

SUMMARY

Ukraine has not conducted a population census since 2001 and the United Nations fully supports efforts of the Government of Ukraine (GoU) to complete one at the earliest possible date. Accurate and reliable disaggregated data on population quantity, geographic distribution and main socio-demographic features is of critical importance for evidence-informed policy and decision making. Results from four tested methodologies highlight the benefits of a traditional census in the current socioeconomic context:

- At this time only a traditional census can generate the granular and reliable data to produce good quality population statistics, measure government agreed SDG indicators, and ensure fair and efficient resource allocation in line with GoU decentralisation plans.
- Only such data complies with international standards, thus ensures international and domestic recognition and convergence in line with the EU Association Agreement.
- Only a traditional census takes accurate account of marginalised members of society and internally displaced people and the extent of in- and outward migration.
- Potential savings now must be weighed against possible fiscal burdens later, especially when costs can be distributed over a five- or ten-year period.
- The use of modern data collection technologies in a traditional census, such as online self-census, tablet-based software, may significantly reduce the enumeration and data processing cost and improve data quality.
- A traditional census supported by an awareness campaign can serve as a 'national project' and so strengthen national identity and citizen engagement.
- The time in the run-up to the 2030 round of censuses can be utilised to prepare for a more cost-effective register-based census.

OVERVIEW

The UN provides well-defined principles and recommendations for a population and housing census. The UN DESA Statistics Division describes a population census as the process of planning, compiling, evaluating, disseminating and analysing demographic, economic and social data collected at a well-defined point of time pertaining to all persons of a country or well-delineated part of it. Its key features are the universal but separate and confidential enumeration of each individual within a given household, commonly at their place of usual residence. As per accepted international standard, censuses take place in ten-year intervals, unless the rapidity of major population changes demand otherwise. Reliable, comprehensive data provides the core of a national statistical system. It is an essential tool to allocate public and private funds and benefits economic growth. A 2019 evaluation by the Australian Bureau of Statistics of the Australian Census found that every \$1 of census cost generated \$6 of economic value. Accurate data provides the basis of political and administrative boundary delineation which impacts the assignment of political representation. And it permits comparison between domestic administrative units and international benchmarks and indicators.

There are 3 census methodologies in use today:

1. A traditional census collects data via house-to-house visits and interviews.
2. A register-based census collects data from well-developed administrative population, tax, housing, business, health, social security and employment registers that are linked and cross-referenced on individual record level. While the use of this method is growing, only 9 of the 54 UNECE countries exclusively relied on registers in 2010.





3. A big data census employs different data sources and collection methodologies in one census exercise, which includes information from population surveys, registers, and lately big data sources from commercial activities, retail and payroll transactions, phone records, satellite imagery and geo-positioning tools. The UN Working Group on Big Data reaffirmed its role in modernising statistical offices, yet, there remains caution concerning data source, bias and reliability, and the reliance on commercial providers. The UNFPA regards satellite imagery and geo-positioning tools as only complementary to other, well-established methods in providing estimates and modelling techniques for areas enumerators cannot go.

Ukraine conducted its last census in 2001, the first time since 1989 and since independence, resulting in a population count of 48 million. Ukraine was world-wide one of the few countries not participating in the 2010 round of censuses and currently only estimates a population of 41.6 million. While adhering to the highest methodical standards, issues relating to periodicity and data sourcing have adversely affected the country's World Bank statistical capacity score.

The GoU has made the next census one of its priorities and has tested four methodologies. Firstly, in December 2019 the State Statistics Service of Ukraine (SSSU) conducted a traditional 10-day field and secondly, a 24-day online census in the Obolon district of the city of Kyiv and the Borodianskiy district of Kyiv oblast. The area covered – according to territorial community and other registers – approximately 34'000 people in close to 16'000 dwellings. Three-quarters were located in urban areas selected for their challenging enumeration terrain of low- and high-rise, commercial, residential and mix-purpose buildings. A nation-wide traditional census requires the largest logistical and operational effort with an estimated 98'000 enumerators trained, equipped and deployed. The SSSU estimates a traditional census will cost UAH 3.5 billion and planning and execution may push the census towards a still acceptable 2022 or 2023 date. But the traditional pilot census also revealed some crucial findings. The actual resident population counted was lower by 17.5% in urban areas and 10.5% in rural areas than corresponding territorial communal register and available SSSU data implies. Moreover, participation rate was high with an average of 71%, the rate of respondents refusing to answer below 5%, especially considering the absence of any awareness campaign. Those who volunteered providing answers at census stations reached between 3% and 7.4%. Overall numbers indicate a general enthusiasm to participate in this exercise.

Thirdly, in January 2020 the SSSU tested 3 combined methods of population estimation. Different data configurations included records of phone numbers and sim-cards in use, mobile phone prevalence within age groups and regions, and extrapolated figures on gender and age structure drawn from SSSU statistical data, the Compulsory Social Insurance and Individual Taxpayer registers. The traditional pilot census, however, already revealed concerns over the completeness and accuracy of those registers. Fourthly, in Jan-Feb 2020 a two-months mobile-phone population estimate was conducted. Here, reliability problems arose from the difficulty to untangle the number of phone owners and actual devices, to count residents in neighbouring territories using the same base-station, and to disaggregate user-information beyond their territorial distribution. Crucially, combined and mobile phone-based methods may still omit those members of the public without mobile phone and limited societal interaction and would not track significant migratory movements.





SUSTAINABLE DEVELOPMENT GOALS

Ukraine has a total of 86 SDG targets, and the harnessing of accurate data to generate metrics used in SDG indicators is a key instrument to measure progress. Ukraine's Government has adopted a new five-year action plan with the ambition to measure performance against concrete indicators. In the case of Ukraine almost 70 SDG indicators, concerning, among others, poverty reduction, good health and well-being, quality education, gender equality, economic growth, the reduction of inequality and the building of strong institutions, are based on and are evaluated against a population count that is disaggregated by type of residence and/or gender and age. These indicators provide the very foundation of developing and aiding policies and programmes and accordingly direct geographic- and people-based resources expediently and with precision to achieve sustainable social and economic development, and provide equity ensuring that no one is left behind.

POLICY CONSIDERATIONS

- Mobile phone-based data estimation is cost- and time-efficient. In Ukraine, for example, mobile phone operators provided data at no charge and the Jan-Feb 2020 population estimate was completed within two months. However, such data can only complement other reliable sources of data, such as accurate and up-to-date registers and satellite imagery, that can be cross-referenced to arrive at a reliable population count.
- Combined public and available satellite imagery, and mobile phone- and register-based data can be used to develop algorithms to more accurately estimate population counts for the whole of Ukraine, including Donbas and Crimea.
- A register-based census is not feasible at this stage, because the country does not have a system of administrative records that would render this method reliable. However, the UNFPA together with the SSSU is launching a line of work to prepare the country for such a census by 2030. Here, especially the improvement of the Electoral register provides a solution, also in light of upcoming local elections.
- A traditional census provides the accurate and reliable data required, but there have been government concerns over higher costs associated with this method. It should be noted that only a 1% deviation in the current GoU annual budget of UAH 1,095 billion by far exceeds the estimated traditional census costs. And, in order to alleviate budgetary pressure within a single year, accepted international standards allow for a rolling census to be held over a period of 5 years, distributing costs over the duration. A rolling census would either enumerate in detail 20% of the territory every year for 5 years, or would conduct a basic population count in year one, and more specific surveys in the following 4 years. It should be noted that only France has so far conducted a rolling census. Moreover, this method demands a high degree of organisational capacity, and still requires budget commitment and planning security over the duration.
- With regard to the COVID-19 outbreak, the United Nations does not recommend cancelling census operations where there are at an already advanced preparation stage, or in general changing the selected census methodology. However, postponement of census operations is possible, but only until the COVID-19 pandemic is under better control. Major governments tasks include census contingency planning, ensuring the security and continuity of census funding, the security and functionality of logistical chains, and the safety and security of both census personnel and the population to prevent Covid-19 transmission.

