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FUTURE OF THE POPULATION CENSUS IN INDIA¹

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Rising costs, growing complexities, widespread apathy and emerging alternatives have raised serious questions on the future of population Censuses in many countries. While the debate is still in its infancy in most countries, some have begun the search for alternatives. The 2010-2011 rounds of Housing and Population Censuses have thrown up an array of alternatives across the world that merit closer scrutiny. The examples of Brazil and India quickly come to mind in this context. In India, three different approaches have been implemented with a fair degree of success—a traditional Housing and Population Census (paper based); a National Population Register (biometric database) and a Socio Economic and Caste Census (direct data collection on an electronic platform). All the three exercises conducted in quick succession within a short period (2010 to 2013) have thrown up learnings that would be of tremendous interest to the community of Census takers the world over. Technology is the key driver of change. However, mere technology without process re-engineering will not deliver optimum results. Appropriate technology blended with processes would hold the key to the future.

In a country like India, which is multi-ethnic, multilingual, multicultural and multilevel, the Housing and Population Census is much more than a mere head count of the population. It gives a snapshot of not only the demographic but also the economic, social and cultural profile of the country at a particular point of time. More often than not, it is the only available source of primary data at the level of the village and town and is widely used for formulation of policies and implementing programmes by the Government as well as non-Government agencies. With a history of more than fourteen decades, this reliable, time tested exercise has been bringing out a veritable treasure trove of statistics every decade. The recently concluded Census 2011 was the fifteenth National Census of the Country in the unbroken series since 1872 and the seventh after Independence. Very few countries in the world can boast of such a record!

The scale of operations of the Census in India is truly gigantic. The last Census in 2011, involved face to face interview of more than 240 million households in the country in a period of three weeks. Spatially, it involved covering 35 provinces, around 8,000 towns and more than 600,000 villages across the entire sub-continent. Agro-climatic, cultural, ethnic and linguistic diversity made the task extremely complex. The logistics involved in managing the census takers (2.7 million persons) and material can well be imagined!

One of the alternatives that is presently under implementation is the creation of a National Population Register. This has been conceived as a digital database of all usual residents of the country. The database contains certain basic demographic characteristics of every usual resident of India. An electronic database of 1.19 billion persons has already been created. To this is being added three biometric attributes, namely, 10 fingerprints, 2 iris prints and photograph. So far biometrics of 900 million persons has been collected. Each of the residents has been issued a unique identification number. A system of continuous updating by linking it with the Civil Registration System (CRS) is also under implementation. What makes the Indian experiment unique is that this is the largest database of its kind in the world with every individual in it duly de-duplicated based on biometrics and assigned a unique identification number.

Another alternative that has been tried out in India is the conduct of a Socio Economic and Caste Census (SECC) using electronic handheld devices (tablets). The instant upload of data from the field has enabled the conduct of quality checks on a real time basis and re-enumeration wherever deficiencies were

noticed. This methodology of direct data capture has exciting implications for the future of Census in India.

The next round of Housing and Population Census in India, due in 2010-21 is sure to draw lessons from these two exercises. Elements from the register based approach and the use of electronic data capture are slated to figure high in the methodology of the next Census in India. Some of the key challenges and how they can be overcome are outlined below.

- a. **Coverage:** The complete coverage of the population has always been a major concern for Census takers. With rising urbanization, increased mobility and growing density of population, complete coverage has become a casualty in Censuses all over the world. Coverage of population living in far-flung and difficult to access areas is also a concern. Similarly, there are difficult to access persons like nomads and the homeless. Enumerating certain vulnerable sections among the population, like members of certain ethnic communities, the elderly and even women who don't figure in the Census counts on account of social, religious and gender prejudices, are additional areas of serious concern. Yet another challenge is the coverage of areas that have disturbed civil conditions. The concerns of privacy and non-co-operation from the respondent have made the task even more difficult. Digital mapping and geographical information systems have contributed to enhance coverage substantially. The electronic register and unique identification number is likely to improve it manifold.
- b. **Manpower:** In Census 2011, 2.7 million functionaries were engaged for enumeration. Primary School Teachers comprised a bulk of this work force. The use of electronic data capture devices would enable the pruning of such a large workforce. The experience of the SECC is that the workforce could be reduced to a quarter of this number.
- c. **Training:** Imparting uniform and standardized training to the Enumerators/Supervisors so that they are able to understand the different concepts and definitions and are in a position to collect quality data is a major challenge. The use of ICT with e learning and self-learning tools has been tried with great success and can be further fine-tuned for greater efficiency.
- d. **Indifference:** General apathy among the Census takers as well as the general public towards the Census is a matter of great concern. Modern performance metrics are inbuilt in the electronic data capture software. This would enhance accountability of the enumerator and consequently improve performance. The database of residents in the Population Register will now enable contact with the general public through mail, telephone and internet.
- e. **Cost:** Comparatively speaking, the Indian Census is already among the most cost-effective Censuses in the world. The per capita cost for the Housing and Population Census was only USD 0.4. The National Population Register is estimated to cost USD 1.2 per capita and the SECC around USD 0.6 per person. Given the economies of electronic data capture and the advantages of a dynamic electronic population register, costs of the future census are likely to be further optimized.
- f. **Time:** At present, the provisional result of the Census is released in three weeks. The major data sets are released in one year and almost all data sets are released within three years. Electronic data capture would reduce this time lag and allow the release of substantial amounts of data within a short period of time.

- g. **Validation and Quality of data:** As quality assurance measures can be introduced on a real time basis and validation done quickly, the quality of the results of the Census could be enhanced several fold.

Conclusion

Technology is the key driver of change. However, mere technology without process re-engineering will not deliver results. Appropriate technology blended with processes would hold the key to the future. Appropriate changes in the legal environment would also have to be considered to address diverse concerns of privacy, confidentiality and the like. India has taken a giant leap during the census round of 2010-11, harnessing technology and bringing in extensive process re-engineering. Though it is still work in progress, the gains have been substantial and lessons learnt tremendous. The way forward is to consolidate these gains.