



**Economic and Social
Council**

Distr.
GENERAL

ECE/CES/2009/4
30 March 2009

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

STATISTICAL COMMISSION

CONFERENCE OF EUROPEAN STATISTICIANS

Fifty-seventh plenary session
Geneva, 8-10 June 2009
Item 5(a) of the provisional agenda

**COORDINATION OF INTERNATIONAL STATISTICAL WORK IN THE REGION OF THE
UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE**

**OUTCOMES OF THE IN-DEPTH REVIEWS BY THE BUREAU HELD IN OCTOBER 2008
AND FEBRUARY 2009**

IN-DEPTH REVIEW OF HOUSING STATISTICS

Note prepared by the Central Statistical Office of Poland

Summary

The Bureau of the Conference of European Statisticians, acting on behalf of the Conference, selected at its February 2008 meeting (ECE/CES/2008/2) housing statistics as a topic for in-depth review in February 2009. Poland was requested to prepare an in-depth review note providing the basis for the discussion. The aim of the review is to give an overview of international statistical work in the specified area, identify problems and seek solutions how to address the challenges.

The note provides an overview of housing surveys in countries, current international activities related to housing statistics, the main issues and challenges in this area and directions for future development. The note takes into account the comments by the Bureau at its February 2009 meeting.

I. INTRODUCTION

1. The history of comparative housing policy research began with the pioneering work of the United Nations Economic Commission for Europe (UNECE), published as an “Annual Bulletin of Housing and Building Statistics for Europe” in 1957. It contained 14 basic data on the number of households, the housing stock, housing costs and construction, although only a few of the 22 countries involved completed the information requested.
2. Demand for housing statistics is lower when defined narrowly but there is a lot of interest in housing data when combined with other characteristics (energy, prices, living conditions, etc.). However there are currently no international recommendations addressing this issue, except for housing as part of Consumer Price Index (CPIs).
3. The main purpose of the in-depth review is to improve the coordination of statistical activities in the UNECE region in the field of housing statistics. This review aims to identify information gaps, duplication of work, and propose possible solutions for problems related to housing statistics. The topic of housing statistics has been selected for an in-depth review given the high socioeconomic significance of these statistics and the insufficient scope of work carried out at the international level. The paper focuses on strategic issues and draws the attention of National Statistical Institutes (NSI) to both conceptual and coordination aspects of the surveyed area.

II. SCOPE OF HOUSING SURVEYS IN COUNTRIES

4. Sufficient demographic, social and economic data concerning the inhabitants must be collected to furnish a description of housing conditions and also to provide basic data for analysing the causes of housing deficiencies and for studying possibilities for remedial action.
5. Therefore, the issues of housing should be analysed in the following contexts:
 - (a) Demography and dwelling availability, including increase of social stratification observed particularly in the poorest countries, society ageing, internal and international migration, housing situation of disabled, handicapped and elderly persons, and dwelling density;
 - (b) Dwelling investments and construction, demolition and conversion including maintenance and renovation of existing dwellings;
 - (c) Changes within the dwelling stock and dwelling conditions;
 - (d) Housing development, including expenditures associated with dwellings – regardless of whether the home is owned or rented. In the Households Budget Survey (HBS), housing and furnishings account for the largest share of household expenditure;
 - (e) Government provided or subsidized housing (assistance given to the poorest as one of the most crucial elements of the social policy of the country);

(f) Poverty and related issues of homelessness, and the lack of decent sanitary conditions.

6. The scope of conducted surveys is also determined by the contemporary socioeconomic phenomena. Widely understood housing issues are closely connected to the following:

(a) Urbanisation process (conversion of land used for other purposes into land used for housing, accessibility from home to major facilities, exposure of dwellings to natural disasters);

(b) Social exclusion, prevention of ghetto formations;

(c) Economic development – the labour market dependency on dwelling availability and on migration of the population;

(d) Employment in the construction sector;

(e) Spatial statistics – access to reliable spatial data is essential to research, analysis and policy development on numerous urban and housing issues;

(f) Environment and municipal waste – major social, economic and environmental (exposure to pollution and noise) changes have affected housing stock, occupancy rates, the pattern of housing tenure and the cost of housing;

(g) Energy consumption – new technologies in construction or thermo-modernisation of buildings; energy consumption could be considered a priority area in housing statistics – a large part of energy is consumed by dwellings and there is a huge potential for increasing energy efficiency;

(h) Climate change – such as rising sea level and extreme weather events could impact infrastructure by accelerating degradation of materials and structures increasing damage and repair costs. The likely impacts on human settlements include increased costs of managing water resources, increased energy demand, more damage to infrastructure and housing, increased insurance risk, and increased stress on storm water management systems. Current urban trends may be increasing the vulnerability of settlements to climate change. The impacts of climate change on settlements and infrastructure are likely to be widespread. Key sectors likely to be affected include energy and water supply, health infrastructure and services, transport, building, food industry and tourism.

7. The issues of housing should also be analysed in the context of sustainable development, e.g. 70 out of the 147 national sustainable development indicators, and many of the regional and local indicators, can be linked to housing and community issues.

A. Sources of data

8. In the majority of countries, housing statistics are collected through censuses, sample surveys and administrative registers. Current housing statistics, containing information such as the number of dwellings constructed, number of rooms, floor space, and so forth, as well as the

number of dwellings destroyed or demolished, are usually obtained from a system of data collection based on administrative procedures required in connection with the activity in question. For example, construction statistics may be derived from permits issued for the construction of dwellings, from records of dwelling completions, or from certificates of occupancy. Compiled monthly or quarterly, current housing statistics reflect changes in the housing inventory and, although they may serve other purposes, they are also used to update the benchmark data obtained from housing censuses.

9. Many developing countries do not have a well-established system for generating current housing statistics and, therefore, they rely on censuses as the main source. In most countries, population and housing censuses are taken concurrently, often using a single schedule. In this way, the information on population and living quarters can be more readily matched, processing is facilitated and extensive analysis can be carried out. This also makes it possible to relate the housing census data to the information on demographic and economic characteristics of each household member that is in the population census.

B. The census recommendations

10. To assist countries, the Statistical Commission prepares international recommendations on census methodology and topics for their consideration in planning and conducting censuses. These recommendations, which are updated from time to time to incorporate new developments, are presented in the Principles and Recommendations for Population and Housing Censuses.

11. The Recommendations on the National Population and Housing Censuses, to be implemented in 2010 approximately, were developed and compiled by the United Nations Economic Commission for Europe (UNECE) in close cooperation with Eurostat. These guidelines were based on the work carried out in the period 2004-2006, as part of the Conference of European Statisticians (CES), and were adopted at the 54th plenary session in Geneva in June 2006.

12. The CES Recommendations are to be applied as the general framework for the European Union (EU) censuses programme “The National Population and Housing Censuses 2011”. The main assumptions adopted in the Recommendations are as follows:

(a) Provision of both guidelines and support to the countries participating in the CES in the course of designing and conducting population and housing censuses;

(b) Support and improvement of data comparability at the regional level through selection of the key subject matter of each census, and through consolidation of the definitions and classifications applicable.

13. The housing census is defined in the Recommendations as the operation which provides information at regular intervals on the dwelling stocks, in terms of their quantity, stock sizes (by usable floor space and by number of rooms), forms of ownership, dwelling conditions of the population (sanitary and technical installations, year of construction, and availability of driveways and lifts) on the territory of a given country, at the level of basic administrative units.

14. This operation consists of the process of data collection (through calculations, or questionnaires available on the Internet, or use of administrative sources), aggregation of information concerning dwelling stocks, as well as results assessment, providing access and analysing the data on dwelling stocks and on the population. The census has to provide information on individual items within the dwelling stocks, together with information on the buildings in which they are located, and on the sanitary and technical installations which influence the dwelling conditions of households and their families.

15. The basic subjects recommended to be obligatorily covered under the heading of dwellings are as follows: form of ownership to an inhabited dwelling; type of inhabited residential premise; dwelling location (inhabited permanently, or temporarily – the so-called “second dwellings”); type of ownership (dwellings, houses); usable floor space and/or number of rooms in a dwelling; density rate (as a derivative subject); water supply system, toilet, bathroom, type of dwelling heating system; dwellings by type of building; date of construction of building.

16. Supplementary subjects recommended as optional include, without limitation: type of rooms in a dwelling; dwelling occupation by one or more household; availability of hot water; type of sewage system; main type of energy used for heating; access to dwelling by the disabled; lifts in a building; and whether the building needs to be renovated.

17. The Recommendations contain definitions and classifications concerning the issue of housing in the scope of basic and supplementary subjects. In a number of cases, they are similar or even convergent with the definitions applied in official statistics, which considerably facilitates the consolidation of the data collected.

18. While gathering the data for census-related purposes, each country has to take into account the specificity of the socioeconomic conditions occurring within its territory, as well as the region-specific needs.

C. Definitions

19. There are very few internationally comparable data in this area, apart from housing censuses' data, and in many fields of housing statistics data are not available or have low quality.

20. Different standards, determined by social norms, political priorities and social and economic living qualities, are encountered especially with respect to the issue of decent and adequate dwelling.

21. The field of housing is marked by considerable inconsistency in terms of definitions. The basic definitions such as household, dwelling, room, usable floor space, types of buildings, type of ownership, or dwelling prices are varied, depending on the specificity of a given country. Despite the harmonisation of definitions in the Recommendations to the national census, inconsistency still remains a challenge.

22. In most UNECE countries, the definition of dwelling is convergent. A dwelling is a room or suite of rooms and its accessories in a permanent building or structurally separated part which has been built, rebuilt, converted, etc., and is intended for private habitation. It should have

separate access to a street or to a common space within the building. However, some countries hint that dwelling can not be mobile and a proper dwelling must have its own kitchen. Some definitions emphasize that dwelling should have a private entrance and a separate address (Germany); others that dwelling has a floor area of at least seven square metres and is furnished with accessories and facilities necessary for occupancy (Finland).

23. A room is defined as a space in a dwelling enclosed by walls, reaching from the floor to the ceiling or roof covering, and of a size large enough to hold a bed for an adult (four square metres at least) and at least two metres high over the major area of the ceiling. Some definitions do not consider the kitchen as a room (Lithuania). The area of a room depends on the country: from at least four square metres (Portugal) to larger than eight square metres (Slovak Republic). Only the Swedish, Italian and Slovenian definitions contain a mention of light: a room is a space with one or more windows with direct daylight.

24. Usable floor space is the floor space of dwellings measured inside the outer walls, excluding cellars, non-habitable attics and, in multi-dwelling houses, common spaces.

25. The dwelling stocks include only conventional (permanent) dwellings, whether occupied or not. The simple term dwelling is generally used instead of conventional dwelling. The dwelling stocks do not include rustic (semi-permanent) and improvised housing units (e.g. huts, cabins, shanties), mobile housing units (e.g. trailers, caravans, tents, wagons, boats) and housing units not intended for human habitation but in use for the purpose (e.g. stables, barns, mills, garages, warehouses). Increases in the dwelling stock consist of increases in the number of dwellings due to new construction and increases due to other types of building activity (restoration, extension, conversion). In principle, increases in the number of dwellings without building activity (conversion of one dwelling into two or more dwellings, or of space used for non-residential purposes into one or more dwellings without building activity) are also taken into account, but increases due to these factors are likely to be of little quantitative importance. New construction is defined as the erection of an entirely new structure, whether or not the site on which it is built was previously occupied.

26. The scope of data (definitions) referring to construction permits for buildings and dwellings outside the European Union (e.g. Switzerland, Canada, Japan, the United States, Australia, Korea, or Turkey) does not differ significantly from the definitions applied in EU countries. The only differences relate to the entities which issue these permits and provide the data in question (e.g. in Switzerland, it is local self-governing bodies, whereas in Australia, it is government authorities, building experts, and contractors approved by various organizations, etc.).

27. Given the fact that no data on dwellings completed is available, there is no basis for analysing the definitions applied in these countries, even assuming that the data on new dwellings are compiled in each country. The reports may serve as a means of submitting a suggestion that certain activities should be included for the purpose of establishing a common and internationally uniform policy of presenting the data on new dwellings.

28. The definitions of the various types of equipment distinguished in the classifications are as follows: fixed bath or shower – dwellings are counted as equipped with fixed bath or shower if at least one of these types of equipments is installed inside the dwelling; central heating – dwellings

are considered as centrally heated if heating is provided either from a community heating centre or from an installation built in the building or in the dwelling, established for heating purposes, without regard to the source of energy.

29. In a number of UNECE countries, there is no single formal definition of social housing. Definitions may relate to ownership – notably non-profit organizations and local authorities (e.g. the Netherlands and Sweden), who constructs the dwellings (e.g. Austria and France), whether or not rents are below market levels (e.g. Ireland and England), the relevant funding and/or subsidy stream (e.g. France and Germany), and, most importantly, in almost all of the countries included, the purpose for which the housing is provided. In some countries, social housing is formally available to all households (e.g. Austria and Sweden) but in most it is actually directed at those who cannot serve their own housing needs (e.g. Netherlands and England).

30. The lack of systematic official data collection and statistics on homelessness is mainly due to the fact that, although homelessness has already been acknowledged as a phenomenon, policy makers tend to misinterpret its historical legacy and key international developments and gear their efforts to tackle only the visible aspects of homelessness. Thus, the definition of a homeless person may not be confined to the pure lack of a roof, because then the dimensions of social exclusion and legal rights would be obscured. Different interpretation of this phenomenon determine which national institution is responsible for homelessness.

31. The field “the role of government in housing” is very important for all countries and therefore of great interest for international comparisons. This applies not only to the figures as such, but also, and perhaps even more, to the light they shed on different systems of organizing policy to meet one of our clearest and most basic needs.

III. REVIEW OF INTERNATIONAL ORGANISATIONS ACTIVITIES RELATED TO HOUSING STATISTICS

A. International Organizations

32. The subject of housing is relatively seldom taken into consideration by international organizations and institutions because of differences occurring in types of construction from various aspects, connected with climate, culture and level of economic development.

33. Among those international organizations which devote a relatively large amount of attention to housing issues is the United Nations. In the United Nations organization itself or in close cooperation with the United Nations, housing is a subject of research for United Nations Statistics Division, United Nations Human Settlements Programme (UN-HABITAT), UNECE, World Health Organisation (WHO).

34. The United Nations Statistics Division has been conducting research on housing since 1971. They collect statistics on construction of new buildings for most of the countries and areas of the world. This organization is also responsible for collecting national statistics on the housing stock and housing conditions. The main sources for this information are the population and housing censuses. In 2006, the United Nations Statistics Division initiated a systematic and regular collection of basic statistics on housing by introducing a housing statistics questionnaire

in the existing Demographic Yearbook data collection system. The United Nations Statistics Division is currently testing this questionnaire and it is expected to be circulated among countries in 2008.

35. A key function of the UN-HABITAT is the monitoring of global trends and conditions and its function is the assessment of progress in implementing the Habitat Agenda at the international, regional, national and local levels. The UN-HABITAT monitoring system includes, among other things, the Statistics Programme (regularly collects data from member countries and cities), the Urban Indicator Programme (regularly collects indicators from more than 200 cities) as well as participation in tracking Millennium Development Goals by providing 4 indicators as percentage of population with access to sanitation, percentage of people with access to safe water, percentage of population with secure tenure, and percentage of people in permanent housing/dwellings.

36. The United Nations Economic Commission for Europe (UNECE) produces statistics for Europe and North America, 56 countries in total. The information was presented in the Bulletin of Housing Statistics for Europe and North America, which contains information about dwelling stock at year-end, change in dwelling stock and dwellings by period of construction, classification of dwellings according to equipment, size of dwellings by tenure, size of dwellings by period of construction, average estimated usable floor space of dwellings by number of rooms, total number of completed dwellings, average number of rooms, average usable and living floor space per dwelling completed, size of household by tenure, households by number of persons and number of rooms, and households by number of persons and m² of usable floor space. This publication is no longer published (latest edition was in 2006). The data can be found in the database, but they are not up to date. The organization is also interested in housing in connection with energy efficiency (improvement of energy performance in existing housing, improvement of energy performance in new residential housing construction stock).

37. The WHO is interested in housing from a health perspective. They conduct research on housing and mental health, home safety and accidents, indoor air quality as well as residential environments and physical activity. The Large Analysis and Review of European housing and health Status (LARES) project is a large survey aiming at a comprehensive understanding of housing and health. The organization provided reports like “Immediate housing environment” and “Quantifying diseases from inadequate housing”.

38. The other organization which also provides some data about housing is the Organisation for Economic Co-operation and Development (OECD). The data is generally collected from the national statistical institutions. As housing plays an important role in economies, this organization focuses on housing from a financial point of view. For analysis, they use such indicators as permits issued for dwellings and work started for dwellings (i.e. report “Housing permits as an advance indicator of housing investment”). In these publications, they also touch on the problem of ageing and how it affects urban design and development in terms of housing land use.

39. As well as the organizations mentioned above, Eurostat is also interested in housing statistics. The high priority that the EU wanted to give to fight poverty and social exclusion, and to monitor those targets, was the reason for launching a new survey – Survey of Income and

Living Conditions (EU-SILC). There are five main areas in the EU-SILC questionnaire, although countries may add their own topics or combine questions in an existing survey. One of them is housing (dwelling type, tenure status and housing conditions, amenities in the dwelling and housing costs). However, each year there is a separate module designed for a different area. In 2007 Eurostat included a separate module for housing (shortage of space in the home; home installations and facilities; access to basic services and moving).

40. In the recent period, the work of Eurostat has reflected a growing interest in housing. Changes in real estate prices have corresponded to a growing demand for high quality analyses concerning the dwelling market (the demand and supply conditions) on the scale of individual countries, the Euro area, and the entire European Union. Currently conducted research covers the following fields: manufacturing, investments in real estate, rental price indices for the Harmonised Index of Consumer Prices (HICP), and dwelling stocks (number of dwellings and stock value). It is of key importance that the following three indices be included on the list by the Principal European Economic Indicators (PEEI) Evaluation Team: residential property price index, house sales and building permits. In the scope of the last three new indicators, Eurostat cooperates with the European Central Bank.

41. Another organization dealing with housing issues is Euroconstruct. All Western and some Eastern European countries belong to this network. Twice a year, they organize an international conference on short-term forecasts for the main market segments (housing, non-residential buildings, infrastructure and civil engineering, all sub-sectors with a breakdown in new work and renovation / modernisation activities) in Euroconstruct's member countries. Shortly after this conference, they publish two reports, which include an overview of the European construction industry as a whole and the Housing Market, Non-residential Building Market and Civil Engineering Market in Europe. The reports present indicators about residential construction such as: construction permits, housing starts and completions, which include home ownership rate, housing stocks, second homes and vacancies.

42. The European Mortgage Federation is another organization which provides information on 35 European countries in total (EU 27, Croatia, Turkey, and the non-EU countries of Iceland, Norway, Serbia, Switzerland, Russian Federation and Ukraine) regarding recent developments in housing and mortgage markets in Europe. The data include residential mortgage debt to Gross Domestic Product (GDP) ratio, residential mortgage debt per capita, owner occupation rate, total dwelling stock, housing starts and completion, building permits, number of transactions, house price (national) annual % change, building price annual % change, total outstanding residential loan and gross residential loan. The organization cooperates with the European Commission and the European Central Bank on all questions relating to the European mortgage industry.

43. The European Construction Industry Federation provides data concerning construction in Europe.

44. The European Housing Forum (EHF) plays a crucial role in the housing statistics surveys. From among all its member organizations, the majority are focused on social aspects such as: housing - the European Liaison Committee for Social Housing (ECODHAS); homelessness – the European Federation of National Organisations Working with the Homeless (FEANTSA); social construction – Habitat et Francophonie (RHF); and family policy, intergeneration solidarity and

population ageing – Confederation of Family Organisations in the European Union (COFACE). Economic aspects related to house financing, real estate market and real estate rental are dealt with respectively by European Network for Housing Research (ENHR), The Royal Institution of Chartered Surveyors (RICS) and International Union of Tenants (IUT), while the focus of the network of major European cities (EUROCITIES) and European Union of Developers and House Builders (UEPC) is on the legal and political aspects, such as the urbanisation process, and on the architectural and planning-related issues.

45. Despite the fact that the EHF association operates within the European Union, some of the organizations belonging to EHF expand to other countries/continents, such as ENHR (Europe, Australia, Asia, and North America), RICS (members from 146 countries, representing all continents), RHF (French-speaking countries), and IUT (Europe, USA, Canada, Asia, Africa, Australia, Latin America).

46. Individual institutions put emphasis on various aspects of housing, which brings various fields and forms of activity into focus. The following organizations promote the issues of housing through conferences and meetings: ENHR, EUROCITIES and FEANTSA. Reports and publications devoted to the issues of international housing statistics are compiled by CECODHAS (social housing in Europe), RICS (European Housing Review), FEANTSA (periodic publication on homelessness statistics in Europe), and UEPC (Housing for Senior Citizens, Comparison of taxes on real property, The legal security of holders of planning permissions). Separate surveys are conducted by the following: CECODHAS (CECODHAS-USH-DEXIA survey, DEDODHAS Second General Survey); RICS (Market Surveys: Housing Market, Residential Lettings, Commercial Market, Construction, Rural Market, Global Property, Arts and Antiques); FEANTSA (housing solutions for people who are homeless); and UEPC (survey conducted among members of the organizations, on the specific subject matter such as infrastructure-related costs and legal provisions, relations between architects and developers, social housing, construction, dwellings for retirees, mortgage, etc). Some of the organizations also contribute to the process of creating international programmes of statistical surveys (COFACE, EUROCITIES, and FEANTSA).

47. However, the activities mentioned above are not sufficient to perform common and cohesive studies on housing issues. For the purpose of obtaining homogenous information, it is essential to run a common policy concerning methodology and to perform studies in this area.

B. National Statistical Institutes

48. Results of preliminary analysis of statistical survey programmes (annual and perennial) indicate that housing is one of the main priorities of National Statistical Institutes (NSIs). Issues concerning housing statistics are included both in national censuses as well as surveys in order to collect yearly information on dwellings stocks, construction, and expenditure of households on housing. In many NSIs, statistical survey programmes stress the necessity to use different administrative sources more widely in the field of housing.

49. The analyses of the websites of 64 NSIs from all over the world show that the scope of data concerning housing available on these websites is diverse. There is no exhaustive information concerning the methodology of the surveys conducted (presentation of meta-information).

50. The broadest scope of information concerning housing is presented by highly-developed countries – West European countries, United States, Canada, Australia and New Zealand. The data are presented in different contexts: e.g. in the context of the building industry, housing stocks, demographics, homelessness, etc. The information comes from general censuses and statistical reports. Within the framework of the activities conducted by these offices, the Housing Statistics Strategy is worth mentioning. It was formed in New Zealand, and describes in detail the sources and scopes of the compiled data on the subject matter.

51. In Central and Southern Europe, as well as in Southern America, the data published on Internet websites only indicate the problem, and refer to basic information within the scope of housing (building permits and buildings completed), and dwelling stocks. The information presented concerns only selected years (mainly census years), which makes it impossible to conclude whether a given office conducts any surveys in the period between individual censuses. A similar range of data is presented on the websites of Asian statistical offices.

52. In the United States, Canada, Scandinavian countries, Estonia and in some countries in Western Europe, the information on housing is presented in the form of databases. In other cases, the data are presented in tables, or in publications devoted to this purpose only. There are also cases when the only information on housing is available in statistical yearbooks. The countries of Eastern and Southern Europe, and some Western European countries, provide virtually no broad access to the data, since publications are available only in hard copies, or for a fee. This is also the case in the majority of Asian and South American countries.

53. Many countries do not have websites in English. However, in certain cases, a second language version, e.g. French, is also available as well as the national language version. This refers mainly to the countries in Northern and Western Africa. Some South American countries, e.g. Bolivia, Paraguay, Columbia, Uruguay, Venezuela, Peru, as well as Tajikistan and Uzbekistan, publish their data exclusively in their national language. In several cases, only the main page is available in English, and when opening the bookmarks or publications, the data are presented only in the national language (countries in South America; the following countries in Europe: France, Luxembourg, and Moldova; and some Asian countries, e.g. Kazakhstan and Armenia).

54. Collection of housing statistics and its coordination is a significant challenge for the countries as different government agencies are responsible for housing. The majority of housing surveys are conducted by NSIs, but many countries have various additional governmental institutions which coordinate this activity, e.g. Ministry for Regional Development (Czech Republic, Slovak Republic), Ministry of the Environment (Greece, Lithuania), Ministry of Infrastructure (Poland), Ministry of the Interior (Cyprus, Hungary) or Ministry of Economy (Latvia). Even if the Ministries do not coordinate this activity, they are important users of housing statistics and surveys. Moreover, they sometimes commission preparation of special reviews and even surveys on housing issues. However, there are also particular cases of independent institutions, e.g. the National Housing Institute in Portugal and the Institute of Urban Development in Poland.

IV. ISSUES AND CHALLENGES

55. The elements of this review give rise to a set of general issues and challenges to be considered in the further development of housing statistics:

(a) Sources of housing statistics: the value of a housing census is increased if the results can be rationally used together with other sources of data such as population census, sample surveys and administrative registers, but data obtained from the housing census will constitute the basic framework within which the estimates are made, indicators are computed and further statistical inquiries planned. Employing consistent concepts and definitions throughout an integrated programme of data collection and compilation is essential if the usefulness of these different data sources is to be maximised;

(b) Coordination of housing statistics surveys: the surveys on housing are conducted not only by NSIs but also by several institutions at the governmental level, or by other institutions as well as non-profit organizations. Both the decentralisation of activities in this scope and the lack of coordination make the information on housing inconsistent, and result in a lack of comprehensive knowledge on the scope of conducted surveys. This may entail duplication of several surveys or creation of information gaps. The lack of coordination between individual data sources puts an unnecessary burden on national statistical surveys;

(c) Definitions and specification of territorial and thematic scopes of the surveys: the lack of complete data for international comparisons creates an important challenge. These are general censuses that form complete data sources. However, some countries fail to expand their information resources employing annual surveys. Despite the relatively high number of organizations involved in the processes of data collection and data processing in the scope of housing, some of the crucial fields have not been covered by any surveys – there is a lack of information on the housing policy instruments and on the co-financing means allocated for various housing-directed activities. The review has also highlighted the insufficient amount of information on homelessness and social exclusion;

(d) Setting out guidelines to the surveys: the annual surveys depend on the national requirements, which form the basis for setting out the guidelines to these surveys. In the scope of general censuses, the guidelines are set out through international recommendations. The challenges arising in connection with profound social and demographic transitions taking place in recent years must be reflected in plans and strategies developed by individual countries. Projections on the number of dwellings are indispensable for political decision-making, and the phenomena connected with housing and related fields should be subject to ongoing monitoring and analyses. Monitoring of such phenomena is thus one of the underlying tasks of official statistics;

(e) Taking into account the government institutions' demand for data in the field of housing statistics: housing is of crucial significance for the municipal, economic and social policy of all countries. The right to a home is provided for in the constitutions of many countries. Establishing the national/international strategy may contribute to an increased interest in these issues, which may, in consequence, lead to the conduction of more frequent and detailed surveys. In most countries, housing programmes encompass both governmental and private activities. The

data derived from a housing census are used by governmental authorities to conduct an analysis or to diagnose the housing situation. Housing conditions are analysed in quantitative and qualitative terms and data from previous censuses are used to indicate the changes in the housing situation that have occurred during the periods between censuses. As part of overall development plans, such an analysis is necessary for the formulation of national housing programmes and for their execution. Commercial users also study housing census data to assess the possible demand for housing as well as housing fixtures and equipment and household appliances. Reliable housing and building construction statistics are important in the formulation of National Housing Policy and programmes for improvement of living conditions of people, especially the needy poor;

(f) Problems related to information availability: the analyses of NSIs' websites have revealed the major difficulties while accessing data on housing. The most important difficulties for stakeholders are considerably delayed and irregular publications resulting in a lack of access to current data, as well as the lack of consolidated statistical materials, in terms of the subject matter, from individual countries, various sources of information on housing resulting in the lack of data comparability, lack of thematic databases and transparent websites, different quality of websites and high fees for data purchase. Data access should be improved by promoting the use of the Internet as a standard dissemination tool and the use of software tools such as Geographic Information Systems (GIS), which are designed to present data on small areas in an informative manner.

V. DIRECTIONS OF THE DEVELOPMENT

56. In conclusion, the following issues may need the attention of the international statistical community:

(a) Stronger integration between housing statistics and other fields of statistics: it is recommended that stronger integration is actively sought between housing statistics and other fields of statistics. Recent developments clearly indicate a need to liaise strongly with environmental and spatial statistics and, in the context of the urbanisation process, a stronger interrelation with social and other economic statistics. For example: it is of key importance to address the issues related to population ageing, closely connected to the availability of dwellings for young and older people, poverty and to survey the dwelling density (population rate);

(b) Good practice guidelines: production of annual housing statistics represents a primary output of NSIs but no international standards or best practices exist to assist countries in this field. At the international level, work could be considered to present possible options and good practices on data sources and statistical methods to produce good quality estimates. These good practices should deal with the most problematic issues. The development of international standards could be considered on how to define housing statistics and to enhance their comparability across countries;

(c) The better utilisation of Census: to some extent, current gaps in housing information may be met through sample surveys, existing data sources and administrative data. The better utilisation of Population and Housing Census data will provide a measure of regional housing

demand and, when integrated with administrative data related to health, income and other social issues, will enable a regional social policy analysis of homelessness, housing quality and the interaction with health and accommodation issues. Results from population and housing censuses are disseminated as two separate censuses which increases the resources needed for dissemination; there is still time to consider how to improve the dissemination of the data from the 2010 round of censuses;

(d) Closer cooperation between international organizations and UNECE: international frameworks and research will ensure comparable housing statistics and the adoption of international standards, classifications and definitions where appropriate. Ongoing investigation into various housing issues such as physical adequacy, housing structure, and affordability has been undertaken by international organizations. It is the intention to investigate the data availability from such organizations, utilise the information they provide and apply it in national statistical surveys programme and make maximum use of the global statistical infrastructure to improve housing statistics. There are a lot of other activities related to housing that are undertaken outside official statistics at national and international levels: ministries of housing, researchers, European Central Bank, etc. It will be helpful to make an inventory of these activities;

(e) Flash indicators: in order to remain relevant in this area, statisticians should look at what data can be produced in the short run to reflect the dynamically changing situation (housing prices, wealth, housing construction, use of housing stock);

(f) International analyses should be mainly directed not on examination of average data but examination of number of dwellings by the level of living conditions:

- (i) number of population living in good conditions;
- (ii) number population living in average conditions;
- (iii) number population living in bad conditions;
- (iv) number population living in very bad conditions;

(g) Take advantage of modern information technology (IT) tools: the best practices on the use of modern IT tools to increase the efficiency of data collection should be communicated. Surveying and collecting information through remote sensing in combination with observations as well as modern methods for estimations have proven to be important innovations that result in enhanced quality of housing statistics. The use of new technologies could contribute to improving housing statistics (e.g. geo-referencing, spatial data etc.). Reliable spatial data and technologies are needed to monitor and manage urban growth, maximize social, environmental, economic well-being and achieve important long-term goals related to quality of life;

(h) Access to microdata: the access to micro data for researchers is an important development to increase the value and the credibility of housing statistics.

57. It is recommended that the Conference:

(a) Organise an international task force to discuss close cooperation with international institutions and the most important steps that need to be taken to develop housing statistics world-wide;

(b) As housing is mainly a local issue, the focus of the task force should be not so much on developing international standards but on collecting good practices; it would be useful to have an international organisation to coordinate exchange of good practice, this would be especially useful for countries that are less advanced in housing statistics.

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