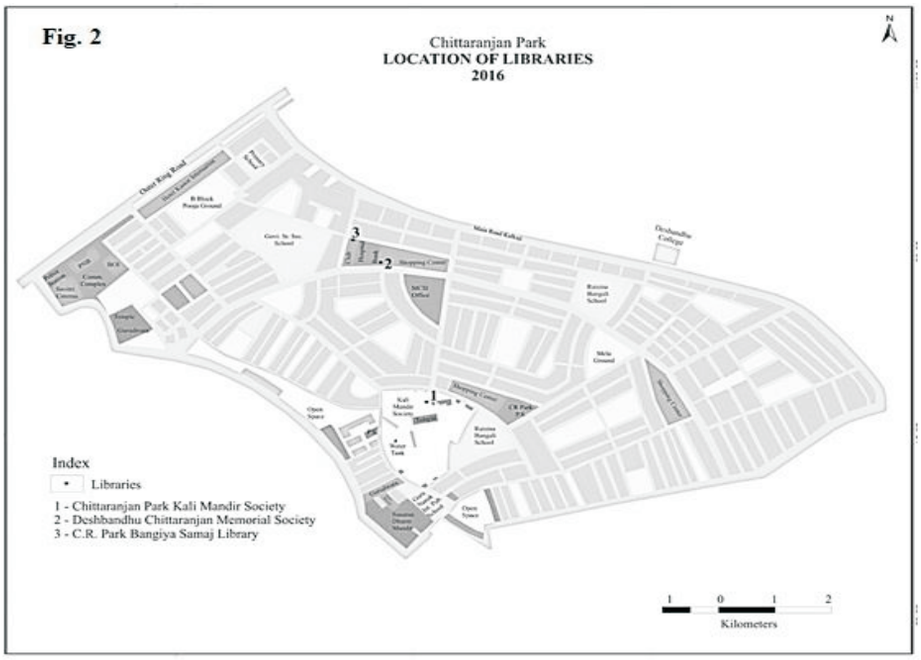


Fig. 2
Chittaranjan Park
LOCATION OF LIBRARIES
2016
N
Index
Libraries
1 - Chittaranjan Park Kali Mandir Society
2 - Deshbandhu Chittaranjan Memorial Society
3 - C.R. Park Bangiya Samaj Library
1 0 1 2
Kilometers

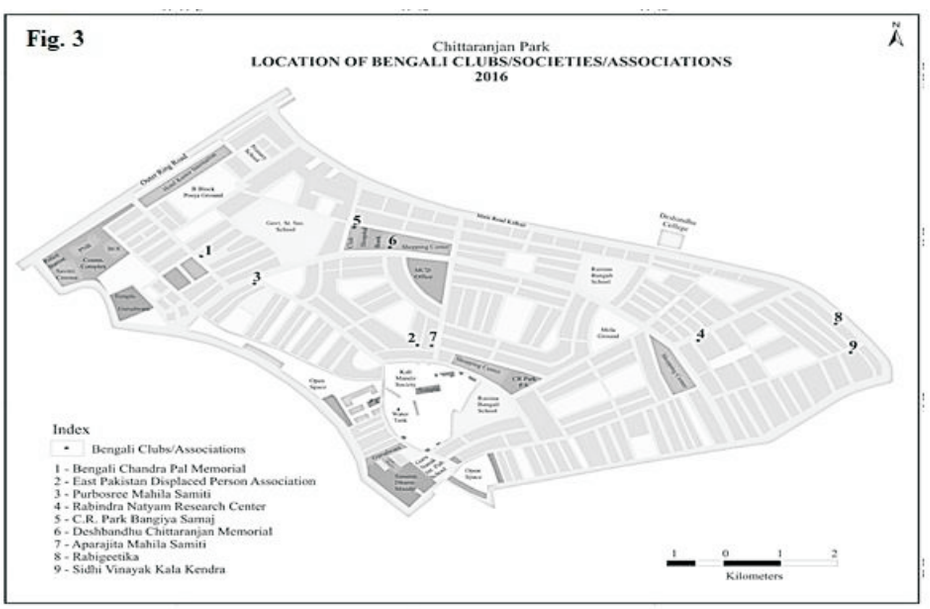


Fig. 3
Chittaranjan Park
LOCATION OF BENGALI CLUBS/SOCIETIES/ASSOCIATIONS
2016
N
Index
Bengali Clubs/Associations
1 - Bengali Chandra Pal Memorial
2 - East Pakistan Displaced Person Association
3 - Purbosree Mahila Samiti
4 - Rabindra Natyam Research Center
5 - C.R. Park Bangiya Samaj
6 - Deshbandhu Chittaranjan Memorial
7 - Aparajita Mahila Samiti
8 - Rabigeetika
9 - Sidhi Vinayak Kala Kendra
1 0 1 2
Kilometers

Another popular library is within the complex of Chittaranjan Park Bangiya Samaj. Termed "Mini Kolkata," Bengali newspapers such as Anandbazaar, Aaajkaal, Bartaman Patrika and Ganashakti that are published in West Bengal are being made available to the residents of Chittaranjan Park every evening. The availability of such well-maintained libraries thus provides a forum where the Bengali community can gather, read Bengali literature and subsequently strengthen their cultural roots.

In addition to libraries, to sustain their language, Bengalis have also established various associations such as C.R. Park Bangiya Samaj, Karol Bagh Bangiya Samsad, Bengali Club and the Dwarka Bangiya Samaj (Fig.3). As the map reveals, there are nine Bengali associations located within the area of Chittaranjan Park. Although a majority of these associations are occupying the central place i.e. the hub of Chittaranjan Park where in addition to residential areas, shopping centers, cultural centers and social hubs are also located. The location of Bengali associations covering the central position in Chittaranjan Park indicates that the history of Bengalis in Delhi is as old as Chitaranjan Park.

There are three other Bengali associations i.e. Rabindra Natyam Research Centre, Rabigeetika and Sidhi Vinayak Kala Kendra which are located on the south east corner of Chittaranjan Park. These are new associations formed by the residents of Chittaranjan Park. The location of these associations toward the periphery indicates that due to a lack of space available in the core, Bengalis are opening their associations within residential spaces. These associations organize Bengali plays, movies, puja ceremonies and other cultural programs in the Bengali vernacular and work in the direction of representing Bengali culture as language maintenance is the hallmark of Indian migrants. (Abbi, 2001)

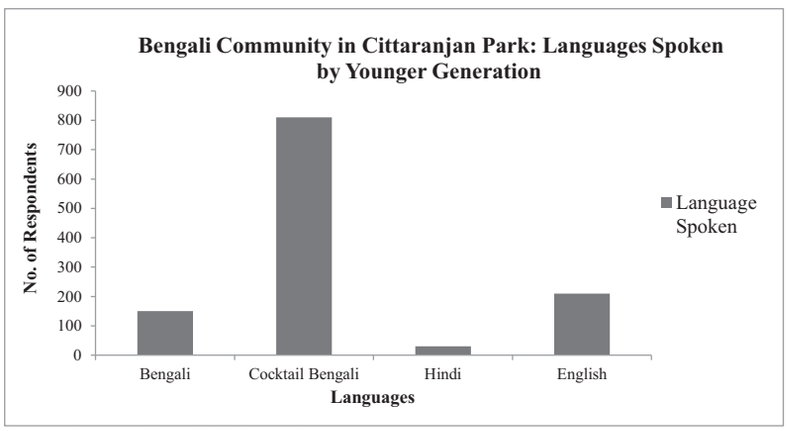
Mr. Tapan Sengupta (72 years), a member of the Bengali Association said:

> *"Our Bengali associations and clubs work as a communication centre for us. It is like keeping the memories of the motherland alive by speaking and conversing in our own language, sharing our views on common ideas. It provides us with a Bengali atmosphere where we can unburden our minds".*

Such organizations facilitate not only a rigorous participation of the older and younger Bengali generations alike but also help them in keeping their culture alive and Bengalis closely associated with it. While maintaining allegiance to their mother tongue, Bangla, the Bengalis have also observed changes in the expression of their language over time, particularly with each coming and passing generation.

Although the older generation prefers their children to speak, read and write Bengali with a high degree of competence, the fusion or assimilation of their original language is clearly visible within the younger generation contacting the host society.

Such ways work not only for the survival of their language but also to adopt the new environment and being assimilated in it. While interacting with the non-Bengali-speaking host society, on a regular basis for different things, younger Bengalis have evolved their own means of acceptance and interaction. They often blend their language with English and Hindi and term this 'mix of Bengali-Hindi-English' as "Cocktail Bengali" (Fig.4).



Source: Computed from Field Survey, 2016

Fig: 4

As Sudipto Chakarborty, a 55 year old resident of Chittaranjan Park said:

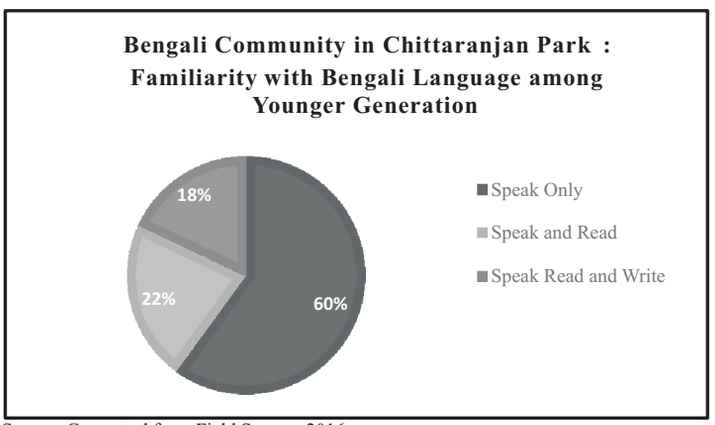
> *"As much as I would love to, but my daughter will not speak pure Bangla, though she will surely follow that. Her pure Bangla speech will survive or not I doubt. She has grown up in Delhi and speaks neither Bangla nor English nor Hindi, as she will speak Cocktail Bengali (a mixture of all). I don't mind that but I hope she will remember her roots."*

The Bengali community, which initially did not understand any other language except for Bengali and English, has now, transformed itself with each younger generation into a rather fluent Hindi speaking community. This community is, thus, no longer a community speaking only Bengali. The present survey reveals that 18.0 per cent of the respondents could speak, read and write their native language with fluency (Fig.5). However, owing to the significant contribution of libraries, associations and family heads, 60.0 per cent of the Bengali families which were surveyed could at least speak and understand the Bengali language (Figs.5 &6). This way, through their native language, the younger Bengali generation is connected to their roots and the elder generation is making every effort to keep the bond alive and strengthened with the passage of time.

To preserve their language and their cultural identity, Bengalis have also maintained 'Addas', in addition to libraries, newspapers and associations. An Adda is an informal neighborhood gathering meant to enjoy 'get-togethers' and engage in lively discussions. Such a habit is one of the best known traditional Bengali ways of remaining connected with their cultural roots.

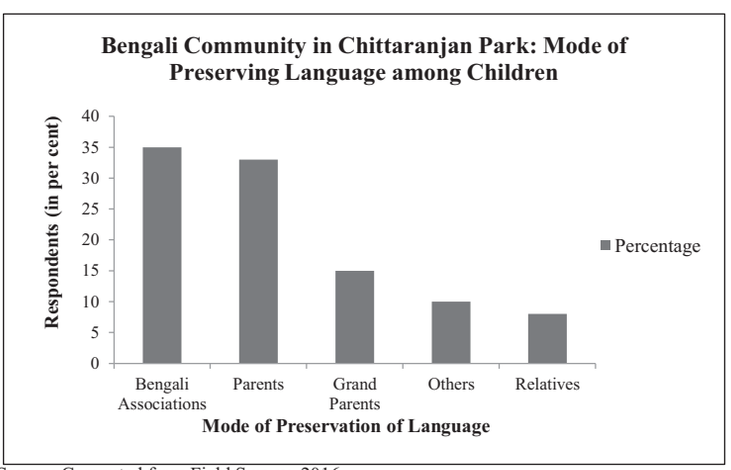
Since Bengalis are known for their radical upbringing and historical belongingness to their culture, Adda emerged as local terminology to signify their love for sharing views and discussing ideas. Significantly, this habit of meeting over tea or coffee accompanied with a smoke clad environment is still prevalent among this migrant group. The present day 'Addas' of the current Bengali population at Chittaranjan Park in Delhi are represented in Fig.7. The location of 'Addas' on the map is mostly confined around places such as temples, Durga puja

grounds, shopping centers and Bengali Associations where all the social and cultural activities of Bengalis take place. It is interesting to note that the newly formed Bengali associations are located more toward the peripheral areas and the location of 'Addas' on the other hand, is confined more toward the central hub of Chittaranjan Park. Interaction among Bengalis through their associations and Addas demonstrates how intense their habits are and how effectively they use their traditional methods to preserve their cultural togetherness.



Source: Computed from Field Survey, 2016

Fig. 5

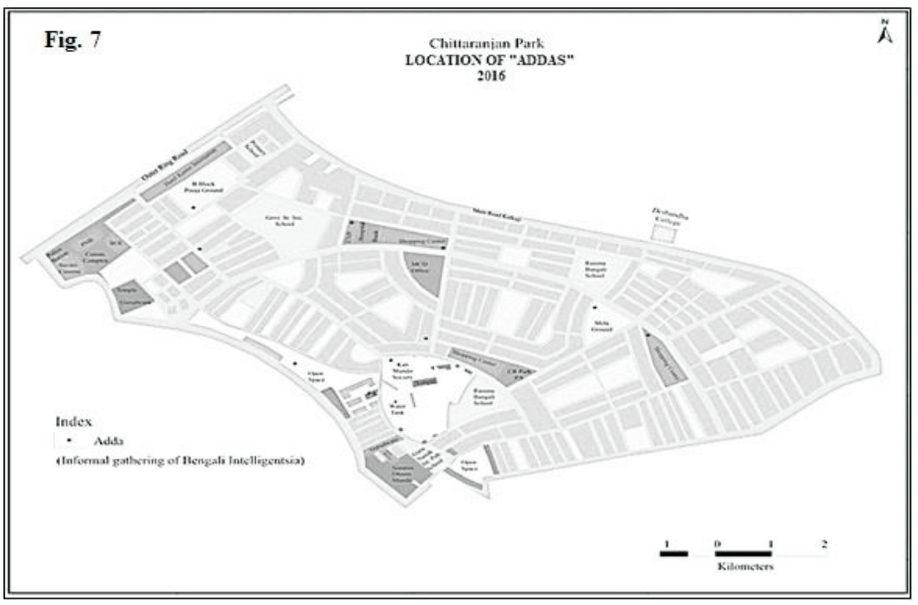


Source: Computed from Field Survey, 2016

Fig. 6

Language and Integration

For any form of communication, it is important to know the same medium of vocabulary for both the speaker as well as the listener. Therefore, language plays a key role in the process of integration of migrants within the host society (Spencer et al., 2016). Scholars have argued that language acquisition of the receiving society is one of the most essential elements toward integration as it is an integral part of the cultural domain of citizenship.



Bircheret et al. (2012) also talked on similar lines and suggested that familiarity with the language of the host society is a prerequisite for the migrants' successful integration in many aspects since insufficient knowledge of the local language compels migrants to face limited access to the environment. In such a scenario, they would need help of the local communities to cater to their personal interest or to receive any information on cultural, professional, political or social events of the host society. He has highlighted the importance of language in integration calling it the first step to emerge from a marginal existence to mainstream life.

Interestingly, both language and communication play a significant role between migrant communities and the host society, more so often because of globalization. However, for various other reasons, the migrant community may still face difficulties to integrate with the host society. Therefore, Krumm and Plutzar (2008) put forward language as a precondition for the participation of immigrants in the receiving society. They also widely recognized that proficiency in the dominant language of the receiving country is critical to both economic and social aspects of settlement and integration. According to Anderson (2006) not knowing the local language spoken in the host community can create problems in performing everyday tasks and adjustments in a new social order. He states that knowing the language widens market opportunities and often serves as a condition to the legal acquisition of citizenship within the host country. This shift to the dominant languages of the regions of their habitation indicated a process of language shift and assimilation into the regional languages (Nayak, 2005). Knowledge of the host country's language, thus, acts as both an indicator and a facilitator for smoother integration of the migrants (Boyd *et. al*., 1994).

Moreover, elaborating the economic perspective of language among immigrants of Australia, Germany, Israel, Canada and United States of America (Chiswick, Lee and Miller,

(2006) have argued that familiarity with the local language is one of the most important aspects for immigrants for their inclusion into the working sector of the receiving society. Rose (2004) has further established the connection between language as well as the social, economic and political integration by emphasizing that in every aspect of the migrant's life (i.e. social, economic and political) knowledge of the destination language is indispensable, especially for understanding work orders, for expressing oneself to colleagues, for establishing and sustaining social contact, for talking to neighbors, for claiming rights from authorities as well as for seeking advantage of recreational opportunities. Hence language acts as one of the strongest bridges between the immigrants and the natives to help them to reach a satisfactory level of integration (Lo, 2014).

Nonetheless, in the lives of immigrants, the importance of language is not only confined to the process of integration, it has a significant dialect discussing the role of the first and the second language. For example, from a psycholinguistic point of view, for children as well as for adults, the mother tongue is considered to be the most important foundation for learning any other language successfully. For most individuals, the first language is considered as the base and the only stable element of the migrants' life. It is the only language that provides them with personal security and a religious identity because when they began to realize themselves as individuals or a family, it was through language that they developed initial values in their lives. That is why the right to use one's mother tongue is characterized as a fundamental right. The more people leave behind their native places, the more important their first language becomes to them, it appears.

Cummin (1984) has highlighted the insights of development of first and second language in his 'development interdependence hypothesis'. He has argued that any interruption during the proper development of the first language especially among children (if they do not learn to read and write their first language) is a negative indicator for the proper development of bilingualism. He further differentiates between fundamental interactive communication skills (speaking) and the cognitive academic language proficiency skills (including reading and writing) on which the successful development of the second language is dependent. He elucidates that for a successful learning of the second language, one should develop important cognitive competence in acquiring the first language i.e. one should know how to read, write and speak the first language fluently to fully understand the second language. This implies that for children, the acquisition of a second language cannot be built on a solid foundation, if their learning of the first language is interrupted early.

In the present study, it has been observed that the process of integration of the younger generation of the Bengali community has learnt to speak a new language formed by the blending of Hindi, English and Bengali, known as Cocktail Bengali. Therefore, migrants should become proficient at least in the language of the host society so as to feel a part of the overall social fabric. Besides, proficiency in the language of the host society is essential for interaction with the government, social institutions and with members of society in various sectors such as work, education and sports.

Adaptability and familiarity with the host society's language helps in accelerating the process of migrant integration in all dimensions of the migrants' life i.e. economic, social and

cultural. (Arunachalam, 2016) Among the Bengalis in the NCT of Delhi, however, the process of integration plays a significant role between migrant communities and the host society. The data shows that nearly 60 per cent of the Bengalis who are integrated with a high integration score speak a mix of Hindi and Bengali followed by 44.4 per cent who speak a mix of Bengali & English. Such a high percentage in itself is indicative of the fact that this migrant community interacts extensively with the culture of the host society.

Table 7:**Bengali Community in Chittaranjan Park: Language Integration**

Level of Integration	Language Spoken (respondents in percentage)			p value
	Bengali	Bengali & Hindi	Bengali & English	
Low (Integration score < 4)	52	17.6	16.7	0.02
Medium (Integration score 4-8)	28	22.5	38.9	
High (Integration score > 8)	20	59.9	44.4	

Chi-square = 85.02, Significant at $p < 0.05$
Source: Computed from Field Survey, 2016

However, 52.0 per cent of the Bengalis who prefer to speak the Bengali language are at a low level of integration (difference significant at $p<0.05$) (Table 7). Low level of integration is reflected specifically in the older generation of Bengali community. This linguistic split was further defined by public-private domains. The use of Hindi and English was limited to the workplace and non-Bengali institutions whereas Bengali was spoken at home as well as within their own socio-cultural spaces. Among the younger generation, however, the scope of involvement with non-Bengali contacts and associations was significantly higher. The environment in which they grew up was similar to that of their parents or older generations. Their choices to entertain just their own niche were bleak.

During times of constant interactions across cultures, it became extremely advantageous for the Bengali migrant community to become the core of the host society. During the survey, it was also found that the use of popular Bengali phraseology has become common among non- Bengalis over the course of time. A Bengali respondent pointed out that the impact of Bengali culture is so intense that during *Durga Pujo*, Bengalis are very often greeted by Non-Bengali neighbors and friends by using Bengali phrases such as "*ShubhoMahalaya*"(marks the homecoming of Goddess Durga and beginning of Durga Puja). On similar terms Sudipto Pakrashi (49 years old, a Bengali resident of Chittaranjan Park) says:

> *"Even though it's funny but you know, everything has become part of each other now- basic things such as 'puchkas' are often referred to as 'golgappas' and vice versa. In fact my Non - Bengali friends want me to teach them easy and common Bengali words and lines like 'Nomoshkar' (Hello), 'Shundor' (Beautiful), 'Kothay' (Where), 'Dhonnobad' (Thank You),*

'Ami Bhalo Achchi' (I am good), 'Ami Toma ke Bhalo bhashi' (I love you) etc (with proud laughter).''

Bengalis in the NCT of Delhi have, thus, emerged to be a community that no longer has to project its existence in the host society while being an important part of it. Language, as discussed above, has a key role to play in the formation of an integrated society with the host and the migrant communities. The mixed up, Bengali and Hindi language of the Bengali community in the NCT of Delhi, has not only evolved in terms of a positive adoption of a foreign language but also reflects its rigorous use in their mainstream life.

Conclusions

To sum up, Bengali community in Delhi have undergone tremendous transformation over the course of their migration process and are now deeply integrated with their host culture. They have, however, made considerable efforts to retain their social and cultural identity. To preserve their language, Bengalis have adopted various means such as reading Bengali newspapers and magazines; watching Bengali television channels; and interacting with people of their community at different platforms on different occasions including festivals, cultural events, social gatherings etc.

Moreover, Bengali Associations have also played an equally important role in preserving their social identity especially through Addas. Bengalis' affinity with their traditions and customs has, thus, remained intact. However, after adopting various means of transformation, today their language is not just confined to Bangla rather, it has become a mix of Bangla-Hindi-English. The blending of the native Bangla language with other languages is, actually playing a crucial role in the process of integration and assimilation of Bengalis in the host society and noteworthy efforts are being made by the community to preserve the unique flavor of their distinct social identity. Social integration through language, in respect to the Bengali community in Delhi is, thus, showing an all progressive outlook, which over the years has converged itself smoothly with Delhi.

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OUTMIGRATION FROM RURAL WEST BENGAL : A DISTRICT LEVEL ANALYSIS

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Abstract: *Out-migration for work from rural West Bengal has become an important livelihood strategy for male work force. The present study analyses district level data on rural migration, available from the National Sample Survey, 2007-08, to study migration pattern and factors working behind such a migration flow. It also explores the characteristics of migrant household and the individuals involved in migration process, their process of remittances sending by the migrants and its use by the household members, and the household level factors effecting the out-migration.*

West Bengal is one of the top-ranking states where from rural areas men out-migrate in a significant number to different destinations, sending the considerable amount of remittances back home. Generally, the rural males out-migrate in search of better employment opportunities. However, in the case of Uttar Dinajpur district, one of the most backward districts in the state, they out-migrate just in search of employment, the local economy offering only the limited job opportunities. The majority of the migrants belonged to the young age group i.e. 15 to 30 years. Agriculture and allied activities followed by the construction and the manufacturing are the most important sources of employment opportunities *outside the state* selected by the rural male out-migrants.

Keywords: *Out-Migration, Rural, West Bengal, Employment*

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Introduction

It is estimated that about nine million people migrate annually for work in India (Economic Survey, 2016-2017). This figure is almost double of figures published by the Census of India, 2011. West Bengal Development Report (2011, p. 95) stated that the rural labour force from the state get engaged in the urban informal labour market in Delhi, Maharashtra, Assam, Haryana, Punjab, and Orissa. Also, a large section moves to the rural areas of Haryana, Assam, Odisha and Bihar (undivided). Reja and Das (2016) reported that the rate of male out-migration from West Bengal has increased over the decades (1991-2001), and in 2001 26.5 per cent people migrated to distant states like Delhi, Maharashtra and Haryana. Their study highlighted that the cause behind the male out-migration to different staes from West Bengal was the search for 'work/employment' or earning the livelihood. Even intra-state migration in West Bengal is connected with economic reasons, may it seasonal or permanent. Several workers move seasonally during plantation and harvesting of crops, some others moving to the nearest urban centers to earn the livelihood in different informal sectors. Periodically,

people move from the rural areas of Murshidabad, Bankura, Purulia and Dumka (Santhal Pargana) to Bardhaamann district during rice plantation and harvesting (see Rogaly, 1998; 2001). Messy *et. al.*, 2006) in their work on Jalpara village (West Bengal) found that the arrival of labour contractors and mobile phones in the village over the six years between 1999 and 2005 opened a wide range of options for migrant wage work, highlighting male migration stream started in 1999 and that of females in 2005. In another study, Sengupta and Ghosal (2011) examined the determinants of inter-district rural to rural migration in West Bengal to identity distance between the districts, wage differentials, cropping intensities of the source districts, differences between the percentage shares of agricultural workers among rural workers of both the source and the destination districts as the important factors fueling the migration. It is evidently clear from different studies referred in the preceding paragraphs that West Bengal experiences intra-district as well as intra-state migration mainly for the employment.

Research Questions

In the light of the above statements, the present paper focuses on migration from rural West Bengal and considers the following research questions: Why an individual out-migrates from rural West Bengal? What are the pattern and nature of rural male out-migration? What are the main factors working behind such movements? Which age and social groups are active in migration process? What is the current scenario of short-term migration from rural West Bengal? Which are the sectors of economy absorbing most of the short-term migrant workers?

In answering the above stated research questions, a focus will be placed on Uttar Dinajpur district. This district is one of the most backward districts in terms of different socio-economic indicators as well as one of the important labour exporting districts in the state, West Bengal.

Materials and methods

The study is based on unit level data available from the National Sample Survey Organisation (NSSO), Ministry of Statistics and Programme Implementation, Govt. of India, New Delhi. Its 64th round (2007-08*)* provides the latest data/information on out-migration in the country. The Survey defines an out-migrant as *any former member of a household who left the household, anytime in the past, for stay outside the village/town. . . . provided he/she was alive on the date of survey* (NSSO, 64th Round: H-iii). Also, it collected data on short-term migration, defining '*people who stayed away from the village/town for a period of 1 month or more but less than 6 months during the last 365 days for employment or in search of employment'.* Destination of the short-term migrants referred to as the place in which the short-term migrant had stayed for the longest period, considering all his spells of staying away. A period away from the village/town for a period of 15 or more days was termed as a *spell* (Migration in India: July, 2007-June, 2008; p. 11). The study uses percentages, cross-tabs, rates and binary logistic regression to analyse the overall situation. In addition, choropleth method has been used to map data on inter-state migration from the rural West Bengal.

DISCUSSION AND RESULTS

West Bengal falls among the states having moderate level of out-migration. Nearly one-third (31.1 per cent) of rural households are out-migrant households (male and female both). The national average being 30.4 per cent, West Bengal along with Uttar Pradesh, Rajasthan, Maharashtra, Gujarat, Odisha, Karnataka, Punjab, Andhra Pradesh, Bihar, Madhya Pradesh, Jammu and Kashmir, Tamil Nadu, Nagaland and union territory of A& N Islands fall in moderate category. In seven states the share of rural out-migrant households is higher than West Bengal (Table 1). In West Bengal, there are more than 41 lakhs rural household from where the members migrated out for different reasons during the reference period, 2007-08.

Table 1 India: Classification of states and union territories according to shares of out-migrant households in total rural households, 2007-08

Share in %	Name of state/union territory
> 40.0	Kerala (50.9), Himachal Pradesh (49.9), Haryana (41.20), Uttaranchal (40.9)
40.0- 20.0	Uttar Pradesh (39.1), Rajasthan (37.40), Maharashtra (35.4), Lakshadweep (34.6), A and N Islands (31.1), ***West Bengal (31.1),*** Gujarat (30.0), Orissa (28.5), Karnataka (27.6), Punjab (27.4), Andhra Pradesh (26.7), Bihar (25.8), Madhya Pradesh (24.3), Jammu and Kashmir (23.6), Tamil Nadu (23.3), Nagaland (20.5).
< 20.0	Sikkim (19.4), Mizoram, Chhattisgarh, Assam, Arunachal Pradesh, Manipur Pondicherry, Jharkhand (13.6), Daman and Diu (12.4), Delhi (12.4) Goa (10.8), Tripura (9.7), Meghalaya (9.5), Dadra & Nagar Haveli (6.3), Chandigarh (0.6)
National average= 30.4 per cent, Standard Deviation =12.3	

Source: NSSO 64th round, July 2007-June 2008

In India, about 36.4 per cent of the total out-migrant households in rural areas (with male and female migrants) receive remittances. About 95.0 per cent of such households receive Rs.60,000/- per annum or about Rs. 5000/- a month[1]. Bihar, Jharkhand and Tripura are the top three remittance receiving states. More than 70.0 per cent out-migrant rural households of Bihar receive remittances, which is nearly double of the national average. In case of West Bengal this share is about 32.0 per cent. In India, there are states which experience high out-migration as well as high tendency of sending remittances back home.

The majority of out-migrant households in rural West Bengal spend remittances[2] on household consumer expenditure; 77.0 per cent spend on 'food items' followed by 'other items of consumer expenditure'. About 5.0 per cent households use remittances in 'improving housing conditions' and 1.5 per cent use in 'investments'. The national average is also less than 2.0 per cent. Investment areas included financing working capital, initiating new entrepreneurial activity and savings. About 88.0 per cent households use the remittances on consumption items like the food items, education, household durables, marriage and other ceremonies, health care and on other items of household consumer expenditure (Table 2 and 2a). Thus, it is clear from the above figures that majority of households in rural areas use remittances on consumption items.

[1] Similar situation is seen in case of all India rural i.e. 96 percent.
[2] Prime areas where remittances are spent by the household members of out-migrants (Use of remittances First code)

Table 2: India: Classification of rural households in accordance to percentage share of total remittances received for investment	
Share in %	Name of state/union territory
< 5.0	Goa (33.2), Daman & Diu (11.5), Punjab (5.7), Sikkim (5.4), Andhra Pradesh (5.2)
2.0-5.0	Tamil Nadu (3.8), Haryana (3.7), Nagaland (3.1), Himachal Pradesh (2.6), Assam (2.5), Manipur (2.2), Gujarat (2.2), Mizoram (2.0)
1.99-1.0	Maharashtra (1.9), Kerala (1.7), India (1.6), **West Bengal (1.5),** Orissa (1.5), Jammu and Kashmir (1.5), Chhattisgarh (1.2), Uttar Pradesh (1.1), Meghalaya(1.0), Rajasthan (1.0)
>1.0	Madhya Pradesh (0.8), A & N Islands (0.8), Bihar (0.8), Karnataka(0.6), Uttaranchal (0.5), Puducherry (0.4), Jharkhand (0.2), Tripura (0.1), Arunachal Pradesh (00)

Note: Prime use (code-1)=Use in different consumption expenditure (codes-1 to 6), Use in only investments (codes-10, 11 and 12),Use in purposes apart from consumption expenditure (codes-7 to 19; For percentages calculation denominator is the total households in each state, see Table 2a for code details
Source: NSSO 64th round, July 2007-June 2008

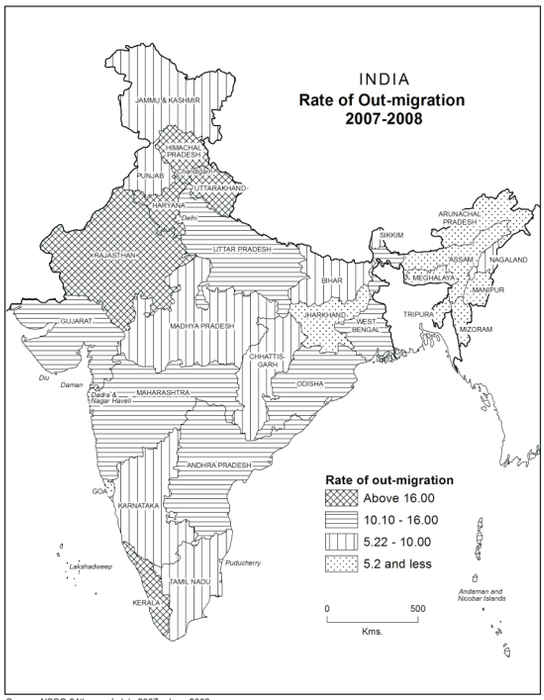
Table 2a Use of Remittances by the Households: NSSO codes, 2007-08			
Use of remittances	**Codes**	**Use of remittances**	**Codes**
On food items	1	For improving household condition	7
Education of household members	2	Debt repayment	8
Household durables	3	Financing working capital	10
Marriage and other ceremonies	4	Initiating new entrepreneurial activity	11
Health care	5	Saving/Investment	12
Other items of the households consumer expenditure	6	Others	16

Male Out-migration from rural West Bengal: pattern and reasons

As per the NSSO 64th round (2007-08), out-migration from West Bengal is one of the important phenomena, the state recording the total out-migrants (rural and urban; male and female) more than the national average of 11.5 percent (Fig. 1). It is estimated that 2.12 million (sample size-2106) males in West Bengal are involved in out-migration process from rural areas. Across the major states, West Bengal accounts for 7.0 per cent rate in total male out-migrants in India. The state holds third position next only to Odisha and Bihar (11.0 per cent) across the eastern states (Fig.2). A significant share (73.1 per cent) of these migrants send remittances back home, West Bengal is at the fourth place among the states in India.

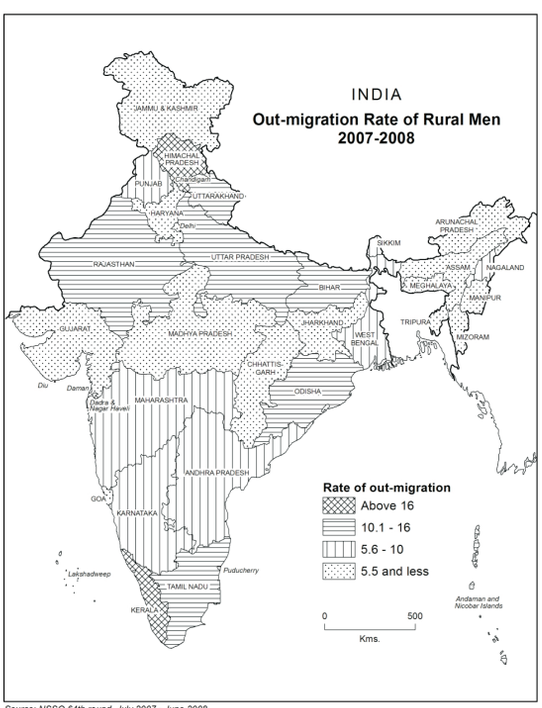
The incidence of migration outside the country from West Bengal is quite low in comparison to the national average. Employment related reasons predominate behind the rural male out-migration. More than three-fourths (77.0 per cent) of rural males out-migrate for employment related reasons (Table 3). In the case of nine states including West Bengal the share of rural male out-migrants is higher than the national average. Nearly nine of each ten male migrants from rural West Bengal move out of their place of residence in search of employment/to take up better employment/in search of better employment etc. (Table 3).

Among districts in rural West Bengal, Uttar Dinajpur holds 5th position in share of rural male out-migration within the state. However, it holds the topmost position in outside the state out-migrants (men). Its percentage share of 7.5 per cent was more than twice of the state average (3.3 per cent). From Uttar Dinajpur district, nearly a half (48.0 per cent) of total rural male out-migrants goes outside the state and 36.0 per cent to other districts of the state. The values are higher than the state average in both the cases.



Source: NSSO 64th round, July 2007 - June 2008

FIG. 1



Source: NSSO 64th round, July 2007 - June 2008

FIG. 2

Table 3 Percentage of rural male out-migrants by reasons for outmigration

States	Employment Related Issues	Forced Migration	Studies	Others*	Total
Jammu And Kashmir	91.1	00	0.6	8.3	100
Bihar	88.8	00	2.5	8.7	100
West Bengal	**87.6**	**2.1**	**3.1**	**7.1**	**100**
Tamil Nadu	83.8	0.6	9.3	6.3	100
Punjab	83.2	0.0	6.0	10.8	100
Jharkhand	80.9	3.0	8.7	7.4	100
Uttar Pradesh	80.2	3.7	4.3	11.8	100
Himachal Pradesh	79.0	0.0	13.2	7.7	100
Karnataka	78.0	0.1	13.5	8.4	100
INDIA	**77.1**	**4.2**	**7.5**	**11.2**	**100**
Orissa	68.3	22.0	3.5	6.2	100
Rajasthan	67.6	16.3	6.8	9.3	100
Andhra Pradesh	62.4	0.1	24	13.6	100
Maharashtra	59.2	20.4	9.2	11.2	100
Kerala	52.5	28.8	3.8	15.0	100
Pondicherry	48.0	12.2	18.8	21.1	100
Madhya Pradesh	47.2	34.8	8.7	9.4	100
Uttaranchal	46.3	45.4	2.8	5.5	100
Haryana	35.6	49.6	3.3	11.6	100
Gujarat	27.6	62.4	3.9	6.1	100
Chhattisgarh	13.6	81.2	1.5	3.7	100
Northeast	5.0	94.4	0.4	0.2	100
Goa	0.6	99.3	0.1	0.0	100
Daman And Diu	0.4	99.4	0.1	0.0	100
A & N Islands	0.4	99.2	0.2	0.3	100
Lakshadweep	0.1	99.9	0.0	0.0	100

*Note: Chandigarh and Delhi and Dadra & Nagar Haveli have sample size of less than 30. *Others include- acquisition of own house/flat, housing problem, health care, post retirement, marriage, migration of parents/earning members of the family, others.*
Source: NSSO 64th round, July 2007-June 2008

Household characteristics of male migrants in rural West Bengal

More than one-third (36.0 per cent) of out-migrant males in rural West Bengal belong to the households with more than four members and another 40.8 per cent belong to the household categorized as 'Labour household'[3] whose main sources of income during the 365 days preceding the date of survey is the wages received either from agriculture/any other economic activity. The land is one of the important assets in rural areas; about 93.0 per cent of households having marginal land holdings[4]. About 20.0 per cent of migrants belong to the lowest quintile (Q1) i.e. Rs. 464.6/- and below. Whereas about 40.0 per cent of male migrants belong to the households with monthly per capita expenditure below Rs. 576.75/-.

Socio-economic and demographic characteristics of rural male out-migrants

Age structure

Young men are the important assets for many rural households in West Bengal as they move out to earn and sends money back to home. About 95.0 per cent of migrants in

[3] Which consists both agriculture (AL) and Other Labour (OL)
[4] West Bengal (Rural) accounts 48 percent of households with out-migrants (both male and female).

rural West Bengal belong to 15 to 65 years age group. This share was relatively higher (96.0) per cent for Uttar Dinajpur district. Further division of this age group suggests that majority of migrants belong to the young age group, three-fifths or about 62.0 per cent of male migrants are in the age group of 15 to 30 years. For all the districts of West Bengal age group of 15 to 30 years is highly active in migration. A similar picture is viewed in case of Uttar Dinajpur, where 87.0 per cent of the males belonging to 15 to 30 years are out migrants (Table 4).

Table 4: District-wise rural male out-migrants share of working age-group (15-65 yrs.)

Above state average (94.6 per cent)	Cooch Behar (100.0), Howrah (100.0), Nadia (99.9), Murshidabad (99.2), Darjeeling (98.0), Birbhum (97.4), North 24 Parganas (95.7), **Uttar Dinajpur (95.6),** Bardhaman (9.1), Hugli (94.9)
Below state average	Jalpaiguri (93.3), Medinipur (93.1), Maldah (92.0), Bankura (89.6), Puruliya (89.5), South 24 Parganas (87.8), Dakshin Dinajpur (82.4)

Migrants with age group below 15 years holds 4.5 percent (sample size-71) and above 65 years as 0.8 (sample size-21) percent for West Bengal
Source: NSS 64th round, July 2007-June 2008.

Economic status and the place of residence

The nine of each ten (90.7 per cent) migrant men in all the districts of West Bengal are presently engaged in economic activities. This share was relatively low (87.0 per cent) for Uttar Dinajpur district. In the case of Koach Bihar, Bardhaman, Nadia, North 24 Parganas, Hugli, Murshidabad, Bankura, and Purulia this share was more than 90.0 per cent (Table 4). About half of the total male migrants of the state have moved to the *other states.* This share was as high as 93.4 per cent for Uttar Dinajpur district, the highest among all districts of the state.

Reasons for migration and the place of move

There are several reasons for which men outmigrate from the rural areas. However, nearly a half (48.0 per cent) moves out to take up better employment[5]. On an average, about 96.0 per cent of rural men who have moved *outside the state* are engaged in economic activities. There is only a small share of rural male migrants moving out for marriage, acquisition of own house/flat or having housing problem and/or for other reasons.

In the case of Uttar Dinajpur district, 49.0 per cent against the state average of 48.0 per cent of rural men move out in *search of employment* followed by 29.0 per cent moving out to take up better employment.

Out-migrants and the occupations

The majority (63 percent) of out-migrants of rural West Bengal is engaged in agriculture and allied activities like farming, hunting and forestry. Among the non-farm activities are included the wholesale and real trade (9.7 per cent); manufacturing (9.5 per cent) and construction (7.5 per cent) activities.

[5] This signifies although at the origin they have some kind of work but they move out to other places to better jobs or they got an opportunity for better employment.

Of the rural male out-migrants working in primary activities, the majority (54.0 per cent) move to other states and union territories of India, the remaining move within the state from one to other district or within the same district. In the case of manufacturing activities, more than two-fifths or 46.0 per cent move outside the state and the remaining within the state from one to another district. In the case of construction, wholesale and real trade activities, more than 40.0 per cent men move from one to another district of West Bengal. About 36.0 per cent of rural male workers move outside West Bengal to work in construction sector related activities. However, only a negligible share of rural male workers goes to work outside India (Table 5).

Table 5: Out migrants (usual principal activity) across their present place of residence in rural West Bengal

Usual principal activity NIC	Within state and the same district	Within state but another district	Outside the state	Another country	Not known*	Total
Agriculture, Hunting, Forestry	14.2	31.2	53.5	1.1*	0.0	100.0
Fishing	32.3*	32.1*	35.6*	0.0	0.0	100.0
Mining and Quarrying	84.4*	0.5*	15.1*	0.0	0.0	100.0
Manufacturing	7.8*	42.1	46.0	4.1*	0.0	100.0
Electricity	0.0	100.0*	0.0	0.0	0.0	100.0
Construction	**19.1***	**40.3**	**36.1**	**0.1***	**4.4**	**100.0**
Wholesale and Retail trade	**14.7***	**45.9**	**37.9**	**1.4***	**0.1**	**100.0**
Hotels and restaurants	3.6*	63.9*	29.8*	2.7*	0.0	100.0
Transportation, Storage and communication	18.1*	30.8*	51.0*	0.0	0.0	100.0
Financial intermediating	37.0*	55.0*	8.1*	0.0	0.0	100.0
Real estate, renting and business activity.	93.3*	6.7*	0.0	0.0	0.0	100.0
Public admin, defence, &security	22.9*	71.7*	5.4*	0.0	0.0	100.0
Education	12.0*	55.7*	27.8*	4.5*	0.0	100.0
Health and social work	14.2*	85.8*	0.0	0.0	0.0	100.0
Other community, social and personal service act.	1.7*	47.0*	51.4*	0.0	0.0	100.0
Undiffentiated production Act. of private households.	23.0*	38.3*	38.8*	0.0	0.0	100.0
Total	**15.3 (234)**	**35.6(588)**	**47.5(905)**	**1.3(34)**	**0.4(4)***	**100.0 (1765)**

Note: * represent sample size less than 30.
Source: NSSO 64th round, 10.2 sch., *July 2007-June 2008.*

The association between age-group of rural male out-migrant workers makes an interesting story. The migrants of all age groups are engaged in the primary activities; about 4.2 per cent of boys are engaged in primary activities. About 70.0 per cent of males engaged in agriculture, hunting and forestry belong to 15 to 30 years age-group. Further, more than 60.0 per cent of the men engaged in transportation, storage and communication, manufacturing and construction belong to 15 to 30 years age group. Those in wholesale and retail trade and manufacturing fall in 31 to 45 years of age. Briefly, the dominant majority of rural male out-migrants are engaged in agriculture and allied activities followed by the tertiary and secondary activities, in order.

Out-migrants and remittances

Nearly three-fourths (73.1 per cent) of rural male migrants engaged in different economic activities send remittances back home. This share was above the state average for Uttar Dinajpur (77.2 per cent). The share ranged from a high of 86.5 per cent in Coach Bihar to a low of 56.8 per cent in Dinajpur district. On the whole, ten districts have this share higher than the state average and remaining five districts below the average (Table 6). Approximately, one-fifth of male workers send money back home once a month; less than 4.0 per cent men sending remittances more than 12 times a year- the amount not being the large one.

Table 6: District-wise share (%) of rural male migrants remitting money home during the last one year

Districts, where the share of rural male migrants sending money home is higher than state average (73.1 per cent)	Coach Bihar (86.5), Bardhaman (85.2), Nadia (83.8), Puruliya (81.4), Darjeeling (76.2), Birbhum (79.0), Hugli (77.7), **Uttar Dinajpur (77.2),** Bankura (74.0), Medinipur (76.2)
Districts, where the share of rural male migrants in total migrants sending money home is lower than state average	Murshidabad (67.7), Howrah (66.5), Maldah (61.7), South 24 parganas (59.2), Dakshin Dinajpur (56.8)

Source: NSSO 64th round, 10.2 sch., July 2007-June 2008.

Factors effecting out-migration

About a half of the rural households in West Bengal have out-migrants (both male and female). Of these households, about 70.0 per cent are Hindu by religion. Half of the rural households in West Bengal have family size of less than 5 persons. Fifty per cent of households have land holdings between one and two hectares. To understand the factors influencing out-migration of members from the households, a binary logistic regression is conducted. From the logistic regression model (Table 7) it is found that the three factors, such as household size, land possessed and household type are statistically significant. Whereas the social group is significant at 5.0 per cent level (SCs are more likely to migrate than the reference category, STs) and religion is not found at all significant. It is seen that households with 5 to 10 members are 1.57 times more likely to have out migrants in comparison to the households with less than 5 members. Households with more than 10 members are also 1.762 times more likely to permit migrate compared to those households with less than 5 members, significant at 5.0 per cent levels after controlling all other variables at the constant level in the model. Households with 2-4 hectares of land are 1.8 times more likely to send their members out than the households having one to two hectare land. In rural West Bengal, the households categorized under agriculture labour are 2.6 times more prone to send their members out compared to household, which are self-employed in non-agriculture sector. Against this, households having self-employed in agriculture and other activities are 2.53 times and 1.67 times more likely to have out-migrated people, respectively.

Rural short-term male migrants

The dominant majority of males from rural India are short-term migrants (out-migrating for 30 days or more but less than 6 months). Against this, only about 15.0 per cent of rural females participate in short-term migration. These migrants are mostly attracted by the urban

areas of the country, may it be the urban areas of the same district or same state but another district, another state or even another country.

Table 7 Socio-economic and migration characteristics of the households (migrant and non-migrant) in rural West Bengal

Variable	Percentage	Variable	Percentage
Any former member migrated out any time		**Household Size**	
Yes	47.6	< 5 persons	56.1
No	52.4	5-10 persons	42.4
Total Respondents	100.0	> 10 persons	1.5
Religion		Total	100.0
Hindu	70.4	**Rural Household type**	
Muslims	28.2	Self-employed in Non-Agriculture	22.3
Christians	0.9	Agri. Labourer	35.2
Others	0.5	Other Labourer	11.2
Total	100.0	Self-Employed in Agriculture	20.2
Social Group		Others	11.1
ST	08.1	Total	100.0
SC	30.7	**Land Possession**	
OBC	07.1	Small (1-2 hectares)	50.2
Others	54.1	Semi-medium (2-4 hectares)	34.9
Total	100.0	Medium (4-10 hectares)	14.9
Source: NSSO 64th round 2007-08		Total	100.0

Table 8: Logistic regression, estimates for the effect socio-economic variables on households (with migrants and non-migrants) of rural West Bengal

Variables in the Model	Odds ratio Exp(B)	Variables in the Model	Odds ratio Exp(B)
Religion		**Rural Household type**	
Hindu®	1	Self-employed in Non-Agriculture	1
Muslims	0.603	Agri. Labourer	2.617***
Christians	0.592	Other Labourer	2.136***
Others	0.494	Self-Employed in Agriculture	2.536***
Social Group		Others	1.678***
ST®	1	**Land Possession**	
SC	1.352**	Small (1-2 hectares) ®	1
OBC	0.95	Semi-medium (2-4 hectares)	1.812
Others	1.115	Medium (4-10 hectares)	1.355***
Household Size		*Constant*	0.377
< 5 persons®	1	N.B.***significant at 1, ** significant at 5.0, * significant at 10.0 percent levels	
5-10 persons	1.579**		
> 10 persons	1.762***	® *Reference group, Dependent variable- whether any former member of the household migrated out any time in the past, yes=1, No=0.*	
Source: NSSO 64th round 2007-08			

More than thirteen lakh male migrants (actual number being 13,45,934 persons), making 4.4 per cent in total such migrants from India as a whole (305,16,374 persons), from the rural West Bengal participate in the short-term migration. In terms of the share in total short-term rural migrants, West Bengal ranked next only to Bihar (5.7 per cent) and

Jharkhand (4.6 per cent). The national average being 2.8 per cent, West Bengal along with Bihar, Jharkhand, Gujarat, Nagaland, and Madhya Pradesh fared above this figure.

An examination of socio-economic characteristics of the short-term rural migrants from West Bengal reveals that most of the male migrants belong to the working age group i.e. 15-59 years. Most of them are married and have very poor educational status. Three of each ten of them are illiterate. Most of them are mainly engaged in construction sector. During the longest spell, most of such rural males moved out to another state in urban areas to work in construction sector (74.5 percent)[6] and manufacturing (10.5 percent). Thus, it can be argued that most of the rural men who move out for short duration outside the state (rural and urban) get engaged in construction work, followed by manufacturing in urban areas (Table 9).

Table 9: Distribution of short-term male migrants in rural West Bengal and India by socio-economic characteristics

Variables	West Bengal	India
Age	***Percentage***	
Up to 14 years	2.6	2.7
15 to 59 years	95.9	96
60 and above	1.5	1.3
Marital status		
Never married	34.3	31.8
Currently married	65.1	67
Widowed	0.6	1
Education		
Not Literate -	28.3	33.9
Literate Without Any Schooling	1.6	0.7
Literate Without Formal Schooling: Literate Through NFEC/A	1.3	0.8
Literate With Formal Schooling Including EGS: Below Primary	20.3	14.8
Primary	29.4	18.6
Upper primary / middle	14.8	18.3
Secondary	3.4	6.8
Higher studies plus certificate course	0.8	6.0
Industry of work		
Agriculture, hunting forestry	15.4	19.5
Manufacturing	13.0	17.2
Construction	55.7	42.9
Wholesale and retail trade	4.1	6.3
Transport, storage and communications\	4.4	6.6
Other sectors	7.4	7.5
Total	**100.0**	**100.0**

Source: NSSO 64th round, July 2007-June 2008

Conclusions

In India, West Bengal is one of the top-ranking states where from rural males out-migrate in significant number to different destinations, sending the considerable amount of remittances

[6] For rural destination outside the state is 45.1 percent

back home. Generally, the rural males out-migrate in search of better employment opportunities. However, in the case Uttar Dinajpur district, one of the most backward districts in the state, they out-migrate just in search of employment, the local economy offering only the limited job opportunities.

The majority of the migrants belonged to the young age group i.e. 15 to 30 years. Agriculture and allied activities followed by the construction and the manufacturing sectors are the most important sources of employment opportunities at the destinations selected by the rural male out-migrants. The majority of the households use the remittances for consumption purposes. The share of remittances used for investment purposes is quite low both at the state as well as the national level. The size of the households, land possession, and type of household of the individuals are the factors controlling the outmigration of workers from the household. The rural migrants are mostly the illiterate, married and belong to the working age group. The majority of the rural males migrating for a short duration outside the state gets employment in the construction and manufacturing activities in urban areas.

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HINDI SPEAKING PEOPLE IN NON-HINDI SPEAKING STATES AND UNION TERRITORIES OF INDIA, 2011

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Under Article 343 (1) of the Constitution, which came in force on 26 January, 1950, Hindi in Devanagari script is the official language of India. Article 343 (2) made a provision for a continued use of English for official purposes till 1965. Article 343 (3) subsequently extended this provision for an indefinite period.

In 1976, the Official Language Rules were framed under which the nine states of Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh, and Uttarakhand, and two union territories of Andaman and Nicobar Islands and Delhi were placed in the Hindi speaking group. In actual, Andaman and Nicobar Islands has a Bengali speaking majority and Chandigarh is a Hindi speaking majority case. Hence in the present analysis, Andaman and Nicobar Islands has been replaced by Chandigarh in the Hindi speaking group. The geographical limits of this Hindi zone can broadly be defined as the international boundaries of Nepal and China to the north and that of Pakistan to the west, and the river Mahananda in the east and the river Narmada in the south.

Of the 1210.19 million people recorded by the 2011 Census of India, 528.35 million or 43.66 per cent claimed Hindi as their mother tongue. Just two states of Uttar Pradesh and Bihar accounted for one-half of the Hindi speaking people in the country, and the Central Indian states of Rajasthan, Madhya Pradesh and Chhattisgarh were noted for another over one-fourth (Table 1). The states and union territories constituting the Hindi zone together partook 92.42 per cent or 488.32 million of the Hindi speaking people in the country, leaving 7.58 per cent or 40.33 million of them scattered in the remaining states and union territories.

Amongst them, a sizeable number was dispersed in adjoining tracts of the neighbouring non-Hindi states. They were *in-situ*. This was an outcome of the way the reorganization of states on linguistic basis was carried out in 1956. Several of these tracts were inhabited by tribals who had adopted Hindi as their mother tongue over time.

Table 1
India: Distribution of Hindi Speaking People by States/Union Territories, 2011

State/UT*	Total	Male	Female	% share in total
Uttar Pradesh	187979055	98332835	89646220	35.58
Bihar	80698466	42112266	38586200	15.27
Madhya Pradesh	64324963	33425588	30899375	12.17
Rajasthan	61274274	31821758	29452516	11.60
Haryana	22322157	11904478	10417679	4.22
Chhattisgarh	21361927	10751557	10610370	4.04
Jharkhand	20436026	10580796	9855230	3.87
Maharashtra	14481513	8011083	6470430	2.74
NCT of Delhi	14255526	7656766	6598760	2.70
Uttarakhand	8992114	4555269	4436845	1.70
West Bengal	6356059	3421912	2934147	1.20
Himachal Pradesh	5895529	2980690	2914839	1.12
Gujarat	4264868	2488970	1775898	0.81
Andhra Pradesh**	3120413	1615020	1505393	0.59
Jammu & Kashmir	2612631	1443826	1168805	0.49
Punjab	2594831	1446194	1148637	0.49
Assam	2101435	1122149	979286	0.40
Karnataka	2013364	1090678	922686	0.38
Odisha	1239037	640650	598387	0.23
Chandigarh	776775	433729	343046	0.15
Tamil Nadu	393380	223915	169465	0.07
Goa	150017	87445	62572	0.03
Arunachal Pradesh	98187	61622	36565	0.02
Dadra & Nagar Haveli	89905	62122	27783	0.02
Daman & Diu	88312	67144	21168	0.02
Tripura	77701	47597	30104	0.01
Andaman & Nicobar	73424	39790	33634	0.01
Nagaland	62942	41971	20971	0.01
Meghalaya	62905	38730	24175	0.01
Kerala	51928	37065	14863	0.01
Sikkim	48586	31409	17177	0.01
Manipur	31703	23092	8611	0.01
Mizoram	10677	8500	2177	0.00
Puducherry	6403	3437	2966	0.00
Lakshadweep	160	134	26	0.00
INDIA	**528347193**	**276610187**	**251737006**	**100.00**

Source: Census of India (2011).State-wise Distribution of Population by Scheduled Languages in India:Part I. * Arranged in descending order of population size.
** Including Telangana.

At individual level, Maharashtra topped with 36.18 per cent of the Hindi speaking people outside the Hindi zone (Table 2). The actual number involved was 14.48 million (Map 1). This was attributed to a large influx of Hindi speaking people to metropolitan cities like

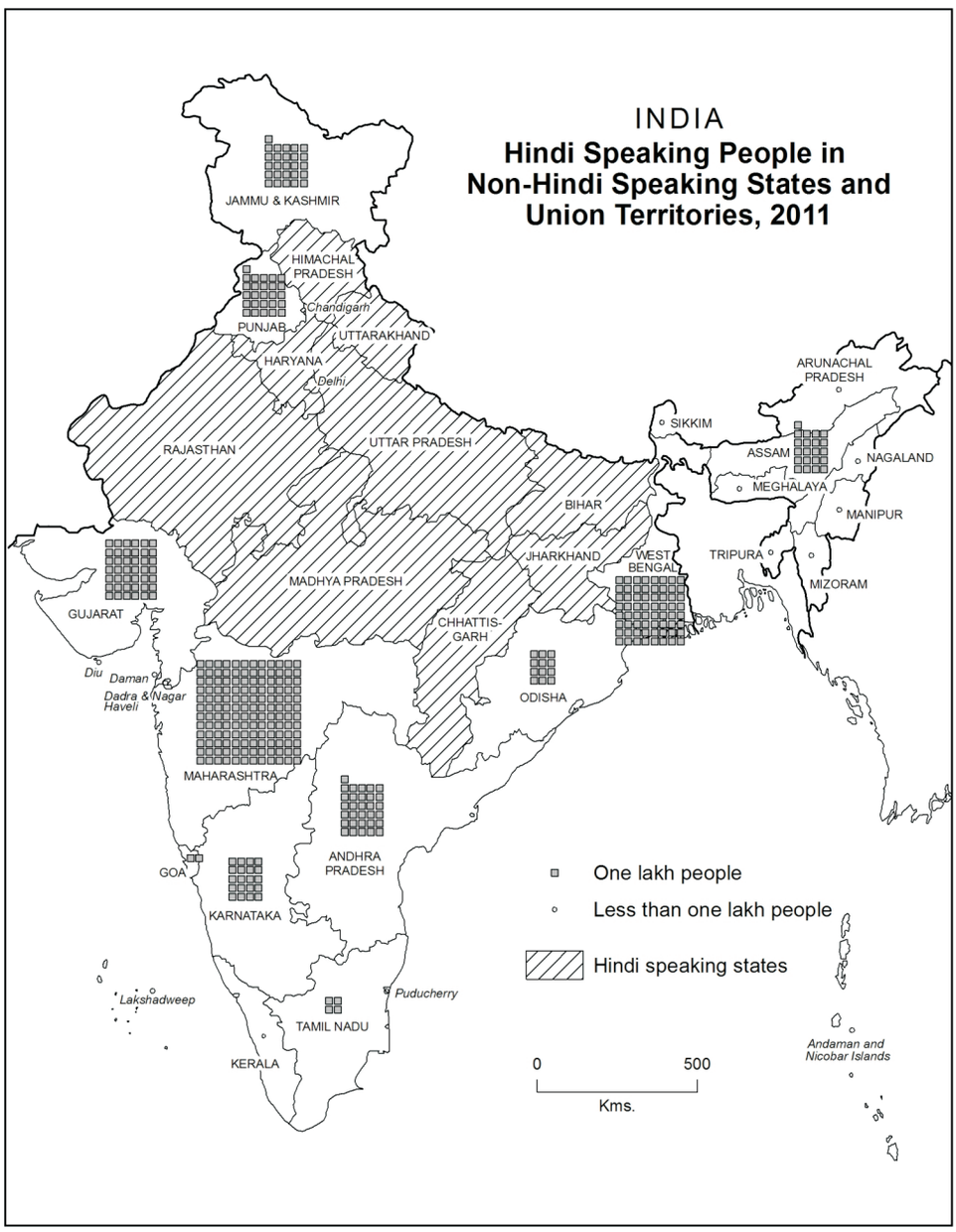
Mumbai, Pune and Nagpur, in addition to the *in-situ* presence of the Hindi speaking people in tracts adjoining with the Hindi zone. Next to Maharashtra came West Bengal which shared 15.88 per cent of Hindi speaking people outside the Hindi zone. The metropolitan city of Kolkata and the tea estates of the Duar region have been attracting a large number of migrants from the Hindi zone since the colonial days. Gujarat, with its traditional cotton textiles industry since the colonial time and now with its other fast growing industrial centers, has also been a lucrative migration destination for the Hindi zone. It shared 10.65 per cent of the Hindi speaking people outside the Hindi zone.

Table 2
India: Distribution of Hindi Speaking People in Non-Hindi Speaking States/Union Territories, 2011

State/UT*	Total	Male	Female	% share in total
Maharashtra	14481513	8011083	6470430	36.18
West Bengal	6356059	3421912	2934147	15.88
Gujarat	4264868	2488970	1775898	10.65
Andhra Pradesh**	3120413	1615020	1505393	7.80
Jammu & Kashmir	2612631	1443826	1168805	6.53
Punjab	2594831	1446194	1148637	6.48
Assam	2101435	1122149	979286	5.25
Karnataka	2013364	1090678	922686	5.03
Odisha	1239037	640650	598387	3.10
Tamil Nadu	393380	223915	169465	0.98
Goa	150017	87445	62572	0.37
Arunachal Pradesh	98187	61622	36565	0.25
Dadra & Nagar Haveli	89905	62122	27783	0.22
Daman & Diu	88312	67144	21168	0.22
Tripura	77701	47597	30104	0.19
Andaman & Nicobar	73424	39790	33634	0.18
Nagaland	62942	41971	20971	0.16
Meghalaya	62905	38730	24175	0.16
Kerala	51928	37065	14863	0.13
Sikkim	48586	31409	17177	0.12
Manipur	31703	23092	8611	0.08
Mizoram	10677	8500	2177	0.03
Puducherry	6403	3437	2966	0.02
Lakshadweep	160	134	26	0.00
Total	**40030381**	**22054455**	**17975926**	**100**

Source: Census of India (2011). State-wise Distribution of Population by Scheduled Languages in India: Part I.
*Arranged in descending of percentage share.
**Including Telangana.

Map 1



Since independence, Karnataka and Andhra Pradesh (including Telangana) have also been attracting a large number of migrants from the Hindi zone. The availability of a variety of employment opportunities in Bengaluru in the case of Karnataka and Hyderabad now in Telangana made this possible. The Hindi speaking people in Punjab and in the Jammu region of Jammu and Kashmir are largely *in-situ* and partly migrants from the Hindi zone.

The number of Hindi speaking people is small, less than 100, 000 each, in most of the states in the North-East Region (barring Assam), in Kerala and Tamil Nadu in deep south, and in union territories of Andaman and Nicobar Islands, Daman and Diu, Dadra and Nagar Haveli, Puducherry, and Lakshadweep. A role of the factor of distance from the Hindi zone is evident. The presence of the Hindi speaking people in Assam was linked primarily to their migration to tea-estates since the colonial days.

Notably the South Indian states of Andhra Pradesh (including Telangana), Karnataka, Tamil Nadu and Kerala, together with the union territory of Puducherry, shared 13.98 per cent of the Hindi speaking people outside the Hindi zone. The actual number involved was 5.59 million (Table 3). By comparison the number of Telugu, Malayalam, Tamil and Kannada speaking people in the Hindi zone was only 0.69 million. Evidently the south to north flow of the linguistic groups was just one-eighth in the reverse direction. Among the South Indian group, the outflow of the Telugu speaking people was the largest, followed by that of the Malayalam, Tamil and Kannada speaking ones in that order.

Table 3
The Hindi Zone: Number of People Speaking South Indian Languages, 2011

State/UT	Telugu	Malayalam	Tamil	Kannada	Total
Delhi	25934	88662	82719	10012	207327
Chhattisgarh	152100	23370	10334	2028	187832
Madhya Pradesh	24411	37761	20544	4175	86891
Jharkhand	30704	6549	10061	1342	48656
Rajasthan	8350	24439	8939	5931	47659
Uttar Pradesh	13977	24450	1444	6435	46306
Haryana	9831	14518	12658	3172	40179
Uttarakhand	3185	3168	2584	1233	10170
Chandigarh	1339	1979	5579	425	9322
Bihar	1467	1220	986	492	4165
Himachal Pradesh	1383	1211	1038	462	4094
Total	**272681**	**227327**	**156886**	**35707**	**692601**
Percent in total	**39.37**	**32.82**	**22.65**	**5.16**	**100**

Source: Census of India (2011).State-wise Distribution of Population by Scheduled Languages in India, Part I.
* Arranged in descending of the total people.

The concentration of pattern of Hindi speaking people outside the Hindi zone, thus, displayed threefold pattern: (i) tracts peripheral to the Hindi zone located in the neighbouring states, such as Maharashtra, West Bengal, and Odisha, where they were largely *in-situ* as an aftermath of the linguistic reorganization of states, and partly in-migrants to tea estates, as in West Bengal, and mining areas, as in Odisha; (ii) big metropolitan cities, such as Mumbai, Kolkata, Ahmadabad, Hyderabad and Bengaluru; and (iii) other areas like Punjab and Jammu region of Jammu and Kashmir, where the *in-situ* Hindi speaking people were joined by migrants from the Hindi zone. The scattering of Hindi speaking people was largely urban directed, rising with increase in distance. The Hindi zone is a major net-outmigration segment of India. Such an outflow to the South Indian states was manifold of the one in reverse direction. Any stimulus to a bigger flow from the south to north will promote the cause of desired linguistic intermingling in the multi-cultural context of India.

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