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Coordinating the international collection and dissemination of statistics: The case of the $Demographic\ Yearbook$

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Summary

With the increasing amount of collection and dissemination of statistics by international and regional organizations in recent decades, the burden on countries from receiving multiple requests for statistics has increased accordingly, resulting in their having to provide the same or similar statistics several times a year. These data collected by different organizations are eventually disseminated in different formats, often resulting in duplication of information accompanied by the duplication of costs for disseminating same information. Recognizing the need to establish and enhance the coordination between different organizations in the area of both collection and dissemination of statistics, the United Nations Statistics Division initiated a number of actions to lessen the burden of reply and to minimize the duplication in both data collection and dissemination. These efforts, for the *Demographic Yearbook*, in the area of data collection, were aimed at introducing joint questionnaires at regional level, and, in the area of data dissemination, in producing special regional *Demographic Yearbook* reports. The experiences, after a somewhat rough start, are encouraging for both of these sets of activities and with necessary adjustments; they seem to represent the proper approach for future enhancements in data collection and dissemination.

I. The need for coordination in collecting and disseminating statistics

- 1. With the increasing amount of collection and dissemination of statistics by international and regional organizations in recent decades, the burden on countries in terms of receiving requests for statistics increased accordingly, resulting in their having to provide the same or similar statistics several times a year. This practice triggered initiatives aimed at developing coordination mechanisms between international organizations collecting statistics. The United Nations Statistics Division, mandated by the United Nations Statistical Commission¹, undertook activities aimed at continuing to develop more efficient coordination in the phase of data collection.
- 2. Similarly, in the area of data dissemination at the international and regional levels, the lack of coordination often resulted in of presentation of statistics collected from national statistical offices at double the costs. In addition, depending on the validation procedures used by different data collectors and the level of detail of the meta-data provided to explain the statistics that are disseminated, the figures for the same topic (for example, total number of live-births) for the same country, would not be identical in two different international sources, adding to the confusion of users regarding the validity and accuracy of data.
- 3. The United Nations *Demographic Yearbook* has been a principal vehicle for collection and dissemination of demographic statistics since the late 1940s. The data collection largely² depends on three annual questionnaires on population estimates,

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¹ Report on the thirty-fourth session of the Statistical Commission, 4-7 March 2003, E/2003/24 and E/CN.3/2003/34, item 11 (c).

² Statistics are also collected from national publications and from official national websites.

vital statistics and migration, and three census questionnaires – on general characteristics, economically active population and households, that are dispatched after each national census took place. As for the dissemination, *Demographic Yearbook* is issued annually in hard copy and also features dissemination of special topics on CD-Roms and online.

4. The United Nations *Demographic Yearbook* system, in an effort to collect and disseminate population statistics in a most effective way initiated a series of activities to: (1) reduce the burden placed on national statistical offices, and (2) adapt the dissemination in such a way as to better meet the needs at regional levels, thus providing custom-made outlooks.

II. Data collection

A. Population estimates and vital statistics

- 5. In the area of data collection, the *Demographic Yearbook* took first step in improving coordination with other data collectors in the region of Europe and the Commonwealth of Independent States (CIS). Before 1999, approximately fifty national statistical offices in Europe and CIS region were receiving separate questionnaires from the *Demographic Yearbook* system, the Statistical Office of the European Communities (Eurostat) and the Council of Europe, dispatched at different times of the year. The questionnaires had a lot of similarities as well as differences: they requested the same or similar data, albeit at different levels of detail; and the classifications that were used were not harmonized: while one questionnaire would ask for population figures for single ages, the other would request the same data for five-year age groups. As the need for data on international level grew, so did the volume of some questionnaires, prompting a broad discussion in the United Nations Statistical Commission³ resulting in its decisions requesting that coordination between different data collectors at the international level be strengthened.
- 6. In this context, the United Nations Statistics Division's *Demographic Yearbook*, the Statistical Office of the European Communities (EUROSTAT) and the Council of Europe initiated a joint questionnaire that would meet the needs for population statistics of each of the partners. The first joint questionnaire was launched in 1999 for all European and CIS countries.⁴
- 7. The joint questionnaire is a combination of four different questionnaires: the *Demographic Yearbook* questionnaire on population estimates, the *Demographic Yearbook* questionnaire on vital statistics, Eurostat demographic questionnaire and the Council of Europe's *European Demographic Yearbook* questionnaire. It

³ Report on the thirty-fourth session of the Statistical Commission, 4-7 March 2003, E/2003/24 and E/CN.3/2003/34, item 11 (c).

⁴ The list of countries and sending organizations is attached in Annex 1.

consist of two parts, Appendix 1A and Appendix 1B.⁵ Statistics collected by the Appendix 1A covers the topics that are common to and are shared by all partners, and other organizations, such as, the United Nations Economic Commission for Europe and the International Labor Office. These data refer to total population by age and marital status, live births by data of birth, age of mother, sex, birth order, marriages by age of bride and groom, date, divorces by duration of marriage, deaths by age and sex and infant deaths.⁶

- 8. The other appendix, Appendix 1B, covers topics of interest to the *Demographic Yearbook*. It consists of two sheets: the first is from the *Demographic Yearbook* questionnaire on population estimates and the second from the *Demographic Yearbook* questionnaire on vital statistics. This questionnaire requests data on urban and rural distributions and detailed vital statistics.⁷
- 9. Both appendices are sent to countries by 15 July each year, requesting data for the previous year (with the exception of data on population by marital status, which are requested as of 1 January of the current year). The files are dispatched electronically to each of the countries and the replies are also provided electronically. The deadline for replying to the requests is set for 15 September.
- 10. Once received by Eurostat, Council of Europe and UN Statistics Division, 8 the replies are shared by the collecting agencies. Data from Appendix 1A are processed and disseminated by each agency, while statistics from the Appendix 1B are processed and disseminated by the *Demographic Yearbook*. Reactions from replying national statistical offices are positive and the coordination and resulting reduction in the filling of requests for data is appreciated. On the side of the collecting agencies, the arrangement required considerable amount of additional efforts involving converting files from different formats received as replies from countries, tackling the issues of changing coding schemes, developing *ad hoc* computer programs and procedures to capture data needed for maintaining their respective databases.
- 11. Despite the fact that there are several issues that need further discussion, like the issue of validation⁹ of data in order to avoid different figures for the same topics, the fact that the collecting agencies meet regularly once a year to discuss and enhance the process is ensuring the resolution of these outstanding issues. The experiences with this joint questionnaire are extremely valuable and represent a good model for approaching the issue of reducing the burden of reply to responding offices in other regions as well.

⁵ Both appendices are available in electronic format at: http://unstats.un.org/unsd/workshops/dyb.

⁶ For list of tables, see Annex 2.

⁷ For list of tables, see Annex 3.

⁸ See Appendix 1 for list of countries and collecting partners.

⁹ Presently, data are validated by each collecting agency, as per Appendix 1. However, the time needed for validation differs, and additional adjustments are necessary to meet the dissemination needs of each agency.

B. Migration statistics

- 12. In parallel with population estimates and vital statistics joint questionnaire, the United Nations Statistics Division (UNSD), Eurostat and Council of Europe tackled the collection of data on migration statistics. The *Demographic Yearbook* introduced its *Questionnaire on international migration and travel statistics* from the very beginning, in late 1940's.. Eurostat and Council of Europe initiated their collections at a later stage, on the basis of the United Nations recommendations for international migration statistics. Therefore, in 1999 a joint migration questionnaire started to be dispatched to European and CIS countries, very much like the joint questionnaire on population estimates and vital statistics.
- 13. The Statistics Division, in reviewing this joint questionnaire noted that it does not correspond completely to the revised *Recommendations on Statistics of International Migration*¹⁰. Consequently, UNSD undertook a work on developing a pilot questionnaire, based on the revised set of principles for statistics on international migration. At this moment¹¹, the questionnaire has been tested in 14 countries, and the technical report summarizing the findings of the test is being prepared. Plans for additional testing is also underway.
- 14. Upon completion of the report and the production of the final version of the questionnaire for the purposes of the *Demographic Yearbook* world collection, another round of coordination and harmonization of instruments with Eurostat and the Council of Europe will take place, ensuring that the European and CIS countries will receive only one request for international migration statistics that will meet the needs of all partners.

C. Statistics on economic activity of the population

- 15. Another example of coordination of data collection at international level refers to data on economic activity of the population. There are two basic sources of statistics on this topic: the population census and the labor surveys. While developing structures for collecting data at the international level, the two primary collectors of statistics on economic activity of the population, the United Nations Statistics Division, through the *Demographic Yearbook* system and the International Labor Office (ILO), designed a division of labor aimed at reducing the number of data requested from countries. The *Demographic Yearbook* collects data from censuses, through the *Demographic Yearbook* Population census questionnaire on economic characteristics, and ILO collects and disseminates data from labour surveys.
- 16. The *Demographic Yearbook* makes all the data from censuses available to ILO, as well as all other users, in formats suitable for their use. In addition, work is now

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¹⁰ United Nations publication, Sales no. E.98.XVII.14.

¹¹ Mid-October 2003.

underway to prepare the special issue of the *Demographic Yearbook* on population censuses, and ILO will participate in the process of validation of data on economic activity and providing meta-data to complement the figures themselves.

III. Data dissemination

- 17. Until recently the *Demographic Yearbook* dissemination consisted of the presentation of statistics at the international level, that is, for all the countries or areas of the world for which data were available. While comprehensive in scope and coverage, these presentations were not the most suitable for regional overview and comparisons. Consequently, the concept of special regional issues of the *Demographic Yearbook* was introduced in early 2002 with a main goal of producing custom-made overview of statistics for certain regions of the world, combining the regular tables of the *Demographic Yearbook* with the tables of the *Demographic Yearbook Special Topic on Fertility*¹².
- 18. The fist such issue was the *Demographic Yearbook Special Report on the Member Countries of the Caribbean Community (CARICOM)*, ¹³ prepared in March 2002. This issue was evaluated positively in the region, as being the first focusing solely on the selected number of countries. The selection of tables included the regular issue of the *Demographic Yearbook* and the tables from the *Demographic Yearbook* special issue on fertility.
- 19. In view of the reorganization processes taking place in the United Nations regional commissions, the Statistics Division initiated discussions with the Economic and Social Commission for Asia and the Pacific (ESCAP), during the preparation of the Fifth Asian and Pacific Population Conference, ¹⁴ regarding the preparation of the special regional *Demographic Yearbook* for Asia and the Pacific. The *Demographic Yearbook: Special Report on the Member Countries of the Economic and Social Commission for Asia and the Pacific*¹⁵ was presented as a contribution to the Conference.

IV. Experiences and the way ahead

20. As the need to closely coordinate the ever-growing requests for different statistics from national statistical offices has become more and more pressing, a number of activities aimed at reducing the burden of reply to countries have already been

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¹² Demographic Yearbook: Natality Statistics, United Nations Publication, sales no. E/F.02.XIII.6 (on CD-ROM)

¹³ United Nations publication, no. ST/ESA/STAT/118.

¹⁴ The conference was held in Bangkok, December 2002.

¹⁵ United Nations publication, no. ST/ESA/STAT/121.

initiated. It seems, from the experiences of these efforts, that the following points will define the work ahead:

- Coordination between collecting agencies at international level must increase, leading to two outcomes: less data requests reaching national statistical authorities, and more consistency in figures themselves, as same data are shared by several partners. The duplication of requests in population statistics that is still taking place will require that the *Demographic Yearbook* continue to track these duplications and take adequate steps to reduce them, in close cooperation with the regional and interregional bodies and agencies.
- The dissemination of statistics collected also requires coordination with regional organizations to better serve the needs of users at that level. The experiences with the special reports of the *Demographic Yearbook* were positive and these will be enlarged in scope, covering special topics as well as other regions.
- It has to be emphasized that coordination of data collection requires different and additional procedures regarding data processing and capturing applications and these requirements should be taken into account in the planning and implementation of joint data collection exercises.

V. Issues for discussion

- 21. The Expert Group Meeting may wish to discuss the following aspects related to the coordination of collection and dissemination of population statistics:
 - What are the other possible avenues to take to enhance the coordination at the international level?
 - From the perspective of the national statistical office, what are the major issues regarding requests for data from international organizations?
 - Are regional reports more useful for users at national level, compared with the world reports?
 - What are the experiences with requests for population data coming from UN regional commissions?

Annex 1. The list of countries and organizations dispatching the joint questionnaire

	Organization sending out the questionnaire		
	UN Statistics Division	Council of Europe	Eurostat
Albania			*
Andorra		•	
Armenia		*	
Austria			*
Azerbaijan		•	
Belarus		•	
Belgium			*
Bosnia and			*
Herzegovina			
Bulgaria			•
Canada	•		
Croatia			•
Cyprus			•
Czech Republic			♦
Denmark			*
Estonia			*
Finland			*
France			*
Georgia		•	
Germany			*
Greece			*
Hungary			*
Iceland			*
Ireland			*
Israel	•		
Italy			•
Kazakhstan	•		
Kyrgyzstan	•		
Latvia			*
Liechtenstein			*
Lithuania			•
Luxembourg			•
Malta			*
Moldova		*	
Monaco	•		
Netherlands			*

Norway			*
Poland			*
Portugal			*
Romania			*
Russian Fed.		*	
San Marino		*	
Serbia and			•
Montenegro			
Slovakia			♦
Slovenia			•
Spain			•
Sweden			•
Switzerland			•
Tajikistan	*		
TFYR of			•
Macedonia			
Turkey		♦	
Turkmenistan	•		
Ukraine		♦	
United Kingdom			•
United States	*		
Uzbekistan	*		

Annex 2. List of tables of the Appendix 1A of the Joint Questionnaire

Table	Title
number	
1	Total population by sex and age
2	Single (never married) population by sex and age
3	Married population by age and sex
4	Widowed population by age and sex
5	Divorced population by age and sex
6	Live birth by month and day
7	Live births by marital status, age and year of birth of mother
8	Live birth by sex
9	Live births by order, age and year of birth of mother
10	Marriages by month and day
11	Marriages by previous marital status of bride and groom
12	First marriages by sex, age and year of birth
13	Divorces by duration of marriage reached during the year
14	Total infant deaths by month of death
15	Infant deaths by age and sex
16	Deaths by sex, age and year of birth
17	Late foetal deaths by age of mother
18	Legally induced abortions by age of mother

Annex 3. List of tables of the Appendix 1B of the Joint Questionnaire

Table	Title
number	Chart 1 Danielation actions to
1	Sheet 1 – Population estimates
1	De facto population estimates by urban/rural residence
2	Estimated population by five-year age groups, urban/rural
3	Estimated population of the capital city and cities of 100,000 or more
	Sheet 2 – Vital statistics
1	Vital statistics summary by urban/rural
2	Live births by legitimacy and sex
3	Legitimate live births by duration of marriage
4	Live births by age of mother and sex of child for urban and rural
5	Legitimate live births by age of mother and sex of child
6	Live births by age of father and sex of child
7	Legitimate live births by age of father and sex of child
8	Live births by gestational age
9	Live births by type of birth (single, twin)
10	Total fertility rate and gross and net reproduction rates
11	Abridged life table
12	Complete life table
13	Deaths by age, sex and urban/rural
14	Deaths by age, sex and marital status
15	Deaths by age, sex and occupation
16	Infant deaths by age and sex
17	Late foetal deaths by age of mother and birth order
18	Foetal deaths by period of gestation
19	Legally induced abortions by age and number of previous live births
20	Marriage by age of wife and groom
22	First marriages by age of groom and bride
23	Marriages by age and previous marital status of bride and groom
24	Divorces by number of dependent children
25	Divorces by age of husband and age of wife
26	Divorces by duration of marriage and age of husband and wife