



Investigating the pattern and living conditions of metropolitan: Case study of Kolkata

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Abstract

The progressive growth pattern of the census Metropolitan investigates in this paper. This is a urban area and recognized as town by the state. Kolkata is one of the largest metropolitan cities in India. Till 1912, Kolkata was the capitals of India Secondly to find out that census city are product of agglomeration economies across all districts of west Bengal. Thirdly to investigate the spatial inequality of access to the basic services of this spatially transformed area and make a comparison with statutory urban area of the state. West Bengal is one of the most urbanized states of India. According to the 2011 census West Bengal has 31.87 percent of urban population and it was 27.48 percent in 1991. Therefore more than 4 percent increase of urban population within two decades. Growth of census town from 1981 to 2011 is 16.43 percent. It is apparent from the study that census town close the KMA (Kolkata Metropolitan Area) have greater accessibility of service. With massive growth of urban population, concentration of population is more in larger towns/ cities and metropolitan areas.

Keywords: census towns, Kolkata metropolitan area, agglomeration, spatial inequality

Introduction

Ancient and Recent universal data suggest that spatial transformations indicate countries structural alterations. Spatial transformation includes the people's decisions on where to live, firms' decisions on where to locate production, and the economic composition of locations along with their spatial expansions. The 2011 census confirmed that 90 million people were added to India's urban areas since the previous census in 2001. Most of the mega cities showed growth in the peripheral areas or outskirts of the city because majority of the people can't afford to stay in the core or main areas of the cities due to high cost of living. It is found that Industrial jobs are no more concentrating in the core area of a city, with high-technology and export-oriented manufacturing jobs growing fastest in the periphery of the largest metropolises. These new areas are delivering economies of agglomeration and specialization, which leads to the production of goods and services. 1 Now the important question is that how these spatial transformations are controlled in these areas. Because it has both dimension of economic efficiency and spatial equity. The important aspect of the spatial transformation is that where these transformation are taking place? Are the benefits of these transformations spreading geographically? In other words Are the accessibility of basic services have improved in this spatially transformed area. Census towns are vital area for investigating the spatial transformation in India. Census Towns are identified by the directorate of census using certain predetermined criteria which include population size, population density and male work participation. It is to be noted that spatial transformation of the rural areas is being investigated by the various scholars with different aspects.

Kundu offers a comprehensive delineation on exclusionary urbanization where the poor are downgrade to the degenerated peripheries. Murgai and Lanjouw (2010) studied that the spatial dimension of poverty and they show increase in poverty, with increasing distance from the town. 3 Revi *et al.* (2006) highlighted the possible interconnectedness of urban and rural in subaltern urbanization with their proposed concept of Rurbanism. 4 Denis *et.al* (2012) identified this spatial transformation of rural or peri urban area as subaltern urbanization. This paper also takes subaltern urbanization as a form spatial transformation of rural area and it is a product of agglomerations economies.

Objectives

The paper specifically investigates

1. The spatial and temporal growth pattern of the census towns.
2. To find out that census towns are product of agglomeration economies across all districts of west Bengal.
3. To investigate the spatial inequality of access to the basic services of this spatially transformed area.

Research Methodology

Census data of 2011 and 2001 is used for the study. Different articles, Books are also used for this paper. Data is simply represented as percentage, ratio and other statistical form. Townsend Material Deprivation index was constructed following methodology adopted. Townsend published in the article health and deprivation: Inequality and North. In this paper three basic amenities electricity, Latrine and drinking water are considered.

Data Collection

Primary data for present investigation were collected by conventional field survey method on a well-developed and pre- structured schedule during the period February-March, 2015 by personally interviewing the head of each household. Monthly family budget data as well as information on personal and socioeconomic character were collected. The family budget data were collected on the following items.

1. Food items (cereal, pulses, edible oil & fats, meat, fish and egg, fruits and vegetables, spices, restaurant and refreshment) non-food items (fuel and light, water charges, education expenses, medical charges, telephone, mobile, internet, transport, washing expenses, cosmetics and other social activities) with a reference period of 30 days
2. Durable goods (Utensils, crockery and glassware, furniture including bed seats, repair and white washing), Rent and taxes, loan payment, professional and municipality tax with a reference period of 365 days.

Terms and Concepts Used in the Study

The different concepts and definitions relating to consumer expenditure used in the present study have been described

below in brief.

Household

Household can be defined as group of person normally living together and taking food from common kitchen constitute a household.

Household Size

The size of household can be defined as the total number of persons in the household.

Result and Discussion

Spatio-temporal Growth of Kolkata Metropolitan

Emergence of large number of census towns in 2011 in West Bengal is significant because the growth of census towns was not as higher ever before. From 1971 to 2001 growth of census Towns are stable but after 2001 there is a huge growth of number of census towns. On the other hand statutory towns’ growth from 1991 to 2011 is very slow. Work participation in different occupation in Kolkata is presented in Table. The information regarding the domestic product of any economy indicates the progress of development.

Table 1: Comparing Urban amenities deprivation between CT and ST of different Districts of West Bengal

District	Deprivation Value	
	CT	ST
Darjeeling	-1.150	-1.986
Kochbihar	-0.705	-0.672
Jalpiguri	0.7191	-1.570
Uttar dinajpur	-0.122	2.642
Dakshin Dinajpur	-1.419	0.525
Malda	2.453	-0.919
Murshidabad	-2.40	2.495

It is very clear from the above that overall household accessibility of the Census town is relatively better in only three districts i.e. North 24 Pgs, Hooghly and South Dinajpur. On the other hand overall household accessibility of the statutory town is relatively better in only three districts i.e.

North 24 Pgs, Hooghly and Howrah. It indicates that districts close to the metropolis have better accessibility in both the census towns as well as statutory towns. While districts with low human development have very poor accessibility of basic services in both the census towns as well as statutory towns.

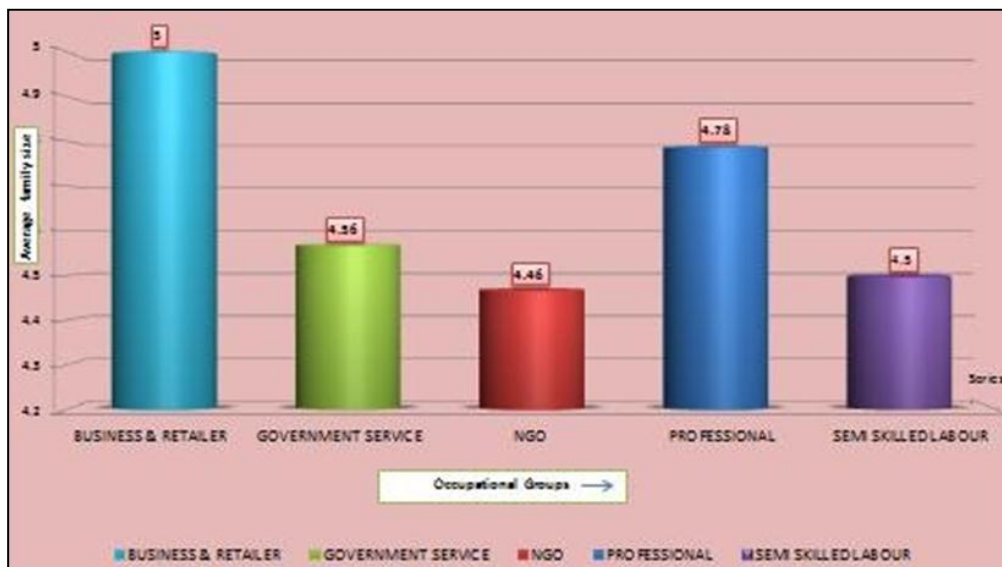


Fig 1: average family size across different occupational groups

Census of India published the information regarding the distribution of households on the basis of condition of houses they live. The information regarding the same in urban West Bengal and Kolkata district during 2001 is presented in Table 2.

Table 2: Condition of Houses in Urban West Bengal and Kolkata District 2001

No	Condition of Houses	Urban West Bengal	Kolkata District
1.	Good	53.77	56.14
2.	Livable	39.75	38.88
3.	Dilapidated	6.48	4.98

More than a half of the total households in Kolkata district and urban West Bengal stayed in good condition of houses and nearing 40 per cent of the households stayed in livable houses. The households stayed in dilapidated houses were comparatively less in Kolkata district than in urban West Bengal.

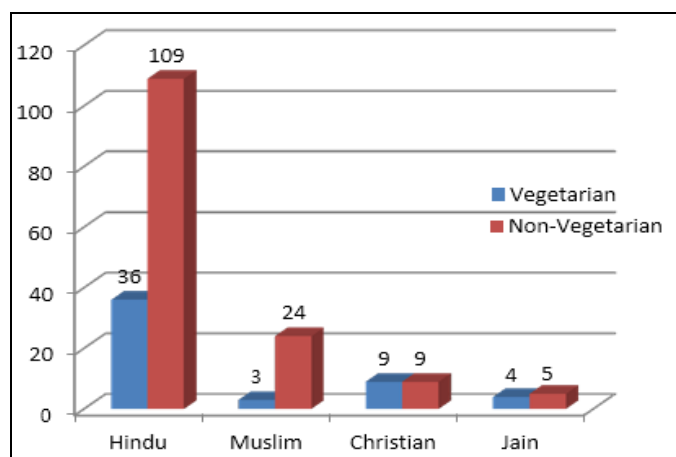


Fig 2

The diagram shows that the percentage share of Hindu was higher than other religions. But more percentage was for non-vegetarians (54.5%).

Distribution of Sample Households according to Per Capita Monthly Expenditure

The sample households were post stratified into three MPCE groups: low, medium and high using cumulative square root frequency method of stratification. It was observed from 40.50 per cent households were found in middle income group followed by 30.80 per cent in low income group. The high income group constituted 26.67 per cent of total household. The average family size was found to be 5.62, 4.67 and 4.63 in low, medium and high income group, respectively.

Distribution of Households according to Food Habits

The total sample households were classified into two groups, i.e., vegetarian and non-vegetarian on the basis food habits. The food habit wise analysis revealed that 53.33 per cent household fell in vegetarian group and 46.67 per cent were in non-vegetarian group. The average family size was found to be 4.77 and 5.16 in vegetarian and non-vegetarian groups, respectively. Study revealed that the individual members of the household contribute differently to the household

consumption of specific milk and milk product items according to their age-sex structure. The consumption of milk and milk products was found to be more in the households with more income brackets compared to lower income brackets. Business executives, administrators and professionals appeared to be dominant group followed by businessmen, retail traders, and skilled, clerical and related workers. The vegetarian households showed higher consumption of milk and milk products compared to non-vegetarian households. The income elasticities were 0.63 for all food items and 1.42 for all non-food items in rural areas and 0.62 for all food items and 1.36 for all non-food items in urban areas. It was analysed that the average per capita per day nutrient intake to be lower (67.87 grams) in rural areas as compared to urban areas (76.96 grams). The average per capita per day calorie intake was more (2884 kcal) in rural areas than in urban areas (2720 kcal).

Conclusion

To explore the trend of urbanization and differences in household access to basic services is the major motives of the paper. Pattern analysis and urbanization trend indicates that it is no more concentrated around Kolkata metropolitan Area (KMA). Urban population spreads across the Gangetic West Bengal. While household accessibility of basic amenities indicates that there is a lead-lag relationship among different districts in terms of the facilities. Expansion of the city from the core to periphery has affected the land price scenario significantly as discussed in the subsequent section. Some districts likes Burdwan, Kochbihar have more access in terms of a particular facility while others lag behind of it. The varying degrees of deprivation of different types of household amenities indicate that the existing planning efforts could not produce satisfactory results in terms of balanced development of different districts of the state.

In this study the consumption level of milk and milk products, mode of consumption, frequency of consumption, factors affecting consumption and consumer preference for different milk products were examined. Limited information is available on the consumption pattern of milk and milk products. Research in to this issue might be expected to give information which is indispensable for future agricultural research planning, market development and government policy-making. Consumer Unit (CU) in West-Bengal was higher than that of Bihar and UP. This means higher amounts of milk and milk products were required in Bihar and UP. Wives were found to be the most responsible family members in managing the household food budget in Kolkata where as in others is was principally the husbands’ duty. This does mean traditional thinking of undermining women in managing the household budget still persists in Kolkata. Business activities were found to be the principal source of income for urban high income group households where as crop and/or livestock production were the major income sources for medium and low income group households in peri-urban and rural areas.

References

1. Ali J. Structural changes in food consumption and nutritional intake from livestock products in India, South Asia Research. 2007; 27(2):137-151.

2. Baker, Burnham. Consumer Response to Genetically Modified Foods: A Conjoint Analysis, *Journal of Agricultural and Resource Economics*. 2001; 26(2):387-403.
3. Batra S. Operational Flood: Impact on the Delhi market. *Resources, Institutions and Strategies, Operational Flood and Indian Dairying*. 1990, 356-383.
4. Bidwe KU, Chavan SD, Wankhade SA. Consumers preferences for different milks. *J Dairying, Foods & H.S*. 2007; 28(1):67-69.
5. Bolger NP, Brunton JG, Lyng Monahan FJ. Comminuted meat products - Consumption, composition and approaches to healthier, *Food Reviews International*. 2017; 33(2):143-166.
6. Chandha GK. Changing structure of demand for agricultural commodities: preparing for the future. *Indian J Agri. Market*. 2007; 21(1):1.
7. Jain DK, Sharma AK, Kesavan VK. Demand analysis of milk and milk products in India. A research study under DES&M Division, NDRI, Karnal (Haryana) India, 1998.
8. Kesavan VK. An economic analysis of the consumption pattern of milk and milk products in Kerala. An unpublished Ph.D. thesis, NDRI, Karnal (Haryana)-India, 1982.
9. Kinnucan HW, Nelson RG, Hiariey J. U.S. Preferences for Fish and Seafood: An Evoked Set Analysis. *Marine Resource Economics*. 1993; 8:273-291.
10. Krishnadas M, Dixit PK. Consumption pattern of milk and milk products in rural and urban areas of Kerala, *Indian J Dairy Sci*. 2015; 69(2).
11. Kumar P, Mruthyunjaya MD. Studied long term changes in Indian food basket and nutrition. *Economic and Political Weekly*. 2007; 11:3567.
12. Kumar P, Mathur VC. Structural Changes in the Demand for Food in India. *Indian Journal of Agricultural Economics*. 1996; 51:664-73.
13. Kumar P, Kumar A, Parappurathu S, Raju SS. Estimation of demand elasticity for food commodities in India, *Agricultural Economics Research Review*. 2011; 24:1-14.
14. Nair KR, Vaidyanathan A. Inter-state difference in milk consumption in India- A preliminary analysis, Working Paper No. 62, Centre of Development Studies, Trivandrum, 1978.
15. Nasurudeen P, Kuruvilla A, Sendhil R, Chandrasekhar V. The dynamics and inequality of nutrient consumption in India. *Indian J Agri. Econ*. 2006; 61(3):362-373.
16. Palma, *et al*. Market preferences toward farm-raised sturgeon in the southeastern united states: a conjoint analysis, *Aquaculture Economics & Management*. 2010; 14:235-253.
17. Prabakaran R. Consumption pattern and consumer awareness and preferences for milk and milk products in Madras. M.Sc. Thesis, Kurukshetra University, Kurukshetra (Haryana)-India, 1978.
18. Randhawa GS, Chahal SS. Consumption pattern of milk and milk products in rural Punjab. *Indian J Agri. Econ*. 2005; 61(3):141.
19. Rani Daisy, Selvam S, Safiullah AM, Prabhakaran R. Consumption pattern and preferences for milk and milk products in Madras city. *Indian. J of Agri. Market*. 2000; 31(1):36-39.
20. Rao VM. Role of income and occupation factors in monthly consumption pattern. *The Asian Economic Rev*. 1982; 24(1-2):59-70.
21. Roy BK, Huque KS, Islam MR, Hasanuzzaman M, Rahman MM. Consumption pattern of milk and milk products among different income levels in some selected areas of Bangladesh. *Pakistan Journal of Nutrition*. 2002; 1(6):282-287.
22. Sharma AK, Kuber R. Seasonal variation in consumption pattern of weaker section household with special reference to milk and milk production in Saharanpur district. *Indian J Dairy Sci*. 1991; 44(8):474-478.
23. Sharma VK. An Economic Analysis of Food Consumption Pattern In India *International Referred Research Journal*, 2011; 24(II).
24. Shrivastava KK, Saxena P, Sahai V. Food security in India: status and strategy analysis. *Indian J Agri. Econ*. 2006, 426.
25. Singh AJ, Jain KK, Vats BK. Regional disparities in levels of living. *Eastern Economics*, II Jan. 1980; 80:64-71.