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**SEMINAR ON POPULATION AND HOUSING CENSUSES
SESSION I**

**Indicators for Millennium Development Goals (MDG) and population censuses in SEE and CIS
countries**

Note by the secretariat

I. INTRODUCTION

A. Purpose

1. The purpose of this paper is to show the importance of population censuses to provide the basic information needed to construct the indicators to monitor the Millennium Development Goals (MDG) in South Eastern Europe (SEE)¹ and the Commonwealth of Independent States (CIS)². The role of population censuses to monitor MDG is sometimes underestimated and the main objective of the paper is to argue that censuses are the backbone of the indicators derived by social and demographic statistics, especially in those countries with less developed statistical systems.

¹ SEE consists of Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The former Yugoslav Republic of Macedonia and Turkey.

² CIS consists of Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan and Ukraine.

B. The Millennium Declaration and the Millennium Development Goals (MDG) Indicators

2. In September 2000, 189 heads of State and Government unanimously agreed on the Millennium Declaration. On the basis of such Declaration, eight Goals were derived (the Millennium Development Goals-MDG) with the objective of stipulating quantitative reductions in the various dimensions of human poverty – ranging from hunger, disease and illiteracy to gender discrimination and environmental degradation. These reductions are to be achieved over a 25-year period, between 1990 and 2015. Since 2000, the targets set in the MDGs have become the centre of the national, regional and international development agenda.

3. The implementation of the MDG can be monitored in quantitative terms and much of the attention given to the MDGs comes from the power of quantification. For a regular monitoring of MDG at world level, there is a framework of 48 indicators.³ Based on these 48 indicators, the Secretary General produces an annual report on the status of implementation of MDG at global level.⁴

4. The framework developed at global level to monitor MDG is not always entirely relevant to monitor MDG at national level particularly for SEE and CIS countries. The recent history of the CIS and SEE region puts some constraints to the standard MDG framework. If, at global level, 1990 is considered as the baseline to set up goals and targets and to monitor progress, the same year signalled the transition period for many of the countries that became independent only shortly after. After 1990 the situation deteriorated rapidly on both economic and social development, and even if some of the indicators have started to reverse their trends, they still have not reached the 1990 level. In addition, the statistical standards used in 1990 were still based on the old system, which was not always in line with the international standards currently used by most of the same countries. Therefore, indicators measured today against the 1990 level do not always reflect the efforts made by the countries to recover from the decline and they may be affected by the use of different definitions and methodologies. For these reasons, many of the countries of the region have adapted the global monitoring framework to their national needs using in some instances different indicators.

C. Data sources for MDG indicators

5. The responsibility to monitor progress toward MDG lies primarily at national level. Many of the CIS and SEE countries have developed or are in the process of developing national mechanisms to regularly monitor the MDG. Country data should be used to compile the indicators that support these mechanisms. The data sources for each indicator should be decided by consensus amongst the key stakeholders including representatives of national statistical systems. The national statistical system should own the data and the related indicators. Examples of common data sources to be used to produce MDG-related statistics include: population and housing censuses, labour force surveys, multiple indicators cluster surveys, demographic and health surveys, living standard measurement study survey, household budget surveys, ad-hoc surveys (e.g. HIV/Aids, epidemiological surveys), administrative sources such as births, deaths,

³ A publication providing guidance on definitions, rationale, concepts and sources of data for each of the indicators was released in 2003 by UNSD: *Indicators for Monitoring the Millennium Development Goals*, United Nations, 2003, ISBN 92-1-161467-8.

⁴ http://unstats.un.org/unsd/mi/mi_goals.asp

health and education.

D. Description of Censuses of Population and Housing in the SEE and CIS countries

6. Nearly all countries in the SEE and the CIS conducted censuses of Population and Housing in the 2000 round. Exceptions are Bosnia&Herzegovina and Uzbekistan. The Republic of Moldova had the census in late 2004 while in Turkmenistan the last census was carried out in 1995. In few countries in the region there is the concern that population censuses did not cover the entire territory. Examples are: Transnistria for Moldova, and Abchasia and South Ossetia for Georgia. Kosovo has also been left out from the 2000 census round.

7. The United Nations recommends that every country conducts a population and housing census at least once every 10 years. In July 2005 the United Nations Economic and Social Council (ECOSOC) adopted a resolution⁵ urging “Member States to carry out a population and housing census and to disseminate census results as an essential source of information for small-area, national, regional and international planning and development; and to provide census results to national stakeholders as well as the United Nations and other appropriate intergovernmental organizations to assist in studies on population, environment, and socio-economic development issues and programmes”.

8. The object of a population census is to produce official statistics of the population of the country and its smallest geographical sub-territories together with information on a number of social and demographic characteristics of the population. The object of a housing census is to produce official statistics of all housing stock and their occupants in a country and its smallest geographical sub-territories together with information on a selected number of characteristics of housing. Collection methods vary. All CIS and SEE countries used a “traditional” approach using enumerators to fill out the census forms in the field. A common definition of a population and housing census can be found in the ECE region on the basis of the output produced rather than on the methodology used. The Conference of European Statisticians provides guidance and assistance to member countries in the planning and conducting of their population and housing census to facilitate and improve the comparability of the data at a regional level. Recommendations for the 2010 Censuses of Population and Housing will be submitted for adoption at the CES in June 2006.⁶

E. What a population and housing census can do for MDG indicators

9. Without information from Population and Housing censuses it will not be possible to construct many of the MDG indicators. While population and housing censuses have many advantages (e.g. accuracy, small area data, level of detail), one of their drawbacks is that they are generally conducted relatively infrequently. During the intercensal period it is necessary to update the information, particularly the population information using data from administrative sources or surveys.

10. The censuses assist in constructing the indicator data in a number of ways and these are

⁵ www.un.org/esa/coordination/ecosoc/

⁶ Conference of European Statisticians Recommendations for the 2010 censuses of Population and Housing, United Nations, Geneva, 2006 (forthcoming).

described below.

Primary data source

11. For some indicators the census may be the only source of data in some countries. An example of this is the ratio of literate women to men, 15-24 years, where for virtually all CIS and SEE countries the only source of literacy information is the population census. This is particularly important for this example, as education attainment is not considered a good proxy for literacy. Information about access to safe water and sanitation can also often be obtained only from a Housing census.

12. Some of CIS and SEE countries have only recently started to conduct labour force surveys (LFS) and few have yet not established a regular LFS programme. Therefore the 2000 round of censuses provided for some countries the only source of data for employment and unemployment necessary to construct indicators related to share of women in wage employment in the non-agriculture sector and youth unemployment.

Benchmark data

13. “The census is the unique basic source of benchmark demographic data, such as number of people by age and gender”.⁷ As the majority of the MDG indicators concerns people, then this means that the population census is a core component in the creation of the indicators. This benchmark data is also used for population figures in the creation of economic statistics such as National Accounts, which in turn contribute to some of the indicators. For a number of countries in the region, with high level of emigration the population census significantly rectified the population figures, finding a discrepancy between population estimates and census figures close to 10%.

Denominators for ratios

14. Many of the indicators are expressed as a proportion or percentage of either the total population or a sub group of the population. To illustrate, with just two examples. Goal 46 is “Proportion of Population with access to affordable, essential drugs on a sustainable basis” and goal 19B is “Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/Aids”. It is essential that reliable population and sub-population figures are available on a consistent basis across countries to ensure that the denominator is reliable when undertaking the calculations for these and other indicators.

15. The population figures invariably come from population censuses or intercensal estimates that are updates from the Population census. To illustrate the importance of this, it is the experience of a country in the region that the gross enrolment ratio in primary school increased in

⁷ Indicators for Monitoring the Millennium Development Goals, United Nations, 2003, ISBN 92-1-161467-8, page 101.

one year from 87% to 96% only because a census was carried out and the population figure could be rectified.

Sampling frame for surveys

16. Many of the indicators rely on official national surveys within the countries to provide the indicator data. An example of this relates to the indicator on share of women in wage employment in the non-agricultural census and the indicator on the unemployment rate of young people aged 15 – 24 years. Information about these subjects is often obtained from Labour Force Surveys. Labour force surveys, as other surveys used to produce MDG indicators, are carried out selecting a random sample of the population. The quality of the sample relies on the good coverage of the population framework used to construct the sample. The population census provides such a framework, thus it is an important underlying component of the accuracy of these surveys and therefore indirectly relevant to the MDG indicators themselves.

Data for small areas and small population groups

17. There is a growing interest for the monitoring of MDG targets at sub-national level: what occurs ‘on average’ at the national level, as reflected by country data, is not necessarily true for smaller geographical and population groups. Good quality information at detailed geographical level or for population groups based on gender, age or other variables such as ethnicity or religion, is not easily available. Surveys can not provide accurate data for small population groups given the limitations of the sample. Therefore the census is often the only statistical source for information disaggregated at a very detailed geographical level and for small population groups.

F. Data availability and quality to monitor MDG indicators

18. Over the last decade many efforts have been made by national governments and international organizations in order to increase the production and improve the quality of MDG-related statistics. In most countries of the region there is now a regular supply of statistical data to monitor social and economic development. However, according to a recent assessment on availability of MDG indicators carried out by the Statistical Division of ECE, it emerges that the availability of MDG indicators is still a challenge for CIS and SEE indicators. For example, on average SEE and CIS countries can produce one or more values for only about 52% of the MDG indicators.⁸ There are different reasons explaining the gaps:

- (a) lack of primary sources: this is the example for data on HIV/AIDS and other communicable diseases as well as for environmental statistics;
- (b) non-fully efficient use of available data: sometimes data to compute indicators are available, from household surveys or other sources, but the indicators are not computed;
- (c) some MDG indicators are not fully relevant for countries: in some cases countries do not produce some of the standard 48 MDG indicators because they do not address their needs. This applies for example to income poverty data based on international levels, for

⁸ Countries on average reported that they had no data available for 22% of indicators while they did not specify whether data were available or not for the remaining 28% of indicators.

which alternative indicators better suited to national situations and needs are often produced.

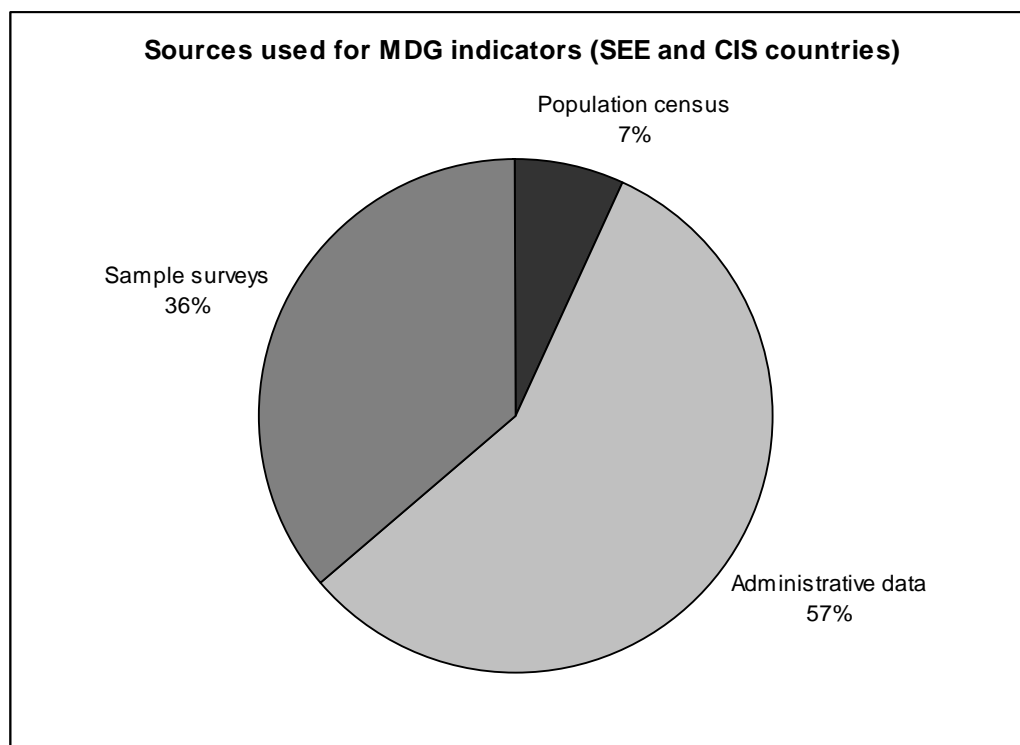
19. According to the data domain and country context, different sources are used to calculate MDG indicators:

- (a) administrative data, as in the case of enrolment or mortality data;
- (b) household surveys, as for poverty, unemployment and contraception indicators;
- (c) population census: typically for literacy and data on slums.

20. As shown in the graph 1, CIS and SEE countries predominantly use administrative data to produce MDG indicators, while sample surveys are utilized to a lesser extent and population censuses represent the main source only in a few instances. This reflects the particular nature of many MDG indicators, which are often based on registration systems as in the case of education and health, but also derives from the tradition of many countries of the region that heavily rely on administrative sources to produce statistical data.

21. In some instances, the use of administrative data poses problems of data accuracy. This kind of data depends on administrative processes and regulations and it often happens that concepts used in that context are not in line with statistical standards developed at the international level. Moreover there are problems linked to frequent changes in regulations and deterioration of operational infrastructures, which also undermine the quality of statistical by-products.

22. Most of the MDG indicators are rates and proportions and the source indicated by countries for the indicators typically refers to the numerator. The denominator is in most cases the total population or the total of a special population group and it does not appear in Graph 1. Since the population census is mainly derived directly or indirectly from population census data, Graph 1 underestimates the real use of census data to produce the MDG indicators (see paras.14-15).



23. From these considerations, it derives that in order to improve the availability and the quality of MDG indicators it's certainly important to increase the data production, especially in terms of household surveys and their frequency, but it's also crucial to make better use of existing data and improve their accuracy. For example, a careful assessment of existing administrative sources will determine to what extent they can be improved and whether additional sources should be developed. In any case, the data sources for each indicator should be decided by consensus amongst the key stakeholders, especially within the national statistical system.

24. The most efficient combination of statistical sources to produce MDG indicators will depend on individual countries' context, but in all cases the population census still represents the cornerstone of the statistical system. As it has been shown in the previous paragraphs, the population census is key to produce data and safeguard their quality. The role of the population census in producing MDG indicators is not always immediately apparent, but it can be argued that an effective MDG monitoring would not be sustainable without a regular and good quality population census since administrative data and household surveys would not be able to stand on their own.

II. CONCLUSION

25. If the population census is of importance to all countries in the monitoring of MDG, it is even more important for those countries that have less developed statistical systems. The population census directly provides the data for some MDG indicators and indirectly supports the data sources used to compute many other MDG indicators. Moreover the census often sets the standards for other data collections and can significantly assist in the improvement of the overall quality of the statistical system. As can be seen from the above examples, information from the population census is vital if the indicators for Millennium Development Goals are going to be effectively monitored.

Appendix

Millennium Development Goals and indicators

Goal and Target	Indicators for monitoring progress
GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER	
TARGET 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	<ul style="list-style-type: none"> 1. Proportion of population below \$1 (PPP) per day^a 1A. Poverty headcount ratio (percentage of population below the national poverty line) 2. Poverty gap ratio [incidence x depth of poverty] 3. Share of poorest quintile in national consumption
TARGET 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	<ul style="list-style-type: none"> 4. Prevalence of underweight children under 5 years of age 5. Proportion of population below minimum level of dietary energy consumption
GOAL 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION	
TARGET 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	<ul style="list-style-type: none"> 6. Net enrolment ratio in primary education 7. Proportion of pupils starting grade 1 who reach grade 5^b 8. Literacy rate of 15–24 year-olds
GOAL 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN	
TARGET 4 :Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	<ul style="list-style-type: none"> 9. Ratio of girls to boys in primary, secondary and tertiary education 10. Ratio of literate women to men, 15–24 years old 11. Share of women in wage employment in the non-agricultural sector 12. Proportion of seats held by women in national parliament
GOAL 4: REDUCE CHILD MORTALITY	
TARGET 5 :Reduce by two thirds, between 1990 and 2015, the under-five mortality rate	<ul style="list-style-type: none"> 13. Under-five mortality rate 14. Infant mortality rate 15. Proportion of 1 year-old children immunized against measles
GOAL 5: IMPROVE MATERNAL HEALTH	
TARGET 6 :Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	<ul style="list-style-type: none"> 16. Maternal mortality ratio 17. Proportion of births attended by skilled health personnel

<p>GOAL 6: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES</p>	
<p>TARGET 8 :Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases</p>	<p>21. Prevalence and death rates associated with malaria 22. Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures^e 23. Prevalence and death rates associated with tuberculosis 24. Proportion of tuberculosis cases detected and cured under DOTS</p>
<p>GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY</p>	
<p>TARGET 9 :Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources</p>	<p>25. Proportion of land area covered by forest 26. Ratio of area protected to maintain biological diversity to surface area 27. Energy use (kg oil equivalent) per \$1 GDP (PPP) 28. Carbon dioxide emissions per capita and consumption of ozone-depleting CFCs (ODP tons) 29. Proportion of population using solid fuels</p>
<p>TARGET 10 :Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation</p>	<p>30. Proportion of population with sustainable access to an improved water source, urban and rural 31. Proportion of population with access to improved sanitation, urban and rural</p>
<p>TARGET 11 :By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers</p>	<p>32. Proportion of households with access to secure tenure</p>
<p>GOAL 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT</p>	<p>Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked countries and small island developing States.</p>
<p>TARGET 12 : Develop further an open, rule-based, predictable, non-discriminatory trading and financial system Includes a commitment to good governance, development and poverty reduction – both nationally and internationally</p>	<p><i>Official development assistance</i> 33. Net ODA, total and to the least developed countries, as a percentage of OECD/DAC donors' gross national income 34. Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation)</p>

<p>TARGET 13 : Address the special needs of the least developed countries Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction</p>	<p>35. <i>Proportion of bilateral official development assistance of OECD/DAC donors that is untied</i> 36. ODA received in landlocked countries as a proportion of their gross national incomes 37. ODA received in small island developing States as proportion of their gross national incomes Market access 38. Proportion of total developed country imports (by value and excluding arms) from developing countries and from the least developed countries, admitted free of duty 39. Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries 40. Agricultural support estimate for OECD countries as a percentage of their gross domestic product 41. Proportion of ODA provided to help build trade capacity Debt sustainability 42. Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative) 43. Debt relief committed under HIPC Initiative 44. Debt service as a percentage of exports of goods and services</p>
<p>TARGET 14 : Address the special needs of landlocked countries and small island developing States (through the programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)</p>	<p>45. Unemployment rate of young people aged 15-24 years, each sex and total^f</p>
<p>TARGET 15 : Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term</p>	<p>46. Proportion of population with access to affordable essential drugs on a sustainable basis</p>
<p>TARGET 16 : In cooperation with developing countries, develop and implement strategies for decent and productive work for youth</p>	<p>47. Telephone lines and cellular subscribers per 100 population 48A. Personal computers in use per 100 population and Internet users per 100 population 48B. Internet users per 100 population</p>
<p>TARGET 17 : In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries</p>	
<p>TARGET 18 : In cooperation with the private sector, make available the benefits of new technologies, especially information and communications</p>	

Footnotes to table

^a For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.

^b An alternative indicator under development is “primary completion rate”.

^c Among contraceptive methods, only condoms are effective in preventing HIV transmission. Since the condom use rate is only measured among women in union, it is supplemented by an

indicator on condom use in high-risk situations (indicator 19a) and an indicator on HIV/AIDS knowledge (indicator 19b). Indicator 19c (contraceptive prevalence rate) is also useful in tracking progress in other health, gender and poverty goals.

^d This indicator is defined as the percentage of population aged 15-24 who correctly identify the two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), who reject the two most common local misconceptions about HIV transmission, and who know that a healthy-looking person can transmit HIV. However, since there are currently not a sufficient number of surveys to be able to calculate the indicator as defined above, UNICEF, in collaboration with UNAIDS and WHO, produced two proxy indicators that represent two components of the actual indicator. They are the following: (a) percentage of women and men 15-24 who know that a person can protect herself from HIV infection by “consistent use of condom”; (b) percentage of women and men 15-24 who know a healthy looking person can transmit HIV.

^e Prevention to be measured by the percentage of children under 5 sleeping under insecticide-treated bednets; treatment to be measured by percentage of children under 5 who are appropriately treated.

^f An improved measure of the target for future years is under development by the International Labour Office.

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