

Urban Environment Variables for Developmental Analysis

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I. Introduction

The indicators for the slum environment can be locally identified by understanding the data collected by the concerned government. However the understanding of data structure is not sufficient if the definitions of slums vary across the international, national and local levels. The implementing authorities act upon the guidelines formulated at the apex level for development purposes. A quagmire resulting from ambiguous definitions of slum and its environs thwart the actual implications of the policies and plans. Also, the solutions to the local problems may or may not fit into the agenda formed at the apex levels.

The data collection bodies such as the Census of India and National Statistical Office acquire data to achieve the targeted implementation of plans and policies at both the national and local levels. But several city environment improvement plans and programs do not achieve the basic purpose for which it was initiated.

The present paper tries to critically analyse the secondary data structures from the perspective of studying the city environment served as a platter for the analysis by the planning agencies based on which majority of the plans and programs are formulated and implemented. An attempt has been made to evaluate the data collection strategy at the national level and implementation strategy of the local stakeholders taking a clue from the specific city sample survey.

The results of the urban indicator analysis suggest that, a proper understanding of the local city environs is a prior condition before the formulation and implementation of plans and programs.

Data on Urban Environment

There are three major organisations of national importance in India responsible for the collection, publication and dissemination of data. The data on urban environment can be refined from the enormous amount of other types of data that is being generated. It is pertinent here to deal with the nature of data availed by these organisations one by one.

1. The Census of India

Census of India classifies the habitat environment on the basis of the basic amenities. The data on basic amenities for the urban environment is specifically collected and tabulated in the form of Tables on Houses, Household Amenities and Assets. These tables are further classified as the series. These series are titled from H-1 to H-5 and from HH-1 to HH-13 with few of these subcategorised as A, B, C etcetera. The table series presents data at the level of the state, district as well as the municipal wards (Census of India, Various Tables).

The H-series contain data on the uses of the house, predominant material of the construction and the type of structure of the house according to the uses to which they are put. These datasets emphasise upon the house rather than the occupants.

The HH-series on the other hand contain data on houses from the perspective of the occupants or the households living or sharing all or part of the building of the house. It reflects upon the condition of the house; predominant material used in the construction of the roof, walls or floor; ownership status of the household house, size of the household and number of dwelling rooms; number of dwelling rooms with respect to the number of married couples in the house. The HH-series further contains elaborate data on the neighbourhood amenities as well as the amenities available within the households' houses. It is emphasised that series ahead of HH-6 which goes up to the HH-13 is the main representative of the housing environmental conditions. Availability of separate kitchen and type of fuel used for the cooking.

Further, these data have the following subsets of household under the each sub-theme mentioned above. Largely it contains the household level information (HH-series) on the following titles:

01. Total Number of Occupied Census Houses
02. Census Houses by Predominant Material of Roof.
03. Census Houses by Predominant Material of Wall.

04. Census Houses by Predominant Material of Floor.
05. Condition of Census Houses used as Residential and Residential-cum-other Use.
06. Households by Type of Structure of Houses Occupied.
07. Households by Type of Predominant Material of Roof.
08. Households by Type of Predominant Material of Wall.
09. Census Houses by Predominant Material of Floor.
10. Households by Condition of Census Houses Occupied by Them.
11. Households Having Number of Dwelling Rooms.
12. Households by Ownership Status of the Census Houses Occupied by Them.
13. Households by Number of Married Couples in a Household.
14. Households by Source of Drinking Water.
15. Households by Location of Drinking Water Source.
16. Households by Availability of Separate Kitchen Facilities.
17. Households by Availability of Latrine Facilities.
18. Households by Source of Lighting Facility.
19. Households by Availability of Type of Fuel Used for Cooking.
20. Distribution of Households by Availing of Banking Services Facility.
21. Percentage Distribution of Households by Availability of Bathroom facility.
22. Households Availability of Drainage Connectivity for Waste Water Outlet.
23. Percentage Distribution of Households by Availability of Kitchen facility.
24. Total number of households availing banking services.
25. Household by Availability of Assets.
26. Households by Type of Structure of Census Houses.

2. The National Sample Survey Organisation

The urban environment is also determined by the number and spread of the slums in the city. The latest NSS 69th round survey on slums of six months' duration starting on 1st July 2012 and ending on 31st December 2012 was confined to the slums in urban sector. Only slums found in the randomly selected urban blocks were surveyed. The report thus generated is entitled 'Key Indicators of Urban Slums in India' (National Sample Survey Office, 2014). The report highlights of the data covers the following indicators of the slums:

01. Number of slums and slum households
02. Average slum size
03. Distribution of slums by slum size
04. Ownership of land
05. Structure of majority of houses
06. Effect of slum improvement schemes
07. Source of drinking water
08. Availability of electricity connection
09. Availability of pucca road within slum
10. Availability of latrine facility within slum
11. Availability of drainage facility within slum
12. Availability of garbage disposal arrangement within slum
13. Water logging of the approach road to the slum due to rainfall
14. Improvements in various aspects of the condition of slums

The major heads under which the data is collected by the National Sample Survey Organisation provides a befitting glance to the urban slum environment. However the data is for the national level and is sample based. The unit level data though available does not cover the entire slums of a city and hence render comparison across a single city uncanny.

3. The National Family Health Survey

The latest report of National Institute of Health and Family welfare throws light on the indicators that can be assessed for the evaluation of the urban environment. This report analyzes health and living conditions in eight large Indian cities (Chennai, Delhi, Hyderabad, Indore, Kolkata, Meerut, Mumbai, and Nagpur). The report is based on data from India's 2005- 06 National Family Health Survey (NFHS-3). The data accounts for separate estimates of population, health, and nutrition indicators to be generated for each of the eight cities, as well as for the residents of slum and non-slum areas in these cities. In addition, a wealth index was constructed for households in urban India as a whole, using NFHS-3 data on household assets and housing characteristics. For the purposes of this report, the urban poor population is defined as those persons belonging to the lowest quartile on this wealth index. The study examines the living environment, socioeconomic characteristics of

households and the population, children's living arrangements, children's work, the health and nutrition of children and adults, fertility and family planning, utilization of maternal health services, knowledge of HIV/AIDS, attitudes of adults toward schools providing family life education for children, and other important aspects of urban life for the eight cities by slum/non-slum residence and for the urban poor.

Besides the various health related indicators the NFHS-3 report contains data on various living environmental conditions. The data is categorised under different Headings with respective sub-headings and are explained elaborately as under:

1. Housing, Residential Crowding, and Ventilation
2. Household Possessions
3. Means of Transportation
4. Agricultural Land
5. Bank Account
6. Health Scheme Coverage
7. BPL Card
8. Mosquito Net Ownership
9. Security of Tenure

Assessment of Data on Urban Environment

It is pertinent here to emphasise that though the data covers a wide variety of parameters to be included for the assessment of the urban environment, yet it is noteworthy that during the implementation of programs at the local level but formulated at the national level assessment of the local needs is required. Based on the primary survey conducted by researcher following observations are made(Kumar, Ongoing 1 and 2):

1. The census data is constricted in several senses. The intent and purpose of data may not fit the policy implementation goals. For example, the number of rooms in a house consumed by the household is available but the data becomes qualitative or just indicative in the absence of the actual size of room data. Because the area of the room determines the space available rather than just the presence or absence or availability in that sense.
2. The NSS data is a rigorous exercise at minute levels but is sample based and does not cover the entire urban areas.
3. It is emphasised that local level data should be collected so that the fruits of the plans and programs are reaped by the targeted beneficiaries.
4. The NFHS data is also sample based and covers indicators mostly from the perspective of health issues in India.

II. Conclusion

The assessment of urban environment can be made from the secondary and primary datasets. Whereas the secondary data is just indicative the primary data is necessary for the ground verification before the actual implementation of any plan, policy or program. Based upon the forgoing data structure analysis and the actual primary surveys (Kumar, Ongoing 1 and 2) conducted by the researcher it is emphasised that the urban environment is determined by its sanitation conditions. Hence it is suggested that following indicators given in a tabular form are essential ingredients for the assessment of urban environment:

Table 1: Suggested Indicators for Urban Environment Assessment

Slum Characteristics	Environment Indicators.	Description of indicators
Physical Infrastructure and Spatial Development	Sanitation.	Availability of latrine facility within the premises
		Connection to Drainage Type
	Drinking Water.	Drinking Water connection within premises
	Overcrowding.	Rooms of house to Members in the Household
Social Service	Health Facility.	Distance to Government Health Facility
	Education, Transport, Electricity	Distance, cost and availability
Socio-Economic	Expenditure on Food & Household Items.	Proportion of money spent on food to household income
	Housing Structure	Type and Tenure of the House.

Source: Secondary Data from Census of India, NSSO, NFHS and Primary Surveys, Jaipur, 2006 till date.

Sanitation conditions primarily determine the hygiene of the environment. It is observed that the slum areas in the city are most deprived of the proper sanitation infrastructure thereby increasing the peril of disease contraction and paucity of healthy lifestyle. The Socio-political phenomenon affects the affordability, accessibility and adequacy of housing and basic amenities in slums (Kumar, Ongoing 1). The indicators mentioned in the paper though not exhaustive should primarily be used in urban environment analysis keeping in mind the local conditions before implementation of any policy level programs in India.

References

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