

## Spread Effects Versus Localised Growth: The Case of Census Towns in Murshidabad District, West Bengal

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### Abstract

The phenomenal increase of census towns as a new trend in India's urbanisation has questioned the model of urban development based on big and metropolitan cities. In 2011, the Census of India noted that West Bengal state experienced the highest growth of new Census towns. These newly developed Census towns have emerged not only in the districts away from the Kolkata metropolitan area but also in areas far away from the bigger towns of different districts. In the case of Murshidabad district, the Census towns have developed not near Berhampore, the biggest town and the district-headquarter, where agglomeration economies could play a role in their growth. Only eight out of 65 Census towns are located in the periphery of Berhampore, and the rest are located either near to other Statutory towns or are scattered in patterns. With the help of both primary and secondary data, this article tries to explore the nature of proximity of the Census towns with their nearest Statutory towns and also evaluates the role of distance from the existing towns regarding the availability of the basic services in the Census towns. The broader pattern of the growth of the Census towns and the influence of statutory towns on that growth pattern has been analysed with the help of Principal Component analysis and Quadrant analysis. Empirical research with a focus on different types of non-farm activities has been carried out to understand the process of growth of Census towns. The article finds that the economy of the Census towns is independent of the nearby Statutory towns, and their growth is dependent on the localised transformation of the rural economy from farm to non-farm especially to household industries such as bidi and silk.

**Keywords:** Census town, Statutory town, Non-farm activities, Urbanisation, Principal Component analysis, Murshidabad District, West Bengal

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## Introduction

Urban growth and classification has been the subject of intense debate in India since the publication of the census data of 2011, which showed enormous growth of Census towns in different states especially in the states of West Bengal, Kerala and Tamil Nadu. Urban classification in India is dynamic since reclassification is possible from rural to urban as well as from urban to rural (Bhagat, 2011). The census of 2011 showed marginal growth in the urban population of existing towns, but it reported an immense increase of urban settlements. By the process of governance, urban settlements in India can be classified as belonging to two distinct categories. These are – Statutory towns and Census towns. Statutory towns are governed by the urban local government, whereas Census towns are emerging urban centres without statutory urban government and thus are governed by rural local bodies that is, Gram Panchayats. That is why these new urban settlements are often differently defined as the product of ‘unacknowledged urbanisation’ (Pradhan, 2013), ‘non-recognized urbanisation’ (Samanta, 2013) ‘unregulated growth’ (Jain, 2018), or ‘denied urbanisation’ (Denis, Mukhopadhyay and Zerah, 2012). In between 2001 and 2011, there was an increase of 2532 Census towns in India. However, in the case of Statutory towns, only 242 have increased in the same period. The difference between these two categories becomes more extensive in the percentage share of the increase. Against the 6.37% increase of Statutory towns, Census towns increased at the rate of 186%. Considering the proportional growth of these two categories of towns, it can be said that Indian urbanisation has gained pace due to the emergence of new Census towns in the last decade.

The pattern of growth of Census towns also indicates a new trend. The current trend shows that new Census towns are not growing in the periphery of the large towns, but are instead growing rather far away from the large towns (Samanta, 2017). Pradhan (2013: 49) estimated that about 63% of new Census towns in India

have not emerged in the proximity of large towns. Roy and Pradhan (2018) recently estimated that 40% of the upcoming Census towns, in 2021 census are currently in the proximity of class-1 towns and the rest are under the shadow of older Census towns or of the isolated pattern. Chatterjee (2011; 2013) has also noted that there is a noticeable shift from the previous trend. According to him, the new towns that have recently emerged in a scattered manner in all districts of West Bengal are emerging in proximity to the large towns as was the trend in the earlier decades. Kundu (2011) has stated that the demographic growth in metro cities is gradually decreasing. From the census data of 2011, he has suggested that large cities, particularly the metropolises have become less welcoming to migrants because of the higher initial establishment cost of migration to big cities in comparison to smaller one. He also found that a maximum number of people migrated from rural areas to urban areas where there has been withdrawal of workforces from primary activities such as agricultural labour and cultivators and accelerated growth of non-farm activities such as households industry, dairy, small-scale manufacturing and silk weaving can be seen. In similar context, Samanta (2013) argues that new Census towns are growing without receiving much financial support from the government, and these are developed more by the capital that is locally generated either from the farm sector of surrounding rural areas or other types of activities such as real estate development and small-scale business activities.

According to Denis Mukhopadhyay and Zerah (2012: 52), urbanisation in India may occur near large towns or away from them. They also observed that the growth of new census towns induced by the market and historical forces are not necessarily dependent on large cities. If we look into the scenario of West Bengal, it can be seen that out of 780 Census towns, 526 Census towns have developed in the last decade. According to the 2011 Census, West Bengal holds the highest position in the number of Census towns (780), followed by Kerala (346)

and Tamil Nadu (227). In West Bengal, most of the census towns have emerged in the districts of South 24 Pargana (97), Howrah (85), North 24 Parganas (58) and Murshidabad (43) in the last decade. Although the first three districts are located near Kolkata Urban Agglomeration, the fourth, that is, Murshidabad is not adjacent to Kolkata Metropolitan Area (KMA). Instead, it is located away from the Kolkata Metropolitan Area, and the chances of metropolitan influences are absent. This observation leads to a number of questions: what are the dominant factors leading to the high growth of the new urban centres? are their growth influenced by the location of already existing Statutory towns? To explore the answers to these questions, Murshidabad district has been selected as the area of interest in order to understand the leading causes for the development of Census towns.

This study tries to unfold the patterns and processes behind the growth of the Census towns in the Murshidabad district. The district is not performing well in terms of development as it attained 15th rank amidst 17 districts in West Bengal as per the Human Development Index of 2004. Another study (Dutta, 2017) has also calculated the district-wise human poverty index (HPI) in West Bengal and has found that Murshidabad district's performance is very bad and it lies at the bottom (2nd from the last) of the list of districts in the state. Consequently, the level of urbanisation in the district remains very low, that is, only 12%, till 2001. The growth of industries is not noted in the district in recent decades. However, the district has experienced enormous growth of new urban centres, that is, transformation in the nature of work in existing villages. Therefore, the questions that arise relates to the processes and factors of urbanisation in the district, especially the growth of Census towns. The overall patterns of the new Census towns show that a large number of Census towns of the district developed in the proximity of the Statutory towns. There is a chance that the nearby urban centres have influenced their growths. The urban amenities and non-farm activities of the Census towns in relation to

their distance from the nearby Statutory towns, have been analysed in this article to understand whether there is any influence of the nearest Statutory towns on the growth of the Census towns. Thus, the primary objective of this article is to explore the dynamics behind the growth of Census towns in the Murshidabad district. This article is based on both secondary data and empirical findings. The secondary data has been used to understand the broad patterns of growth of Census towns and the influence of Statutory towns on that growth pattern. To understand the processes of growth, the study uses the empirical findings with particular focus on the different types of non-farm activities which have led to the growth of Census towns.

This article is divided into three sections. In the introductory part, the article tries to develop the core arguments, that is, whether their nearest statutory towns directly influence the development of Census towns. In the first section, the article analyses the nearness of the census towns with their nearest Statutory town and estimates the threshold population of the Statutory towns for developing Census towns in their periphery. The second section explores the relationship between urban amenities and the distance of the Census towns from nearest Statutory towns. This section also establishes the linkage between Census towns and nearest Statutory towns. Finally, the third section identifies the dominant non-farm economies responsible for rural to urban transformation of the settlements in the Murshidabad district.

### **The Proximity of Census Towns to Statutory Towns**

The pattern of distribution of Census towns is not same all over India. Pradhan (2013) has given an idea about the locational pattern of the Census towns in India on the basis of buffer analysis of the nearest class-1 towns, that is, towns consisting of more than one lakh population. He has taken a 10 km buffer of towns having a population of one to 5 lakh populations and 15 km buffer for towns having a population of 5 to 10 lakhs. According to him, 34% of the new Census towns have developed

in the proximity of large towns in India. In the case of West Bengal, 45% of the new Census towns have emerged in the proximity of large towns. From this data, it is clear that a large number of new Census towns in India, as well as West Bengal, have developed away from the class-1 cities.

If we look into the distribution of Census towns, it is clear that there are two types of patterns in the district. A large number of Census towns have emerged in the northern part of the district, and the rest are located in the southern part especially in the surrounding areas of Berhampore Municipality (Figure 1). In the case of the northern part of the district, the Census towns have developed along the National Highway (NH 34) and are nearer to the Jangipur and Dhulian municipalities. There are seven Statutory towns in the district. The average population size of those towns varies from 30,000 to 2,00,000. The Census towns have mostly developed in the proximity to the relatively bigger Statutory towns, especially around the towns with more than 80,000 population (Table 1). This observation leads to the understanding that probably, bigger Statutory towns have a more significant service area and the better services of those statutory towns have facilitated the growth of Census towns in their vicinity. To analyse this trend of nearness to existing towns, a five-kilometre buffer, and a ten-kilometre buffer were drawn around the Statutory towns (Figure 1).

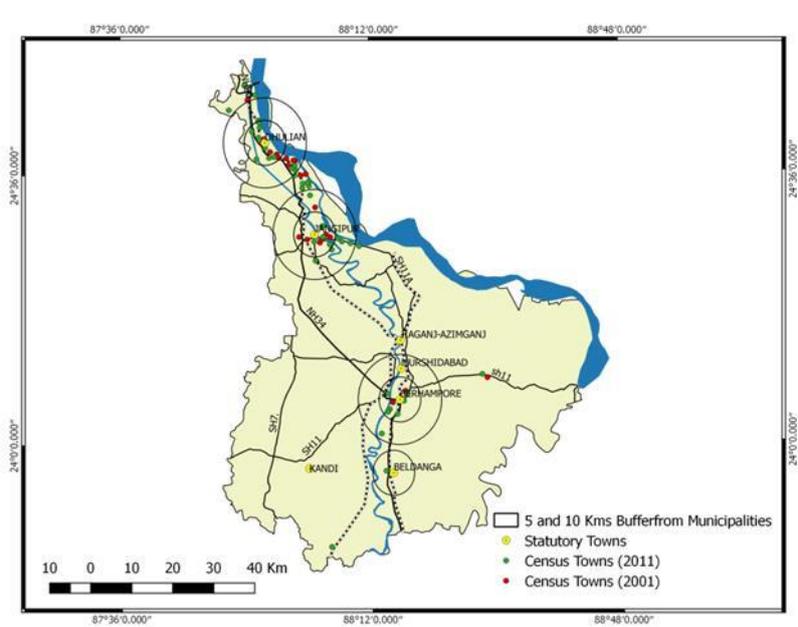
In Murshidabad, 49% of the Census towns have developed within five kilometres and 74% of the Census towns have developed within 10 kilometres buffer from the nearest Statutory towns (Table 1). Thus, a large number of Census towns have developed near Statutory towns in the district. The Statutory towns vary

in size, and the number of Census towns nearer to those centres also varies significantly. The growth in the number of Census towns in the proximity of class-I towns, that is, Berhampur is only 13% against the Indian average of 37% and the West Bengal average of 43%. The Census towns in the proximity of class-III Statutory towns is almost absent in the entire district. Instead, a higher concentration of Census towns is seen to have developed near class-II towns especially within the categories with a size of 80,000 to 1,00,000. Thus, it is difficult to explain the growth of Census towns with the help of the size of Statutory towns as it was done by Pradhan (2013) in the case of India and West Bengal.

The locational pattern of Census towns in respect to Statutory towns raises some questions on the growth impulses of Census towns. If the Statutory towns control the growth, there should be more Census towns in the vicinity of class-1 towns than the towns belonging to lower size categories, which is not the case for Murshidabad. The pertinent question that arises, in this case, relates to the role that Statutory towns play in controlling the growth of Census towns. If the role is not significantly high, then there must be other factors which need to be critically scrutinised. According to the subaltern urbanisation hypothesis (Denis et al., 2012; Denis and Zerah, 2017), the economies of the small towns in India, which are either located away from or near to metropolitan cities, are not always directly dependent on the metropolitan cities. With this background in mind, we have tried to analyse whether the growth of Census towns follows the subaltern hypothesis or whether their growth is linked and controlled by the Statutory towns.

<b>Table 1: Proximity of Census Towns to Nearest Statuary Towns</b>			
<b>Statuary Towns</b>	<b>Population</b>	<b>5 Km Buffer (No. of Census Towns)</b>	<b>10 Km Buffer (No. of Census Towns)</b>
Dhulian	95,706	12	20
Jangipur	88,165	11	18
Berhampore	1,92,223	8	9
Beldanga	29,205	1	1
Murshidabad	44,019	0	0
Khandi	55,632	0	0
Jiaganj-Azimganj	51,790	0	0
<b>Total</b>		<b>32 (49.23%)</b>	<b>48 (73.85%)</b>

**Source: Prepared by the Authors**



**Figure1: Proximity of Census Towns to Statuary Towns**  
**Source: Prepared by the Authors**

**Distance from Statutory Towns and the Level of Urban Amenities**

The towns, big or small, usually have some influence on their surrounding areas in terms of diffusion of urban amenities, and the level of those amenities decreases along with the increasing distance from the towns (Ramachandran, 2008; Kundu et al., 2002) and this is called the ‘distance decay function’. This section tries to explore whether, in the case of Murshidabad, Census towns are the product of urban expansion of the existing towns. To understand that linkage, the correlation

between the level of urban amenities in the Census towns and their distance from the existing towns are measured. To find out this relation, ten indicators have been selected from within the urban amenities. These are: i) Education facilities, ii) Medical facilities, iii) Number of bank branches, iv) Drinking water facility within premises, v) Latrine within premises, vi) Number of households availing bank services, vii) Number of motorcycles, viii) Non-farm activities, ix) Households having electric connection, x) Electric connection within households. Based on these parameters,

the Urban Amenities Index has been developed.

The Urban Amenities Index of the Census towns has been calculated on the basis of the Principal Component Analysis (PCA). The

Principle Score has been developed from the Eigen value (Appendix 1) of the PCA. Before calculating the PCA, data from ten indicators which are selected for this calculation, have been normalised using the following formula:

$$NVij = 1 - \left( \frac{\{Best\ Xi - Observed\ Xij\}}{\{Best\ Xi - Worst\ Xi\}} \right)$$

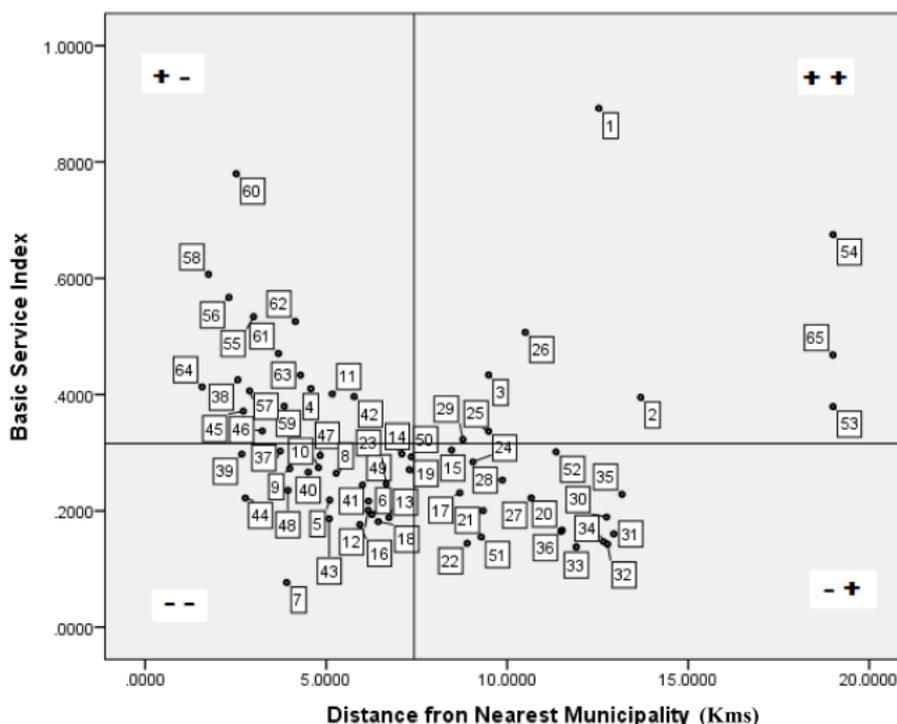
The following formula has been used to (Appendix 2). The data has been calculated determine the Urban Amenities Index with the help of SPSS 20 software.

$$UAI = \frac{\sum_{i=1}^n X_i (\sum_{j=1}^n |L_{ij}| \cdot E_j)}{\sum_{i=1}^n (\sum_{j=1}^n |L_{ij}| \cdot E_j)}$$

Where UAI is the Urban Amenities Index, Xi is the ith Indicator; Lij is the factor loading value of the ith variable on the jth factor; Ej is the Eigen value of the jth factor

After calculating the Urban Amenities Index, it has been plotted against the distance from the nearest Statutory town to analyse the pattern of correlation between the two. Using the mean value of both the indicators the entire distribution of Census towns over the plotted graph has been divided into four zones – Positive-positive, Positive-negative, Negative-negative and Negative-positive (Table 2; Figure 2). Following the rule of distance decay, Negative-positive and Positive-negative zones

indicate normal condition as these zones indicate a decrease in urban amenities with increasing distance and increase in urban amenities with decreasing distance from the existing town. In contrast, Positive-positive and Negative-negative zones are not in the normal condition as these zones represent an increase in urban amenities with the increase in distance and decrease in urban amenities with decreasing distance from the town.



**Figure 2: Relation between Distance from Statutory Towns and Urban Amenities**  
**Source: Prepared by the Authors**

<b>Table 2: Relation between Distance from Statutory Towns and Urban Amenities</b>			
Normal Case	Decrease in Urban Amenities with Increasing Distance (Negative-positive)	Increase in Urban Amenities with Decreasing Distance (Positive-negative)	Total
	Total Number of Census Towns: 17	Total Number of Census Towns: 16	33 (50.77%)
Exceptional Case	Decrease in Urban Amenities with Decreasing Distance (Negative-negative)	Increase in Urban Amenities with Increasing Distance (Positive-positive)	Total
	Total Number of Census Towns: 23	Total Number of Census Towns: 9	32 (49.23%)

**Source: Prepared by the Authors**

The graphical plotting of the distribution of Census towns (Figure 2) does not indicate any particular pattern. About 50% Census towns follow the normal condition meaning decrease in urban amenities with increasing distance and increase in urban amenities with decreasing distance from the existing town. The same proportions, that is, another 50% of the Census towns do not follow the normal situation (Table 2). In the second case, the level of urban amenities of the Census towns increases with increasing distance, and the level of urban amenities decreases with decreasing distance from the Statutory towns. From this analysis, it is difficult to conclude whether, in the level of urban amenities of Census towns, there is any impact of Statutory towns as the proportion in both standard and exceptional cases are the same.

As the relation between agglomerated Urban Amenities Indices and the distance from statutory town does not lead to any particular pattern, we have analysed the relation of eight individual parameters with the distance through a correlation matrix (Table 3). The

dataset against eight parameters belong to the non-parametric category, and that is why Spearman’s correlation method has been used for the correlation matrix (Table 3).

From the correlation values (Table 3) of the individual variables, what can be seen is that the distance from the nearest Statutory town is negative which means that with the increasing distance from the Statutory towns, the level of urban amenities is decreasing. However, the level of correlation is not significant. This means that the variables of urban amenities are not significantly correlated with the distance from the town. As for example, the R value of the relation between distance and latrine facilities is the highest among all variables, that is, (-.401). The R<sup>2</sup> value of the same would be 0.1608. Thus, in the case of latrine facilities, the distance can explain only 16% and the rest 84% of other factors are responsible for the development of latrine facilities in each Census town. In the case of other variables, the distance can explain not more than 16% as the R square value of the other variables does not exceed 0.1608. It

means that all the variables do not depend on the distance from nearest Statutory towns. Thus, this analysis proves that although most of the Census towns are located near the

Statutory towns, the distance from the Statutory town does not play a crucial role in the development of the urban amenities in a particular Census town.

**Table 3: Correlation with Distance from the Nearest Statutory Towns**

	Spearman's rho									
Households Assets	Education	Bank Services	Medical Facilities	Drinking Water	Latrine Facility	Drainage Facilities	Households Availing Banking	Scooter/Motorcycle/Moped	Non-farm Activity	Electricity Connection
Distance (Kms)	-0.073	-0.025	-0.02	-.307*	-.401**	-0.21	-0.133	-.351**	-0.083	-.293*

\*\* Correlation is significant at the 0.01 level (2 tailed)

\* Correlation is significant at the 0.05 level (2 tailed)

**Source: Calculated by the Authors**

There are other factors as well for the development of urban amenities in the rural areas which probably led to the growth of Census towns. One significant contribution is from government programmes under the Ministry of Panchayat and Rural Development. For example, *Sajal Dhara* (2002) for water supplies, Total Sanitation Campaign (1999-2007) and Nirmal Bharat Abhiyan (2009-14) for latrine facilities, *Sarva Siksha Abhijan* (2002) for education, National Rural Health Mission (2005) for health and medical facilities. For the development of infrastructural facilities and services in villages, people do not always depend on the nearby Statutory towns. Mukhopadhyay (2017) has shown that towns with administrative status do not always have better access to essential services than in the Census towns. He also observed that in some states of India, Census towns have better levels of services than the Statutory towns.

In the case of education, banking facilities and non-farm activities, data shows insignificant correlation with the increasing distance from Statutory towns, which means nearness to statutory towns is not a significant factor for either of those variables. In the case of education, private schools have also been developed in rural areas especially in the

Census towns. Secondly, in the case of banking facilities, the correlation value is also insignificant (Table 3). However, if we look into the data on the households availing banking facilities, the average proportion of households in the Census towns availing bank facilities is considerably high. This observation indicates that there are sufficient bank branches in the Census towns and therefore, people do not use the bank facilities in nearby towns. The presence of bank branches, sometimes two or three in one Census town, is also an indicator of the development of markets and other commercial establishments.

In the case of non-farm activities, the correlation value with the distance from Statutory towns is again insignificantly negative (Table 3). This is an indicator of the fact that although there is a decline in non-farm activities with the increasing distance from the existing towns, the correlation value is not significant enough to justify that relation. However, the development of non-farm activities is at the core of new urbanisation and the development of Census towns, as the proportion of non-farm sector population has increased significantly in most of the Census towns between 2001 and 2011. There is a possibility that either the development of the

localised non-farm economy has taken place using local capital or the people have out-migrated to other places of India and have been engaged in other non-farm activities there. To examine these reasons further, intensive fieldwork has been carried out to explore the ground reality in the Murshidabad district which has led to the growth of Census towns. The next section is built upon these field observations.

### **The Dynamics of the Urban Growth**

In West Bengal, facts about Census town reveal that Census towns develop with the development of non-farm activities. Samanta (2013) stated that new Census town are emerging without much support from the government and these are developed by local capital generated from the farms in the surrounding rural areas, various types of real estate projects or business activities. Guin and Das (2015) claimed that the Census towns of West Bengal have developed due to the agricultural impasse and the spread of unorganised industries. Sirkar (2016) also agreed that the emergence of Census towns is due to the development of non-farm activities.

The data analysis in the earlier section shows that the growth of the non-farm economy leading to urbanisation in the form of Census towns is not linked to the existing urban centres and also their spread effects. In search of the ground reasons behind the growth of a large number of Census towns, as mentioned above, extensive empirical research has been conducted in Murshidabad district covering all the Census towns. The growing non-farm economy is observed in most cases for new urbanisation with some specific activities has developed over the last 10-15 years. Each settlement has experienced urban transformation because of more than one non-farm activity. The dominant non-farm economies observed in the Census towns are - Bidi<sup>1</sup> Industry, Silk Industry, Market based economy, and Government service based

economy (Table 4). Remittance from migrant construction labourer is also one of the vital sources of capital invested in the small-scale non-farm economy of the district leading to urbanisation. Similar observation has been noted by Reja and Das (2017) for Bengali construction workers working in Kerala. So, the out-migration of construction labourer and the remittances sent by the construction workers also play a significant role in the growth of the non-farm economy and the consequent urban development.

A detailed field survey on the growing economy of the Census towns, highlights that the non-farm economy around the bidi industry is dominant at 63%, that is, in 41 out of 65 of the total Census towns in the district. Bidi making was introduced in the district in the 1920s especially in the northern parts, following a big flood and consequently the river bank erosion causing enormous loss of farmland (Gazetteer, 2003). The second and third dominant factors are the agro-based industry, the handloom industry and the market-based economy (Table 4). Chatterjee (2011) also noted that silk and bidi are the most critical non-farm economy which led to the emergence of Census towns in the district. The service sector development around different government offices such as the Block Development office, the Land Revenue Office, the Agriculture Development Office, the bidi welfare office has also played a significant role in the agglomeration of different infrastructure and services in certain settlements, thus directing a higher level of non-farm activities and urbanisation.

### **Conclusion**

In search of the factors for the development of Census towns in Murshidabad District, this article tried to analyse whether the distance from nearby Statutory towns has played an important roles in the growth of these new urban centres. The research shows that the growth of Census towns in the district is not directly linked to the location of the nearby statutory towns. Though the Census towns of the district in some cases have developed in the proximity of the large Statutory towns, field

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<sup>1</sup>*Bidi* is a thin form of cigarette originating in India. It is popularly known as the poor man's cigarette (Kamboj, 2008).

investigation shows that their economy is not linked to the economy of the nearby towns. The number of commuters to these Statutory towns is not very high in Census towns even if they are located nearby. This growth pattern of the Census towns of the district supports the subaltern urbanisation hypothesis (Denis and

Zerah, 2017) as these towns are not developed due to spread effects of the agglomeration economies of the existing town. Moreover, there is no big city in the entire district which can influence their growth as the metropolitan spill-over effect.

**Table 4: Non-farm Economy in Murshidabad District**

Economy	Bidi Industry	Handloom Industry	Cement Plant	Power Plant	Agro-based Industry	Government Office based Economy	Market Based Economy
No. of Census Towns	41	7	1	1	9	3	7

**Source: Field Survey, 2016**

The paper concludes that the development of the non-farm economy leading to the emergence of the Census towns is around small-scale household industries and business activities. The rate of out-migration as labour-force to the non-farm sectors especially to the construction industry in the cities both within and outside the state is also tremendous in the district. The remittance sent by the migrant workers is being invested in small business activities, thus, enhancing the proportion of non-farm employment of the workforce. The significant non-farm activities of the Census towns in the entire district as noted from the field survey are bidi making, migrant construction labour, silk weaving, and small business in the market centres. Thus, the paper concludes that the growth of a large number of Census towns in the Murshidabad district is due to the effect of the localised growth of non-farm activities, instead of spreading effects of the existing cities.

## References

Bandyopadhyay, B., S. Sengupta and P.D.

Biswas (2003). Murshidabad Zilla Gazetteers, Higher Education Department, West Bengal, Available at

<http://murshidabad.gov.in/Gazeteer.aspx> (accessed September 9, 2014)

- Bhagat, R. (2011). Emerging Pattern of Urbanisation in India, *Singapore Journal of Tropical Geography*, 26(1), pp. 61-73.
- Chatterjee, M. (2011). Preliminary Discussion on the Census 2011 result, *Urban India*, 33(1), pp. 154-191
- Chatterjee, M. (2013). Urbanisation Trends and Urban Planning in West Bengal, India, Athens: ATINER'S Conference Paper Series, No: PLA2013- 0632, pp.5-20
- Denis, E., P. Mukhopadhyay and M. H. Zerah (2012). Subaltern Urbanisation in India, *Economic & Political Weekly*, 47(30), pp. 52-62
- Denis, Eric and M-H. Zerah (eds.). (2017). *Subaltern Urbanisation in India: An Introduction to the Dynamics of Ordinary Towns*. Berlin: Springer. (ISBN 978-81-322-3614-6 (e book)) (ISBN: 971-81-322-3616-0)
- Dutta, A. (2017). Modified poverty index of West Bengal: A human development approach, *International Journal of*

- Multidisciplinary Research and Development, 4 (10), pp. 43-50
- West Bengal Human Development Report (2004). Development and Planning Department, Government of West Bengal, Available at <http://www.undp.org.in/> (accessed November 17, 2017)
- Guin D. and D.N. Das (2015). New Census Towns in West Bengal: Census Activism or Sectoral Diversification? *Economic and Political Weekly*, 50(14) pp. 68-72
- Jain, M. (2018). Contemporary Urbanisation as Unregulated Growth in India: The Story of Census Towns. *Cities*, 73, pp. 117-127
- Kamboj, M. (2008). Bidi Tobacco, *British Dental Journal*, 205(12), pp. 639. doi: 10.1038/sj.bdj.2008.1088
- Kundu, A., B. K. Pradhan and A. Subramanian (2002). Dichotomy or Continuum: Analysis of Impact of Urban Centres on Their Periphery, *Economic and Political Weekly*, 37(50), pp. 5039-5046
- Kundu, A. and N. Sarangi (2007). Migration, Employment Status and Poverty: An Analysis across Urban Centres, *Economic and Political Weekly*, 42(4), pp. 299-306
- Kundu, A. (2011). Method in Madness: Urban Data from 2011 Census, *Economic and Political Weekly*, 46(40), pp.13-16
- Mukhopadhyay, P., M. Zerah, G. Samanta, & M. Maria, (2016). Understanding India's Urban Frontier What Is behind the Emergence of Census Towns in India ? World Bank Group
- Mukhopadhyay, P. (2017). Does Administrative Status Matter for Small Towns in India, In Eric Denis and Marie Helene Zerah (eds.), *Subaltern Urbanisation in India: An Introduction to the Dynamics of Ordinary Towns*, Springer, pp. 443-469
- Pradhan, K.C. (2013). Unacknowledged Urbanisation: The New Census Towns of India, *Economic and Political Weekly*, Special Article, 48(36), pp.43-51, Available at [https://www.epw.in/system/files/pdf/2013\\_48/36/Unacknowledged\\_Urbanisation.pdf](https://www.epw.in/system/files/pdf/2013_48/36/Unacknowledged_Urbanisation.pdf) (accessed June 21, 2016)
- Ramachandran, R. (2008). *Urbanisation and Urban Systems in India*, New Delhi: Oxford University Press (ISBN-13:978-0-19-562959-0)
- Reja, S and B. Das (2017). Factor associated with long distance labour migration: A study on Bengali Construction Workers in Kerala, In S. Irudaya Rajan (eds), *India Migration Report 2016*, New Delhi: Routledge, pp. 299-311
- Roy, S. N. and K. C. Pradhan (2018). *Census Towns in India: Current Patterns and Future Discourses*, Working Paper, Census for Policy Research, New Delhi. Available at <http://www.cprindia.org/research/papers/census-towns-india-current-patterns-and-future-discourses> (accessed May 25, 2018)
- Samanta, G. (2013). In Between Rural and Urban: Challenges for Governance of Non-recognized Urban Territories in West Bengal, In Narayan Chandra Jana et al (eds.), *West Bengal Geo-Spatial Issues*, Department of Geography, The University of Burdwan, pp. 44-57
- Samanta, G. (2014). Politics and Classification and governance in Census Towns, *Economic and Political Weekly*, 49(22), pp.55-62
- Samanta, G. (2017). Beyond Metropolitan Shadow: Growth and Governance of Small Towns in Eastern India, *Jindal Journal of Public Policy*, 1(3), pp.51-70
- Sirkar, S. (2016). *Between the Highway and the Red Dirt Track: Subaltern Urbanisation and Census Towns in India*, Doctoral Dissertation, Sweden, Lund University. Available at [https://lup.lub.lu.se/search/ws/files/17057823/Srilata\\_Sirkar\\_Between\\_the\\_Highway\\_and\\_the\\_Red\\_Dirt\\_Track\\_electronic\\_copy.pdf](https://lup.lub.lu.se/search/ws/files/17057823/Srilata_Sirkar_Between_the_Highway_and_the_Red_Dirt_Track_electronic_copy.pdf) (Accessed November 21, 2017).

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**Appendix I**

<b>Total Variance Explained</b>									
Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.265	42.648	42.648	4.265	42.648	42.648	3.968	39.677	39.677
2	1.747	17.466	60.114	1.747	17.466	60.114	1.940	19.404	59.081
3	1.146	11.457	71.571	1.146	11.457	71.571	1.249	12.490	71.571
4	.904	9.036	80.607						
5	.600	6.000	86.607						
6	.496	4.959	91.566						
7	.437	4.367	95.932						
8	.260	2.602	98.535						
9	.124	1.235	99.770						
10	.023	.230	100.000						

**Extraction Method: Principal Component Analysis.**

**Appendix II**

Sl. No	Name of the Census Towns	Urban Amenities Index	Distance from Nearest Municipality (Kms)	Sl. No	Name of the Census towns	Urban Amenities Index	Distance from Nearest Municipality (Kms)
1	Farakka Barrage Township (CT)	0.89	12.53	34	Khanpur (CT)	0.15	12.66
2	Srimantapur (P) (CT)	0.40	13.69	35	Khidirpur (CT)	0.23	13.17
3	Benia Gram (CT)	0.43	9.49	36	Bhabki (CT)	0.17	11.52
4	Arjunpur (CT)	0.41	4.58	37	Ghorsala (CT)	0.30	3.74
5	Sibnagar (CT)	0.22	5.10	38	Srikantabati (CT)	0.43	2.56
6	Mamrejpur (CT)	0.19	6.27	39	Charka (CT)	0.30	2.67
7	Paranpara (CT)	0.08	3.91	40	Dafarpur (CT)	0.27	4.50

8	Mahadeb Nagar (CT)	0.26	5.27	41	Ramnagar (CT)	0.22	6.17
9	Anup Nagar (CT)	0.27	4.00	42	Mirzapur (CT)	0.40	5.77
10	Jafrabad (CT)	0.27	4.79	43	Giria (CT)	0.19	5.08
11	Kankuria (CT)	0.40	5.17	44	Mithipur (CT)	0.22	2.76
12	Uttar Mahammadpur (CT)	0.20	6.16	45	Jot Kamal (CT)	0.37	2.71
13	Chachanda (CT)	0.19	6.74	46	Osmanpur (CT)	0.34	3.24
14	Dhusaripara (CT)	0.30	7.09	47	Sahajadpur (CT)	0.30	4.83
15	Serpur (CT)	0.30	8.46	48	Khodarampur (CT)	0.24	3.94
16	Kohetpur (CT)	0.18	5.93	49	Donalia (CT)	0.24	6.00
17	Bhasaipaikar (CT)	0.23	8.69	50	Teghari (CT)	0.29	7.35
18	Jaykrishnapur (CT)	0.18	6.44	51	Krishna Sali (CT)	0.15	9.28
19	Basudebpur (CT)	0.27	7.30	52	Bara Jumla (CT)	0.30	11.35
20	Madna (CT)	0.16	11.49	53	Islampur (CT)	0.38	19.00
21	Ramakantapur (CT)	0.20	9.34	54	HarhariaChak (CT)	0.68	19.00
22	Nayabahadurpur (CT)	0.14	8.89	55	Goaljan (CT)	0.53	2.99
23	Fatellapur (CT)	0.25	6.66	56	Kasim Bazar (CT)	0.57	2.31
24	Jagtaj (CT)	0.28	9.05	57	Banjetia (CT)	0.41	2.88
25	Debipur (CT)	0.34	9.49	58	SibdangaBadarpur (CT)	0.61	1.75
26	Aurangabad (CT)	0.51	10.50	59	Gopjan (CT)	0.38	3.84
27	Mahendrapur (CT)	0.22	10.66	60	Gora Bazar (CT)	0.78	2.51
28	Hafania (CT)	0.25	9.87	61	Ajodhya Nagar (P) (CT)	0.47	3.68
29	Dafahat(CT)	0.32	8.77	62	Chaltia (CT)	0.53	4.15
30	PaschimPunropara (CT)	0.19	12.74	63	Haridasmati (CT)	0.43	4.29
31	Ichhlampur (CT)	0.16	12.94	64	Barua (P) (CT)	0.41	1.57
32	Chakmeghoan (CT)	0.14	12.77	65	Salar (CT)	0.47	19.00
33	Kakramari (CT)	0.14	11.91				