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**SESSION 8: Demands for and Provision of Census Micro Data**

## **DEMANDS FOR AND PROVISION OF CENSUS MICRO DATA**

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## INTRODUCTION

Sri Lanka has been conducting decennial Censuses of Population and Housing since 1871. Prior to gaining independence in 1948, Population censuses were usually conducted by organizations set up on ad-hoc basis under the supervision of the Registrar General. With the creation of the Department of Census and Statistics (DCS) in 1948, the statistical system started to develop in a more coordinated and a systematic manner. The role of DCS was further strengthened in 1951 when a directive was issued by the then Prime Minister that it would be the responsibility of the DCS to provide statistical information required for policy formulation, national and sub national level planning activities, monitoring and evaluation of various government and non government development projects. It also emphasized that all the staff needed for national statistical data collection activities should be included in the cadre of the DCS.

This directive speeded up the centralization of the Sri Lankan statistical system. Initially, statistical branches were established in key ministries and government departments. Subsequently statistical units were set up in all 25 districts throughout the country. These not only improved the collection and coordination of statistics at the sub national level but also facilitated the coordination of statistical activities without complete centralization of staff in one department subject to regular supervision of the DCS.

As the major and regular supplier of statistical data drawn from various sources such as Censuses, Sample Surveys, and administrative records, the Department of Census and Statistics has always been taking every possible attempt to see that data thus collected reach the users which will enhance its utilization, and thereby increasing its usefulness. Dissemination of data collected/ compiled is done through (i) general purpose publications which are prepared by the Publications Division of the DCS and (ii) subject matter publications prepared by specific technical divisions of the DCS. In addition to this, the department maintains a library with books, periodicals, journals etc., a sales counter, a data dissemination unit which coordinates all data requests received from a wide range of data users, as well as an Information Unit which is responsible for updating the DCS website regularly.

In Sri Lanka, use of micro datasets for secondary analysis, research/policy analysis has been growing in the last 10-15 years. This shows a clearly growing demand for micro data collected through censuses/ samples surveys on various socioeconomic aspects such as labour force, demographic and health conditions of women and children, household income and expenditure patterns etc. In order to cater to this growing demand, the DCS commenced releasing micro data to users who satisfy certain qualifications, after signing an agreement with DCS on assuring confidentiality when handling/storing micro data.

## LEGAL AUTHORITY

There are two ordinances under which the DCS collects data. The first legal sanction was provided under the Census Ordinance which was framed in 1868 on the lines of the English Law which was repealed in 1900 by a new ordinance drafted on the lines of the Indian Census Act which included provisions to make the Census taking more flexible. The 1900 Census Ordinance substantially became the basis for Census taking in Sri Lanka with minor amendments in subsequent censuses depending on the necessity. The Census Ordinance casts an obligation on the part of the respondents to answer all questions asked at the Census, and at the same time safeguards the respondents by causing any information collected at a census, to be inadmissible as evidence in a court of law. (Census Ordinance 1981 Revision)

The Statistics Ordinance which was enacted in 1935, while providing the establishment of an official bureau of Statistics, also prevents the disclosure of or arrangement of data to facilitate the identification of any particulars being the information related to any individual persons or business, in any report, summary of statistics or other publications prepared based on the data collected under the Statistics ordinance.

## CENSUS TAKING IN SRI LANKA

Prior to 1871 when the first scientific census of Sri Lanka was carried out, estimates of population had been made from time to time on the basis of

returns made by village headmen. Since 1871, censuses were conducted usually in every 10 years with certain exceptions. The Census which was scheduled to be conducted in 1991 could not be implemented due to the disturbances that prevailed in Northern and Eastern parts of the country while the Census of 2001 was carried out only in 18 out of the 25 districts of the country.

As a country with more than 130 years of Census experience, Sri Lanka had to start again from the beginning in 2001 as there was almost no institutional memory of Census taking by then. While the technology of Census taking has been vastly improving throughout the world, the DCS was at a huge disadvantage and had to concentrate on producing Census data required for various development activities that have been stagnated due to the internal conflicts. Therefore no new technological changes were introduced at the Census of Population and Housing 2001.

The 14th Census of Population and Housing of Sri Lanka conducted in 2012 therefore is of special significance as it was the first census which covered the entire country after a lapse of 30 years since the previous complete enumeration in 1981.

## CENSUS OF POPULATION AND HOUSING 2012

The Census of Population and Housing 2012 was planned with many new changes in methodologies and in processes at all stages of the Census taking. This includes improvements introduced in pre-enumeration, enumeration, and data processing stages as well as proposed improvements in data dissemination.

The Census of Population and Housing 2012 was conducted in three main stages.

- Mapping operation: As the initial step, maps were prepared first at the Grama Niladhari (GN) level, the lowest level of the administrative structure and these GN divisions were then divided into Census Enumeration Areas widely known as Census Blocks and block maps were also prepared.
- Listing operation: All buildings in these 65,000 uniquely identifiable Census Blocks were then visited by listing officers. Each and every

building unit in these CBs were labeled, numbered, and listed in the Census Pre-listing form.

- Census enumeration: A pool of enumerators was recruited for the Census enumeration which was done in two stages between 27 February and 21 March 2012.

### **Dissemination plan for Census 2012 – aggregated data**

Processing of Census data was started immediately after the enumeration was completed. In consultation with major stakeholders, a Census Data Dissemination Plan was mapped out which contains the type and the timing of aggregated Census data. The major census products/services proposed for the dissemination of Census macro data are as follows;

- Printed reports with tabulated data
  - Preliminary counts by district
  - Preliminary data of population – selected variables
  - Preliminary data on housing – selected variables
  - 5% sample reports (25 Nos. one per district)
  - Final district bulletins (25 Nos. one per district)
  - Final district reports (25 Nos. one per district)
  - All island report on population
  - All island report on Housing
  - General report
- CD-ROMs with tabulated data
- Analytical thematic statistical reports
  - Population distribution
  - Migration patterns
  - Disability
  - Household and families
  - Economic activities
  - Fertility behavior
  - Housing characteristics
  - Life tables
  - Population Projections

- Census thematic atlases
  - Population atlases
  - Housing atlases
- Customized data requests
- Static web pages
- Interactive visualizations
- Interactive online tools – CensusInfo and REDATAM +SP

### **Micro data dissemination for Censuses**

The value of micro data over fixed tabulations in specific applications has been widely recognized by the practitioners and the demand for micro data for reasons such as the push for evidence-based decision-making continues to grow (Boyko, 2008). However, the dissemination of census data in the form of micro data poses challenges to the NSOs as they are bound to safeguard the right to privacy of the respondents and any breach of privacy would lead to loss of trust of the respondents leading to non-cooperation in future census taking exercises (Dupriez and Boyko, 2010). It is therefore of paramount importance to maintain the privacy of the respondents in disseminating census data in the form of micro data to comply with the law and also to safeguard the reputation of the census taking organisations (United Nations, 2008).

DCS, therefore, has been cautious in disseminating data in the form of micro data and has formulated its policy on micro data dissemination with strict adherence to the statistics ordinance. Accordingly, the current practice is not to release micro data pertaining to Censuses. However, micro data of other surveys is released to selected users such as government institutions/ semi government institutions, universities, students engaged in higher studies and selected international agencies, upon signing a confidentiality agreement. Only 25% of the data file is released in the first stage, and the release of the full data file is considered only after reviewing the draft report prepared based on the 25% sample data file.

## Users of census micro data

There is no demand at policy making level at present for census micro data in view of the above dissemination policy. Only aggregate data either in fixed table format or in formats customized to suit user requirements is released to such users at the moment. However, DCS has observed a growing demand for census micro data from users such as individual researchers as well as from institutes such as universities and international development partner agencies.

Therefore, the DCS is currently in the process of formulating a methodology of disseminating census micro data whilst meeting its statutory obligations to the respondents.

### ‘LANKA DATTA’ – The National Data Archive

In order “to satisfy the data needs of the National and International research community who are striving hard to find answers to the socio-economic problems across the world” (Department of Census and Statistics, Sri Lanka <http://statistics.sltidc.lk>), *LankaDatta*, the National Microdata Archive, backed by the Department of Census and Statistics, was started in the year 2008. Even though it was primarily established to archive micro data produced by the DCS, it was later expanded as a repository for non official datasets as well. *LankaDatta* now contains and frequently updated with information produced by agencies in the National Statistical System of Sri Lanka.

This was made possible with the technical and financial assistance of the Accelerated Data Program from the World Bank and PARIS21 and the tools/guidelines used to establish *LankaDatta* was provided by the International Household Survey Network. Data Documentation Initiative (DDI) metadata standard is used in *LankaDatta*.

The DCS as the coordinator of the National Data Archive is responsible of acquisition, documentation, anonymisation, dissemination and preservation of micro data and related metadata.

## **Development of a census micro data dissemination methodology at DCS**

With an up-to-date National Data Archive in place, which contains socio-economic data collected through censuses/ sample surveys by various agencies in the National Statistical System of Sri Lanka, the Department of Census and Statistics is currently investigating the possibilities of improving the micro data dissemination methodology, especially of the Census data that was collected at the Census of Population and Housing 2012.

The options currently being investigated are;

- Licensed microdata files for bona fide users
- Data enclave in the DCS head office – facilities are already in place
- Remote data access – 8 DCS officers are already trained on REDATAM

## **CONCLUSION**

The Department of Census and Statistics as the National Statistics Office (NSO) of Sri Lanka, vested with the authority by a parliamentary act to collect, analyse, and disseminate data required for policy formulation and national/ sub-national level planning is currently re-examining the existing Micro Data Dissemination Policy at the onset of the data dissemination stage of the Census of Population and Housing Census conducted in the entire country after a lapse of 30 years.

This has to be achieved in such a manner that safeguarding the right to privacy of the respondents is of the main concern since any breach of privacy would lead to loss of trust of the respondents leading to non-cooperation in future census taking exercises.

In formulating the new policy, DCS is deliberating on pertinent issues such as whom should the Licensed files be made available to, who can access data at the Data enclave, should current anonymization methods be changed, when should the microdata files be released, additional costs that might be incurred due to the new methods and how they could be recovered, possible



logistic issues etc. There is an urgent need to formulate a comprehensive policy on micro data dissemination with the growing demand for such data.

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