

United Nations Expert Group Meeting
on Revising the Principles and Recommendations
for Population and Housing Censuses
New York, 29 October - 1 November 2013

Agenda: Session 3

The United Nations Principles and Recommendations for
Population and Housing Censuses: Results of the Survey on
Proposed Changes for the 2020 Census Round¹

Prepared by
United Nations Statistics Division

¹ This document is being reproduced without formal editing.

Introduction

1. Since its earliest years, the United Nations has issued a series of international principles and recommendations on population and housing censuses to assist national statistical offices and census officials, throughout the world, in planning and carrying out improved and cost-effective censuses. These international standards and guidelines which are developed through an international consultative process are based on available information on good national practices in census methodology and are intended to help countries to plan and carry out a population and housing census. International guidelines are also intended to provide common methodology in terms of concepts and their definitions and classifications resulting in data comparability among countries. International census guidelines have generally been developed and issued around the World Population and Housing Census Programme covering decennial census rounds. The most notable international census guidelines are the United Nations *Principles and Recommendations for Population and Housing Censuses* whose *Revision 2* was published for the 2010 census round.² In conjunction with the principles and recommendations is a set of accompanying handbooks and technical manuals on different aspects of the census process.³ The principles and recommendations, covering population censuses and/or housing censuses, have been issued for the 1960, 1970, 1980, 2000 and 2010 censuses rounds.

2. At its 36th session in 2005, the United Nations Statistical Commission requested that for the 2010 World Population and Housing Census Programme, covering the period 2005 to 2014, the United Nations Statistics Division (UNSD), in its role as the Secretariat act as the umbrella organization for setting standards, and that it undertakes the revision and update of the *Principles and Recommendations for Population and Housing Censuses*.⁴

3. Subsequently, the United Nations Statistics Division, through an international group of experts from Member States and in collaboration with the Regional Commissions, and other international, regional and sub-regional organisations, revised and updated the principles and recommendations, taking into account lessons learnt from the previous round of censuses as well as emerging issues. The revised recommendations, *Principles and Recommendations for Population and Housing Censuses, Revision 2*, which were adopted by the Statistical Commission at its 38th session in 2007 provide new as well as revised international standards on concepts, definitions and classifications; guidelines on outsourcing of census operations; quality assurance for the census; some information on alternative approaches to census-taking compared to the traditional approach; a set of recommended tabulations; and guidelines on promotion and effective dissemination of census results.

4. Development of international census guidelines normally starts with assessing national practices in order to identify developments in the census field. Identified good national practices are used as a basis for, either developing new or updating existing, guidelines with regard to methodology and other aspects of the census operation. With the 2010 census round coming to an end in 2014, the international community is now looking towards developing international standards for censuses conducted within the framework of

² <http://unstats.un.org/unsd/demographic/sources/census/census3.htm>.

³ *Ibid.*

⁴ *Official Records of the Economic and Social Council, 2005, Supplement No. 4 (E/2005/24)*, chap. IV, para. 12.

the 2020 World Population and Housing Census Programme, using experiences of the 2010 round as valuable input.

The survey

5. Following an international programme review on the 2010 World Population and Housing Census Programme,⁵ the United Nations Statistical Commission at its 43rd session in 2012 welcomed the suggestion to initiate early enough a programme of work for the third revision of the *Principles and Recommendations for Population and Housing Censuses*.⁶ Consequently, in May 2013 UNSD conducted a world-wide survey on what should be enhanced, revised, added to, or deleted from, the next revision of United Nations *Principles and Recommendations for Population and Housing Censuses*.

6. To focus their contribution, countries were requested to provide comments and suggestions on nine questions: (a) Any suggestions regarding the overall structure or balance of the content of the principles and recommendations?; (b) Any issues needed to be added or expanded or removed from the principles and recommendations (e.g. confidentiality issues, census costing, out-sourcing, etc.)?; (c) Is there a need to re-visit the definition of the population and housing census and its key features (universality, simultaneity, individual enumeration and periodicity)?; (d) Is there a need to re-visit the list of core topics? What were the core topics that proved difficult to incorporate? Any additions or deletions?; (e) Is there a need for more specific recommendations on framing and formulating questions on topics which are deemed sensitive?; (f) Should the revised principles and recommendations include guidelines on the use/release of census records, especially micro-data?; (g) Is there a need of elaboration on data archiving and preservation?; (h) Were current recommended tabulations useful? Is there a need for changes in that respect?; and (i) In general, what are the major improvements in the context of the principles and recommendations that are needed in the light of experiences gathered in this round of censuses?

7. Forty responses have been received from countries and organizations as follows: Africa – 3; North America – 3; South America – 1; Asia – 8; Europe – 24; and Oceania – 1. The list of responding countries and organizations is attached as an annex to the report. It should be noted that some countries, citing one reason or another, did not provide substantive comments or responses to the survey. In addition, a number of countries from Europe did not provide responses either to all or to particular questions. In fact, some countries which are participating in the revision process for the European census recommendations did not provide comments but rather proposed that UNSD and UNECE should coordinate their activities on the revision of census guidelines. Eurostat also emphasized the importance of ensuring mutual consistency between the UNSD and UNECE recommendations. This point, which is well-taken, is particularly important in order to avoid providing insistent and sometimes conflicting guidelines to countries.

8. Responses to the survey show that countries recognized the importance of the United Nations *Principles and Recommendations for Population and Housing Censuses* as a

⁵ *Report of the United States of America on the 2010 World Programme on Population and Housing Censuses* (<http://unstats.un.org/unsd/statcom/doc12/2012-2-Censuses-E.pdf>).

⁶ *Official Records of the Economic and Social Council, 2012, Supplement No. 4 (E/2012/24)*, chap. I, B (<http://unstats.un.org/unsd/statcom/doc12/2012-Report-E.pdf>).

fundamental framework for census operations world-wide. Countries also expressed their support for the revision of these international guidelines indicating that a new version of the principles and recommendations would help countries to improve the process of population census, taking into account new innovative approaches in planning, organization, processing, and dissemination of the census results. What follows is a summary of the responses provided by countries and organizations on the nine questions that were included in the survey.

(a) Suggestions regarding the structure and/or balance of content of the United Nations Principles and Recommendations for Population and Housing Censuses

9. Based on information available to the United Nations Statistics Division on the evolving nature and recent changes in how countries are conducting censuses or otherwise compiling detailed data that was previously collected through census field enumeration, the Division sought the opinion of countries regarding the current structure and content of the *Principles and Recommendations for Population and Housing Censuses, Rev. 2*. The responses from countries and organizations fall into three broad categories as described below. Overall, there were no suggestions for changes in the structure, but only in content to take into account contemporary practices in census taking.

10. **Category 1: Satisfied with current structure** – Seven of the 23 countries and organizations which directly responded to this question indicated that they were satisfied with the current structure of the global census principles and recommendations. For one country, for example, the format as it is has proven to be very efficient, i.e., the three-part approach (operational aspects, topics, and products and utilization) makes it very easy to quickly search through the amount of information. Countries also stated that given that global census recommendations is addressed to a very diverse range of countries with very different realities, the document is well organized and clearly addresses key questions for census operations. The current structure was also described as “well thought out”. One of the respondents indicated that part 2 of the publication is well written with topics presented using a structure by theme and sub-divided into core and non-core topics.

11. **Category 2: Satisfied with current structure, but suggest some changes to content** - Several countries pointed out that although the current principles and recommendations publication is well written and structured, it now needs to be revised to take into account their suggested changes. It was pointed out that the current version is well structured but needs to be improved to take into account new practices for the 2010 round of censuses in order to make it relevant for the 2020 round. An increasing number of countries have adopted some innovations in methodology and technology in the 2010 round of censuses in order to reduce census costs and also to improve the quality and timelessness of census data. The issue of suggested changes in content is discussed in more detail under question (b) below.

12. **Category 3: Welcome revision of the United Nations Principles and Recommendations, but urge for collaboration with regional revisions** – Several countries from Europe and also Eurostat have welcomed the revision of the global principles and recommendations but underscored the need for collaboration between the UNSD and other regional revision processes, notably the one being developed by the UNECE and Eurostat.

(b) What should be added/expanded/removed from the principles and recommendations; and what are the major improvements to the principles and

recommendations that are needed in the light of national experiences from the 2010 round of censuses?

13. The essence of these two questions was to gather from countries what changes to the current global census recommendations they would like to see in order to arrive at census guidelines that are both practical and relevant for use by countries to plan and conduct their national population and housing censuses of the 2020 round. Through the questions, UNSD sought the views of countries and organizations regarding what should be changed in the current global principles and recommendations for population and housing censuses in terms of additions, expansions and deletions, also taking into account experiences of the 2010 census round. Most of the suggested changes relate to augmentation relative to: (a) emerging census methodologies, (b) methods of enumeration, (c) contracting out of census operations, (d) use of technology in censuses, (e) providing access to micro-data, (f) data confidentiality, (g) data archiving, (h) estimation of census costs, (i) data dissemination strategies, (j) quality setting and management, and (k) census publicity strategy.

14. On a general note, countries would like the revised principles and recommendations to emphasize, as is done in the current version, the importance of conducting and exploiting censuses in a standardized manner while acknowledging that a census is a major national affair. It is believed that this gives an important social tribute to the census and the resultant statistics in general.

15. Based on the current state of affairs, countries have proposed that the revised principles and recommendations could provide more national examples that have been implemented and had positive impact on the census. Changes are particularly proposed to the current Part One: Operational aspects of population and housing censuses, and to Part Three: Census products and data utilization, to provide practical guidelines to countries in the area of methodology and use of information technology in census operations, based on the observed country census practices for the 2010 round.

16. Countries have pointed out, however, that since the current principles and recommendations document is already voluminous, it is difficult to recommend any additions or extensions, without shortening something elsewhere. In this connection, countries have proposed to cut out redundant parts that are not related to preparation, conduct and handling of census, such as the topics concerning the relationship of census data with other housing censuses and surveys, and also publish as a separate volume the part on the use of census products. Other suggestions include creating separate guidelines that capture the essence of the topics in principles and recommendations given the detail of the core and non-core topics; and to have tabulations immediately following topics that they relate to.

(i) Emerging census methodologies

17. Compared to previous census rounds, the 2010 round has witnessed a sizeable number of countries or areas that have developed and implemented alternative methodologies to the traditional census as the source for compiling comprehensive socio-economic statistics at the small area level. Although the majority of countries or areas are using the traditional census with full enumeration as the main census methodology, many countries have developed alternative methodologies to conduct their censuses. A significant number of countries have adopted new methodologies based on administrative registers and combinations of sources to produce census information.

18. In response to the survey, countries have pointed out that with the increasing number of countries that are using administrative registers – including use of administrative data for a non-register based census – instead of the traditional data collection, the revised principles and recommendations should clarify clearly and in detail how registers can be a sound alternative to traditional censuses. Responding countries have also indicated that despite the fact that administrative information can be different in different countries and that it is expected to have a high variety of census methodologies, there is a set of principles/procedures that would benefit a large number of countries and could be improved based on guidelines provided in the revised principles and recommendations.

19. Survey respondents have requested that the revised census guidelines should also provide an assessment of the relative merits, advantages and difficulties of using administrative data instead of the traditional data collection techniques. Also, cost, quality, respondent burden, privacy and complexity implications of the new methodologies need to be discussed in the revised census guidelines. Furthermore, countries are seeking guidance on when to use which data source for which topics, including criteria upon which the national statistical authorities could define how far the information on certain topics should be gathered during a census and in which case it may be necessary to use alternative data sources.

20. Important issues linked to the use of alternative methodological approaches that countries would like to have more details on include technical infrastructure, legislative arrangements, public trust, and data security. Details are also being sought regarding evaluation of administrative data source in terms of adequacy of definitions and unit of enumeration, classifications used, data quality, and completeness etc., as well as processing and evaluation of results from a register based census.

21. Evidence from the 2010 round of censuses shows that some countries have used a combination of data sources to compile their census data. Some have used field enumeration in combination with registers to generate their census information. As part of the survey, some countries are requesting that the revised principles and recommendations provide some guidelines on planning and conducting a census through the use of combined sources.

22. Countries have also indicated through the survey that administrative registers and administrative records are distinct concepts that are often blurred in their meaning and usage. In this context, countries have pointed out that it is important, for accurate assessments of census methodologies, to define the distinction between the two and gather information on their usage in the new version of the principles and recommendations.

(ii) Methods of data collection

23. A review of national experiences for the 2010 census round shows that although the majority of countries are still using face-to-face interviews with paper questionnaires, there is a tendency towards use of multi-mode enumeration methods. Observed modes of data collection for the 2010 round include use of one or combinations of the following: face-to-face interviewer with paper questionnaire, face-to-face interviewer with electronic questionnaire, telephone interviewing, self-enumeration with a paper questionnaire collected by enumerators, self-enumeration with a paper questionnaire returned by mail, self-

enumeration via the Internet, register-based enumeration, and use of pre-existing administrative records.

24. Due to the multiplicity of available modes of data collection, countries have requested that the revised principles and recommendations present in detail use of multiple modes (mixed mode) of data collection, such as use of the use of the Internet for self-enumeration combined with face-to-face interviewing or use of registers combined with surveys. Countries would like the revised guidelines to include the main types of data collection as well as results of an assessment of the mode-effect on the quality of data related to use of mixed modes. Furthermore, it is requested that the revised principles and recommendations contain guidelines on how to monitor the census operation when data are submitted through multiple channels.

(iii) Contracting out of census operations

25. Assessment of country practices for the 2010 round has shown that a sizeable number of countries have contracted out (outsourced) some aspects of their census operations, especially in the application of technology. Reported advantages for outsourcing of census operations include (i) efficiency, (ii) acquiring skills that are not in the NSO, and (iii) avoiding investment in skills that are not core to the NSO. On the other hand, concerns about outsourcing for the census mainly centre on issues of data confidentiality and security.

26. Given that the census is a once-in-ten-years event, it is anticipated that many countries will continue to outsource portions of their census operations with limited or no experience in contract management. In response to the survey, countries have request that UNSD either prepares a technical handbook on contracting out for census technologies or expands the existing information in the current principles and recommendations in order to address the needs of these countries adequately so that they can effectively manage contracting out of their census operations.

(iv) Census publicity campaign

27. The primary aim of the publicity campaign is to maximise public understanding of, and participation in, the census. Another important component of the publicity campaign is the media campaign which focuses on how to inform the media before and during the census to create a favourable environment to the census and prevent potential crises. In order for this to succeed, therefore, it is important that countries develop a strategy for an effective publicity campaign.

28. Some countries have requested that, given the value of the publicity campaign for the promotion of the census, the revised principles and recommendations should include more detailed guidelines on this topic. The requested guidelines should include details on how to establish and conduct an effective census publicity campaign, including advertising during planning, data collecting and the post-census period. It has been pointed out that there is a growing significance in the use of the Internet for census publicity, including through social media. It is anticipated that the revised guidelines would also take this into account. Furthermore, countries have pointed out that in view of the society being more educated and not wanting/refusing to provide information due to the security of their information being abused, some guidelines should be included in the revised principles and recommendations in order to help countries develop publicity strategies for maximizing public participation in the census.

(v) Estimation of census costs

29. The cost of the census has been recognized as the reason why many countries have postponed their censuses while others have adapted alternative methodologies to the traditional census as sources of data. In a recent survey on country experience for the 2010 census round, about 70% of the responding countries report census cost as a challenge that they faced during the implementation of the census.⁷

30. Recognizing that the cost of census taking has continued to increase while many countries face financial constraints, countries have requested that work be undertaken to develop an accurate, viable method to estimate the costs of conducting a census that can be used to compare census costs across regions and/or countries. It is pointed out that this is a key recommendation for both developing countries seeking sources of census funding and for developed countries that need to reduce their census costs. Bearing in mind that countries have differences regarding items for inclusion or exclusion when compiling the cost of the census, countries have requested that an agreed method be developed in order to have comparable data on census costs.

31. Some countries have also requested that a thorough census costing method for the alternative census methodologies (i.e., traditional census, register-based, surveys, etc) should be explained in detail in the new version of the principles and recommendations.

32. It should be noted also that in response to the census programme review, the United Nations Statistical Commission at its 43rd session in 2012 requested the United Nations Statistics Division and international and regional organizations to work towards viable methods for estimating both direct and indirect cost of censuses and conduct cost-benefit analyses across countries and regions, taking into account the factors of quality, duration and coverage and also providing a unit of measurement for country comparison.⁸

(vi) Quality setting and management

33. It is a well recognized fact that due to the size and complexity of census operations, it is likely that errors may arise at any stage of the census process. These errors have implications for the quality of the output or results of the census. Consequently, it is imperative to put into place, as part of the overall census plan, a process/system of quality assurance and improvement. The key to quality assurance and improvement is to be able to regularly measure performance against set goals of a given process so that the process can be improved when a fall in quality is indicated. To minimize and control errors, it is good practice to devote an adequate budget to quality assurance and control programmes.

34. Recognizing that management and assessment of performance of various phases of a census are essential to achieving high quality census, countries have indicated that practical guidelines are required on how to set and monitor targets. It is suggested to have a separate chapter in the revised principles and recommendations dedicated to total quality management

⁷ United Nations Statistics Division (2013): "Overview of National Experiences for Population and Housing Censuses of the 2010 Round", available at <http://unstats.un.org/unsd/censuskb20/KnowledgebaseArticle10706.aspx>

⁸ *Official Records of the Economic and Social Council, 2005, Supplement No. 4 (E/2012/24)*, chap. I, B (<http://unstats.un.org/unsd/statcom/doc12/2012-Report-E.pdf>).

guidelines. This chapter could also provide guidelines on implementing the proper governance framework to ensure that high quality statistics are achieved while balancing cost, quality and timeliness. It is requested that this chapter also includes guidelines/criteria on how to set and monitor quality targets at specific points of the census process.

35. Some countries have also requested that after finalizing the National Quality Assurance Framework (NQAF) which is currently being developed under the auspices of the UN Statistical Commission, it will be useful to generate an updated quality standards and checklist for the 2020 census round to be used across countries, as applicable.⁹

(vii) Use of technology in census operations

36. While use of technology in censuses is not new, the 2010 census has evidenced unprecedented use of improved technology in all aspects of the census operation. Applications have been through either improvement in existing technology or by adopting new ones. Countries are investing in and using advanced technology mainly to improve the efficiency of census operations, increase overall response, and also enhance the quality and timeliness of the data. Use of new technologies is also driven by a need to improve coverage, to provide advanced tools for data dissemination to meet users' needs, as well as to meet public demand related to new life styles and privacy concerns. Examples of use of technology in national census operations for the 2010 round includes such innovations as the Internet for enumeration and publicity, use of Personal Digital Assistants (PDAs) and other hand-held devices for data collection, Short Message Service (SMS) for monitoring of field operations, and also for dissemination of results, GPS and GIS for mapping and monitoring, scanning technology for data processing, and other applications for training purposes. An innovation in use of technology that has big implications for the next round is the use of social media in census activities. Examples of social media include the use of Twitter and Facebook to reach a wider audience given the ever increasing use of the Internet in people's everyday lives.

37. Countries recognize that application of technology is heavily dependent on national circumstances, and that technology is rapidly changing. Consequently, they have pointed out the need for countries to consider many factors and select the most appropriate technology(s) for their own unique situation and data needs because what is appropriate for one country may not be appropriate for another country's census taking. Countries have suggested that the revised principles and recommendations should provide guidelines with criteria for making an informed decision on determining the most appropriate extent and type of technology.

38. Countries have also requested that the revised census recommendations should include, in appropriate parts of the publication, guidelines on use of technology in different aspects of the census operation – planning, data collection and monitoring, data processing, and data dissemination. Applications of technology in census operations are numerous and cannot all be named here. It is anticipated that through discussions at the expert group meeting and in discussions that will follow, appropriate applications will be identified for inclusion in the revised census guidelines. Nevertheless, countries are specifically requesting for a discussion on data collection, transmission security and data quality control using electronic self-completion questionnaires via Internet and/or using electronic questionnaires in portable computers by enumerators and on how to ensure the physical and technological security of the data. Another specific application of technology in the census that countries

⁹ For information on work on the NQAF - <http://unstats.un.org/unsd/dnss/QualityNQAF/nqaf.aspx>.

are requesting guidelines on is questionnaire design for use on the Internet and on mobile devices. The survey results also show that countries would like the revised guidelines to address the use of social media on census taking, such as for the census publicity campaign.

(viii) Data archiving and preservation

39. It is a fact that, through population and housing censuses, NSOs generate vast amounts of data which represent significant investment by countries and which have considerable value for present and future data uses. It is also generally true that for many countries, dissemination of census data, and hence utilization of the results, is the weakest part of the census operation. For these countries, the dissemination of micro-data is even more limited. Data producers have a responsibility not only to collect and disseminate data but also to ensure their long-term usability through proper archiving and preservation. Data archiving/preservation refers to the long-term storage of electronic micro-data and its affiliated documentation (data collection instruments, study methods, descriptive information for variables and files, etc). Data archiving keeps digital micro-data alive and accessible for long-term use and by adding value to and enhancing the usefulness of the data for secondary analysis. It is advisable that archiving be planned and undertaken with a view point of potential long-term uses and users of the data.

40. Recognizing the value of archiving and preservation of census data for enhanced utilization of the data, countries have requested that adequate guidelines on this topic be included in the revised principles and recommendations.

(ix) Data confidentiality

41. According to Principle 6 of the Fundamental Principles of Official Statistics, “Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes”.¹⁰ Maintaining data confidentiality is an indispensable element to maintaining the trust of respondents so that they can provide accurate and truthful information. This in turn results in accurate and relevant statistics.

42. The ever increasing demand from users for more data, especially micro-data and at lower geographical level, and also with more technological advancement for data linking particularly over the Internet, have created more challenges for managing data confidentiality. As part of the survey, countries have requested that the revised principles and recommendations should contain guidelines on maintaining data confidentiality related to the use and release of micro-data. It is requested that the guidelines include an overview of strategies and procedures (methodology and technology) to measure disclosure risks, protect data confidentiality and to overcome/avoid disclosure of personal data particularly as it relates to providing access to micro-data.

43. It is acknowledged that the methods that reduce disclosure risk also reduce the level of detail and potentially the quality of the data disseminated publicly. In this connection, countries would like the revised principles and recommendations to also provide guidance on how to balance safeguarding of data confidentiality and disclosure of individually identifiable information with meeting users’ needs for detailed data.

¹⁰ <http://unstats.un.org/unsd/dnss/gp/fundprinciples.aspx>.

44. Countries would also like to draw attention to the rise in the use of the Internet for data collection and the resultant confidentiality and privacy concerns in terms of the disclosure of personal and sensitive information. They request that the issue of protection/security of information transmitted via the Internet be addressed in the revised census guidelines.

45. Some countries have indicated that it would be useful to add a chapter on statistical disclosure methods used for tabular census data. Countries' experiences in dealing with this issue could be presented in this chapter.

46. It is also suggested that the guidelines should highlight the importance for the census manager to plan for and integrate principles and policies into ongoing reviews throughout the lifecycle of data collections and supporting systems so as to enable proactive planning to minimize risks including those that relate to the disclosure of personal confidential information.

(x) Census evaluation

47. It is commonly accepted that a population census is not perfect and that errors (coverage errors and content errors) can and do occur at all stages of the census operation. The quality of population and housing census data is very important for many reasons, including building public trust and understanding in the national statistical system. It is, therefore, imperative that census evaluation is undertaken in order to provide users with a level of confidence when utilizing the data, and to explain errors in the census result. Many countries have recognized the need to evaluate the overall quality of their census results and have employed various methods for evaluating census coverage as well as certain types of content error.

48. Recognizing the importance of census evaluation, countries have requested that the section on conducting a post-enumeration survey, as contained in the current principles and recommendations, should be expanded to include more detailed guidelines on how to plan for and carry out a post-enumeration survey. Other countries are requesting that more information be provided on census evaluation using other methods (other than the PES), and also evaluation of the content of the census results.

(xi) Data dissemination

49. Compared to other census rounds, data dissemination techniques and methods have changed significantly during the 2010 census period. Improvements in technology are making it possible for countries to respond to demands of data users by providing census products in electronic media. Due to ever increasing use of the micro computer, more users prefer data in electronic format instead of in print. Furthermore, compared to past census rounds, the 2010 round of population and housing censuses has witnessed an increase in the use of GIS for visualization of census results. Consequently, the 2010 census round is witnessing more use of the Internet for census data dissemination either as web pages or as on-line interactive databases which provide freedom for users to specify and design outputs in a format of their choice.

50. Countries are proposing to augment the guidelines on census products and data utilization by providing more options of data dissemination methods. For examples, countries

have pointed out that given the development of new technologies, data dissemination strategies for some countries allow access to census data using new tools, such as smart phones.

51. Another important step in the dissemination strategy is to analyse users' needs and build a matrix of users, by products and services that fit their needs. This could be done through users' surveys or by identifying categories of users, current and potential, in order to understand what they do and their needs, and to analyse how census products can help them. Another aspect is how census data can be combined with other local data to build local statistics database.

52. As part of the survey, however, some countries suggest that the revised principles and recommendations should be left open (on technology for data dissemination and utilization) since the pace of technological development would make guidelines suggested in 2015 outdated by the time countries disseminate their census results in 2020. Similarly, some countries which have commended the census programme website of the United Nations Statistics Division see it as a useful resource for future exchange of national experiences in census data dissemination because of the fast changing nature of information and communication technologies. These countries believe that the website of UNSD can be a good forum for sharing of information on emerging topics, issues, knowledge, and good practices.

(xii) Metadata

53. Metadata is descriptive and structured information or documentation about data which: (i) informs users about the content, quality and condition of data; (ii) guides on proper usage or interpretation of data; (iii) describes the structure of datasets, explains, locates, or makes it easier to retrieve, use, or manage data; and (iv) provides information on the processes of production. The basic role of metadata is to assist in retrieving and processing data, support correct use of data, provide transparency in data, enhance interpretability or confidence of users in the information, and improve archiving, preservation, institutional memory over time. Examples of metadata include definitions of terms, classifications, and nomenclature.

54. Through the survey, countries have requested that the revised principles and recommendations should include a section on metadata.

(xiii) Definition of institution

55. Some countries have indicated that they are at times challenged with defining and classifying dwellings as institutions or group dwellings. They would like to know what actually makes an institution an institution and no longer just a group dwelling. Citing the definition which is available in the current principles and recommendations, they would like to know why, for example, staff quarters are classified as institutions. To these countries, does restriction of movement play a part in whether a collective living quarter is an institution or another collective living quarter? Consequently, countries are recommending that the guidelines define more clearly when a dwelling is no longer a private household but a group dwelling. Also, it would be good if the guidelines are more specific with the statement below: "The criteria established for the identification of collective living quarters are not always easy to apply and it is sometimes difficult for an enumerator to decide whether living quarters

should be classified as a housing unit or not. This is particularly true in the case of a building occupied by a number of households. Enumerators should be given clear instructions as to when the premises occupied by a group of people living together are to be considered a housing unit and when collective living quarters”.¹¹

(xiv) Place of usual residence for special groups

56. In connection with what they have called the extraordinary mobility of population, some countries have requested that the definition of the place of usual residence be revised to take into account some special groups of the population. These include those who have more than one residence, such as students who live away from their family home, married couples who live separately, persons who change residences several times in a year, children of divorced parents, etc.

(xv) Enumeration of the homeless population

57. It is recognized that homelessness is culturally defined as the phenomenon varies from country to country. Countries, however, have noted that there is a need for guidance and more details on how to improve the enumeration of the homeless persons, including details on best national practices on this topic.

(c) Is there a need to re-visit the definition of the population and housing census and its key features (universality, simultaneity, individual enumeration and periodicity)?

58. According to the results of the survey, 11 of the 18 countries that provided an answer to this question indicated that there was no need to revisit the definition of the census and of its key features. For examples, one of the countries indicated that “As the census is one of the oldest data collections, it is important to keep its original definition and content. This is also applicable even if more and more countries use samples for collecting certain topics or calculate variables with mathematical methods because of the new, developed technologies and the modern mathematical and statistical methods. Accordingly, revising the census definition regarding the four features is not necessary.” One of the 11 has specified, however, that although the definition of a population and housing census in the current recommendations is exhaustive and does not require reworking, emphasis should be placed on the compliance with two of its key features: simultaneity and individual enumeration. This is because compliance with these two would ensure international comparability and consistency of information. Another country suggests reviewing the principle of simultaneity, especially considering non-traditional ways of conducting the census.

59. A number of countries are of the view that the definition of the census and of its key features should be reviewed and possibly revised. Reasons provided for the suggestion to review the definition include the fact that the notion of a census is changing due to use of alternative methodologies to the traditional census. Countries view the census as an evolving and dynamic concept that has implications for UN guidelines on the definition of a census, which they recognize should be critically re-examined and possibly revised to reflect current realities in terms of country legislative requirements. Furthermore, countries believe that it is important to reassess the principles that guide the definition of a census, considering that

¹¹ *Principles and Recommendations for Population and Housing Censuses, Revision 2*, para. 2.446.

those principles were established having exclusively as a reference the traditional model. The use of alternative models to the traditional census introduces challenges that require the adjustment of these principles, or the introduction of new ones, as appropriate, to a whole new reality.

60. Countries are also recommending that the definition be reviewed, as well as, revisions made to the definitions and/or names for census methodologies. In this connection, reference is made to recommendation 4 from the *Report of the United States of America on the 2010 World Programme on Population and Housing Censuses* – “The UN should create a task force or committee to rethink, update, and synchronize definitions of census terminology for data sources and enumeration methods based on current practices. Make sure terminology and acronyms are defined and consistently used.”¹²

(d) Is there a need to re-visit the list of core topics? What were the core topics that proved difficult to incorporate? Any additions or deletions?

61. As part of the revision of the principles and recommendations, it is always the case that the list of topics is reviewed and determination is made regarding core and non-core topics. Census topics (population and also housing) are discussed in detail in two separate sessions during this meeting. What follows is a summary of main issues that responding countries raised regarding revisiting the list of core topics in order to make changes through additions to or deletions from the list.

62. One of the responding countries made a general recommendation that the inclusion of topics to investigate emerging issues should be critically examined in the next version of the principles and recommendations in order not to extremely overburden the census questionnaire. In this connection, the country proposes that the census questionnaire should include only the basic core census topics.

63. Another country contends that use of new methodologies will lead to a reduction in the number of topics included in the census through enumeration (that is, decreased content for the field enumeration), and to an increase in the use of data definitions provided by the alternative data source, instead of census definitions. So the new version of the principles and recommendations should discuss this point.

64. Another country pointed out that the principles and recommendations advise what the core topics are; however, since the guidelines do not state that the core topics are “mandatory” to include in every country’s census, there will always be international comparison data gaps. Along this argument, another country noted that every country in accordance with its national needs has to decide which of the core and which of the additional topics are to be included in the census program. In other words, for a country, it may not matter much whether a topic is core or non-core at the international level. What matters is the national need for the data on the topic in question. Based on the argument for national data needs/priorities, for example, a country has pointed out that ethnic group, mother tongue and religion, which are non-core topics at the international level, are traditional topics for its censuses.

65. Countries have also advised that revising of the core topics should be done based on a comparison of the information collected by the countries and regions. This is because certain

¹² <http://unstats.un.org/unsd/statcom/doc12/2012-2-Censuses-E.pdf>

core topics are core in some but not in other regions. This includes such topics as literacy, and household deaths in the past 12 months. For some countries, there is no need to compile this information as part of the census when the majority of the population is literate or when there is reliable registration data on vital events. Consequently, it is recommended that since core topics are very much specific to regions and/or availability of data, the decision about which topics should be core at the international level should be carefully discussed and evaluated.

66. In more general terms, Recommendation 8 from the *Report of the United States of America on the 2010 World Programme on Population and Housing Censuses* on the Programme Review recommends that revision 3 to the UN Principles and Recommendations for Population and Housing Censuses should also include the review and update of UN core census topics and list of recommended tabulations.¹³ This recommendation goes on to say that harmonization of census data within (and across) regions can be achieved by ensuring census outputs comply with the recommended tabulations and the UN Demographic Yearbook data collection requests.

67. One country remarked that the scope for expanding the list of core topics might be limited, although consideration will probably be given to identifying **environmental and energy-related** issues as possible candidates for the next round. According to the same country, it is clear that topics related to literacy, disability, same-sex consensual unions, and income remain the most difficult on which to obtain reliably accurate data.

68. A country has suggested that it would be better if **ethnicity** was a core topic as it would give the ethnicity question asked by countries more weight. For this country, ethnicity is a key variable as it (ethnicity) is covered in national legislation as one of the grounds which must be monitored for evidence of discrimination.

69. It is also suggested that the topic **second place of residence** be added as a core topic to the revised international census principles and recommendations. Other suggested topics for inclusion are, the **reason for migration**, and also **daily commuting**.

70. There are some core topics for which countries are requesting that they be further developed in order to provide more clarity or more guidance. One of these is **locality** for which a country suggests that it is necessary to adopt a precise and uniform definition (more precise definition of the territory which the term locality covers) based on which it will be possible to provide internationally comparable data on the level of locality.

71. **Occupancy status** is another core topic for which countries are asking for more clarification to the current items in the classification in order to avoid confusion between a “**holiday home**” and a “**secondary residence**”. It is pointed out that as classified, a secondary residence could be considered to be a household’s second home, no matter the purpose, the period of time and the time of year in which it is used, if it is used by the owner or his household or by other people, etc. Also, a holiday home can be easily classified as a secondary residence, even when it is used only on vacations, holidays, only on weekends, in other times of the year or to be rented for short periods for seasonal tourism. Countries are therefore requesting to define or list the characteristics that would help to make a clear difference between a secondary residence and a holiday home.

¹³ <http://unstats.un.org/unsd/statcom/doc12/2012-2-Censuses-E.pdf>

72. There are some core topics which countries have pointed out are difficult to investigate in a census. Several countries have reported that the core topic **disability** presents difficulties because it is a sensitive topic and also responses are generally provided by a proxy who may not have complete information about the disability of other members of the household. Similarly, countries have highlighted that topics under **fertility** and **mortality**, although considered important, pose difficulty to be investigated in a census because they involve recall memory, could be sensitive, and are susceptible to inaccurate information because responses are generally provided by a proxy. For example, regarding the topic "date of birth of last child born alive", the respondent may not be the mother of the child, hence may not know the precise date of birth, i.e., the day, month and year of birth of the child. Some countries believe that the inclusion of such topics could jeopardize the success of the census as a whole.

73. Countries have also mentioned that in view of the ever increasing unwillingness of society to respond to the census, inclusion of core topics related to **economic characteristics**, particularly on **occupation** and **industry**, should be reviewed. Some countries are of the view that these topics are quite difficult to investigate in a census and are more appropriate to be covered in surveys.

74. Some countries suggest that the core topic **availability of information and communication technology devices** should be changed to an additional topic. Other countries suggest that information on this topic could be gathered from other sources, such as surveys and administrative data.

(e) Is there a need for more specific recommendations on framing and formulating questions on topics which are deemed sensitive?

75. By their nature, some topics on which countries compile information as part of the census are considered sensitive. Although national circumstances dictate what is considered sensitive, there are topics which are generally considered as falling under this category, such as ethnicity, race, mother tongue, disability, and income. The current version of the principles and recommendations includes cautions under obvious sensitive topics including the need for countries to carefully demonstrate to respondents that appropriate data protection and disclosure control measures are in place.

76. In response to the question, some countries have indicated that there is no need for clarification while others have even pointed out that sensitive topics differ from country to country due to cultural norms and practices. For these countries, formulating of questions on sensitive topics should be left to national experts who have local knowledge of what will work in their country. Some countries, while agreeing that there should be more guidelines, recognize that having more specific international recommendations on formulation of questions on topics such as ethnicity and religion is not easy since the sort of information to be collected is often particular to the different requirements and circumstances of individual countries. It is also pointed out that sensitive topics generally belong to topics for which answers are voluntary (and not mandatory). Furthermore, the responses are based on the principle of self-determination.

77. In general, countries have stated that there is a need for more guidelines on how to formulate questions on sensitive topics. More specific recommendations are requested on

how to formulate questions on disability (in general and also among the youth and young children aged under five). Other topics which countries consider sensitive and for which they would like specific recommendations on formulating and framing questions include ethnic origin, language, mother tongue, income, industry, consensual union status, and migration.

(f) Should the revised principles and recommendations include guidelines on the use/release of census records, especially micro-data?

78. Under item (b) above, it is already indicated that countries are recommending that more detailed guidance be provided on the use/release of micro-data. In general, countries are of the view that given the high demand for micro-data from censuses, it is necessary that the revised principles and recommendations provide detailed guidelines on this topic. This is still deemed necessary although countries adopt their own laws and rules for the provision of such data to users. Another impetus which countries have highlighted as necessitating guidance to countries is the fact that it is not uncommon for researchers from other countries to also be interested in micro-data of other countries.

79. Examples of specific issues that countries want covered under this topic include:

- (i) A discussion emphasizing concerns about privacy, confidentiality, and the impact on public acceptance of a census
- (ii) Procedures to protect the confidentiality of the micro-data and avoid disclosure of individual, geo-coded, or small area data
- (iii) Information on formation, dissemination and storage of population census micro data samples
- (iv) Guidelines on the use/release of micro data having in mind sensitivity of their use

80. Some countries, on the other hand, are of the view that the revised principles and recommendations should not put much effort to revising principles on data archiving and the use/release of census records, especially micro data. These kinds of recommendations could be more useful to have in a separate publication concerning all statistical production. The recommendations for censuses should only have references to those more common principles for statistical offices.

81. Other countries have requested that as micro-data dissemination and data confidentiality are evolving topics, it would be useful to collect and publish good national practices about them on the UNSD census programme website.

(g) Is there a need of elaboration on data archiving and preservation?

82. As has already been presented under item (b) above, countries would like to have more detailed guidelines on data archiving and preservation. Countries have pointed out that data archiving and preservation are missing from the current version and should be included especially as the current recommendations emphasize that the census is a national affair and a treasure that should be preserved for the future. Referring to a census as not complete until the data is archived, countries have called for guidelines on archiving and data preservation to be included in the revised principles and recommendations. Countries have highlighted that data archiving and preservation are not only important for historical purposes, but are also important for researchers and academicians who may want to do more detailed analysis in certain areas. They see data archiving and preservation as key to sustainability of census

products and call for recommendations for terms, methods for archiving and preservation of digital census micro-data and related documentation. Countries have also suggested that guidance should be included on minimal archival data requirements for a census.

83. Storing and archiving of historical census documents is also a topic which should be included in the revised census recommendations. This is particularly important as technologies change and countries are moving away from less efficient and effective methods of using paper, microfilm, and images as the media to keep records of their data and documentation for future use.

(h) Were current recommended tabulations useful? Is there a need for changes in that respect?

84. Responses to this question fall into two categories: countries which found the international recommended tabulations very useful and those for which tabulations are not relevant. Some of the countries, especially from Europe, indicated that the tabulations were not generally useful for UNECE countries. They also pointed out that for countries in the EEA the output programme, when not determined by national needs, is governed to a large extent by the requirements of the EU legislation.

85. In response to the question, a country has stated that the need for publishing data on a wide array of topics is growing. This is because users want information more frequently; and in some countries, the ability to reach and/or engage respondents is becoming an increasing challenge. As a result, one of the countries is proposing to make a short list of census basic tabulations.

86. The majority of countries which use and find the tabulations in the current principles and recommendations useful do not see any need for change while some are suggesting some changes. Some of the countries which find the recommended tabulations very useful and advocate for them to be kept cite the role of these tabulations for output harmonization among the different countries. One country, however, suggests the development of a group of standard code lists related to the output tables' variables, in order to allow a more effective and efficient comparison between countries. An example of this is given as information related to the dissemination of census data through European Census Hub.

87. Another country which found the tabulations to be useful added that the future of the publication of census results is related to databases (such as the huge Eurostat project "Census Hub") that would make very detailed census data available in user-friendly databases. As a result, that country concludes that change in the tabulations is not a key goal.

88. A country noted that recommended tabulations do not factor in "not stated values" and requested that this be done so countries know how to deal with this issue. Another country that found the recommended tabulations useful is also of the view that they, nevertheless, need to be improved. For this country, some of the tabulations which cross-classify several variables are very long, and need to be improved.

List of responding countries and organizations

Africa

1. Botswana
2. Namibia
3. South Sudan

America, North

4. Bermuda
5. Canada
6. USA

America, South

7. Ecuador

Asia

8. Armenia
9. Georgia
10. Japan
11. Lao
12. Malaysia
13. Singapore
14. Thailand
15. United Arab Emirates

Europe

16. Austria
17. Belgium
18. Bulgaria
19. CIS
20. Denmark
21. Estonia
22. EUROSTAT
23. Finland
24. Hungary
25. Ireland
26. Italy
27. Latvia
28. Lithuania
29. Moldova
30. Poland
31. Portugal
32. Romania
33. Russia
34. Serbia
35. Slovenia
36. Sweden
37. Switzerland
38. Ukraine
39. UK

Oceania

40. New Zealand