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Report of the Secretary-General

Summary

The present report, which was prepared in accordance with Economic and Social Council decision 2020/211 and past practices, presents activities carried out by the Statistics Division of the Department of Economic and Social Affairs of the Secretariat in the area of demographic statistics. It provides a summary of the implementation of the 2020 World Population and Housing Census Programme during the past year, with a focus on the adverse impact of the coronavirus disease (COVID-19) pandemic on the implementation of this Programme. It provides information on the implementation of the United Nations Legal Identity Agenda outlining the effects of the COVID-19 pandemic on the functioning of national civil registration systems and the production of accurate and reliable vital statistics. It also provides information on the Expert Group meeting on the United Nations *Demographic Yearbook* and its conclusions and recommendations. In addition, it provides information regarding the availability of the Manual on the Methodology to Delineate Cities, Towns and Rural Areas, a methodology endorsed by the Statistical Commission for international and regional statistical purposes.

The Commission is invited to take note of the report.

* E/CN.3/2021/1.



I. Introduction

1. The present report, which was prepared in accordance with Economic and Social Council decision 2020/211 and past practices, presents activities carried out by the Statistics Division of the Department of Economic and Social Affairs of the Secretariat in the area of demographic statistics, from March to December 2020.

II. 2020 World Population and Housing Census Programme

2. The 2020 World Population and Housing Census Programme was approved by the Statistical Commission at its forty-sixth session and endorsed by the Economic and Social Council in its resolution 2015/10. The Programme serves as acknowledgement that population and housing censuses are among the main sources of data for effective development planning and objective decision-making, in particular in the context of the 2030 Agenda for Sustainable Development. The Programme is aimed at ensuring that each Member State conducts a population and housing census at least once during the 2015–2024 period and disseminates the resulting census statistics on population and housing in as comprehensive and holistic a manner as possible.

3. During the discussion of the report of the Secretary-General on the implementation of the 2020 World Programme on Population and Housing Censuses at its fifty-first session in March 2020, before the World Health Organization (WHO) declared the coronavirus disease (COVID-19) as a pandemic, the Commission urged all Member States to conduct a population and housing census, or otherwise produce census-like small area statistics, at least once in the 2015–2024 period. It also requested the Statistics Division to undertake a number of activities in terms of complementing the existing methodological framework.¹

4. During March and April 2020, after COVID-19 was declared a pandemic, the Division launched a survey to assess the impact of the pandemic on the conduct of population and housing censuses planned for or started in 2020.² This survey was dispatched to 56 national statistical offices and replies were received from 43 offices (around 78 per cent). Out of these 43 replies, a sizable majority of 30 countries and/or areas reported that they are either postponing census activities or extending them. Thirteen countries and/or areas indicated that they either had already conducted the census data collection, that, at the time of reply (April 2020), they did not expect delays or that they relied on registers for producing census statistics.

5. At the beginning of November 2020, it was recognized that the pandemic continued to affect all regions at an increasing pace. Consequently, the Division developed a follow-up survey to acquire updated information from the first survey and also to extend it to countries or areas that planned to conduct their population and housing census in 2021. The results of this survey will be presented as a background paper to the present report.

6. Based on surveys and other documentation, as well as direct contact with the national authorities in charge of the population and housing censuses, it is evident that the pandemic is having a significant adverse impact on the conduct of the censuses. Data collection is being postponed; enumeration time has been extended sometimes to over six months; the need for protecting enumerators and respondents

¹ Please refer to the report of the fifty-first session of the Statistical Commission, decision 51/112, paras. (b), (c), (d), (g) and (h) (E/2020/24-E/CN.3/2020/37).

² The results of the survey are available at: <https://unstats.un.org/unsd/demographic-social/census/COVID-19/>.

has raised a number of issues such as availability of protective gear and interviewing while respecting social distancing; and questionnaires are being shortened. In addition to the negative impact from census postponements, the pandemic has made some segments of the population more difficult to enumerate. During periods of lockdown, travel restrictions and mandatory quarantines, students have left their place of education and workers have moved away from their workplaces. Countries plan the timing of the census to capture the maximum number of people at their place of usual residence. The pandemic has prompted changes to the expected location of large parts of the population, which is likely to negatively impact the quality of census statistics in the 2020 round of censuses.

7. Consequently, the Division organized an Expert Group meeting in December 2020 and January 2021 to document in a more comprehensive manner the consequences of the COVID-19 pandemic on the censuses in 2020 and will report on it in a background paper to the present report.

8. In terms of increasing the reach of the internationally recommended methodological framework, the United Nations Population Fund (UNFPA) provided funds for translating, editing and printing the Division's publications *Principles and Recommendations for Population and Housing Censuses, Revision 3* and the *Handbook on the Management of Population and Housing Censuses, Revision 2*, in French,³ thus enabling the planning of training workshops in francophone countries in Africa.

9. During the reporting period, the Division accelerated the work on the *Technical Report: Measuring Sustainable Development Goals Indicators Through Population and Housing Censuses and Civil Registration and Vital Statistics Data*,⁴ and conducted a series of webinars introducing the report at regional level with the Economic Commission for Latin America and the Caribbean (ECLAC) (22 countries, 57 participants, May 2020), the Economic and Social Commission for Asia and the Pacific (ESCAP) (38 countries, 80 participants, October 2020) and the Economic and Social Commission for Western Asia (ESCWA) (14 countries, 55 participants, November 2020). These webinars discussed the main roles of the population and housing censuses and civil registration and vital statistics data in estimating Sustainable Development Goals indicators for small geographic areas and disaggregation by a wide range of topics such as by age, sex, ethnicity, education strata, migratory and disability status. The webinars stressed the value of these sources in monitoring Sustainable Development Goals indicators at subnational level and analysing Sustainable Development Goals indicators by small population groups to examine disparities and identify vulnerable population groups.

10. The Division, together with UNFPA, the United States Bureau of the Census and the World Bank, is coordinating population and housing censuses-related activities through the International Committee on Census Coordination (ICCC) which is meeting at least twice a year.

11. The Division will continue, as in previous rounds, organizing virtual workshops to promote the international standards for population and housing censuses, strengthening national capacities to conduct a census or otherwise generate census-like small area statistics and support the monitoring of the implementation of the 2030 Agenda. Detailed schedules, subject matter and information on participating countries

³ Please see: https://unstats.un.org/unsd/publication/SeriesM/Series_M67Rev3fr.pdf, and https://unstats.un.org/unsd/publication/SeriesF/Series_F83Rev2fr.pdf.

⁴ Please see: https://unstats.un.org/unsd/demographic-social/census/documents/tr_on_sdg_in_phc_crvs.pdf.

and partners will be regularly posted on the website of the 2020 World Population and Housing Census Programme.

12. The Division will also continue to monitor, document and report on the impact of the COVID-19 pandemic on the conduct of the population and housing censuses in the 2020 round, as well as on its effects on the quality of resulting census statistics.

13. As the use of electronic devices for census and survey data collection increased significantly in the 2020 round of censuses, there is a need to focus more on paradata, described as information generated as a by-product of the statistical data collection process. Analysing paradata, for example, the geospatial information generated by the electronic device used for data collection in terms of the location of the enumerator, duration of the interview, or eye-tracking measures, keystroke or mouse-tracking in the case of Internet self-interview, can considerably improve the quality and efficiency of statistical data collection. Consequently, working with the Intersecretariat Working Group on Household Surveys, the Statistics Division will initiate methodology work in this field in terms of collecting national experiences and developing a technical report.

III. Implementation of the United Nations Legal Identity Agenda

14. At its fifty-first session in March 2020, the Statistical Commission endorsed the United Nations Legal Identity Agenda – a holistic approach to civil registration, vital statistics and identity management – as an expansion of the existing methodological framework for civil registration and vital statistics. It urged Member States to implement the Legal Identity Agenda as a matter of priority.⁵

15. In the context of implementing the Legal Identity Agenda after COVID-19 was declared a pandemic, the Statistics Division, as one of the co-chairs of the United Nations Legal Identity Agenda task force, launched a survey in May 2020 to assess the impact of the pandemic on the functioning of civil registration and the production of reliable vital statistics.⁶

16. In addition, a series of webinars were conducted by the Statistics Division in close coordination with international and regional partners, the Global Civil Registration and Vital Statistics Group, ESCAP, the Economic Commission for Africa, ECLAC, the secretariat of the Pacific Community, the Organization of American States and the Caribbean Community. The webinars were designed (a) as an introduction to the United Nations Legal Identity Agenda and international standards for civil registration and vital statistics and their implementation in countries/areas; (b) to address the impact on the operations and maintenance of civil registration and production of vital statistics in the time of COVID-19 pandemic; (c) to address the short- and long-term consequences on registration of vital events due to the pandemic; and (d) to address how, beyond the COVID-19 pandemic, to ensure universal civil registration of all vital events and production of comprehensive, reliable and regular vital statistics. These webinars took place between May and December 2020 with the participation of countries from the Pacific, Africa (anglophone and francophone countries) and Latin America and the Caribbean, with the participation of around 50 countries and/or areas and over 100 experts.⁷

⁵ Please refer to the report of the fifty-first session of the Statistical Commission, decision 51/113, paras. (a) and (b): ([E/2020/24-E/CN.3/2020/37](https://unstats.un.org/press/releases/2020/24)).

⁶ The results of the survey are available at: <https://unstats.un.org/legal-identity-agenda/COVID-19/>.

⁷ Please see: <https://unstats.un.org/legal-identity-agenda/events/>.

17. The results of the survey (see para. 15 above) and the documentation collected through the series of webinars (described in para. 16 above) on the impact of the COVID-19 pandemic on the functioning of civil registration and, consequently, on the production of vital statistics, provided two distinct perspectives. In a number of developing countries the functioning of civil registration was adversely affected as a result of instituted lockdowns, working from home, overall reluctance for registering the occurrence of vital events from fear of contagion and non-existence of digitized systems for civil registration that would eliminate the need for physical interaction. Consequently, the registration of births and deaths in those countries actually decreased in 2020 compared to previous years. In countries where the civil registration system was able to function properly during the pandemic a number of registered deaths increased significantly resulting in “excess deaths” owing to the COVID-19 pandemic.⁸

18. In December 2020, the Department of Economic and Social Affairs and WHO established a Technical Advisory Group on COVID-19 Mortality Assessment with a primary goal to advise and support WHO and the Department of Economic and Social Affairs in assisting Member States to obtain accurate estimates of numbers of deaths attributable to the direct and indirect impact of the COVID-19 pandemic. The Statistics Division and the Population Division, together with WHO, will serve as the secretariat of this Technical Advisory Group.

19. The Statistics Division continues to serve as the secretariat for the Global Civil Registration and Vital Statistics Group and maintains the accompanying website, which provides information on the activities of all the members of the Group relating to improving civil registration and vital statistics. The Group discussed various projects and programmes by members of the Group, ensuring a coordinated approach and the use of international standards and recommendations.

IV. United Nations *Demographic Yearbook*

20. The Statistics Division collects, compiles and disseminates annual official demographic and social statistics for all countries and areas of the world. The data are collected through a set of annual and census questionnaires dispatched to the national statistical offices. The data collected refer to population distribution and composition by several characteristics, including the population of cities and urban agglomerations, fertility, mortality, nuptiality, annual migrations flows, migrant stock according to the population censuses, household characteristics, housing characteristics, economic characteristic and levels of education. The traditional form of dissemination is the *Demographic Yearbook* collection, published annually since 1948.⁹

21. The entire *Demographic Yearbook* system is subject to technical scrutiny once every 10 years. The most recent overview was conducted by an Expert Group meeting on the United Nations *Demographic Yearbook* System, that took place as a virtual meeting, held in New York from 9 to 12 November 2020, with the participation of over 70 experts from 23 national statistical offices, as well as participants from international and regional organizations.

⁸ For a more comprehensive overview of the findings, please see: <https://unstats.un.org/legal-identity-agenda/documents/CR-ER.pdf>.

⁹ The *Demographic Yearbook* issues are available online at <https://unstats.un.org/unsd/demographic-social/products/dyb/index.cshtml>. Demographic data, especially population and housing censuses data are incrementally published online as well, through the UNdata portal at <http://data.un.org/>.

22. The purpose of the meeting was to solicit input and guidance from experts in bringing the *Demographic Yearbook* system up to date with contemporary approaches in terms of data collection, processing, validation and dissemination. The discussion topics included: (a) data collection and processing best practices; (b) population concepts and definitions used in the *Demographic Yearbook* system: improvement of related metadata; (c) vital statistics concepts used in the *Demographic Yearbook* system: improvement of related metadata; (d) creation of a contemporary dissemination portal for the Statistics Division demographic statistics, incorporating data and metadata dissemination; (e) the Statistical Data and Metadata Exchange (SDMX) as a data and metadata reporting instrument; and (f) the integration of statistical and geospatial information, more specifically exploring the possibility of collecting and disseminating georeferenced demographic data.

23. A list of conclusions and recommendations resulted from the meeting, which are presented in the annex to this report, with the aim of improving all the segments of the *Demographic Yearbook*, from collecting, processing, validating and disseminating data and metadata. The meeting participants also emphasized the critical role the *Demographic Yearbook* has as both the source of demographic statistics at the global level and as synoptic instrument that illustrates national capacities to produce basic population statistics.

V. Activities related to the methodology for delineation of urban and rural areas

24. The Statistical Commission, at its fifty-first session, endorsed the methodology for delineation of cities and urban and rural areas, while emphasizing that the methodology is not intended to replace national definitions of urban and rural areas. It also urged the release of the technical report on the implementation of the methodology for delineation of cities and urban and rural areas as early as possible.¹⁰ In compliance with this decision, the Manual on the Methodology to Delineate Cities, Towns and Rural Areas – a methodology endorsed by the Statistical Commission for international and regional statistical purposes, is submitted as a background document to the present report. This document has been principally designed as a practical guide for data producers, suppliers and statisticians so that they have the necessary information to implement the methodology and ensure coherence and consistency within their data collections and analysis.

¹⁰ Please refer to the report of the fifty-first session of the Statistical Commission, decision 51/112, paras. (i) and (j) ([E/2020/24-E/CN.3/2020/37](#)).

Annex**Conclusions and recommendations of the United Nations Expert Group meeting on the *Demographic Yearbook* system**

1. The Expert Group meeting was organized by the Statistics Division, Demographic Statistics Section and took place virtually from 9 to 12 November 2020. Over 70 experts from 23 national statistical offices took part, as well as participants from regional and international organizations. The meeting focused on the overall content and structure of the *Demographic Yearbook*, one of the oldest United Nations publications and data collection systems, as well as the collection and presentation of metadata, dissemination, use of Statistical Data and Metadata Exchange (SDMX) for reporting to the *Demographic Yearbook*; and the georeferencing of population statistics as an area of future development.
2. At the meeting, the importance of the *Demographic Yearbook* in terms of collecting, processing and disseminating a large range of population statistics on a regular basis was highlighted. It was reiterated that the *Demographic Yearbook* is also providing an accurate overview of national statistical capacities to produce comprehensive population statistics on regular basis and thus it also fulfils a synoptic function.
3. The Expert Group concluded that the meeting is taking place at an appropriate time, taking into consideration that countries are increasingly using multi-modal methodologies and techniques to collect and process statistics on population and that this has a peculiar importance in terms of interpreting and using *Demographic Yearbook* data.
4. At the meeting, the significance of reporting national population statistics to the *Demographic Yearbook*, as a long-standing, reliable and consistent vehicle for collection, processing and disseminating data at the global level, was highlighted. It was also noted that the *Demographic Yearbook* data collection relies on a set of questionnaires that are regularly dispatched to all countries and/or areas and their respective statistical authorities and it urged national statistical authorities to regularly fill these questionnaires and report data to the Statistics Division. In that context, the Expert Group noted that a sizable number of countries and/or areas (around 25 per cent of the total) has not reported a single figure to the *Demographic Yearbook* over the past six years. The Expert Group requested the Division to investigate this non-response and to undertake steps to significantly, if not completely, reduce it.
5. The Expert Group meeting also recommended that the Division focus on the analysis of the synoptic tables from the *Demographic Yearbook* in order to identify the tables with the lowest response rate and to assess the reasons for low completion in terms of users' needs, availability of requested variables at the national level and the overall rationale for collecting these specific statistics.
6. It was also noted that, due to the different arrangements in respect of collecting data for different areas of demographic statistics at the national level – oftentimes as a consequence of decentralized systems and procedures for reporting and compiling statistics at the provincial or similar level – the response time for replying to the *Demographic Yearbook* questionnaires is not completely sufficient and, therefore, the Division should consider extending it. Similarly, the Expert Group recommended re-visiting the spreadsheets used for data collection in terms of numbering, inserting formulas to check the validity of totals, taking into consideration that some totals may not match the sum of categories due to confidentiality protocols.

7. Focusing on compatibility between national and international statistics, the Expert Group concluded that all efforts should be made to ensure that, specifically, national population estimates correspond to population estimates produced at the international level. In that context, metadata are of particular consequence as they provide a more comprehensive understanding of the methodologies, definitions and coverage used for generating national population statistics.

8. Not in the context of the data collection for the *Demographic Yearbook*, yet in principle, the Expert Group noted that there are still occasions when the national statistical authority receives requests for the same or similar statistics from two regional or international agencies. In that context, national statistical authorities are exploring modernizing access to their data, by, for example, developing applications to allow direct access to national statistical databases.

9. In terms of statistics requested by the *Demographic Yearbook* questionnaires, the Expert Group concluded that, depending on national statistical systems, there are occurrences when statistics are not produced at all or are produced only for the population and housing census – for example, life tables, international migration statistics and population estimates. Furthermore, at the meeting it was highlighted that concepts used by the *Demographic Yearbook* do not always match national ones, for example the urban/rural dichotomy, or the definitions of cities and urban agglomerations. In that context, it was concluded that the Statistics Division should attempt to develop a set of guidelines – as a separate document – for filling *Demographic Yearbook* questionnaires.

10. It was noted at the meeting that the coronavirus disease (COVID-19) pandemic is having adverse effects on the functioning of civil registration and vital statistics and this will be reflected in the data submitted to the *Demographic Yearbook* for 2020 – hence, there might be a need for additional explanations and metadata that would elaborate on these occurrences and their interpretation (including delayed registration).

11. Turning its attention to the metadata collected and presented in the *Demographic Yearbook*, the Expert Group concluded that the current metadata classifications need to be updated based on the number of examples worldwide regarding the use of different approaches for producing small area census-like population statistics: a traditional census, a combination of the use of registers and full enumeration, a combination of registers and ad hoc surveys, using only registers, to name a few. Similarly, experts outlined the need to distinguish between different population bases, such as registered population, usually resident population and de facto (present) population. In terms of coverage of various populations, participants at the meeting outlined that this information is of particular importance, as certain population groups – for example, illegal, irregular or undocumented migrants – fall within the scope of the census, while others may not – for example, refugees and asylum-seekers living in camps.

12. Participants at the Expert Group meeting underscored that the *Demographic Yearbook* needs to ensure a more effective dissemination of all the metadata it compiles and it discussed the possibility and feasibility of extending the *Demographic Yearbook* metadata collection – in the case of population and housing censuses – on whether post-enumeration survey was conducted and, if so, whether the census results were adjusted accordingly, and to include information on intercensal and postcensal estimates in the metadata questionnaire. In the case of population estimates using the cohort-component method, a gold standard should be included in the list of methods for producing population estimates, including a number of innovative methods such as population registers and administrative data.

13. In the same context, participants at the meeting recommended that the Division explore the possibility of incorporating additional dimensions when it comes to certain metadata in the *Demographic Yearbook* vital statistics metadata questionnaire. Specifically, the completeness of registration of births and deaths should move from ranges to more specific numbers and this information regarding the completeness of death registration would significantly benefit from being disaggregated by sex and age, as registering deaths varies between different age and sex groups. Also, questions regarding the existence and depth of the legal framework for civil registration and vital statistics – one of the key components of the United Nations Legal Identity Agenda – should be considered for inclusion in the *Demographic Yearbook* metadata collection and dissemination.

14. At the Expert Group meeting, it was concluded that the footnotes and other metadata in the *Demographic Yearbook* are of particular value, especially from the point of view of the long time series maintained by the *Demographic Yearbook* system. For the sake of simplifying analytical work on both data and metadata, the experts requested that the Statistics Division explore the possibility of coding some of these metadata and attaching them to records, rather than displaying them as footnotes.

15. In terms of dissemination of demographic statistics in general, participants at the meeting concluded that it is imperative to develop interactive applications that would enable custom tabulations and mapping. These applications are proving to be a successful vehicle preferred by many users at national and regional level. The use of social media is also considered a very effective instrument to reach a broader audience.

16. It was noted at the meeting that a number of national statistical offices tailor their dissemination vehicles to the expected usership, with a different level of technical skills and interest being taken into consideration. Similarly, surveying users on a regular basis is another mode of understanding and learning their needs. It was also outlined that the principle of impartial dissemination – i.e. not having preferred users accessing statistics earlier than all the rest – contributes significantly to the credibility of statistical authorities.

17. A series of recommendations were made at the meeting, aiming at improving the dissemination of the *Demographic Yearbook* – the need to develop interactive tabulation and map builder, to institute a release calendar, to make customized spreadsheets available by theme, segment the users' base, moving away from portable document format.

18. One of the recommendations for the improvement of the *Demographic Yearbook* referred to exploring the possibility of adopting Statistical Data and Metadata Exchange (SDMX) for collection and exchange purposes, the Expert Group meeting focused on the use of SDMX in national and regional circumstances. The meeting concluded that a number of countries are developing and using SDMX for national purposes and are outlining its efficiency compared to previous procedures for communicating statistical data.

19. The experts noted that as SDMX is increasingly being implemented for the development of hypercubes that store and retrieve voluminous statistics, such as for population and housing censuses, the capacity and experience for its implementation at the national, regional and international levels was expanding, allowing for more statistical areas to be included.

20. In that context, the Expert Group concluded that the *Demographic Yearbook* needs to consider adopting SDMX standard for data collection and dissemination, especially taking into account the work already invested with Eurostat in building the

data structure definition for the joint Statistics Division/Eurostat data collection for demographic statistics. The meeting also noted that the Eurostat project in developing the SDMX platform for demographic statistics would represent a strong foundation for a possible implementation at the global level – yet, the meeting also noted that substantial additional work, especially in terms of SDMX capacity to effectively store and retrieve growing sets of metadata, would be required. the Statistics Division is also requested to develop specific activities in terms of implementations of the SDMX standard for population statistics at the national and regional levels.

21. Turning its attention to geocoding of population statistics, participants at the Expert Group meeting concluded that this is the next step that some of the national statistical authorities participating at the meeting already undertook and documented, setting the path forward and outlining the advantages. The Expert Group took note of the Global Statistical Geospatial Framework and its development in recent years. In that context, and also noting the increased coordination between statistical and geospatial authorities as documented during the proceedings, the Expert Group concluded that the *Demographic Yearbook* should closely monitor the production and availability of geocoded population statistics at the national level and develop advanced planning for incorporating, collecting and disseminating geocoded data, based on national and regional experiences, taking into full consideration the Fundamental Principles of Official Statistics in terms of confidentiality of individual records.
