Expert Group Meeting on Methods for the World Population Prospects 2021 and beyond
Population Division
Department of Economic and Social Affairs (DESA)
United Nations Secretariat
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Concept note

The United Nations population estimates and projections, prepared by DESA's Population Division since 1951 and presented in the flagship product *World Population Prospects* (*WPP*)[1], form a comprehensive set of demographic data to assess population trends at the global, regional and national levels. *The WPP* is widely considered to be the most authoritative dataset describing population levels, trends and characteristics. These data are used throughout the United Nations system for calculation of the development indicators that require population as input, including one-third of the indicators used to track progress towards the achievement of the Sustainable Development Goals. In addition to DESA's own products, several entities and organizations of the United Nations distribute the results of the WPP through their own databases and websites.

The 2019 revision of the *World Population Prospects* presents estimates and projections for 235 countries and areas. In preparing the WPP, the Population Division takes into account a large number of available data sources to derive consistent population estimates and demographic indicators, filling gaps in official demographic statistics for many countries or areas.[2]

The United Nations Population Division strives to make as transparent as possible the steps and processes involved in preparing the population estimates and projections, including by making publicly available the data, metadata and documentation to the greatest extent possible[3]. For example, the various empirical data sources used to revise national estimates are listed in the WPP documentation[4], and the WPP outputs offer a large set of population and demographic indicators[5].

Historically and through the 2019 revision, the population estimates and projections in the WPP were produced in a 5x5 framework. That is, populations were estimated and projected by five-year age group and for five-year periods of time. Any additional interpolations over time or age are done outside the cohort-component analytical framework, and are only computed for a subset of independent outputs. For the next revision in 2021, the WPP will be implemented on a true 1x1 cohort-component analytical framework, where population will be estimated and projected by single age and annual time period, and all the demographic balancing equation relationships will be preserved.

This transition will address the growing demand for annual population estimates and demographic time series as part of the evaluation of the progress toward the achievement of the Sustainable Development Goals (SDGs). In addition, the Population Division aims to be more transparent about the data, steps, procedures, methods and assumptions used in the WPP. This will facilitate constructive technical dialogue with Member States' national institutions, in particular with respect to the use of the various empirical data sources available, including national estimates. Moreover, this will ensure the production of international estimates followings international standards and the best analytical practices for demographic reconciliation.

[1] https://population.un.org/wpp/
[2] https://population.un.org/wpp/Publications/Files/WPP2019_Methodology.pdf
[3] https://population.un.org/wpp/Download/Metadata/Documentation/
[4] https://population.un.org/wpp/DataSources/
[5] https://population.un.org/wpp/Download/

It is expected that the new framework will help reduce differences between national estimates of key development indicators and those produced by international agencies, especially for countries with more reliable data. Furthermore, such a change will contribute to move the WPP towards compliance with the Guidelines for Accurate and Transparent Health Estimates Reporting checklist (GATHER)[6] to assure greater transparency and reproduction of the results for global health statistics.

In order to achieve its objectives for *World Population Prospects 2021*, the United Nations Population Division is organizing a virtual expert group meeting on "Methods for the World Population Prospects 2021 and beyond" that will consist of 3 sessions between 6 and 8 April 2020.

The purpose of the meeting is to bring together experts to discuss and share experiences in the use of methods to develop robust annual times series of various demographic indicators (child, adult and old-age mortality, fertility, migration) and eventually incorporate uncertainty in population estimates, produce models to derive abridged and complete mortality and fertility age patterns, and reconcile the various demographic components of change to reconstruct coherent populations by age, period and cohorts from 1950 to 2020.

The meeting will be organized around sessions focusing on several methodological choices the United Nations Population Division needs to make to produce the *World Population Prospects 2021*. Among the core issues to be addressed during the meeting are the choice of the most appropriate methods available to model robust annual time series for mortality and fertility indicators; the evaluation and modelling of adult mortality in countries with deficient or lacking vital registration systems; the modelling of abridged and complete age patterns of mortality and fertility; and the best practices for population reconciliation and demographic balance.

Participating experts will be requested to comment on these issues, share their experiences with the application of different methods that address these points, and provide further methodological insights on how to address best any remaining challenges. Potential avenues for cooperation will be discussed and appreciated.

[6] http://gather-statement.org/