Defining Slum Severity in Indian Mega-cities: a Comparison of Mumbai and Kolkata

Amit Patel, Naoru Koizumi, Andrew Crooks

Abstract:

A large fraction of urban residents in Indian cities live in slums but little attempt has been made to go beyond a simple slum/non-slum dichotomy, nor to identify slums more quantitatively than through local or sometimes official recognition. This study uses household level survey data from 3rd National Family Health Survey (NFHS-3) conducted in 2005-06 nationally but asked additional questions pertaining to living conditions to sampled households from Mumbai and Kolkata. This paper uses those responses to create an index that operationalizes UN-Habitat's household based slum definition. According to UN-Habitat (2006), a household is a slum dweller if they lack any or all of these: i) access to water ii) access to sanitation iii) adequate space iv) durability of structure and v) security of tenure. The index is used to identify households on a continuum of slum characteristics that can be helpful in identifying households in the worst living conditions. Fuzziness of living conditions doesn't make them less important to study but rather imposes upon urban researchers to think carefully how a definition of slum is implemented in research. This study compares intra-urban variability of living conditions for households within Mumbai and Kolkata individually and also compares both the cities for differences and similarities in their slum profile. The paper also attempts to compare the differences in enumeration of slum dwellers according to slum definition of Census of India and slum index created in this paper.

While, NFHS is primarily conducted to study reproductive health behavior, it asks several housing related questions and it is also one of the few representative sample surveys available in India. It is hoped that this methodology can be easily replicated for other cities especially because NFHS is a standardized survey (commonly known as Demographic and Health Survey, DHS) conducted in over 75 developing countries with the support of USAID. This study operationalizes rich information collected under these surveys for two cities to create an index, named *slum severity index,* that is capable of measuring *slumness* of each household's living condition rather than simply classifying them in a dichotomy of slum/non-slums. We also employ cluster analysis to identify types of slums based on this framework that will be helpful to prioritize and choose appropriate policy interventions based on the needs of slum dwellers.

Key Words: Slums, Definition, Developing Countries, India, Cluster Analysis