



Economic and Social Council

Distr.: General
9 May 2012

English only

Economic Commission for Europe

Conference of European Statisticians

Group of Experts on Population and Housing Censuses

Fourteenth Meeting

Geneva, 24-25 May 2012

Item 4 of the provisional agenda

Address/dwelling listing

2010 Population and Housing Census in Mexico. Embedding the building list as a basis for the generation of the dwelling inventory

Note by the National Institute of Statistics, Geography and Informatics, Mexico¹

I. Introduction

1. For the first time, a complete building register was obtained in the 2010 Population and Housing Census framework by filling the Building list, which is an instrument used by the enumerator, where geographical identification on the census areas, addresses of dwellings and quarters for an economic activity were collected; occupancy status of dwellings and the existence of usual residents in quarters, shelters or any building arranged for human habitation were also identified.

2. Building list portrays the location of each dwelling, quarter and place visited for the census as well as the result of this visit at the smallest spatial area level integrating the Geographical and Statistical Framework, such as blocks in urban and some rural areas and localities in rural areas without blocks. This allowed not only to have control over the coverage and field supervision, but to produce statistics at minimal geographic levels on inhabited, uninhabited and seasonally vacant dwellings.

¹ Prepared by Elsa Resano.

II. Census characteristics

3. The gathering of information process from Population and Housing Census took place from May 31st to June 25th, 2010; it is a *de jure* census where information on the dimension, structure, spatial distribution and main socio-demographic characteristics of the population was obtained. Moreover, information on dwellings and their basic characteristics was gathered. At a conceptual level, census considered comparability with other census practices at a national and international level as far as possible.

4. Information collected by the census is used as an input for identifying, targeting and meeting poverty, marginalization, and social disparity issues at different geographic and government levels; it also provides the basis for developing sampling frames for household surveys, which are used for producing population projections and even for allocating monetary resources for state and municipal governments across the country by federal government.

5. Supporting methodological bases were the following:

- a) Population was enumerated at their place of usual residence; it was then a *de jure* census.
- b) As it was a population and housing census, observation units were usual residents in the country boundaries and their dwellings.
- c) The observation method was face-to-face interview .
- d) Appropriate respondent was defined as the head of the household, his/her spouse or any person 15 years of age and over.
- e) Information collected during census is referred to 12 June 2010 and the period for applying interviews was from 31 May to 25 June, 2010.

III. Strategies for the 2010 Population and Housing Census

6. Census included a series of general strategies aim to achieve both proposed objectives and agreed goals, this strategies were: alternating use of a short form (29 questions) and a long form (75 questions); using only one type of form in each dwelling; updating the whole country mapping during 2008, 2009, and even during the information collection process by satellite images and field canvass; delimiting responsibility areas according to the land characteristics, and the balance between workloads and the control areas by means of a fully automated system; using a building list for the field canvass and as a basis for dwelling inventory; verifying occupancy status (uninhabited and seasonally vacant) of the buildings intended for habitation; and obtaining coverage indexes through the post-enumeration survey.

7. As already shown, the use of a Building list was one of the structural strategies for the 2010 Population and Housing Census, serving also as an input for the creation of in-house and outer products.

A. Address canvass

8. Address canvass is a direct observation procedure prior to census-taking carried out in each block assigned to the enumerator, and it is entwined with mapping update. The objectives of address canvass are:

- Ensuring the correct location of the blocks assigned to enumerator by verifying the nomenclatures surrounding the block with the ones indicated in the cartographic material.
- Detecting and undertaking required mapping updates.
- Knowing the sequence, distribution, and type of buildings within the block in order to identify those having more than one entry or access so as to avoid duplication during census-taking or know if there are access restrictions to any of these.

B. Inputs for filling the Building list

9. As the Building list was a structural process and one of the five collection instruments jointly with short form, long form, locality form and urban environment form, it was necessary to account with robust, comprehensive, and unique resources aim at its development. Here, the resources are represented by the National Geographical and Statistical Framework and the technology in mapping update.

10. The technology in mapping update comprises satellite images, aerial photographs and field canvass (GPS, Laptop) used to permanently locate dwellings, blocks and localities. This effort is reflected in the National Geographical and Statistical Framework. An instance of the aforementioned technology is the two mapping update operations held in 2009, one for urban developments and one for extraordinary urban developments (DUE). The outcomes these produced were: identified urban developments, entry of blocks, entry of AGEB's, built dwellings, and projected dwellings, the latter with information provided by the administrators of the self developments.

11. The National Geographical and Statistical Framework is a unique national system allowing the geographically referencing of statistical information produced by censuses and surveys with corresponding geographic places, at different disaggregation levels:

- State Geographical and Statistical Area (AGEE)
- Municipal Geographical and Statistical Area (AGEM)
 - Rural Basic Geographical and Statistical Area (AGEB)
 - Rural Locality
 - Urban Locality
 - Urban Basic Geographical and Statistical Area (AGEB)
 - Block

C. Issues of the Building list

12. During the last 2010 Population and Housing Census a fact of Mexico about addresses was confirmed: that about 9 per cent of dwellings are of irregular ownership, generally having this growths in city outskirts with high levels of exclusion, and that 14 per cent has no clear reference in the name of street and a similar percentage has no outer number allowing the identification of dwellings, increasing to 40 per cent in states as Chiapas.

D. Census-taking

13. Field operative, where Building list is created, is the phase where enumerators collect required information when visiting every dwelling in the country boundaries. It is aim at identifying and classifying dwellings under total coverage and top quality premises, thus following next strategies:

- “Full” canvassing.
- Enumerator by geographic area.
- Census promoter in restricted-access areas.
- Teams in risk areas or dormitories
- Self-enumeration.
- Installing modules.
- Call centers and Internet.
- Special operations:
 - Collective dwellings.
 - Homeless population.
 - Diplomatic personnel.

E. Registering Buildings

14. Once the address canvass is finished, enumerator records in the Building list all the buildings within the block. The address is registered aim at the enumerator identifying the whole dwellings within a block, if existing, otherwise a lasting feature of dwelling. Apart from dwellings and quarters for an economic activity the following were also enumerated:

- Dwellings built or converted for human habitation, having or not usual residents.
- Buildings not intended for human habitation but having usual residents.
- Shelters and provisional facilities having usual residents.
- Vacant sites were also included within the blocks.

15. Besides the directory of existing dwellings within the block, dwelling list includes:

- Questions aim at identifying if the building was or was not a dwelling, as well as identifying dwellings inside premises.
- Control over the type of building.
- Control over the result of the visit to dwelling.
- Cells to schedule appointments in dwellings or any data supporting the localization of dormitories, controlled-access or rural areas with no address nomenclature.

F. Procedure

16. The enumerator knocked in all the buildings of his/her work area, and when no appropriate respondent:

- He/she went with two neighbors to inquire if any person usually live in the place and the time that person was present, in order to comeback and make the interview.
- If neighbors pointed out that the dwelling was inhabited some days or weeks per year, it was then classified as seasonally vacant.
- If neighbors pointed out no one lived in the place it was identified as an uninhabited dwelling.
- Moreover, enumerator observed building features so as to identify derelict and under construction dwellings.
- Finally, supervisor confirmed inhabited status of dwellings and put the label of uninhabited or seasonally vacant.

17. It is worth mention that the geographic identification was included in the title page of the Building list, which corresponds to names and keys of areas comprising National Geographical and Statistical Framework up to block level; in urban localities the polygon of the block with its names was drawn, and in rural localities without blocks the sketch of locality with scattered dwellings was drawn.

18. Briefly, Building list comprises the following characteristics:

- a) It is the form that concentrates the statistical portrait of the block or locality at address level, if existing, and at individual level in rural areas. The buildings are listed there in.
- b) It is a basic input to supervise the coverage work of enumerators. It allows obtaining information on the progress of the basic units' coverage from the Geographical and Statistical Framework.
- c) It provides elements to the enumerator himself/herself and his/her supervisor on the hour and day when usual residents are in the dwelling.
- d) It identifies the occupancy status of dwellings and is a basic input to obtain statistics on the whole dwellings in the country.

19. Once visit was finished, the interviewer and if necessary the supervisor, stuck color-labels in front of the dwelling depending on its occupancy status; the green was for censused houses, the beige for outstanding dwellings and the white for uninhabited or seasonally vacant dwellings.

20. The operations method considered indeed, an extra checking of a sample for dwellings marked as uninhabited, seasonally vacant or outstanding. This process was applied to 40 per cent of all dwellings having these categories and was developed by an independent operations structure from the one of census which was controlled functionally by headquarters.

IV. Conclusion

21. Because of the absence of clear addresses in the country the operations were controlled with the National Geographical and Statistical Framework, which advantageously presents a continuous map integrating the whole country, where every space has geographic keys, does not have gaps either overlaps. Addresses, if existing, were used in the last phase of the process so as to identify a dwelling within a block. Building list, apart from listing dwellings, identified the whole buildings in the block, thus helping to a better enumeration of dwellings and with the coverage and collection period strategies for

this list; it is possible to ensure a better coverage of population and their dwellings. It is worth mention that the progress control was done according to the information on the number of dwellings within the block or locality without blocks, not of information on addresses.
