

**UNITED NATIONS SECRETARIAT**  
**Department of Economic and Social Affairs**  
**Statistics Division**  
**English only**

**ESA/STAT/AC.115/2**  
**15 May 2006**

**United Nations Expert Group Meeting on the**  
**Principles and Recommendations for Housing Censuses**  
**5-8 June 2006**  
**United Nations, New York**

**Proposed changes to the *United Nations Principles and***  
***Recommendations for Population and Housing Censuses, Revision 1***  
**on the Section on Housing Censuses<sup>1</sup>**

**Prepared by**

**Demographic and Social Statistics Branch**  
**United Nations Statistics Division**

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## Introduction

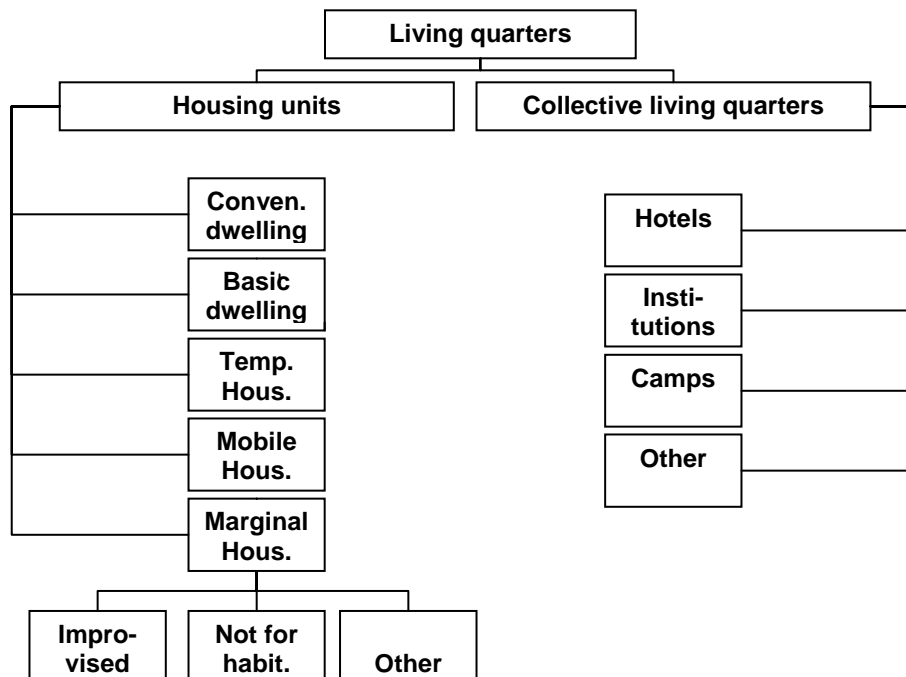
1. The paper presents the proposed revision of the housing census section of the current United Nations *Principles and Recommendations for Population and Housing Censuses, Revision 1* in four distinct parts. Part one focuses on proposed changes of current classifications. Part two discusses the revisions related to core and additional topics. Part three introduces the concept of recommended tabulations for housing censuses as a new international standard. The changes proposed in these three parts are prepared by United Nations Statistics Division (UNSD) and also reflect discussions and contributions by various experts. Part four presents four issues that are partly included or not included in the current draft revision. These four issues (presented as five separate contributions) are proposals for expanding the coverage of the housing census in relation to consumer durables; information and communication technology; a better reflection on environmental issues and security of tenure.

## Part I. Revisions of classifications

### A. Living quarters

2. In the current version of the *Principles and Recommendations for Population and Housing Censuses* the classification of living quarters can be graphically presented as:

**Figure 1. Classification of living quarters (current revision)**



3. Living quarters are defined as structurally separate and independent places of abode. The two distinct classes of living quarters are designated as (a) housing units, intended for habitation by single household or one not intended for habitation but occupied as living quarters by a household at the time of the census and (b) collective living quarters, structurally separate and independent places of abode intended for habitation by large group of individuals or several households. As most of the population lives in a housing unit the main focus of the housing census is on collecting information on the conditions of housing units and their occupants.

4. The current version of the *Principles and Recommendations for Population and Housing Censuses* classifies housing units into five distinct classes: conventional dwellings; basic dwellings; temporary; mobile; and marginal housing units, with a further subdivision of marginal housing units into improvised, units in permanent buildings not intended for human habitation and other premises not intended for human habitation. The underlying intention was to emphasize the need to differentiate between dwellings (conventional and basic), on the one hand, and other housing units on the other.

5. A conventional dwelling is defined as a room or suite of rooms and its accessories in a permanent building or structurally separated part thereof which, by the way it was built, rebuilt or converted, is intended for habitation by one household as is not used wholly for other purposes, provided it has a kitchen or other space for cooking, a fixed bath or shower, piped water and toilet within it. A basic dwelling is defined as lacking some of the facilities (cooking, bathing, toilet, water supply) of a conventional dwelling.

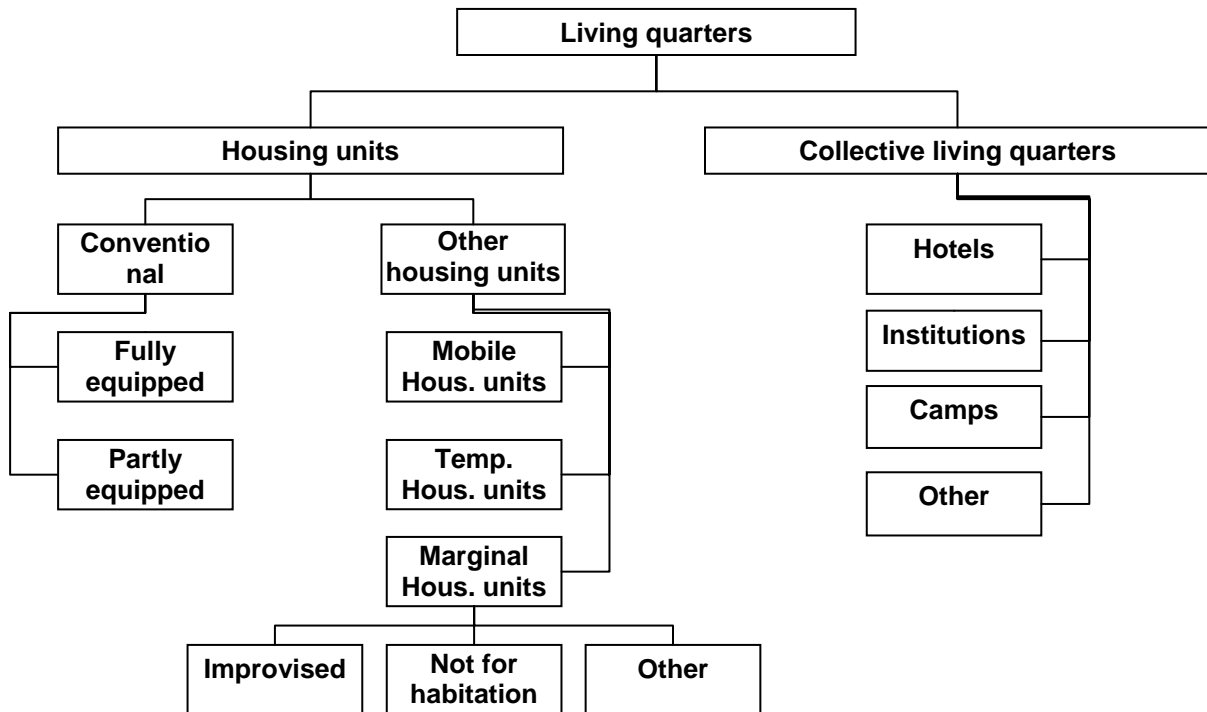
6. Under the other housing units there are three different types of housing, namely: temporary units, such as core dwellings and semi-permanent units, mobile and marginal units.

7. The basic dichotomy of housing units – dwellings and other housing units – is somewhat blurred by the five classes of housing units all being listed at the same level in the classification. While almost all national practices include more than two distinct types of housing units (apartment, villa, ranch, detached house, hut, shack) it is clearly the aim to distinguish between what can be called as “target” or “ideal” housing conditions provided by conventional dwellings and the others that fall short of it.

8. On the other hand the inclusion in the current set of *Principles and Recommendations for Population and Housing Censuses* of the category basic dwellings prompted a number of national censuses to distinguish between fully and partly equipped conventional dwellings, as a useful way to assess the proportion of population lacking some of the facilities.

9. Consequently, the proposal to revise the classification of housing units, all the while keeping the current definitions and concepts, is as presented in Figure 2:

**Figure 2. Proposed revision of classification of housing unit (left side of the figure)**



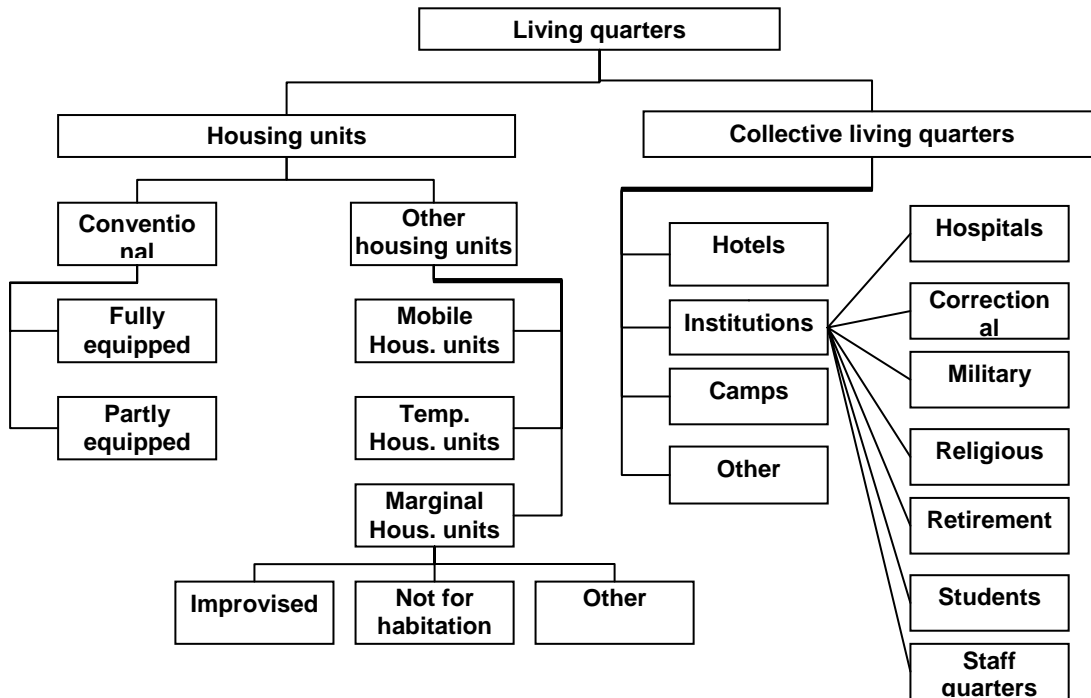
10. The revised classification of housing units, therefore, draws more clearly the line between conventional dwellings and other housing units, while maintaining the distinction between each of these broad categories. By defining the fully equipped conventional dwellings as those that correspond to the conventional dwellings in the current revision, and introducing partly equipped conventional dwelling corresponding to the basic dwelling in the current revision, the classification maintains the distinction between permanent housing that provides full access to facilities and one that does not. It is important to emphasize that the concepts and definitions remain unchanged and that the proposal for changing the classification basically aims at clarifying hierarchical levels in the line of their importance as information-carriers.

11. As for collective living quarters, the past decade witnessed a shift in their availability and importance in meeting housing needs, especially related to the phenomenon of population aging and the emergence of various collective living quarters designed to meet the needs of elderly population<sup>2</sup>. Consequently, the current classification that does not elaborate on the different types of institutions does not reflect accurately differences in housing conditions of the occupants of institutions. The

<sup>2</sup> For example in the United States the proportion of the institutional population aged 18-64 is almost identical to the population aged 65 and over: in 1999 there were 1.83 million aged 18-64 compared to 1.77 million aged 65 and over, as per: <http://www.census.gov/population/pop-profile/1999/appenB.pdf>.

proposed revision incorporates eight new categories at the three-digit level (including the residual category “other”); the proposed classification of living quarters:

**Figure 3. Proposed complete classification of living quarters**



12. Presented in a different way, the proposed revised classification of living quarters:

**1 Housing units**

*1.1 Conventional dwellings*

- 1.1.1 Fully equipped
- 1.1.2 Partly equipped

*1.2 Other housing units*

- 1.2.1 Temporary housing units
- 1.2.2 Mobile housing units
- 1.2.3 Improvised housing units
- 1.2.4 Housing units in permanent buildings not intended for human habitation
- 1.2.5 Other premises not intended for human habitation

**2 Collective living quarters**

*2.1 Hotels, rooming houses and other lodging houses*

*2.2 Institutions*

- 2.1.1 Hospitals
- 2.1.2 Correctional institutions (prisons, penitentiaries)
- 2.1.3 Military barracks
- 2.1.4 Religious institutions (monasteries, convents, etc)
- 2.1.5 Retirement homes, homes for elderly
- 2.1.6 Student dormitories and similar
- 2.1.7 Nurses’ homes and other staff quarters
- 2.1.8 Other

*2.3 Camps*

*2.4 Other*

## **B. Occupancy status**

13. The current revision of the *Principles and Recommendations for Population and Housing Censuses* recommends collecting the information regarding the occupancy of each conventional dwelling in the country as a part of a housing census. While the current text elaborates on the need to identify a conventional dwelling used as a secondary residence or being vacant, as the case may be, the classification itself does not include these two categories. Thus the proposal to revise the classification of occupancy status as follows (new categories are underlined)

### **1 Occupied**

### **2 Vacant**

#### *2.1 Seasonally vacant*

##### 2.1.1 Holiday homes

##### 2.1.2 Seasonal workers' quarters

##### 2.1.3 Other

#### *2.2 Non-seasonally vacant*

##### 2.2.1 Secondary residences

##### 2.2.2 For rent

##### 2.2.3 For sale

##### 2.2.4 For demolition

##### 2.2.5 Other

## **Part II. Revisions related to housing census topics**

### **A. General remarks**

14. The current version of the *Principles and Recommendations for Population and Housing Censuses* clearly identifies the units of enumeration for housing censuses (paragraph 2.289) as buildings, living quarters (i.e. housing units and collective living quarters) and occupants of living quarters (i.e. individuals, families and households). It goes on to also identify core (or basic – the term used in the current version) topics on the basis of the unit of enumeration: three topics for buildings, fourteen for housing units and collective living quarters and three for occupants.

15. While the distinction of topics according to the units of enumeration is straightforward, there is a need to add another dimension that would distinguish the relative importance of the topics for the different units of enumeration and, consequently, provide better guidance to national statistical authorities in developing their housing census instruments. For example, capturing the information on the availability of toilet facilities applies to the housing unit as a core topic, but is also crucial to tabulate it for household as unit of tabulation, requiring that toilet facilities are identified as direct or derived core topic for both of these units of enumeration. Consequently, the tables below is proposed for inclusion in this revision:

**Table 1. Housing census topics by unit of enumeration**

No.	Topic	Building	Living quarters		Households <sup>1</sup>
			Collective living quarters	Housing units	
1	Type	□	■	■	
2	Construction material - outer walls	□		■	
3	Year of construction	□		■	
4	Number of dwellings in the building	◇			
5	Construction material - floors, roof	◇		◇	
6	Elevator	◇			
7	Farm building	◇			
8	State of repair	◇			
9	Location	□	■	■	□
10	Occupancy status			■	
11	Ownership			■	□
12	Rooms			■	□
13	Number of bedrooms			◇	◇
14	Floor space		◇	◇	◇
15	Water supply		◇	■	□
16	Toilet		◇	■	□
17	Sewage disposal		◇	■	□
18	Bathing facilities		◇	■	□
19	Kitchen – availability of		◇	■	□
20	Fuel used for cooking			■	□
21	Lighting and/or use of electricity		◇	■	□
22	Solid waste disposal			■	□
23	Heating			◇	◇
24	Hot water			◇	◇
25	Piped gas			◇	◇
26	Use of housing unit			■	□
27	Occupancy by one or more households			□	■
28	Number of occupants		■	■	□
29	Age and sex of household head/reference				■
30	Tenure				■
31	Rental and owner-occupied housing costs				◇
32	Furnished/unfurnished			◇	◇
33	ICT devices				■
34	Number of cars				◇
35	Durable household appliances				◇
36	Available outdoor space				◇
	<b>Legend:</b>		<b>Note:</b>		
	■ - Core topic		<sup>1</sup> The term “households” here includes individual occupants and families.		
	□ - Core topic, derived				
	◇ - Additional topic				

16. Table 1 presents all the core and additional topics for housing censuses, broken down by the relevant unit of enumeration. A distinction is made between direct core topics (identified by the sign ■), derived core topics (□), and additional topics (◇). Direct core topics are those that require direct investigation or question in order to collect the information needed. Derived core topics refer to topics that do not require an additional question, but the information requested is obtained on the basis of the question already included in the housing census. Additional topics refer to those topics that require a direct question, but are not considered to be of equal importance to all national circumstances. It has to be pointed out that some direct core topics identified here as such might actually fall within the scope of population census (for example, age and sex of household head/reference person, topic number 29 in Table 1), but are still here indicated as direct core topics since there are housing censuses that are conducted independently from population censuses. In that case the question regarding age and sex would have to be part of the housing census.

17. There is a direct correspondence between the core topics and the recommended tabulations which will be elaborated in more details in Part III of this paper. In essence, all core topics are represented by at least one recommended tabulation. Indeed, the fact that the topic is presented as derived core topic in most cases indicates that it is recommended that the tabulation is generated for that specific unit of enumeration.

18. Table 1 displays four derived core and five additional topics for buildings, three direct core and seven additional topics for collective, seventeen direct core, one derived core and seven additional topics for housing units, and four direct core, thirteen derived core and ten additional topics for occupants (individuals, households, families). The total number of all topics is thirty-six.

## **B. Changing designation – from core to additional**

19. **Floor space** – this topic is designated as core (basic) topic in the current version of the *Principles and Recommendations for Population and Housing Censuses*. It is, however, proposed to change it from core topic to additional topic in the revised version. The proposal is based on the fact, in many cases, it is technically challenging to collect information on floor space as occupants often do not have or know this information and training enumerators to approximate the space would certainly introduce a considerable measurement error in the results of housing census. It may be for the above reason that few countries that actually collected this information in the 2000 round of censuses.

20. In number of countries the floor area available to occupants is not especially relevant for assessing housing conditions of the population, especially in rural areas, where the available space can be significant, but of questionable quality.

21. This is not to say that designating floor space as an additional topic at the world's level should preclude including it as a core topic in regions where preconditions exist for

it to be collected accurately and in as errorless manner as possible. It is certainly very necessary in densely populated urban areas and its overall usefulness is well documented.

22. It should be also emphasized that the value of the topics changes over time, and as the world changes, so does the importance of certain information. In that respect and as outlined in the discussions in the preparation of the revision, there are some other topics that command increased attention, such as accessibility to and availability of information and communication technology devices.

### **C. Changing designation – from additional to core**

23. **Fuel used for cooking** – this topic is designated as additional in the current version of *Principles and Recommendations for Population and Housing Censuses* and the proposal is to change it to a core topic. The importance of fuel used for cooking is recognized by many national censuses that asked the question in the 2000 round of censuses and is only increasing given the significant impact the choice of fuel used for cooking has on environment.

24. In discussing the revision of the current set of recommendations, two Expert Group Meetings and the voluminous exchange of opinions from as many as over one hundred census experts around the world pointed out the raising concerns regarding environment and, consequently, needs to capture statistics pertaining to it. Fuel used for cooking, such as charcoal and wood, for example, is often identified as one of those crucial determinants of pollution, deforestation and climate change in general.

25. As for countries where the source of energy for cooking is electricity or gas, it is equally important to assess, in an accurate manner, the proportion of households predominantly using one or the other source. This enables identifying consumption patterns and related planning for services.

26. **Use of housing unit** - this topic is designated as additional in the current version of *Principles and Recommendations for Population and Housing Censuses* and the proposal is to change it to a core topic. The question on whether the unit is used only for residential or mixed purposes was included in a number of housing censuses in the 2000 round.

27. As an indication of the size and structure of the informal sector, use of housing unit can substantially complement other measurements of that phenomenon. It is also of particular importance given the fact that in contemporary societies working from home is an increasing occurrence, taking advantage of communication technologies. Thus, use of housing unit – whether it is used solely for housing or not - is pertinent throughout the world.

#### **D. Introducing new core topics**

28. **Sewage disposal** – this topic is not a new topic *per se*, since in the current version of the *Principles and Recommendations for Population and Housing Censuses* it is designated as core topic together with toilet facilities. Rather, the proposal is to separate the two topics, thus ensuring that each is appropriately emphasized.

29. Measuring different ways of disposing of human excreta represents a crucial component in assessing the impact on the immediate environment (in case there is no specific system for its disposal) and the global environment – for example, what would be the consequence if all the sewage systems would empty in the world's oceans directly or through rivers.

30. **Availability of Information and Communication (ICT) devices** – this is a new topic and the proposal is to introduce it as a core topic. In the contemporary world the availability of ICT devices becomes of paramount importance. The “digital divide” is in the focus of the United Nations for its impact on the capacities of countries and individuals to participate and contribute in contemporary societies. While there are quite a few estimates at national and international levels on the magnitude of this phenomenon, few hard statistics are available.

31. Thus the proposal to include the question on ownership of radio, television, fixed telephone, mobile telephone and personal computers, as well access to the Internet from home or elsewhere is an attempt to collect, process and disseminate detailed statistics of this phenomenon.

#### **E. Deleting and changing additional topics**

32. **Telephone – availability of** is designated as an additional topic in the current *Principles and Recommendations for Population and Housing Censuses*. Given the fact that the information on this is recommended through the topic on the availability of ICT devices (see paragraphs 29-30), the proposal is to delete this topic from the revised version of recommendations.

33. **Durable consumer appliances available to the household** – in the current version of the *Principles and Recommendations for Population and Housing Censuses* this topic includes the availability of radios, television sets and personal computers, items that are already covered by a core topic on ICT device (see paragraphs 29-30). Thus, it is proposed that this additional topic should include only dishwashing machines, laundry washing machines, refrigerators, deep freezes, air conditioners and so forth.

#### **Part III. Recommended tabulation for housing censuses**

34. The major goal of the second revision of the *Principles and Recommendations for Population and Housing Censuses* is to recommend a set of statistics and accompanying tabulations that need to be produced at the lowest geographical level pertaining to the

same point in time for a country or area to be able to meet its demographic and socio-economic development planning goals and monitoring. The majority of national statistical authorities use a population and housing census as the single most comprehensive vehicle to collect these necessary statistics – canvassing the whole country or otherwise conveying the questions to each household. Consequently, the revised set of recommendations is formulating a clear and unambiguous recommendation and provides a set of accompanying guidelines that all the nations produce the set of tabulations for the very small areas and for the same point in time.

35. It is in the light of this new international standard – recommended set of tabulations – that a set of sixteen housing census tabulations was developed with several purposes: (a) to guide countries in developing their own census tabulation programmes, (b) to ensure international and regional comparability, and (c) to ensure instruments for international collection of statistics are standardized and used by all data collectors. It is with the item (c) on mind that a meeting of the Technical Subgroup of the United Nations Expert Group, held in Dublin, Ireland, October 2005, with representatives from data collectors on international level, agreed on a set of recommended tabulations.

36. The layouts of all recommended tabulations are presented in a separate paper *Draft Recommended Tabulations* (ESA/STAT/AC.115/4). Below is the list of recommended tables with brief descriptions of their use:

**RecH01. Conventional dwellings by type of building, year of construction and construction material of outer walls.** This tabulation provides information on the number of dwellings by period of construction of the building in which the dwelling is located and by material of construction of the walls of the building cross-classified by the type of the building. The inventory considered in terms of age and type of building provides a basis for estimating maintenance costs; it also provides insight into the housing patterns of the population, a factor that experience has shown should not be neglected in formulating housing programmes. The question whether to include only conventional dwellings in the tabulation or other types of housing units as well will depend upon the importance of the latter as far as the overall housing situation is concerned. In tropical countries where a substantial proportion of the population lives in housing units constructed of locally available material such as bamboo, palm, thatch and so forth, information on the rate of construction of these temporary units may be considered sufficiently important for them to be included. Mobile and marginal units are not included, since the year or period of construction is of varying significance depending upon the type of unit. The tabulation includes material of construction of external walls only, since this appears to be of the utmost significance as an indicator of durability. Information on the construction material of the roof and floor is also frequently collected in national housing censuses, particularly information on the former, but certain inconsistencies and complications have been noticed while tabulating construction material for more than one element of the dwelling.

**RecH02. Households, by broad types of living quarters and number of homeless households.** This is a broad summary table designed to show in very general terms the type of housing occupied by households and the number of households that are homeless. It provides background information as well as a control for preparation of more detailed tabulations for the categories shown. In fact, the magnitude of the number of households that occupy collective living quarters or are homeless and their geographical distribution

provide an indication of the extent to which more detailed tabulations for these groups need to be prepared. This gains on importance since this table provides the breakdown of institutional population by type of institution, enabling focusing further analysis on most populous clusters.

**RecH03. Collective living quarters by type.** This is the only recommended table that displays all the categories of collective living quarters. It is recognized that the living conditions in different type of collective living quarters differ significantly, for example, in military camps and luxurious retirement homes. This table aims at showing the proportion of institutional population in different types of institutions.

**RecH04. Households in occupied housing units, by type of housing unit.** There is wide agreement concerning the usefulness of this tabulation or variants of it. Its most important function is to make a broad distinction between various types of housing according to the level of housing standards. Also, its purpose is to describe the occupants in terms of aggregates, households and family nuclei. The tabulation is of primary importance for the formulation of housing programmes and is a prerequisite of calculation of indicators on housing conditions.

**RecH05. Households, by type of living quarters, cross-classified by sex and age of head of household.** It is assumed that the economic and demographic data required for housing tabulations will be obtained from the population census. In selecting characteristics to be used, the primary consideration should be their efficiency in providing insight into the housing requirements of the population as well as an indication of the possibilities that exist for meeting these requirements. This tabulation provides one component needed to compute headship rates specific for age and sex for the projection of number of households.

**RecH06. Housing units, by number of rooms,<sup>1</sup> cross-classified by type of housing unit and number of occupants per housing unit.** This tabulation provides for the selection of data concerning any desired level of density considered to be of significance, from extreme overcrowding to under-occupancy. In establishing the statistical indicators on housing conditions, the Statistical Commission and the Inter-Agency Working Party on Statistics for Social Programmes agreed that dwellings with densities of three or more persons per room should be considered overcrowded under any circumstances. For national use, this level may be raised or lowered according to circumstances; levels set for urban areas may be different from those for rural areas (the outdoor spaces in rural areas are sometimes considered to offset, to some extent, the high densities prevailing within the housing units).

**RecH07. Households in housing units, by type of occupied housing unit, cross-classified by number of households and number of rooms per housing unit.** This tabulation provides information on the number of households that are sharing housing units with other households and thus provides an important basis for estimating housing needs. The importance of a separate housing unit for each household that desires one is widely recognized. This tabulation shows the number of households that occupy the shared units plus the number of rooms in the housing units.

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<sup>1</sup> Excluding rooms used wholly for business or professional purposes.

**RecH08. Occupied housing units, by type, cross-classified by water supply system and source of water supply.** From this tabulation, information may be derived on the number of persons and the number of households with ready access to a protected water supply as well as the availability of piped water for each class of housing units. The classification of the source of the water supply in this tabulation is limited to the community scheme or a private source. Many countries have found it useful to further elaborate this classification in order to provide more detailed information on the source of the water supply

**RecH09. Occupied housing units, by type, cross-classified by type of toilet and type of sewage disposal.** From this tabulation, data may be obtained on the number of housing units by type with the number of occupants, the type of toilet facilities available to them and the characteristics of the sewage system. The tabulation of toilet facilities shown provides the minimum data required for an evaluation of living quarters according to the facilities available. The information for dwellings is required for the computation of indicators of housing and its environment. If the number of sets of collective living quarters is large, it may be useful to prepare similar tabulations by type of collective living quarters. In fact, information concerning the availability of toilet facilities in institutions, hotels and so on is frequently collected in housing censuses. With respect to these units, however, separate tabulations that would also show the number of toilets in relation to the number of occupants may be more useful than information that merely indicates the availability of toilets and the type of toilet. Similar information may be tabulated for housing units occupied by more than a certain number of households. In many countries the classification has been elaborated to provide information on availability of particular types of toilets (other than flush) that are prevalent and characteristic of the country or area concerned and imply varying degrees of efficiency from a sanitary point of view.

**RecH10. Occupied housing units, by type, cross-classified by type of cooking facilities and fuel used for cooking.** The classifications used in this tabulation for equipment and fuel used for cooking should be formulated to conform to the types of equipment and types of fuel normally used in the country concerned. Data on fuel refer to the fuel most frequently used and it may be confined to the fuel used for preparing the principal meals. If information has been gathered on the number of kitchens or kitchenettes or the number of stoves in housing units occupied by more than a certain number of households and for collective living quarters, such as hotels, boarding houses and multi-household living quarters, it would be useful to tabulate this information according to the type of living quarters and the number of households.

**RecH11. Occupied housing units, by type, cross-classified by type of cooking facilities and fuel used for cooking.** Countries and areas in all regions attach considerable importance to the source of energy used for lighting. This tabulation could provide planners with a useful indication of areas where community lighting needs to be extended. For housing units lit by electricity, additional information may be tabulated to show whether the electricity comes from a community supply, generating plant or some other source.

**RecH12. Occupied housing units, by type, cross-classified by type of solid waste disposal.** This tabulation provides information on the type of solid waste disposal as defined in the revised *Principles and Recommendations for Population and Housing Censuses*. Disposal of solid waste and facilities for disposing of it have an extremely important impact on public health and on maintaining a safe environment. As for the

classification of types of solid waste disposal, it consists of broad categories and may be further elaborated on the basis of prevalent systems in a specific country or area.

**RecH13. Occupied housing units, by type, cross-classified by type of ownership and type of use of the housing units.** This tabulation provides information on the type of ownership and the use of housing unit. It is intended to show the type of ownership according to the type of housing unit and also the occurrence of using housing units for purposes other than housing. Consequently, it also provides insight in the frequency of households using their own housing units for residential and non-residential use.

**RecH14. Conventional dwellings by occupancy status.** This tabulation confines itself to data relating to fully and partly equipped conventional dwellings because all other types of housing are required, by definition, to be occupied in order to fall within the scope of the census; a classification by occupancy would not therefore be applicable to them. In some housing censuses, vacancy information is recorded during the listing of sets of living quarters and summaries of these lists provide the aggregates furnished by this tabulation, although generally not in detail as far as reasons for vacancy are concerned. Such a procedure may provide an economic means of obtaining data, though every effort should be made to collect information in detail on vacant conventional and basic dwellings.

**RecH15. Households in housing units, by type of housing unit, cross-classified by tenure of household and, for tenant households, ownership of housing unit occupied.** This tabulation yields data showing the type of tenure under which households occupy their living space. Data are tabulated in terms of households rather than housing units in order to show more clearly the tenure status of households sharing housing units. The number of owner-occupied housing units can be obtained from the tabulation RecH11 using the corresponding figures for owner households in each category. Type of ownership of the housing unit occupied is shown in this table for renting households. Several variations of the classification of tenure have been found useful. Tenure data are sometimes classified so as to distinguish the tenure under which the living quarters are occupied from the tenure of land upon which they stand (in some countries such a classification may be of special significance). Owner-occupants are shown in some cases according to whether the housing unit is fully paid for or whether it is being paid for in installments or is mortgaged.

**RecH16. Households in housing units, by type of housing unit, cross-classified by communication technology devices and access to Internet.** This tabulation presents the essential information on the ownership and availability of ICT devices to households in the country.

37. As mentioned in paragraph 15, the concept is to have at least one tabulation for each core (directly collected or derived) topic. This relationship is shown in Table 2 below:

No.	Topic	Building	Living quarters		Households <sup>1</sup>
			Collective living q.	Housing units	
1	Type	<input type="checkbox"/> Rech01, H03	■Rech02	■Rech02-H16	
2	Construction material - outer walls	<input type="checkbox"/> Rech01		■Rech01	
3	Year of construction	<input type="checkbox"/> Rech01		■Rech01	
4	Number of dwellings in the building	◇			
5	Construction material - floors, roof	◇		◇	
6	Elevator	◇			
7	Farm building	◇			
8	State of repair	◇			
9	Location	■Rech01-H15	■Rech01-15	■Rech01-H16	<input type="checkbox"/> Rech01-H16
10	Occupancy status			■Rech14	<input type="checkbox"/> Rech14
11	Ownership			■Rech13	<input type="checkbox"/> Rech13, H15
12	Rooms			■Rech05, H07	<input type="checkbox"/> Rech05, H07
13	Number of bedrooms			◇	◇
14	Floor space		◇	◇	◇
15	Water supply		◇	■Rech08	<input type="checkbox"/> Rech08
16	Toilet		◇	■Rech09	<input type="checkbox"/> Rech09
17	Sewage disposal			■Rech09	<input type="checkbox"/> Rech09
18	Bathing facilities		◇	■Rech02-H16	<input type="checkbox"/> Rech02-H16
19	Kitchen – availability of		◇	■Rech10	<input type="checkbox"/> Rech10
20	Fuel used for cooking			■Rech10	<input type="checkbox"/> Rech10
21	Lighting and/or use of electricity		◇	■Rech11	<input type="checkbox"/> Rech11
22	Solid waste disposal			■Rech12	<input type="checkbox"/> Rech12
23	Heating			◇	◇
24	Hot water			◇	◇
25	Piped gas			◇	◇
26	Use of housing unit			■Rech11	<input type="checkbox"/> Rech11
27	Occupancy by one or more households			<input type="checkbox"/> Rech06	■Rech06
28	Number of occupants		■	■Rech02, H05	<input type="checkbox"/> Rech02, H06
29	Age and sex of household				■Rech05
30	Tenure				■Rech15
31	Rental and owner-occupied housing costs				◇
32	Furnished/unfurnished			◇	◇
33	ICT devices				■Rech16
34	Number of cars				◇
35	Durable household appliances				◇
36	Available outdoor space				◇
	<b>Legend:</b>		<b>Note:</b>		
	■ - Core topic	<sup>1</sup> The term household here includes individual occupants and families.			
	<input type="checkbox"/> - Core topic, derived				
	◇ - Additional topic				

**Part IV. Submissions by members of the Expert Group on the 2010 World Programme on Population and Housing Censuses partly included or not included in the draft *Principles and Recommendations for Population and Housing Censuses, Revision 2***

38. The process of preparing this draft *Principles and Recommendations for Population and Housing Censuses, Revision 2* relied on extremely broad exchange of opinions, comments and suggestions from as many as over one hundred experts all over the world. It was done through United Nations Expert Group Meeting *held* in New York, in August 2005 and in a number of other meetings and similar gatherings in all the regions of the world. The process also included voluminous exchanges through the 2010 World Programme on Population and Housing Censuses Forum and via e-mails. This wealth of opinions and methodological agreements is already incorporated in the draft.

39. However, when the part on housing censuses is concerned, there are five contributions that the Expert Group Meeting on Housing Censuses needs to take into consideration and for discussion. All these pieces are provided in Annex I as received by the United Nations Statistics Division, without any editing. It has to be pointed out that some of the issues and topics raised in these contributions are already addressed in the draft.

40. For example, in the first piece on *Consumer Durables*, the draft already covers topics such as availability of television, radio, fixed and mobile telephone, and cars in topics 33, 34 and 35 (see list on page 6). However, the Expert Group might consider other appliances discussed in this contribution for inclusion in the list of additional topics.

41. Similarly, the piece *Access to ICT by Households* elaborates the need to include the availability of ICT devices to household and the draft addresses this need by introducing a new core topic (number 33 on the list of topics, see page 6). The Expert Group might consider that some of the wording and elaboration might be included in the draft.

42. The piece on *Additional Environmental Questions* argues for inclusion of several topics in the housing census and the Expert Group needs to discuss this proposal in detail.

43. The piece *Existing Census Questions and Proposals* is also focusing on environmental concerns and most of the proposed changes is incorporated in the draft revision.

44. Finally, there is a proposal to include the topic on the security of tenure with very specific classification of documents that the reference person should present. The Expert Group needs to discuss this proposal and its feasibility for housing censuses.

## Annex I.

### Consumer durables

45. There are already several topics elsewhere in the document that relate to the collection of information on some of the durables or assets (other than dwelling units) owned by, or generally available to, households. These can include:

- cooking equipment (refer to paragraph 2.395);
- cars available to the household (refer to paragraph 2.430);
- durable consumer appliances (refer to paragraph 2.431); and
- information and communications technology (ICT) equipment

These items have value in their own right for analysis of policies relating to a wide range of issues, from: assessing health aspects of food preparation; to developing policies for access to car parking; to monitoring access to methods of public communications.

46. In combination these items could be used to develop indirect measures of socioeconomic welfare or wealth related indicators. At this time it is not possible to make recommendations about the development of such derived measures but it is suggested that countries which collect these items may wish to record details of the uses to which the output is put to assist in forming a more definitive statement of the usefulness of the topic for the future.

47. Information regarding ownership of selected goods and access to some ICT equipment and services is a useful input into measurement and analysis of living standards and the socio-economic status of households, including of their wealth and/or poverty situation: mainly the ownership of such assets indicates relative absence of poverty. In other words, the asset items are proxies for household wealth or socioeconomic status. In this regard, trends data in ownership of the items would provide a valuable tool to assess changes in the socio-economic status or living standards of households. In some countries, information regarding more modest household assets such as a hoe, a radio or a clothes iron can be taken as constructing a baseline indicator of poverty.

48. In addition they are of value to market research companies undertaking market assessments or creating socioeconomic profiles of localities or regions.

49. Clearly, items for inclusion on the list of durables or assets would differ among countries or regions depending on circumstances and the intent for collecting the data. Sometimes, the items included on the list will be those commonly possessed by households in the population. Consequently, there are bound to be differences among countries or groups of countries, such as between developed and developing countries, in the items on the list. It may also be found that the various items on which information is being sought may be included in a range of questions and the overall list derived at the analytical stage.

50. Some of the items, related to ownership or availability of durables, included on various census as well as survey questionnaires include the following: (1) bicycle, (2) car or pick-up, (3) cellular/mobile telephone, (4) personal computer, (5) cooking stove (electric/gas), (6) dishwasher, (6) household electric generator, (7) household water pump, (8) microwave oven, (9) motorbike, (10) radio, (11) refrigerator/freezer, (12) cassette tape/CD player, (13) fixed line telephone, (14) television, (15) video cassette/DVD player, (16) washing machine. With regard to information and communication related services, some of the items relate to access to the internet as well as access to a telephone line within a housing unit.

51. It is recommended that the unit of enumeration for these items be the household although differences have been noted in national practices regarding the wording of questions used to elicit the information. For instance, while in some cases the information sought refers to whether or not the household has the items in questions, in others it is about whether any member of the household owns any of the items, while in others it is aimed at ascertaining ownership as well as functioning of the items. In the latter case, the question asks whether the household owns a working radio, television, etc. Furthermore, in some cases, respondents are asked to indicate not just ownership but also the number (quantity) owned for a particular item.

52. ICTs provide two important points of departure of the general situation given above. First, ownership, although perhaps the most common form of availability of these technologies to households, need not be the only one. In particular, households need not own, but still have access to personal computers and the Internet through school/university, public access centers, and/or other households. Second, unlike many household durables, the unit of enumeration for measuring the intensity (frequency) and specificity of use of these technologies would be the individual rather than the household. For the sake of international comparability, given the vast variability of adoption of ICTs globally, the recommendations consider only the availability of ICT equipment and services to households, through ownership or otherwise.

53. Clearly, decisions on what items to collect information on are dependant on what it is intended for, and therefore on national data needs. In this regard therefore, it is not possible to recommend an exhaustive list of durable items for international use. It is important, however, that care be taken to include enough relevant items so as to be able to distinguish among socio-economic classes particularly at the lowest end.

## Access to ICT by Households

54. *Access to ICTs by households* is a new category of topics added to the list of housing census topics. The category includes *five* topics and *seven* derived topics as shown in the table below. All direct and derived topics are drawn from the Partnership list on core ICT indicators.<sup>3</sup>

<u>Direct topics</u>	<u>Paragraphs</u>	<u>Derived topics</u>
A. Fixed line telephone	4	A1. Proportion of households with a fixed line telephone
B. Mobile cellular telephone	5	B1. Proportion of households with a mobile cellular telephone
C. Personal Computer	6	C1. Proportion of households with a personal computer
D. Internet Access	7-8	D1. Proportion of households with Internet access at home D2. Proportion of households with broadband Internet access at home
E. Radio and Television	9-11	E1. Proportion of households with radio sets E2. Proportion of households with television sets

55. The inclusion of a single additional topic or question in a census normally entails laborious administrative process, executive order, or even legislation, and is both contentious and expensive, and hence many countries may opt to selecting a minimal set of core topics/questions. This set must be sufficient for understanding the place of ICTs in the household, as well as for use for planning purposes by government and private sector to enable wider and improved delivery of services, and to assess their impact on the society. In the case of ICT topics, census designers have many options to consider, given the interrelationships between use by individuals and existence of the topic in the household, and among many of the topics.<sup>4</sup> The given set of topics represents such a minimal set.

56. The new category derives from the category on *Consumer Durables*, and should therefore be considered in relation to it. The relevant tabulation for this category is H.11 in the group on tabulations for housing censuses. Of the topics above, only the topic (D2) on broadband Internet access by households is not considered an essential core topic, as broadband Internet access is still substantially lacking in the majority of developing countries, and hence is not included in the tabulation. It is nevertheless an important topic since many socially desirable services for the information society, such as, for instance, e-learning, are only possible with broadband Internet access.

<sup>3</sup> The Partnership on Measuring ICT for Development, *Core ICT Indicators*, UNESCWA, November 2005. The document contains definitions, explanatory notes, and model questions related to the core indicators.

<sup>4</sup> For instance, any dwelling with Internet access would have a personal computer, a television set, or a third-generation mobile telephone. Although Internet access may not necessarily indicate the existence of fixed line telephone, or, for that matter, broadband Internet access will not always imply that narrowband, *e.g.* dial-up, access exist, such inferences can still be made in the majority of households in many developing countries. Note that no matter how appropriate or accurate these inferences may turn up to be, they are not substitutes for computing the relevant topics.

## *Basic Definitions*

### **A. Fixed line telephone:**

57. Fixed line telephones refer to telephone lines, typically copper wires, which connect a customer's terminal equipment, e.g., telephone set, facsimile machine, to a public switched telephone network (PSTN), and have a dedicated port on a telephone exchange. Although fixed telephone lines have now been surpassed by mobile telephony globally, they are still an important affordable communication medium. Furthermore, they provide a basis for Internet access in most economies, whether through dial-up, Integrated Services Digital Networks (ISDNs), or Digital Subscriber Line (DSL) services. The *proportion of households with a fixed line telephone* is obtained as the quotient of the number of households with one or more fixed line telephones to the number of households in the population.

### **B. Mobile cellular telephone:**

58. Mobile cellular telephones are becoming the predominant method of communications in many countries. Indicators related to mobile telephony are therefore fundamental indicators of the information society. Mobile cellular telephones refer to portable telephones using cellular technology that provides access to PSTN. Mobile cellular subscribers refer to users of such telephones with either post-paid subscriptions or pre-paid accounts. The *proportion of households with a mobile cellular telephone* is obtained as the quotient of the number of households where one or more members are mobile cellular telephone subscribers to the number of households in the population.

### **C. Personal computer:**

59. The personal computer (PC) is a generic term that refers to any computer designed primarily for use by one person at a time at home, office, or school. PCs, whether desktops or notebooks, comprise any combination of processors, input/output devices, storage drives, and network interface cards; are run by a variety of operating systems; and may be connected to other PCs or to the Internet. They exclude terminals connected to mainframe for data processing, and midrange multi-user systems that are primarily intended for shared use. Devices such as handheld personal digital assistants (PDAs) and smart telephones are usually not considered PCs, as they have only some, but not all, of the components of the PC, such as, for instance, standard keyboard and large screen. Internet-enabled telephones, which essentially perform a similar service as the PC but for mobile networks, are also not considered PCs. The *proportion of households with a computer* is obtained by dividing the number of households with a computer by the number of households in the population.

### **D. Internet Access:**

60. Internet access at home refers to the ability of the household to connect to the public Internet using TCP/IP protocols. Internet connections may be classified according to the technology employed, devices used, communication medium, and/or connection bandwidth [speed]. Internet access at home is meant to include both narrowband and broadband connections. Broadband may be defined loosely as transmission capacity with sufficient bandwidth to permit combined provision of voice, data, and video. ITU has set a lower limit of broadband access at *256 KBit/sec*, as the sum of the connection uploading

and downloading capacities. Broadband is implemented mainly through xDSL, cable, [wireless] local area network ([W]LAN), satellite broadband Internet, or Fiber-to-the-home Internet access. Narrowband access is typically carried out through dial-up modems, ISDNs, and most second-generation (2G) cellular mobile telephones.

61. *The proportion of households with Internet access at home* is obtained as the quotient of the number of households with usable Internet connection to the number of households in the population. This statistic is measured irrespective of the type of access, device used to access the Internet, or the method of payment. *The proportion of households with broadband Internet access at home* is obtained as the quotient of the number of households with usable broadband internet connection to the number of households in the population.

### **E. Radio and Television:**

62. Radio and television are the most widespread ICTs in the world. They are also the reliable and useful ICTs for many parts of the world where modern, Internet-based ICTs are not affordable, or not yet available. In hindsight, radio and television are the narrowband and broadband ICTs of old. Few countries collect the number of radio and television sets, and thus most data are estimates.<sup>5</sup>

63. A radio set is a device capable of receiving broadcast radio signals, using popular frequencies in the FM, AM, LW, and SW ranges. A radio set may be a standalone device, or it may be integrated into another device, such as a Walkman, a car, or an alarm clock. *The proportion of households with a radio set* is obtained as the quotient of the number of households with usable radio sets to the number of households in the population.

64. A television set is a device capable of receiving broadcast television signals, using popular access means such as over-the-air, cable, and satellite. A television set is typically a standalone device, but it may also be integrated into another device, such as a computer, or a mobile device. *The proportion of households with a television set* is obtained as the quotient of the number of households with usable television sets to the number of households in the population.

### ***Model Questions***

65. A sensible approach for presenting questions in a census is to group topics into categories by technology, theme, and/or objective, in order to give census designers the utmost flexibility in choosing the set of questions that best matches their national policy plans. The sample categories presented below are intended for illustration only.<sup>6</sup>

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<sup>5</sup> In the past, UNESCO had published the number of radio and television sets in different countries, but stopped with its 1999 *Statistical Yearbook*.

<sup>6</sup> It is common for surveys of access to, and use of, ICT use by households and individuals to recommend that all questions asked of a *randomly selected adult* who responds in respect of the household and him/herself. Census procedures normally defer to the *head of household*. Regardless, it is important that the census enumerator ensure that the respondent understands of the technology included in the questions.

66. In designing the questions, census designers should differentiate between two distinct viewpoints, namely: (a) the availability of ICTs in households, and (b) access of ICTs by households. The distinction is important, since households need not own, but still have access to personal computers and the Internet through school/university, public access centers, and/or other households. The rationale for adopting either viewpoint, or even combinations of both, is not necessarily purely technical, but rests more on the prevailing conditions in the society, or on how the information will be used to characterize the socioeconomic profile of households of a country.<sup>7</sup>

#### **67. Telephones:**

This category is concerned with determining the telephone penetration in households for a country, in terms of the proportion of households with either a fixed or a mobile cellular telephone,<sup>8</sup> in relation to other socioeconomic or geographic classificatory variables.

*Q. Does this household have a fixed line telephone at home?* [A1]

*Q. Does any member of this household/do you<sup>9</sup> have access to a mobile cellular telephone at home?* [B1]

#### **68. Internet and PCs:**

This category is concerned with determining the status of access to the Internet and PCs by households for a country, in relation to other socioeconomic or geographic classificatory variables.

*Q. Does any member of this household/do you have access to a PC at home?* [C1]

*Q. Does any member of this household/do you have access to the Internet at home?* [D1]

*Q. What type[s] of Internet access services are used for Internet access at home?* [D2]

#### **69. Broadcasting equipment:**

This category is concerned with determining the availability of broadcasting equipment for households for a country, in relation to other socioeconomic or geographic classificatory variables.

*Q. Does any member of this household/do you have access to a radio at home?* [E1]

*Q. Does any member of this household/do you have access to television at home?* [E2]

#### **70. Access path and devices:**

This category is concerned with determining the households with the means for electronic communications (fixed and mobile telephone lines) and the equipment that provides the


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<sup>7</sup> Ownership of ICT assets is not a proxy of household wealth or social status. Ownership/access of ICTs reflects more on the knowledge capital of the household than on its financial resources.

<sup>8</sup> The proportion of households with either a fixed line telephone or a mobile cellular telephone may be construed as *household teledensity*. This concept is different from *teledensity* -- typically a measure of the *total number of lines in a country in terms of lines per 100 population*. Teledensity relates to the *Millennium Development Goals* [MDG] indicator #47. It is measured through other indicators in the Partnership list of core ICT indicators.

<sup>9</sup> The term “do you” is included to cover single person households. It does not refer to individual activities.

interface between the user and the network (PCs), in relation to other socioeconomic or geographic classificatory variables. The relevant topics for this category are therefore A1, B1, and C1. This category may be enlarged to include the radio and television topics E1 and E2.



### Planned settlements

71. Effective planning of settlements is a key to effective urbanization and a prerequisite for well functioning urban markets. In addition to planning, urban areas need development strategies tailored to the geographical and demographic specificity's of their local areas. This indicator explores the main dimensions of strategic settlements planning from the elaboration and implementation of strategic plans themselves to their budgeting processes and inclusion of all population needs

72. These questions are proposed to be implemented during the census cartography. They supplement questions on solid waste disposal (already included in Principles and Recommendations 1998).

This information should be verified through urban experts and urban policy makers involved in the city planning. They may be from the planning department of the city or the national Ministry responsible for urban development.

### Disaster prevention instruments

73. With the increasing population living in urban areas, the impact of natural or human-made disasters on people and human settlements is becoming greater. These disasters require specific prevention, preparedness and mitigation instruments which often do not exist in disaster-prone areas because of economic and technical reasons. Major instruments are the existence and application of appropriate building codes, which prevent and mitigate impacts of disasters, and hazard mapping, which inform the policy-makers, population and professional of disasters-prone areas.

74. **Building codes** includes anti-cyclonic and anti-seismic building standards. They should be based on hazard and vulnerability assessment.

75. **Hazard mapping** is a simple and effective way of ensuring that hazard are recorded and updated on a regular basis. The maps shall cover the entire city and its boundaries, be available to the public and as recent as possible (less than five years old).

### 76. Houses in hazardous locations

Generally, housing structures are considered durable when certain strong building materials are used for roof, walls and floor. Even though some houses may be built with materials classified as durable, the dwellers may still not enjoy adequate protection if they are located in hazardous areas. This indicators provides additional information necessary to analyse indicator 1 (durable structure).

The following locations are considered hazardous:

- Housing settled subject to disaster at more than the once in a hundred years level (disasters include flooding, earthquakes, volcano, storm surge, landslip or avalanche);
- Housing not adequately protected against cyclones or bushfires which occur at this frequency;
- Housing settled on garbage-mountains;

- Housing around high-industrial pollution areas;
- Housing around other high-risk zones, e.g. railroads, airports, energy transmission line.

77. Environmental concerns have increasingly become the subject of mainstream socio-economic policies both at international and national levels, and sound policy decisions must be made using timely and reliable information. Environment statistics is a relatively new and dynamic field of statistics and there are many data gaps, in particular in developing countries. In order to promote data collection at the national level the use of censuses and surveys as data collection instruments for environment statistics is being explored by the Environment Statistics Section of UNSD.

78. At the Expert Group Meeting on Population and Housing Censuses for the 2010 Census Round organized by UNSD in August 2005, it was recognized that the Principles and Recommendations for Population and Housing Censuses Revision 1 already include a variety of topics that are related to the environment and many countries already collect data on various topics related to this broad topic. In view of this, it was agreed that “the environment” should be added to the revised Principles and Recommendations as a new thematic area. It was noted that the new section on the environment should begin by recognizing what already exists in the Principles and Recommendations that relates to this topic and cross-reference such information and then suggest additional sub-topics that could be included in the updated census guidelines.

79. In this regard, the Environment Statistics Section has reviewed population and housing censuses, as well as selected household surveys at the national level to assess what environmentally-related and or environmental awareness questions are already included. The document contains draft questions on environmental issues and environmental awareness based on existing questions in population and housing censuses and selected household surveys that are being presented for consideration as possibilities for inclusion in the revision of the United Nations Recommendations for the 2010 Round of Population and Housing Census.

80. Section 1 focuses on Population and Housing Censuses and contains the existing classifications/questions in the current Principles and Recommendations for Population and Housing Censuses Revision 1 focusing on the following topics: cooking facilities, solid waste disposal, water supply, water and sewerage facilities, and lighting. For each topic there are suggestions based on censuses and selected household surveys, as well as some proposals by UNSD for either (i) expanding the options for existing classifications/questions or for (ii) additional questions.

81. Section 2 focuses on Household Surveys and contains questions from two censuses and selected household surveys as examples. It is divided into two sub-sections, (i) the first covering the topics in Population and Housing Censuses (cooking facilities, solid waste disposal, water supply, water and sewerage facilities, and lighting) and some proposals by UNSD and (ii) the second covering new topics (pollutants/environmental health, environmental awareness & involvement in conservation, energy, natural disasters, transportation, and agriculture). Countries may wish to include questions from this section in their population and housing censuses.

## **Section 1: Existing Census Questions and Proposals**

### **I. Cooking Facilities**

- A. Classification of housing units by availability of a kitchen or other space reserved for cooking:
1. With kitchen within housing unit
  2. With other space for cooking within housing unit
  3. Without kitchen or other space for cooking within housing unit
    - 3.1 Kitchen or other space for cooking available outside housing unit
      - 3.1.1 For exclusive use
      - 3.1.2 Shared
    - 3.2 Kitchen or other space for cooking available
- B. Classification of housing units according to fuel using for cooking:
1. electricity
  2. gas
  3. oil
  4. coal
  5. wood
  6. animal waste
  7. other

#### **Suggestions:**

8. Charcoal [Ghana Census 2000]
9. Coconut husks [Ghana Census 2000]; can be expanded to vegetal waste [UNSD]
10. None [Ghana Census 2000]

### **II. Solid Waste Disposal**

- A. Classification of housing units by type of solid waste disposal:
1. Solid waste collected on a regular basis by authorized collectors
  2. Solid waste collected on an irregular basis by authorized collectors
  3. Solid waste collected by self-appointed collectors
  4. Occupants dispose of solid waste in a local dump supervised by authorities
  5. Occupants dispose of solid waste in a local dump not supervised by authorities
  6. Other arrangements (including incineration of solid waste by occupants)

#### **Suggestions:**

7. Buried by household [Ghana Census 2000] or  
Dump it in own yard [Belize Labor Force Survey 1999]

8. Throw it into a stream/pond/the sea [Belize Labor Force Survey 1999, Belize Census 2000]
9. Not stated [Belize Labor Force Survey 1999; Belize Census 2000]
10. Using to specific purposes (animal food, fertilizer or other) [Palestine Household Environmental Survey – Second Quarter 2005];

also include use as fuel [UNSD]

### **B. Suggestions for Additional Questions**

1. The distance between the nearest waste collection place and the house (dump or big container)? [Palestine Household Environmental Survey – Second Quarter 2005]
  - a. Less than or equal 500 meter
  - b. More than 500 meter

## **III. Water Supply**

### **A. Classification of housing units by water supply system**

1. Piped water inside the unit
  - 1.1 From the community scheme
  - 1.2 From a private source
2. Piped water outside the unit but within 200 metres
  - 2.1 From the community scheme
    - 2.1.1 For exclusive use
    - 2.1.2 Shared
  - 2.2 From a private source
    - 2.2.1 For exclusive use
    - 2.2.2 Shared
3. No piped water available (including piped water from a source beyond a distance of 200 metres from the living quarters)

### **B. Suggestions for Additional Questions:**

1. What is the main source of drinking water for this household? [Ghana Census 2000, Belize Census 2000]
  - a. tanker supply
  - b. well
  - c. bore-hole
  - d. spring/ rain water
  - e. river/ stream
  - f. dugout/ pond/ lake/ dam
  - g. other (specify)

#### **Suggestions:**

- h. public standpipe or hand pump [Belize Census 2000]

- i. don't know/ not stated [Belize Census 2000]
  - j. bottled water [Jordan Census 2004]
2. What is the source of your water supply for bathing? [Belize Census 2000]
- a. Private, piped into dwelling
  - b. Private vat, drum, well, not piped
  - c. Public, piped into dwelling
  - d. Public, piped into yard
  - e. Public stand pump or hand pump
  - f. Public well
  - g. River, stream, creek, pond, spring
  - h. Other (Specify)
  - i. Don't know, not stated

#### **IV. Toilet & Sewerage Facilities**

##### **A. Classification of housing units by toilet facilities:**

- 1. with toilet within housing unit
  - 1.1 Flush toilet
  - 1.2 Non-Flush toilet
- 2. with toilet outside housing unit
  - 2.1 Flush toilet
    - 2.1.1 For exclusive use
    - 2.1.2 Shared
  - 2.2 Non-flush toilet
    - 2.2.1 For exclusive use
    - 2.2.2 Shared
- 3. No toilet available

##### **B. Classification of housing units by type of sewage disposal system:**

- 1. Empties into a piped system connected to a public sewage disposal plant
- 2. Empties into a piped system connected to a private sewage disposal system
- 3. Other (i.e. toilet empties into an open ditch, a pit, a cesspool, a river, the sea, etc)
- 4. No disposal option

##### **C. Suggestions for Additional Questions**

- 1. How does your household dispose of liquid waste? [Ghana Census 2000]
  - a. through the sewerage system
  - b. thrown onto the street/outside
  - c. thrown into the gutter
  - d. thrown onto compound
  - e. other

2. What is the wastewater disposal way?  
[Palestine Household Environment Survey Questionnaire – Second Quarter 2005)
- a. public network
  - b. porous cesspit
  - c. tight cesspit
  - d. other (specify)

**Suggestions:**

- e. disposed into the environment [UNSD]

**V. Lighting**

- A. What is the source of lighting in your household?
- 1. electricity
  - 2. gas
  - 3. oil lamp
- B. Source of Electricity:
- 1. Community supply
  - 2. Generating plant
  - 3. Other source (i.e. industrial plant, mine, etc.)
- C. Availability of Electricity (for purposes other than lighting):
- 1. cooking
  - 2. heating water
  - 3. heating premises

## Tenure documentation

82. Security of tenure is an important aspect of a household well being, and relates to the willingness of a person to develop or maintain his/her house. In addition, it may condition the kind of infrastructure interventions that can be considered. Respondents may not be aware of the kind of documentation they may need to prove ownership. It is therefore important for the enumerator and supervisor to understand the different types of documentation that are possible [each country should identify types of formal and informal documentation used]. Documentation can be formal or informal.

83. Ownership documentation: in some areas issues of ownership are sensitive and respondents will be reluctant to answer. Be alert to these sensitivities, but try and probe to establish the availability of these documents. Gain the confidence of the respondent by explaining the purpose of the census.

1. Title deed to the property  
This is a document issued by official authorities (to be specified for each country)
2. Purchase agreement for the dwelling  
This is an agreement between the buyer and seller on the conditions and agreement of sale of the structure
3. Adjudication Certificate  
This is a document issued by official authorities (to be specified for each country)
4. Property tax certification  
Documentation showing that rates for the property have been paid by the respondent or a member of the household.
5. Utility bills  
Water, sewer or electricity bills in the name of the respondent or a member of the household.

84. Rental documentation: *A registered lease agreement is a formal document usually prepared by attorneys and registered with the Registrar General. Many rental agreements are not registered, but are formally prepared and signed by the landlord and the renter. Informal settlements and peri-urban areas may have less formal arrangements that may include simple verbal understandings with limited security of tenure for the renter.*

1. Formal agreement (written)
2. Informal agreement (written)
3. Verbal agreement (no document)
4. With knowledge of owner

5. Without knowledge of owner

85. In countries where documents of the land and dwelling are different, the topic may be expanded to show separate information on land documentation and dwelling documentation.