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## Principles and Recommendations for Population and Housing Censuses, Revision 2: A General Outline<sup>\*</sup>

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#### Introduction

1. The preparation of the updated version of the United Nations *Principles and Recommendations for Population and Housing Censuses*<sup>1</sup> as part of the 2010 World Programme on Population and Housing Censuses<sup>2</sup> is taking place at a time when different alternative techniques are being developed and tested for collecting, processing and disseminating key statistics that used to be generated by the population and housing censuses, thus raising the question of what is really a census. In updating the *Principles and Recommendations for Population and Housing Censuses* it is widely accepted that the current definition that "A population census is the total process of collecting, compiling, evaluating, analyzing and publishing ... data pertaining, at a specified time, to all persons in a country or well-delimited part of a country" might need to be adjusted and be more output oriented. However, the crucial principle, the necessity of providing detailed statistics at the lowest geographical level, remains of paramount importance.

2. In that context, the major goal of the second revision of the Principles and Recommendations for Population and Housing Censuses is to recommend a set of statistics that need to be produced at the lowest geographical level for the same point in time for a nation to be able to meet its development goals, economic and social requirements, business needs and international comparison and monitoring<sup>3</sup>. The majority of national statistical authorities use a population census as the single most comprehensive vehicle to collect these necessary statistics – canvassing the whole country or otherwise conveying the questions to each household. This approach has been tested time and again. Recently, a number of countries generated census-like tabulations out of registers that the government instituted for different purposes. The previous, 2000 round of censuses witnessed this approach, and these well evaluated register-based exercises satisfied the four essential features required for a population and housing census. Consequently, the revised set of recommendations needs to formulate a clear and unambiguous recommendation and provide a set of accompanying guidelines that all the nations conduct either a population census and/or register-based census, or that they otherwise produce the required set of tabulations for the very small areas and for the same point in time.

3. Aside from these major goals, the update of the *Principles and Recommendations for Population and Housing Censuses* plans to address several specific issues that require adjustments, better elaboration and, due to methodological and technical developments, more precise description. These parts will also be outlined, in broad terms, below.

<sup>&</sup>lt;sup>1</sup> United Nations publication, Sales No. E.98.XVII.8, United Nations, New York, 1998.

<sup>&</sup>lt;sup>2</sup> Adopted by United Nations Economic and Social Council, July 2005.

<sup>&</sup>lt;sup>3</sup> The importance of the international dissemination of national census data through the United Nations *Demographic Yearbook* was emphasized and elaborated at the United Nations Expert Group Meeting to Review

the United Nations *Demographic Yearbook* System, held in New York, 10-14 November 2003 and papers are available at: http://unstats.un.org/unsd/demographic/meetings/egm/default.htm.

4. The preparation of the revised set of *Principles and Recommendations for Population and* Housing Censuses is tightly incorporated in the overall 2010 World Programme for Population and Housing Censuses and follows the same approach of active involvement of member states<sup>4</sup> and sharing expertise. Consequently, the dissemination of the final version of these recommendations will not be limited to the printed copy in all official United Nations languages<sup>5</sup>; it will also involve dissemination in different format and maintaining open channels for exchange of opinion for the implementation of these recommendations.

#### Chapter I. Definitions, essential features and uses of population and housing censuses

5. Censuses, as a tool used by governments, have been around for few millennia and their essence, enumerating people and households, is one of the few activities that remained unchanged over all these centuries. As for a more modern, United Nations era, it is worthwhile to spend some time on the evolution of the definition and essential features of the census in the past half-century. Actually, the definition, understandably, did not change much. The first set of United Nations Principles and Recommendations for National Population Censuses <sup>6</sup> (1958) defines the census as the total process of collecting, compiling and publishing demographic, economic and social data pertaining, at a specified time or times, to all persons in a country or delimited area. While this definition remained essentially unchanged throughout all these decades (with the addition of "evaluating", "analyzing" and "or otherwise disseminating", and the deletion of "times" in order to ensure one point in time to which census has to refer to ), this first set of international recommendations listed the following six essential features of the census:

- a. "Sponsorship. An official national census is sponsored and carried out by national government, sometimes with the cooperation of provincial and local governments.
- b. Defined territory. The coverage of a census operation should relate to a precisely defined territory.
- c. Universality. The enumeration should include every member of the community within the scope of the census without omission or duplication.
- d. Simultaneity. The total population enumerated should refer to one well-defined point in time. Similarly, the data collected should refer to a well-defined point or period of time.
- e. Individual units. A census implies that separate data are recorded for each individual by direct enumeration and not by registration, although the mechanics of collection may make it possible to record information common to all members of a household or family for the group as a whole. A procedure by which "totaled" or summarized data are collected for groups of individuals is not a census in the strict sense of the term because various characteristics of an individual cannot be interrelated. It should be noted, however, that group

<sup>&</sup>lt;sup>4</sup> For a full elaboration of this concept, please see a paper: United Nations 2010 World Programme on Population and Housing Censuses and related Surveys: A Proposal for Active Involvement of Member States submitted to the United Nations Symposium on Population and Housing Censuses, held in New York, 13-14 September 2004. It is also available at: http://unstats.un.org/unsd/demographic/meetings/egm/Symposium04/list of docs.htm.

<sup>&</sup>lt;sup>5</sup> Thezse are: Arabic, Chinese, English, French, Russian and Spanish.

<sup>&</sup>lt;sup>6</sup> United Nations publication, Sales No. 58.XVII.5, United Nations, New York, 1958.

enumeration can be considered to be a census if the way in which formation is collected and recorded is so devised that cross-tabulations can be made in the same way as in a census of individuals.

f. <u>Compilation and publication</u>. The compilation and publication of data by geographic areas and by basic demographic variables is an integral part of the census."

6. The major concern at that time was on individual enumeration and ensuring that the crosstabulation of individual characteristics does not get jeopardized while emphasizing the disadvantages of the group enumeration<sup>7</sup>. It left some room, where the group enumeration, if properly developed could be used. However, the second set of the *United Nations Principles and Recommendations for the 1970 Population Censuses*<sup>8</sup> explicitly outlined the negative aspects of group enumeration, by stating: "Even though a well-designed 'group enumeration' can produce cross-classifications of certain individual characteristics, such as sex and age, the possibility in this respect are so limited that the procedure is not recommended for general use, particularly since it tends to result in under-enumeration of the population"<sup>9</sup>.

7. As for the definition of the census, this second set of global recommendations did not find it necessary to change the previous one, while the essential features of the census were identified as: individual enumeration, universality within a defined territory, simultaneity and defined periodicity, essentially the same as the ones in the current set of recommendations (which is the fourth; the third set, published in 1980<sup>10</sup>, did not introduce any change in this regard). They read<sup>11</sup>:

- a. <u>Individual enumeration</u> The term "census" implies that each individual and each set of living quarters is enumerated separately and that the characteristics thereof are separately recorded. Only by this procedure can the data on the various characteristics be cross-classified. Individual enumeration does not preclude the use of sampling techniques for obtaining data on specified characteristics, provided that the sample design is consistent with the size of the areas for which data are to be tabulated and the degree of detail in the crosstabulations to be made.
- <u>Universality within a defined territory</u> The census should cover a precisely defined territory (for example, the entire country or a well-delimited part of it). The population census should include every person present and/or residing within its scope, depending upon the type of population count required. The housing census should include every set of living quarters irrespective of type.

<sup>&</sup>lt;sup>7</sup> Group registration is described as a procedure by which aggregated, summarized data are collected for group of individuals, thus making the cross-tabulation of individual characteristics impossible. This procedure is sometimes used for groups for which individual enumeration represents a particular challenge, such as nomads. <sup>8</sup> United National multiplication Solar No. E 67 XVII 2. United Nations, New York, 1967.

 <sup>&</sup>lt;sup>8</sup> United Nations publication, Sales No. E.67.XVII.3, United Nations, New York, 1967.
<sup>9</sup> Principles and Recommendations for the 1970 Population Censuses, United Nations publication, Sales

No.E.67.XVII.3, United Nations, New York, 1969, paragraph 10.

<sup>&</sup>lt;sup>10</sup> Principles and Recommendations for Population and Housing Censuses, United Nations publication, Sales No. E.80.XVII.8, United Nations, New York, 1980.

<sup>&</sup>lt;sup>11</sup> Principles and Recommendations for Population and Housing Censuses ,United Nations publication, Sales No. E.98.XVII.8, United Nations, New York, 1998, paragraphs 1.6.-1-10.

- c. <u>Simultaneity</u> Each person and each set of living quarters should be enumerated as nearly as possible in respect of the same well-defined point of time and the data collected should refer to a well-defined reference period. The time-reference period need not, however, be identical for all of the data collected. For most of the data, it will be the day of the census; in some instances, it may be a period prior to the census.
- d. <u>Defined periodicity</u> Census should be taken at regular intervals so that comparable information is made available in a fixed sequence. A series of censuses makes it possible to appraise the past, accurately describe the present and estimate the future. It is recommended that a national census be taken at least every 10 years. Some countries may find it necessary to carry out censuses more frequently because of the rapidity of major changes in their population and/or its housing circumstances. The census data of any country are of greater value nationally, regionally and internationally if they can be compared with the results of censuses of other countries that were taken at approximately the same time. Therefore, countries may wish to undertake a census in years ending in "0" or at a time as near to those years as possible. It is obvious, however, that legal, administrative, financial and other consideration often make if inadvisable for a country to adhere to a standard international pattern in the timing of its censuses. In fixing a census data, therefore, such national factors should be given greater weight than the desirability of international simultaneity.

8. During the 2000 round of censuses, over 190 countries conducted a population census<sup>12</sup> and an overwhelming majority intends to repeat it in the 2010 round of censuses. It is a complex operation of collecting information from individuals and households on a range of topics and at a specified time. Aside from well-known and documented advantages of the population and housing census that will not be elaborated here, it is important to note that the term <u>census</u> as such is synonymous, in the mind of most people, to the <u>conventional census</u>. Public at large identifies the census as an exercise whereby they were interviewed by the enumerator or where they had to fill in a census questionnaire. After decades of conducting such censuses it is sometimes difficult to change the perception that census results can be generated without actually having a census, a situation that occurred in several countries that switched to register-based censuses. Thus, the census is like a brand name identified by its four essential features.

9. A population census has quite a few intangible positive values. It is an opportunity for mobilizing the whole country and reaching even the most remote corners of it. In the life of many citizens a regular census is often the only time that the state reaches to them and asks them a question. Successfully conducting a census is a matter of pride in many countries and a welcome opportunity to recruit massive labor force and generate jobs and train people in valuable tasks (such as data entry) or in other ways add to national infrastructure.

<sup>&</sup>lt;sup>12</sup> Out of 233 countries or areas for which United Nations Statistics Division maintains a website with information on censuses, at: http://unstats.un.org/unsd/demographic/sources/census/censusdates.htm.

10. In general, registers and registration systems are routinely used as sources of statistics. Most notably, the civil registration is the most reliable source of vital statistics<sup>13</sup>, and these statistics, in turn, have a direct link to the population census since they are indispensable for projecting census results. A census, on the other hand, is invaluable in checking the accuracy of vital statistics. Combined, they complement each other and provide a comprehensive and continuous source of data on population.

11. As for the register-based censuses, the definition of a population census as it stands now cannot be applied. Essentially, the concept of producing census-like results based on registers emerged in the 2000 round of censuses, although it has been debated and tested to various degrees since the 1970's and although several countries succeeded to generate census data in the 1990 round of censuses<sup>14</sup>. The underlying philosophy in this concept is to take advantage of the existing administrative sources, namely different kinds of registers of which the following are of primary importance: registers of households, dwellings and individuals. In the next iteration these are linked at the individual level with information in business, tax, education, employment and other relevant registers. While it is theoretically possible to link the records on the basis of the name of the individuals<sup>15</sup>, the existence of a unique identification number for each individual, household and dwelling is of crucial importance as it allows much more effective and reliable linking of records from different registers.

12. Several factors need to concatenate to make the register-based census possible and some are elaborated here. There needs to be a legal foundation that authorizes the use of administrative data for statistical purposes accompanied by a very detailed explanation of procedures and purposes of using individual records. As prescribed by United Nations Statistics Commission in the *Fundamental Principles of Official Statistics*<sup>16</sup> a particular attention must be paid in order to protect privacy and confidentiality of individuals. Aside from legal authority, there is a need to calibrate the statistical capacity of a national statistical office that will enable the use of administrative records – that is, acquiring staff with different skills, organizing extensive training and so forth. What is also necessary is the trust of the public; tradition and cultural environment are also crucial in ensuring the success of this approach. Finally without multiple, reliable, robust and accurate registers it certainly would not be possible to provide census tabulations. Different registers have been around for quite some time in a number of countries. Their common denominator is that these are repositories of information organized and administered by the government whose primary goal is to provide the information mainly for administrative purposes – for example, the register of vehicles to ensure adequate control of the number of vehicles, age and maintenance of technical standards.

13. How do the register-based censuses fare in regard to the essential features of population censuses as spelled out in the current Principles and Recommendations for Population and

<sup>&</sup>lt;sup>13</sup> Principles and Recommendations for a Vital Statistics System, Revision 2, United Nations publication, Sales no. E/01.XVII.10, United Nations, New York, 2001.

<sup>&</sup>lt;sup>14</sup> Finland, for example, as stated in the Use of Registers and Administrative Data Sources for Statistical Purposes: Best Practices of Statistics Finland, Volapaino, Helsinki, 2004.

<sup>&</sup>lt;sup>15</sup> Doing so is a tedious effort that consumes considerable amount of time due to the spelling of the names, typographical errors and so forth. However, in circumstances where the public opposes being assigned a unique personal identification numbers, and registers exist, this would be the only option. <sup>16</sup> Please see http://unstats.un.org/unsd/methods/statorg/FP-English.htm.

*Housing Censuses*? As for <u>individual enumeration</u>, registers by definition enumerate each of the individuals separately and record separately their characteristics. Indeed, recording individual events and characteristics is in the core of the philosophy of the register. Registers apply to the whole country, hence the <u>universality within a defined territory</u> is also ensured.

14. <u>Simultaneity</u> is defined as the enumeration of each person as nearly as possible in respect of same well-defined point of time and the data collected should refer to a well-defined reference period. Enumeration in registers in not simultaneous *per se* for all units in the register; some information may be enumerated and recorded before a considerable period of time, for example, the information on the current employer may be recorded in the previous year. However, harvesting the data from the register using a single critical moment for all registers ensures that the information on the units and their characteristics in these registers is accurate for that specific day and that furthermore ensures simultaneity as understood for the purposes of the population and housing census. <u>Defined periodicity</u>, in the case of registerbased censuses, is not really an issue, as the results can be produced at much more frequent pace than the population census.

15. Register-based censuses clearly contain the features of the conventional census and are meeting all the expectations and users' needs in countries that are capable of implementing this concept. Among the advantages of this approach the reduction of the cost of the census is certainly the most visible, at least for the government that has to finance it. This approach also enables generating data on a yearly basis, thus filling the usual 10-year void in census data and providing more up-to-date statistical profile of a country. In some cases this approach ensures more accurate and precise data. For example, a student who works a few hours a week here and there, if asked by the enumerator, may declare oneself as being not economically active student. Yet according to the internationally recommended definition of labor force anyone who works at least one hour a week shall be classified as being employed and the register-based census would essentially count the person as employed<sup>17</sup>, since records in the register will indicate it. Another considerable advantage of this approach is that replying to statistical questionnaires is significantly reduced as well as the burden on the public.

16. It has to be emphasized that establishing the register-based census requires an extended period of time and a considerable investment. Another prerequisite is well functioning civil service system that is the backbone of the registers. Information technology infrastructure also needs to be established, as well as uniform procedures, classifications, coding schemes and consistent record formats. Thus, the road to register-based censuses is invariably long (it takes decades to develop fully reliable and up-to-date registers), costly (infrastructure and staff) and bumpy (at some point the public opinion may shift, out of concerns for confidentiality and privacy, from pro-registers to contra-registers).

17. In some countries register-based censuses are complemented by sample surveys. This is the case when registers do not contain all the information for a full-fledged register-based census. This approach combines records from registers with the data collected via sample surveys and links them at the micro-level, that is, the record level. In the next iteration, depending on

<sup>&</sup>lt;sup>17</sup> Example taken from *Use of Registers and Administrative Data Sources for Statistical Purposes: Best Practices of Statistics Finland*, Volapaino, Helsinki, 2004.

whether the census tabulation requires data from register alone or combined with the survey results, data are tabulated or extrapolated. This approach appears to be akin to the population census's short form/long form paradigm: a set of basic topic is enumerated from each individual and households and the set of more detailed topics on the sample of individuals and households and then the results are extrapolated. Thus, the recommendations on the use of sampling as they are now presented in the *Principles and Recommendations for Population and Housing Censuses* would apply for this model, with some modification, since there is a need to elaborate on the weighting procedures.

18. At this moment, efforts are underway in testing another approach in obtaining census-like data that consists of deploying enumerators every year to collect information from a sample of the population. This design includes the concept of rotating the sample for a number of years. Massive and complex, this set of surveys would use modeling techniques to produce census-like tabulations, while the simultaneous enumeration of all individuals would never be necessary. At this moment this approach is in early phases, and it would not be possible to fully and effectively assess all its qualities. It does appear, however, that it would not have the features of the census as presented above. For example, the enumeration is not simultaneous, but is a period estimate which cannot be compared with the point estimates from a conventional census. The United Nations *Principles and Recommendations for Population and Housing Censuses* must, by definition, remain open-ended and open-minded when it comes to different methods and developments in the statistical practice world-wide; as an international standard they also have an immense responsibility to recommend those practices that have been tested repeatedly and successfully.

19. In the light of the above, in the Part I of the updated *Principles and Recommendations for Population and Housing Censuses* the definition of the census (paragraph 1.1.) might read:

a. "A population census is the total process of collecting, compiling, evaluating, analyzing and disseminating demographic, economic and social data pertaining, at a specified time and at the lowest geographical level, to all persons in a country or in a well-delimited part of the country. A registration-based population census is the total process of compiling from administrative sources, evaluating, analyzing and disseminating demographic, economic and social data pertaining, at a specified time and at the lowest geographical level, to all persons in a country or in a well-delimited part of the country."

20. Similarly, the definition of the housing census (paragraph 1.3.) would be reformulated. The four essential features of the census (paragraphs 1.5. - 1-9.) would remain as they are.

21. As for international simultaneity (paragraph 1.10) it may be worth considering reintroducing the recommendation from the first set of the *Principles and Recommendations for Population and Housing Censuses* (1958): "It is ... recommended that whenever possible each country undertake a population census in the years ending in "0" or as near to those years as possible"<sup>18</sup>. The rationale behind this recommendation lies in increasing the efficiency of

<sup>&</sup>lt;sup>18</sup> *Principles and Recommendations for National Population Censuses,* United Nations publication, Sales No. 58.XVII.5., United Nations, New York, paragraph 105.

international comparability, especially having in mind the contemporary processes of globalization. Ensuring that most of the national censuses take place or that the results are generated the same year or close to that would yield invaluable insight in quite a few phenomena, such as international migration, for example. International simultaneity is also crucial for as uniform as possible monitoring of Millennium Development Goals and other development indicators. It is also of crucial importance for inter-regional and sub-regional comparisons about the movement of population, structure and spatial distribution.

# Chapter II. Planning, organization and administration of population and housing censuses

22. In general, this part of the current *Principles and Recommendations for Population and* Housing Censuses was developed having only the conventional census in mind. In addition to these components, there needs to be an additional elaboration referring to planning. organization and administration of register-based population and housing censuses. Building on the experiences of national statistical systems that are using register-based censuses and their best practices, this section would present all the necessary planning and organizational structures for such an operation. More specifically, an elaboration of assigning personal identification numbers; establishing and maintaining registers<sup>19</sup>; developing uniformity of coding schemes across different registers; inter-agency collaboration; legislative authority; developing different statistical capacity; micro-linking of the records and so forth. It would also include elaboration of some topics that cannot be captured by using solely the administrative source, such as mode and time of transport to work, for example. An emphasis is also needed on the specific opportunities that register-based statistical system can offer, such as longitudinal study of the population, as a person can be essentially tracked for statistical purposes through all stages of a life. Drawing a sample and following it over a time period would allow a critical glimpse of employment patterns, for example.

23. As for population censuses, it is necessary to outline that the United Nations Statistics Division published, in 2000, the Handbook on Geographic Information Systems and Digital Mapping<sup>20</sup>, in 2001 the Handbook on Census Management for Population and Housing Censuses<sup>21</sup> and the Handbook on Population and Housing Census Editing<sup>22</sup> and in 2002 Collection of Economic Characteristics in Population Censuses: Technical Report<sup>23</sup>. Consequently, the update Principles and Recommendations for Population and Housing Censuses need to draw from the handbooks and a report mentioned above.

<sup>&</sup>lt;sup>19</sup> For example, major register sources used in statistics production at Statistics Finland are: (1) The Population Information System, (2) The Customer Register of Taxation and the Business Taxation Register, (3) The Trade Register, (4) Employment Pension System. (5) The Register of Job Applicants and Labor Market Training, (6) Social Insurance Institution register, (7) Register of Income Support Recipients, (8) The Conscript Register, (9) Student registers, (10) The Register of Completed Education and Degrees, (11) The Vehicle Register, (12) The Business Register, as per *Use of Registers and Administrative Data Sources for Statistical Purposes: Best Practices of Statistics Finland*, Volapaino, Helsinki, 2004.

<sup>&</sup>lt;sup>20</sup> United Nations publication, Sales No. E.00.XVII.12, United Nations, New York, 2000.

<sup>&</sup>lt;sup>21</sup> United Nations publication, Sales No. E.00.XVII.15 Rev.1, United Nations, New York, 2001.

<sup>&</sup>lt;sup>22</sup> United Nations publication, Sales No. E.00.XVII.9, United Nations, New York, 2001.

<sup>&</sup>lt;sup>23</sup> ST/ESA/STAT/119, United Nations, New York, 2002.

24. Specific reference is made in regard to the *Handbook on Census Management for Population and Housing Censuses*<sup>24</sup> since it covers in detailed extent all the aspects of census taking. For example, when it comes to census planning, this *Handbook* elaborates in details the issues relevant to specifying the role of the census, the role of the government, setting goals, developing project plans and a budget. Similarly, it also provides extensive guidelines for preparatory tasks, field operations, data processing, census products and evaluation techniques. It also elaborates on quality assurance in the census in terms of relevance, cost, timeliness and data quality.

25. Due to complexity of the census, in some cases parts or whole operations are outsourced. Outsourcing has its advantages, as it allows the in-house resources to focus on their area of specialty. Yet, there are a number of issues related to outsourcing, starting from securing confidentiality and privacy of individual information to the fact that external resource provider might have different objectives than the census-taking agency, for example, making a profit rather than meeting public needs. Thus, the revised version of the *Principles and Recommendations for Population and Housing Censuses* needs to elaborate on best practices and guidelines for outsourcing part of traditional or register-based censuses.

### Chapter III. Use of sampling in population and housing censuses

26. This chapter elaborates using sampling prior to the census for testing the census procedures, during the census enumeration (short form/long form), and after the census in post-enumeration surveys and other quality control operations. In addition, an elaboration of the sampling techniques used in the case of register-based censuses supplemented by sample surveys would also be needed.

### Chapter IV. Units, place and time of enumeration for population and housing censuses

27. No major adjustment appears to be needed.

## Chapter V. Topics to be investigated in population censuses, Chapter VI. Topics to be investigated in housing censuses, Annex I and Annex II

28. As elaborated above<sup>25</sup> the major goal of the revised *Principles and Recommendations for Population and Housing Censuses* is to identify a set of essential statistics that need to be produced at the smallest geographical level. This set of statistics inevitably revolves around the set of core topics, that is, those that are crucial for enabling an evidence-based decision making process. A separate paper by the United Nations Statistics Division provides much more detailed discussion and a proposal on what these topics might be<sup>26</sup>. It has to be pointed out that there is a need for a much more detailed elaboration on factors underlying the selection of topics. In addition to these factors, for each core topic there is a need to provide substantial

<sup>&</sup>lt;sup>24</sup> United Nations publication, Sales No. E.00.XVII.15 Rev.1, United Nations, New York, 2001.

<sup>&</sup>lt;sup>25</sup> See paragraph 2.

<sup>&</sup>lt;sup>26</sup> A quote here, when paper is ready.

justification for identifying it as a core topic and the most common use of statistics on this topic, outlining its indispensability for proper evaluation of social and economic phenomena at the lowest geographical level.

29. Should all of the core topics identified in the revised *Principles and Recommendations for Population and Housing Censuses* be included in national census questionnaires? The answer to that question depends on the capacity of the national statistical system to generate statistics on a specific core topic for the lowest geographical level from some other source, such as from administrative records or a comprehensive sample survey, that refers to the same reference point in time as for other core topics.

30. This version of the *Principles and Recommendations for Population and Housing Censuses* contains two appendices that present the recommended tabulations, including the cross-tabulation of topics. The purpose of these layouts was more illustrative then prescriptive. Given the changes in the approach to generating statistics, the revised set of recommendations needs to develop the general principles of designing these tabulations, such as the level of complexity of the cross-tabulation, taking into account that the third dimension of each of these tables always refers to administrative/geographical unit. Another principle refers to presenting statistics for all core topics broken down by sex and age.

31. Taking into consideration that these tabulations would actually represent an international standard, that is, national statistical capacity would be assessed by the capacity of generating these tabulations for the smallest administrative/geographical level and for the same date, there is a need to first identify and formulate the list of core topics for both the population and the housing part of the tabulations. On the basis of this, the revised set of *Principles and Recommendations for Population and Housing Censuses* would include the tabulations in chapters V and VI, thus reemphasizing the importance of these outputs as international standards.

### Chapter VII. Promotion of user-producer dialogue Chapter VIII. Census data products and services Chapter IX. Census data utilization

32. The revised set of *Principles and Recommendations for Population and Housing Censuses* would need to elaborate on the issues in these three chapters from the point of view of "making value visible"<sup>27</sup>. Actually, this chapter would need to tackle the following challenges as defined by the 2004 United Nations Census Symposium<sup>28</sup>:

- a. The challenge of educating the users, the public and key stakeholders.
- b. The challenge of enabling increased access to data such as by making those available free of charge, including on the Internet.

<sup>28</sup> *Report of the United Nations Symposium on Population and Housing Censuses*, ESA/STAT/AC.97.L.4, paragraph 14, at: http://unstats.un.org/unsd/demographic/meetings/egm/Symposium04/docs/AC97\_L4.pdf.

<sup>&</sup>lt;sup>27</sup> Report of the Expert Group Meeting to Review Critical Issues Relevant to the Planning of the 2010 Round of Population and Housing Censuses, ESA/STAT/AC.98/L4, paragraph 49.ii, available at:

http://unstats.un.org/unsd/demographic/meetings/egm/CensusEGM04/docs/ac98\_L4.pdf.

c. The challenge of improving dissemination by customizing products to fit different needs, including using Geographic Information System (GIS) technology for data dissemination and in planning census outputs in consultation with stakeholders and users.

33. Thus the proposal to introduce only one chapter in the revised set that will elaborate on these crucial components. This elaboration would need to outline differences in the strategies given the differences between conventional and register-based censuses. The list of tabulations that is now part of this chapter would be moved to the previous two chapters.

### Conclusion

34. For the 2010 Round of Population and Housing Censuses, the major goal of the United Nations *Principles and Recommendations for Population and Housing Censuses, Revision 2,* is to identify a set of core statistics indispensable for an evidence-based decisions-making process and to recommend, as an international standard, a set of tabulations/outputs that have to be produced to that end. Furthermore, another major goal is to recommend and provide guidelines that all the national statistical authorities conduct a traditional or a register-based population and housing censuses at least once in the period 2005-2014 or to produce the recommended outputs for the smallest geographical unit referring to the same point in time.

35. In the process of preparing the final draft of these recommendations, there is a need to address and update some of the guidelines as to provide contemporary methodological framework for conducting population and housing censuses.