

UNFPA Strategy for the 2020 Round of Population & Housing Censuses (2015-2024)



**BECAUSE
EVERYONE
COUNTS**



UNFPA Inter-Divisional Working Group on Census
(IDWG-Census)

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1. Introduction

The population and housing census is among the most complex and massive peacetime exercises a nation can undertake. It requires mapping the entire country, mobilizing and training a large number of enumerators, conducting a public advocacy campaign, canvassing all households, compiling vast amounts of data in paper or electronic form, and analyzing and disseminating data. By definition, *a population and housing census is an enumeration of the total population of a country, which provides data on numbers of people, their spatial distribution, age and sex structure, their living conditions and other key socioeconomic characteristics*. Such data are critical to national and sub-national development planning, tracking progress for the Sustainable Development Goals (SDGs), the distribution of infrastructure and social welfare programmes, election planning and market analysis. While national registry systems are evolving world-wide, and in some countries replacing reliance of population and housing census, for the majority of countries the population and housing census remains the primary source of data on the size and spatial distribution of the population and its related characteristics, and the central role of census within national data ecosystems is likely to remain for the foreseeable future.

The 2010 round of population and housing censuses (censuses conducted between 2005 and 2014), had the largest global coverage to date. Approximately ninety-three percent of the world population was covered, across 214 of 235 countries territories and areas. Only twenty-one countries territories and areas, mainly in Africa (eight) and the Arab States (six), did not participate [1].¹ This coverage represented a major improvement over the 2000 census round, when twenty-six countries, territories, or areas did not conduct a census.

Conditions of war, civil unrest, or inaccessibility can compromise the coverage of a population and housing census. Innovative modeling approaches to generate population estimates are gaining increasing attention for use in such conditions. Modelling techniques that integrate satellite imagery, remote sensing, micro-census and survey data offer promise for closing coverage gaps, by enabling governments to estimate basic population parameters from partial data. These developments are important for estimating population numbers, but do not replace the comprehensive data on population characteristics that are generated by a traditional census.

¹ United Nations. Statistics Division. 2010 World Population and Housing Census Programme. Available from: <http://unstats.un.org/unsd/demographic/sources/census/wphc/default.htm>

Since its inception, one of UNFPA's core mandates has been to strengthen national capacities to ensure that population and housing censuses are of high quality and uphold international principles and standards. With programme presence in 155 countries, UNFPA provides robust and widespread support to governments for national census planning, implementation, and use of the resulting data. Institutional support includes capacity strengthening for the use of census data to track national and sub-national population dynamics, as well as spatial and social inequalities in development, including indicators for the Sustainable Development Goals (SDGs) and the Programme of Action of the International Conference on Population and Development (ICPD). Population data are needed for 98 SDG indicators.

During the 2010 census round, UNFPA provided support to 135 countries, including 122 countries through, *inter alia*, technical assistance; capacity strengthening; procurement of equipment or services; financial and operational support; coordination and management of financial resources for the census on behalf of partner governments; and facilitation of South-South cooperation.

UNFPA's Strategy for the 2020 Census Round has been developed from a critical analysis of lessons learned during the 2010 round and in response to new global development frameworks. The strategy focuses on strengthening national capacities to generate, analyze, disseminate and utilize high quality, timely, relevant, and disaggregated geo-referenced census data to inform, implement, monitor, and evaluate sustainable development policies, plans and programmes for the public good.



2. Context of the 2020 Round

New Development Frameworks

The 2020 census round (2015 to 2024) is being undertaken in the context of new commitments to identify and redress inequalities between and within countries, across a wide range of development indicators. The twenty year review of the International Conference on Population and Development (ICPD) in 2014 [2], including its regional reviews, identified that progress towards the Millennium Development Goals occurred against a backdrop of highly unequal achievements, with persistent (or worsening) inequalities at sub-national level in a range of countries.

The ICPD beyond 2014 key areas for future action called for greater attention to redressing inequalities in development and more systematic attention to under-served populations; good governance and systems of accountability to ensure that quality data and knowledge are accessible to the public and all decision makers; and use of data on population dynamics to guide and target development investments. Echoing this attention

to inclusive development, the 2030 Agenda for Sustainable Development, adopted by United Nations (UN) Member States in 2015, placed the highest priority on ensuring that “no one is left behind”, and “serving first those furthest behind”. In the 46th session of the UN Statistical Commission in 2015, the UN Secretary General requested a joint effort of the UN Statistics Division (UNSD), UN sister agencies, and international and regional development organizations to enhance technical assistance to National Statistical Offices (NSOs) to strengthen capacities to implement the 2020 round of Population and Housing Censuses as a fundamental priority for achieving sustainable development and the 2030 Agenda.

To meet this mandate and to address the ICPD beyond 2014’s key areas for future action, national data ecosystems need to be supported and further strengthened. The population and housing census underpins national data ecosystems, providing population denominators for SDG indicators, and the master sampling frames for all national and subnational surveys. In addition, the demand for disaggregating all SDG development indicators by strata such as migration status and disability, call for the inclusion of related census questions.

Funding Challenges

A review of the 2010 census round by the UNSD and the US Census Bureau (USCB)², determined that census cost was the most commonly reported challenge for governments (sixty-seven percent). As countries strive to meet the requirements of timely production of high quality census data, they need to invest in new capacities and technologies. For instance, there has been a gradual transition towards increased use of administrative data systems to complement the traditional census, and potentially reduce census cost. The 2000 and 2010 rounds saw a decline in the number of traditional censuses from thirty to twenty-four in the Europe and Central Asia region, and a corresponding increase from nine to nineteen in the number of censuses using either registry data alone or in combined methodologies. While this transition provides a more sustainable modality of census taking, with eventual cost-savings, substantial system-wide investments in the coverage, quality and coordination of registry data are required for successful implementation.

Furthermore, the review determined that funding challenges typically stemmed from conceptual and operational issues. Traditional population censuses have historically been implemented as a government project, not as an integral part of the national statistical data system. One implication of this is that the funding of census – by national

² United Nations. (2012) Report of the United States of America on the 2010 World Program on Population and Housing Censuses. E/CN.3/2012/2. Available from: <http://unstats.un.org/unsd/statcom/sc2012.htm>

budget allocation or by donor support – is not guaranteed long in advance, but demands rapid execution once allocated, contributing to insufficient planning and testing of census operations. In addition, the funding of a census characteristically focuses on the most expensive components, particularly fieldwork and data processing, with relatively minor priority and/or budget allocated to census publicity, dissemination, and use of census. During funding shortfalls, these areas tend to be reduced or cut.

National Capacity Gaps

Frequently, NSOs in developing countries experience high turnover and low retention of qualified technical staff throughout the census lifecycle. Historically, constrained capacities have contributed to reduced operational planning, delayed release of census results, and limited in-depth analysis and/or utilization of data. Capacity limitations constrain the potential outputs by NSOs as the focus becomes solely on data collection, and the data processing required to generate a primary census report. Staff capacity limitations too often result in the implementation of a census without a dedicated and budgeted strategy for full processing, analysis and dissemination. These limitations hinder the full exploitation of census data, and the potential for integrated use of census with household surveys, civil registration and vital statistics data by independent analysts, local planners and public activists, as data may not be adequately processed for public release.

Innovative technologies have begun to address these capacity concerns by creating mechanisms to modernize census operations and provide automated feedback and quality control systems, especially within the field operations and data collection phase. For example, use of satellite imaging for cartography can reduce the time required for census planning, and use of modern hand-held devices for data collection can allow remote tracking of enumerators in the field. However, such modern and innovative systems require up-front investments in new technical capacities that may be beyond the scope of NSOs. As innovative approaches are adopted for census, there must be corresponding investments in national capacities in information technology, internet coverage, and the full use and interpretation of GIS data.

Emerging Technologies

The 2010 census round pioneered a wide variety of technology solutions for census data collection, analysis and dissemination. These solutions ranged from the use of the internet, laptops, hand-held or tablet computers, Geographic Information Systems (GIS), and scanning and recognition systems. Countries reported that the benefits of automated technologies included improvements in the quality of data capture, timely data

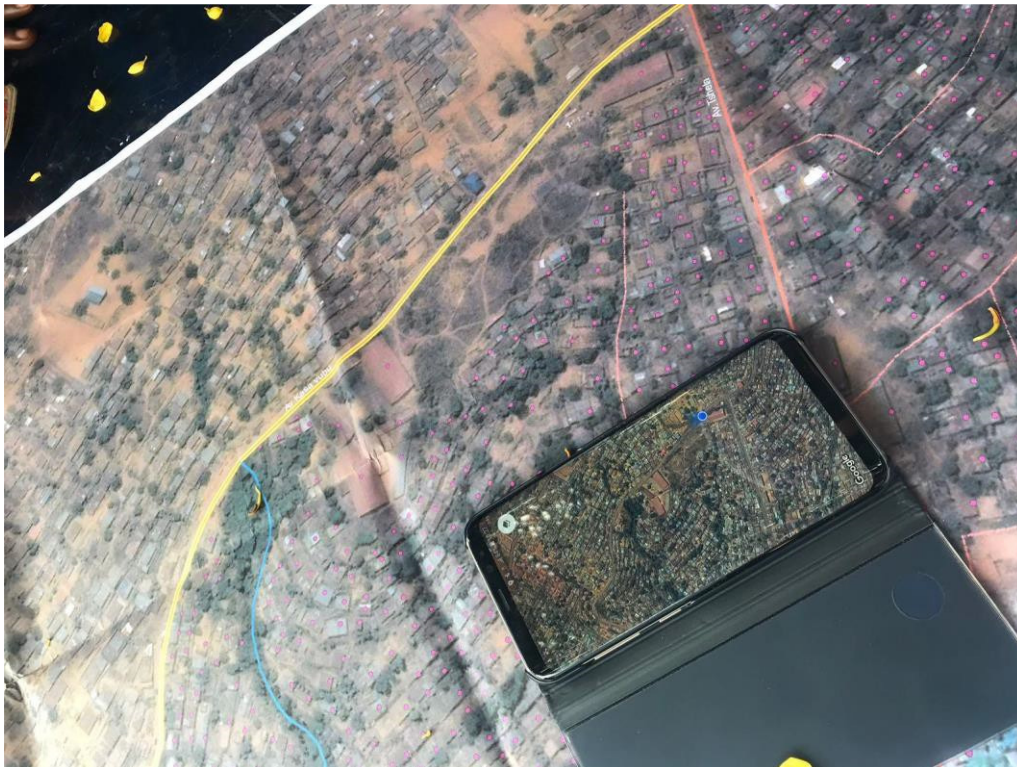
dissemination, and reduced costs of field operations.³ A majority of countries that used paper questionnaires in the 2010 round are now planning to incorporate hand-held digital devices, laptops or the internet in their 2020 census.



Enumeration area (EA) and household mapping techniques have progressed from cumbersome paper lists to integrative methods using GIS, the global positioning system (GPS) and digitized maps. Data capture has evolved from the manual keying-in of data to the use of scanning technologies with imaging and paperless capture via electronic questionnaires. Census data processing has evolved to include advanced analysis techniques and visualization software, electronic dissemination platforms and interactive web-based tools for dissemination and analysis. Adoption of such emerging technologies requires robust up-front investments at the level of the NSO and the international statistical community throughout the 2020 census round. Flexibility and willingness to embrace change will be required for the successful utilization and integration of these innovative techniques.

³ United Nations. (2012) Report of the United States of America on the 2010 World Program on Population and Housing Censuses. E/CN.3/2012/2. Available from: <http://unstats.un.org/unsd/statcom/sc2012.htm>.

New and emerging technology solutions for census provide ample opportunities to improve the quality, cost effectiveness and timeliness of the census operation. In order to capitalize on these technology solutions, NSOs must make timely, strategic choices to adopt context relevant solutions. Potential areas of concern during these decisions include whether or not the government has staff to support the adoption of modern methods, and the adequacy of ICT (Information and Communication Technologies) infrastructure and connectivity. The international statistical community must be prepared to support the selection of optimal technology solutions, when necessary, for each individual context.



Multi-partner Landscape

The multi-partner nature of technical and financial support for the successful implementation of population and housing censuses in countries requires meticulous coordination. Based on the 2010 round, coordination at the global, regional and national levels could be improved to ensure effective and efficient technical and financial support. Strategically, broader partnerships that include NSOs, national mapping agencies, satellite imagery providers, GIS specialists, etc. should be assembled as innovative methods are adopted and implemented.

The Report of the United States of America on the 2010 World Programme on Population and Housing Censuses to the 43rd session of the Statistical Commission noted that a critical element in the success of the World Census Programme was country collaboration, in cooperation with the UN, its regional commissions and other intergovernmental organizations.⁴ The exchange of information and scientific and technical expertise was highlighted as critical to strengthening future census-taking and use of results. Furthermore, regional institutions are uniquely positioned to identify and maximize the resources within a given region. Utilizing existing regional resources can reduce costs, increase capacity and provide solutions that are appropriate to the regional context.

Emerging from this report, the UN was tasked to increase opportunities for countries to exchange information on their experiences; to promote the full range of possible census methods; and to provide guidance, when appropriate and based on country contexts, to choose the most applicable method(s) and technology options. Critically, South-South collaboration and triangular cooperation must be advocated for to provide effective opportunities for experience sharing and lesson learning between countries. The south-south collaborations increase the regional fund of knowledge and ensure that any potential mediating efforts are implemented within similar environmental contexts, often improving chances of success. The UN and partners must also prioritize compliance with UN Principles and Recommendations for Population and Housing Censuses.

Increased Insecurity and Instability

Insecurity and instability pose grave threats to the implementation of a traditional census, as both can severely restrict physical access for the requisite data collection and also because unplanned mass movements of a population undermine reliable planning, cartography, and operations. Population instability and mass movements can arise from a variety of circumstances, such as acute social or political conflicts or environmental events, or from more sustained complex humanitarian emergencies. As the 2020 census round progresses, countries experiencing or at risk of experiencing such emergencies require ongoing evaluation in order to ensure relevant support. In addition, neighboring countries require increased monitoring, as conflicts can shift and cross borders. Preventing a partial or incomplete census is paramount to UNFPA's census strategy.

Furthermore, humanitarian emergencies create complex environments where the demand for population data is high, while simultaneously hindering the collection of such data. Data collection plummets when access is limited, and existing data systems can be

⁴ United Nations. (2012) Report of the United States of America on the 2010 World Program on Population and Housing Censuses. E/CN.3/2012/2. Available from: <http://unstats.un.org/unsd/statcom/sc2012.htm>.

destroyed. Decision makers implementing humanitarian interventions require timely, reliable and relevant data, and all interventions are at risk when the requisite data on affected populations cannot be located, generated or estimated.

Political and social crises can also affect the acceptance of census results. As the 2020 round progresses, investments must be made throughout the management and planning phases to ensure that the produced results are deemed credible and widely accepted. This is critical as statistical capacity typically erodes throughout political crises, as depleted resources or violence lead to reductions in staff across government, including NSOs. Infrastructure, IT and communication networks can also be damaged or exploited, reducing access to existing population data or the generation of new data.



3. Lessons Learned from the Independent Evaluation of UNFPA Support to the 2010 Census Round

An independent evaluation was conducted in 2014 to assess UNFPA's support to the 2010 round of censuses. This evaluation provided valuable lessons about UNFPA's 2010 round of censuses. This evaluation provided valuable lessons about UNFPA's contributions and overall shortfalls in global support to national census programmes.⁵

The evaluation determined that since the 2000 round, there have only been incremental improvements in the generation, dissemination and utilization of census data by national and local governments, academia and civil society organizations. Staff attrition and turnover have impacted census expertise within national statistical institutions, limiting use of data, and the full exploitation of results. In many of the poorest countries national training programmes do not provide sufficient preparation and professional development of demographers, census experts or data scientists, or training programmes are out of date with emerging international standards. Furthermore, the capacity of local planners, academic researchers, independent analysts or public activists to analyze and utilize census data remains limited in many developing countries.

Overall, the evaluation encouraged a substantial increase in the investments directed towards assuring the availability of modern census expertise, and capacity building of government staff to use census and related types of demographic data for national development. Key recommendations from the evaluation are shown in Box 1 (page 15).



⁵ UNFPA. (2016) Evaluation of UNFPA support to Population and housing census data to inform decision- making and Policy formulation 2005-2014, Volume 1, UNFPA Evaluation Office. Accessible on the link:

<http://www.unfpa.org/evaluation>

Box 1: Recommendations of the Independent Evaluation to UNFPA for the 2020 Round of Population and Housing Census

UNFPA should continue to provide and also expand its support to population and housing censuses and:

Draw up a corporate strategy and guidance for the 2020 round.

With the objective of making support to census programmatically visible and better managed, communicated and monitored, UNFPA support to the 2020 census round should be guided by a clear and formalized strategy accompanied by formal, comprehensive and structured guidance for regional and country offices, i.e. guidelines on UNFPA support to the 2020 census round.

Adapt current human resource and technical assistance strategies to address attrition in census expertise and to ensure adequate support to the 2020 census round.

Towards this end, UNFPA should consider conducting a mapping exercise of in-house census expertise, forming and utilizing regionally based technical census teams and further capitalizing on census Chief Technical Advisers.

Activate knowledge management for support to census.

UNFPA should take advantage of the comparative advantages of the geographic scope of its work and leverage the wide range of country and regional level experiences and knowledge on census support generated by the 2010 census round, which is currently under-utilized. A database of good practices on census, including on the use of census and survey data in policymaking facilitates identification of potential opportunities for South to South cooperation.

Incorporate data use as a focus of UNFPA census support.

UNFPA should decide whether its support to the 2020 census round will focus primarily on the production and availability of data – continuing current practice – or also include an emphasis on data use for policymaking. If the latter, UNFPA should ensure that the actual implementation strategy is consistent with the theory of change. This may also mean ensuring that UNFPA's business model is sufficiently flexible to allow relevant modes of engagement in a wide variety of country contexts and UNFPA support settings.

View dissemination as the link between data availability and data use for policy-making.

UNFPA should work with NSOs in innovative ways to ensure that census-related data is disseminated in a manner that fosters data use in policy-making and advocacy. Towards this end, UNFPA should challenge current NSO assumptions on dissemination mechanisms.

Explore combining census data with other sources, including surveys, administrative sources and other sources of data in order to foster full use of census data in the framework of national statistical systems.

UNFPA should promote the role of the population and housing census as the backbone of national statistical systems, above and beyond a one-off data collection exercise. UNFPA should support Programme Country efforts to explore the possibilities and to exploit the full potential of combining census data with data from other sources.

Examine new funding mechanisms to support dissemination and use of data, including census-related data.

Explore the possibilities offered by and feasibility of a global-level trust fund dedicated exclusively to supporting the dissemination and use of data, including census-related data in the 2020 census round. The trust fund could address some of the challenges raised in this report, including 1) limited levels of support to the dissemination and use of census-related data, 2) the narrow conception of census (i.e. census seen as a one-off exercise), and 3) inadequate investments in enhancing national capacity for use of census data.

Prioritize exploring the full potential of South-South cooperation for census support, in line with the 2014–2017 Strategic Plan.

South-South cooperation should be a key strategy of UNFPA support to the 2020 census round. Expand upon the focus of current successful South-South cooperation exchanges for census to support exchanges on analysis, dissemination and the use of census-related data. In addition to NSOs, UNFPA include a range of stakeholders (e.g. line ministries, CSOs, academia) in South-South cooperation exchanges on census.

Table 1: UNFPA Support to Census - SWOT Analysis

<p>INTERNAL AND EXTERNAL ENVIRONMENT</p>	<p>STRENGTH</p> <ul style="list-style-type: none"> ▪ Solid presence of UNFPA in over 155 countries and territories (country office/ programme presence); ▪ Rich experience in supporting countries in census-taking; ▪ Trusted partnership with NSOs built on a long history of financial and technical support. 	<p>WEAKNESS</p> <ul style="list-style-type: none"> ▪ Limited mechanisms for coordination with other global institutions ▪ Few systematic approaches for strengthening census data use at national level ▪ Limited South-South action ▪ Attrition of census experts roster
<p>OPPORTUNITY</p> <ul style="list-style-type: none"> ▪ New global sustainable development agendas and increasing demand for disaggregated data ▪ Multi-partner landscape ▪ Emerging innovative census technology solutions ▪ New data sources and methodologies for linkages between census and other data, e.g. big data 	<p>STRATEGIC FOCUS AREAS</p> <ul style="list-style-type: none"> ▪ Streamline internal organizational structures for effective support ▪ Strengthen national institutional capacity ▪ Strengthen institutional partnerships and coordination at global, regional and national level ▪ Strengthen the role of census data in SDG and ICPD beyond 2014 monitoring frameworks ▪ Assure structured and timely technical guidance ▪ Harness the benefits of new technological innovations ▪ Strengthen knowledge management and knowledge sharing ▪ Increase access to census data in the public domain, through, for instance, IPUMS and REDATAM ▪ Mobilize resources to assure all of the above 	
<p>THREAT</p> <ul style="list-style-type: none"> ▪ Global economic uncertainty and funding challenges ▪ Lack of global partner coordination ▪ Limited technical capacity of NSOs for modern methods and data utilization ▪ Scale and complexity of census operations 		

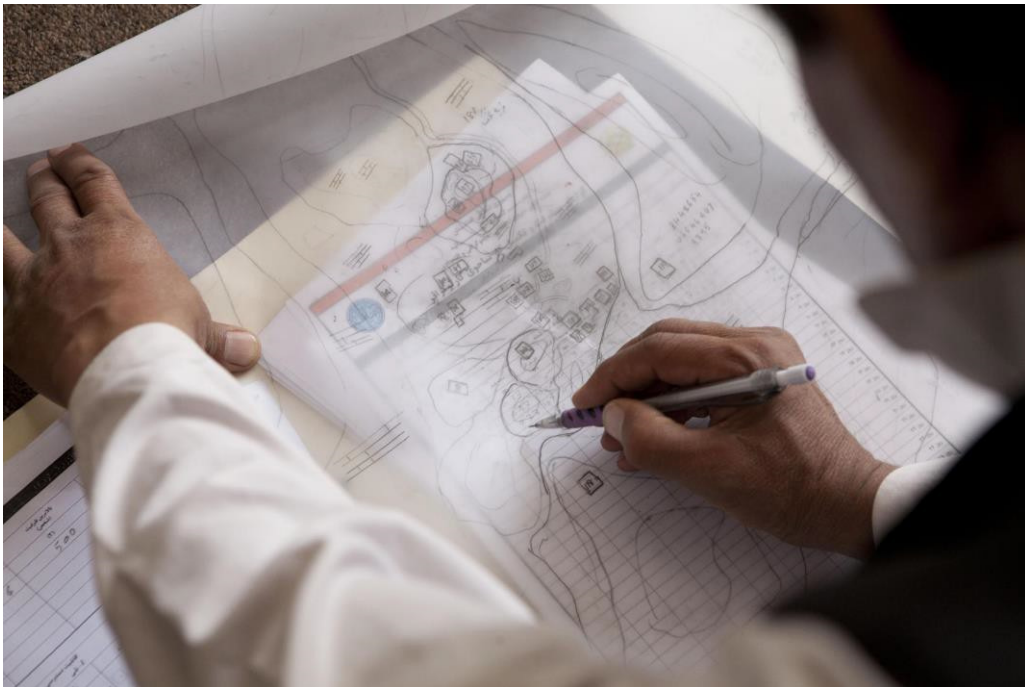
Table 1 shows the evaluation framework of strengths, weaknesses, opportunities and threats (SWOT) for UNFPA support to censuses based on the evaluation, and the corresponding strategic focus areas that underpin the new UNFPA Census Strategy.

The new 2020 census round strategy aims to increase the impact of UNFPA's investments in censuses, both internally and externally. Internally, there is now a streamlined structure across multiple UNFPA units at global, regional and country offices, including a more effective management structure, the Inter-Divisional Working Group on Census (IDWG-Census), and through timely production of guidance notes and technical briefs for all country offices. Externally, UNFPA has reduced duplication of efforts and improved coordination of technical support to countries through quarterly meetings of a newly-established inter-agency group, the International Committee on Census Coordination (ICCC), which includes the United Nations Statistics Division (UNSD), the United States Census Bureau (US Census Bureau) and the World Bank.



4. UNFPA Census Strategy

Data can make a difference; the key is to collect, analyze, disseminate and use quality, timely, relevant and disaggregated data in such a way that it drives informed decision making. The primary goals of the UNFPA strategy for the 2020 census round are: a) to strengthen the capacity of national statistical systems to collect, process and disseminate georeferenced census data; and b) to assure that census data are fully utilized to generate the types of socio-demographic intelligence needed to inform and monitor the achievement of subnational, national and global development agendas. UNFPA will focus on quality throughout each individual stage of the census.



The UNFPA census strategy is predicated on current development frameworks (the 2030 Agenda and the ICPD), prevailing country contexts, (e.g. technical capacity, political stability/humanitarian situations, funding challenges, and the multi-partner landscape), and recommendations of the independent evaluation of UNFPA support to the 2010 round of censuses. Successful implementation of the strategy will contribute to modernization of census and the data ecosystems in many countries.

THE STRATEGY

In the 2020 Census Round, UNFPA will strengthen national capacities for the production, use and sharing of geo-referenced census data by government line-ministries, NGOs, academia, development partners and the public at large without compromising confidentiality.

UNFPA WILL:

- Streamline the internal organizational structure for more effective census support;
- Generate key operational and financial management tools for census projects;
- Strengthen supply chain management in census operations;
- Identify and promote innovative technologies and methodologies;
- Roll out structured technical guidance that responds to the needs of countries, aligned with international standards;
- Advocate for inclusion of questions on migration, disability, type of marriage and marriage registration;
- Advocate for wider and innovative use of census data;
- Advocate for free and open access to population census data, while ensuring confidentiality;
- Identify and develop critical institutional partnerships;
- Strengthen needed resource mobilization.

UNFPA technical support will address all the phases of the census, from planning to implementation, analysis, dissemination and utilization.

UNFPA Operational Architecture

Streamline the internal organizational structure for more effective census support:

- Conduct a capacity assessment of in-house census expertise and develop a capacity development strategy to address existing gaps, including the development of corporate guidelines on the minimum qualifications needed by UNFPA staff to effectively support census.
- Ensure functionality of the Inter-Divisional Working Group on Census (IDWGC) for effective census planning, coordination and delivery of technical and operational support. Coordinated by the Population and Development Branch, the IDWGC includes experts in all aspects of census operations including Resource Mobilization Branch, Procurement Services Branch, Finance Branch,

Humanitarian Office, Resource Planning and Budgeting Branch, Information Technology Solutions Office, Regional Offices and Regional Desks.

- Institutionalize knowledge sharing, including lessons learned, best practices, toolkits and key documents (previous solicitation documents, market research exercises, logistics matters, etc.) by reinstating and maintaining a census repository accessible to all country offices (internal web-based community for census);
- Increase the number and deployment of long-term Census Technical Advisers (CTAs) to support low-income countries, and mobilize an expanded roster of short-term technical experts in areas of high demand.
- Deploy short term technical experts in key areas such as digital cartography, hybrid methods, small area estimation, and population projections;
- Set up a new UNFPA Population Data Fellows programme to support young professional to learn census operations, engage in advanced analysis of census data and generate country-specific use cases, in partnership with national governments and UNFPA regional offices.

Generate key operational and financial management tools for census projects:

- Develop and share Census Operational Guidelines, including step-by-step guidelines, and financial management requirements for census projects, to ensure more efficient management of census operations.
- Establish, within the Inter-Divisional Working Group on Census, a Sub-Working Group on Census Operations to support ongoing operational needs in procurement, human resources and financial management. The Sub-Working Group will engage UNFPA country office focal points to ensure early planning and efficient management of census.

Strengthen Supply Chain Management in Census Operations:

Census operations are a critical element of a census programme, with procurement and operations amounting to approximately seventy-five percent of the total project budget. Due to their “project-like” nature, censuses are operationally characterized by a long latent period that culminates with a rapid increase in activity. This demands capacity to plan and implement over a relatively short period. This model presents risks that UNFPA can help mitigate from the Supply Chain Management (SCM) perspective.

By implementing an enhanced and streamlined SCM, UNFPA will engage census

stakeholders (National Partners, Donor Community, other UN Agencies, etc.) to provide instrumental and tangible tools (catalogue of census-related commodities and services, procurement plans, average timelines for implementation, realistic budgets, etc.). The timely deployment of these tools adds critical value to the census process. Simultaneously, project managers (Chief Technical Advisers or UNFPA Country Office Representatives) benefit by being well equipped with the necessary tools to implement the programme from both the programmatic and operational sides.

UNFPA will undertake the following actions to improve alignment and coordination of supply chain performance:

- Provide stakeholders with comprehensive census procurement services, which encompass all potential requirements for a census programme (including commodities and services);
- Enhance the capacities of national partners in SCM;
- Develop a sourcing strategy to offer new census technologies through targeted market research and the identification of innovation trends;
- Mitigate funding-related risks by developing timely procurement plans, comprehensive sourcing strategies and implementing good practices in contract management;
- Establish a wide range of framework contracts or Long Term Agreements (LTAs) to save on routine commodities and services and reduce the risks for strategic commodities;

Technical and methodological guidance

Identify and promote innovative technologies and methodologies:

- Advocate for appropriate, efficient and effective technology solutions:
 - Promote the use of the most advanced and cost-effective census methods, including multi-mode or mixed data collection approaches, such as telephone interviews, electronic questionnaires on tablets and mobile telephones, geo-referenced integrated systems for field management, and geospatial technologies for mapping and scanning technology;
 - Promote local solutions and South-South cooperation for knowledge exchanges on new census technologies, including facilitating study tours between countries.
- Advocate for the modernization of census cartography, including the application of

GIS to improve the accuracy of boundary data, quality of census coverage and to facilitate the integration of geospatial data from different sources. GIS also allows comparability of census data over time, by providing raster data independent of changing administrative boundaries and enumeration areas (EAs).

- Strengthen regional and national capacity for the production and use of high-resolution geo-referenced census data matched to digital EA boundaries.
- Promote the use of satellite imagery combined with data from a micro-census survey and other sources to estimate national and sub-national populations in highly stressed and fragile countries where traditional enumeration is not possible (see Box 2).
- Support the long-term development of administrative data systems for countries planning to conduct a register-based or combined census, with short-term guiding notes, and by brokering technical partnerships between countries.
- Provide an ongoing annual programme of training workshops in the application of new census methodologies and census operations management.

Box 2: Hybrid census – a new methodology to generate spatially disaggregated population estimates, where a traditional census enumeration is not possible. Population data, especially at sub-national level, are fundamental data for many development applications, including the planning and delivery of services, election preparation and response to disasters. In highly stressed countries and fragile settings, recent and reliable demographic data can often be missing or incomplete, as traditional censuses may not be possible due to conflict or security concerns. Also, large population displacements may quickly render existing information out-dated. In such environments, advances in technology such as satellite imagery, geo-positioning tools, and statistical methods and computational power, enable the application of innovative approaches to estimate population distributions at fine spatial scales- *hybrid census*.

The 'hybrid census' approach combines, through statistical modelling, counts of populations within small, defined areas obtained from 'micro-census surveys' with satellite imagery in order to estimate populations and their basic characteristics in areas not covered by the survey.

Data requirements for the hybrid census include complete geo-referencing of the micro-census survey, and high-resolution satellite imagery layers associated with population density including for example vegetation, slope, night lights etc. Statistical models are then used to link this geospatial information to predict population numbers in locations not covered by micro-census surveys.

Despite its many advantages, a hybrid census can, however, never replace the richness and level of detail on the individual, family, household or community level generated by a traditional population and housing census.



Figure 1: (left) High-resolution satellite image of a rural area of Afghanistan; (right) Settlement areas detected automatically by computer algorithms.

Roll out Structured Technical Guidance that Responds to the Needs of Countries, Aligned with International Standards:

- Provide user-friendly technical guidance tools to guide UNFPA Regional and Country Offices (COs) in their support to NSOs. Tools are routinely updated to incorporate emerging lessons learned, and include, for example, the multi-year census planning step-by-step guide, a corresponding census Gantt chart, technical briefs on new methods, resource mobilization, user consultation, political risk assessment, field management, Post-Enumeration Surveys and data quality evaluation.
- Organize joint regional census workshops and online trainings targeting NSOs throughout the different stages of their census project, together with partners such as UNSD, UN Regional Commissions, US Census Bureau, GRID3 partners, University of Southampton, etc. Training workshops will cover all phases of the census and a diverse number of topics, including “Census and the SDGs”, “Hybrid census approaches”, “GIS in Census” and “Using Population Data for Humanitarian Preparedness”. These workshops provide a platform for pooling regional knowledge, which can have a multiplier effect on the region’s overall capacity to conduct a census.
- Strengthen census governance and quality assurance mechanisms to ensure transparency and effective accountability, and to guarantee the independence of the census process and results through:
 - Support to establishments of functional International Technical Advisory Boards (ITABs) and National Advisory Boards/Committees;
 - Advocacy for adoption of effective donor coordination mechanisms;
 - Establishment of a Peer Review Roster to facilitate effective and timely review of census project documents and questionnaires;
 - Fund the translation and dissemination of international principles and recommendations for population and housing censuses and use of global census guidelines and standards, as developed by UNSD;⁶
 - Facilitate user consultations, including for civil society organizations (CSOs);
 - Provide guidance on conducting local census context analysis including religious and cultural sensitivity, political risk assessments and related issues in fragile and humanitarian contexts;

⁶ UN (2015) “Principles and Recommendations for Population and Housing Censuses” Revision 3. Department of Economic and Social Affairs. Statistics Division

- o Advocate for Post Enumeration Surveys to measure coverage and data quality.

Advocate for Inclusion of Questions on Migration, Disability, Type of Marriage and Marriage Registration

- Advocate for the inclusion of the three core questions on international migration as reflected in the [Principles and Recommendations for Population and Housing Censuses](#), including country of birth, country of citizenship and year or period of arrival. The inclusion of questions on migration in the census meets the SDG 2030 Agenda’s call to define and measure migratory status (SDG Target 17.18).
- In line with the objectives of the [Global Compact on Safe, Orderly Regular Migration](#), advocate for other migration related census questions, including country of birth of parents, country of residence five years prior to the census, most recent arrival date and reason for migrating.
- Advocate for the inclusion of disability questions proposed by the Washington Group on Disability Statistics for persons aged 5 years and above. The Washington Group identified six domains of functionality to be included in the census as outlined below:
 - o Do you have difficulty seeing, even if wearing glasses?
 - o Do you have difficulty hearing, even if using a hearing aid?
 - o Do you have difficulty walking or climbing steps?
 - o Do you have difficulty remembering or concentrating?
 - o Do you have difficulty (with self-care such as) washing all over or dressing?
 - o Using your usual (customary) language, do you have difficulty communicating, for example understanding or being understood?

A response of difficulty in at least one domain, coded as “a lot of difficulty or cannot do it at all”, identifies a person living with disability.

- Advocate for the elevation of questions on type of marriage and marriage registration to priority status, for inclusion within national census questionnaires. These questions would address three major shortfalls in gender statistics and CRVS: 1) the need for cross-validation between census and civil registration on marriage statistics; 2) current lack of systematic data on coverage of marriage registration; and 3) the need for evidence on the benefits of marriage registration for women and children within the national legal structure.

Utilization and Dissemination

Advocate for wider and innovative use of census data:

- Strengthen capacity to use census and CRVS data to generate population projections and inter-censal population estimates, including at sub-national level.
- Provide training in the use of census data for SDG monitoring and reporting. Approximately 98 of the distinct 232 SDG indicators require population data for their calculation.
- Promote the integration of geospatial population data with other high resolution geospatial datasets to facilitate:
 - providing mapping and visual display of development indicators to advance planning and targeting;
 - validating of approaches developed for estimating populations from remote sensing data and micro-census surveys;
 - updating of population estimates and maps between censuses; and
 - updating of sampling frames for national surveys.
- Provide guidance for mapping census data at lower geographic levels.
- Promote use of census data to generate Small Area Estimates (SAE) of select development indicators, including SDG indicators. UNFPA provides technical guidelines and training on SAE. By linking census and sample survey data through modeling, SAE generates reliable estimates of certain key indicators, which are only available in sample surveys (such as family planning indicators, poverty indicators, see Figure 1), at a smaller geographic/administrative area level than possible from the sample survey alone.

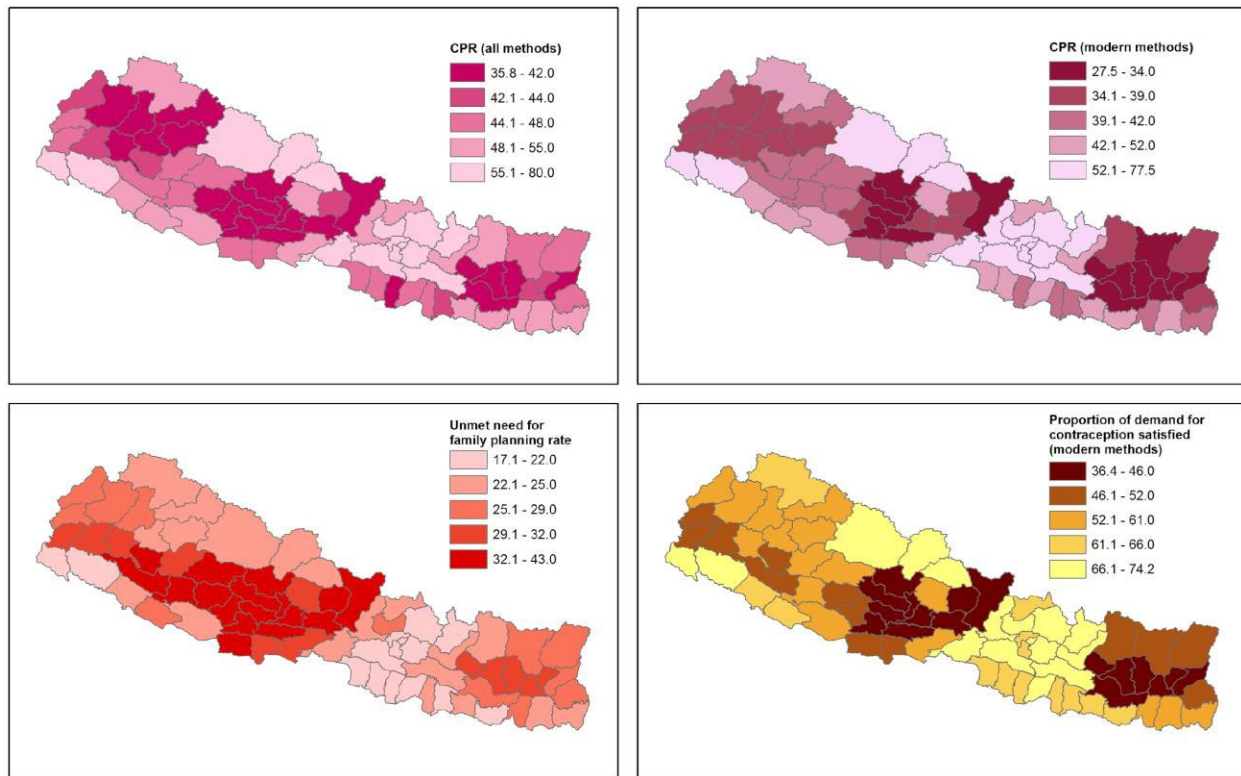


Figure 2: Illustration of Small Area Estimation of Family Planning Indicators (Nepal 2011 Census)

- Assess the completeness and quality of Civil Registration and Vital Statistics (CRVS) systems through the use of census add-on questions on birth, marriage and death registration. Use results to guide improvement and scale-up of CRVS systems. In turn, use CRVS data to validate completeness and quality of census counts.
- Increase capacity to use geo-referenced census data and subnational population projections to generate Common Operational Data on Population, for national disaster preparedness and UN Humanitarian Country Teams.
- Enhance the use of census data to generate estimates on refugees and displaced persons, consistent with [UN International Recommendations on Refugee Statistics](#) and the [UN/Eurostat Technical Report on Statistics of Internally Displaced Persons](#).
- Ensure timely processing, analysis and dissemination of migration related census results, disaggregated and tabulated in accord with international standards.

- Promote the adoption of innovative analytical techniques including those linking census data to survey and big data sources, within the framework of national statistical systems.
- Support NSOs to produce in-depth analytical reports on topics related to UNFPA's mandate, such as family planning, child marriage, the demographic dividend, and changing age structures:
- Advocate for and support NSOs to analyze census data on topics requested by outside development actors, to generate more accurate, relevant and timely analysis that is georeferenced and disaggregated.

Advocate for free and open access to population census data, while ensuring confidentiality

- Support the review of national and regional legislative frameworks to promote data sharing and utilization.
- Advocate for the wider use of innovative methods for dissemination, display and visualization of census data in a user friendly way.
- Promote web-based, interactive, free and open census data dissemination platforms, with capability to host geospatial data.
- Support national portals for web-based, open-access census and geospatial data dissemination platforms. Support the integration of national platforms with the new UNFPA Population Data Platform (PDP), to enable mapping, cross-national comparisons and advanced analytic functions for population, SRH, gender and development related data.
- Advocate for representative samples of national census data to be shared with IPUMS global data base.
- Advocate for release of micro census data for public access within twelve months of release of the main census results.
- Promote use of diverse means of data dissemination and explore various channels to promote use of census data for evidence-based policy-making.

Partnerships and Resource Mobilization

Identify and Develop Critical Institutional Partnerships

Strengthen institutional partnerships at global, regional and national levels for improved coordination, institutional synergies, and to avoid duplication of investments. UNFPA's organizational structure will be further strengthened to ensure that the Regional and Country Offices are empowered to effectively and efficiently support the NSOs in the census exercise.

GLOBAL LEVEL

At the global level, UNFPA will:

- Strengthen engagement within the [International Committee on Census Coordination \(ICCC\)](#) to ensure coordination of planned and ongoing support to national census authorities.⁷ Quarterly meetings of the ICCC allow for greater synergies between development partners' efforts. A Memorandum of Understanding (MoU) has recently been signed with U.S. Census to enable National Statistical Offices and COs to access US Census Bureau expertise through UNFPA.
- Partner with the World Bank on operational support and quality assurance for censuses receiving World Bank funding.
- On-going partnership with KOSTAT supports UNFPA work on census capacity strengthening in Asia and in Latin America.
- Establish and strengthen global and regional partnerships with other UN Agencies and development partners to promote the harmonization of operations, resources and tools under Delivering as One.
- Partner with WorldPop/Flowminder to support population estimates for small areas or uniform, detailed grids (hybrid census) in the absence of a traditional national census or where a population census can only be partially implemented.

⁷ The ICCC was established to strengthen communication and coordination of anticipated, planned and ongoing technical support to national census authorities, and promote the implementation of the latest international recommendations, guidelines, classifications and innovations in conducting a census. It comprises United Nations Population Fund, the United Nations Statistics Division and the U.S. Census Bureau. The ICCC was established in response to the United Nations Economic and Social Council's Resolution E/RES/2015/10 on the 2020 World Programme on Population and Housing Censuses which called for "coordination of activities among stakeholders in assisting Member States" and in recognition of the increasing importance of the population and housing census as an important source for supplying disaggregated data needed for the measurement of progress of the 2030 Agenda for Sustainable Development. Through proactive engagement the ICCC seeks to channel the various support provided by multilateral and bilateral donors with a view to enhancing the coherence of the support.

REGIONAL LEVEL

At regional level, UNFPA will improve regional coordination of technical support:

- Reduce the cost of traditional global response teams and deepen the critical mass of expertise in each region by expanding the UNFPA regional roster of technical experts, and through resource mobilization to support the expanded deployment of Chief Technical Advisors (CTAs) and short-term experts on census.
- Mobilize resources to support regional reference centers for census support and use of population data, for inter and intra-regional cooperation. Through centers of reference, with dedicated demographic curricula, UNFPA can more systematically share periodic news on emerging trends and technologies and widely deploy new analytic tools, e.g., for geospatial analysis, small area estimation or others types of data integration.
- Mobilize resources to support the next generation of technical demographers and population analysts, in order to sustain the progressive modernization of census systems, population data eco-systems, and the use of population data for development.
- Support countries to ensure that census is an integral part of the national statistical system.
- Support resource pooling and shared use of new technologies between countries, for software and equipment such as tablets, Global Navigation Satellite System, etc. to reduce overall census costs.
- Establish partnerships and broker regional and national knowledge exchanges, including South-South cooperation, national study tours, attendance at global and regional expert meetings, and increased collaboration among countries on different aspects of census-taking, including on questionnaire design, data dissemination and use of census-related data for policymaking and alternative census methodologies.
- Identify and document experiences of census support to contribute to an organizational census knowledge base, including on use of census and survey data in policymaking.
- Strengthen the role of UNFPA Regional Offices in working with and supporting the work of the UN Regional Commissions with regional political bodies, such as the African Union Commission, the African Development Bank, and other institutions working on the population and housing census.

NATIONAL LEVEL

At national level, UNFPA country offices will leverage partnerships:

- Keep abreast of census planning processes in their respective countries while fostering close relationships with NSOs to ensure smooth collaboration and support.
- Strengthen census technical collaborations with other UN agencies within the context of the UN Country Teams (UNCT) and other partnership fora including, research and academic institutions, media, and CSOs, including the timely convening of UN agencies and donors for resource mobilization.
- Support engagement of academic partners and Civil Society Organizations (CSOs) early on in the census process to advocate for the potential value of census data, learn what potential users want to know from the census (user needs) and expand public ownership. Collaborations of data producers and end users at the outset advances public ownership and long-term use of census findings.
- Promote collaboration between NSOs and academic institutions to harness local skills and expertise for capacity strengthening and advanced analytic products.
- Raise awareness of stakeholders beyond the NSOs on the utility of census data for development in the context of the 2030 Agenda, ICPD, and regional and national development frameworks.
- Support collaborative partnerships of development actors for capacity strengthening of national statistics systems within the framework of the SDGs and the data revolution.

Strengthen Resource Mobilization

UNFPA will explore prospects for a dedicated Trust Fund to support census and population data for development that will include support for census and utilization of census data and will facilitate resource mobilization for coordinated activities with other agencies.

Key investments will be made to offer a new funding mechanism and implementing architecture that capitalizes on UNFPA's ongoing support to national population and housing censuses, and leverages that support to strengthen multiple dimensions of the national data system. Critical to this ambition are two points of leverage:

- To appreciate the diversity of existing government data systems and enhance the growing availability of “national diagnostics” and “national data plans” generated by governments for the SDGs, and in partnership with actors such as Paris 21, the Health Data Collaborative, bilateral donors, etc.

- At the national level, to operate in close collaboration with related investments, such as One UN, and with other development partners, to expand on shared efforts to strengthen integrated national data systems.

Addressing these core initiatives represents an opportunity to respond to growing demands by governments and to accelerate the pace, scale and sustainability of investment from now to 2030.

5. Theory of Change

UNFPA is committed to remaining a leading and reliable partner in the implementation of population and housing censuses during the 2020 round through its long and trusted relationship with NSOs. The outcome theory of change for UNFPA's census strategy, viewed within the context of the UNFPA Strategic Plan 2018-2021, is summarized in the schematic diagram on the following page. The diagram presents technical and programmatic guidance on interventions linked to outputs, and identifies the risks and assumptions associated with achievement of the outputs. It is premised on the comparative advantage of UNFPA as the lead agency in population data systems and analysis with programme presence in 155 countries, supported by six ROs and a dedicated inter-divisional team at HQ level.



Goal: To strengthen the capacity of national statistical systems to produce, disseminate and utilize high quality, timely and disaggregated population data that allows for mapping of demographic disparities and socioeconomic inequalities to inform and monitor national and global development agendas.

SP* Outcome 4: Everyone, everywhere, is counted and accounted for, in the pursuit of sustainable development

- Proportion of countries that have conducted at least one population and housing census in the last 10 years (part (a) of SDG Indicator 17.19.2)
- Proportion of persons counted in the most recent census
- Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics (SDG indicator 17.18.1).
- Proportion of countries that have a national urban policy or regional development plan that responds to population dynamics
- Proportion of children under 5 years of age whose births have been registered with a civil authority, by age

Risks: Global, regional and national and partners do not share the same vision.

Assumptions:

- Governments prioritize and increase public investment on data collection, analysis dissemination and utilization for the public policy processes;
- National and subnational governments using data and information to improve the public policy process, public awareness and accountability.

SP Output 13: Improved national population data systems to map and address inequalities; to advance the achievement of the SDGs and the commitments of the PoA of the ICPD; and to strengthen interventions in humanitarian crises.

Indicators

- Proportion of countries with census results disaggregated by age and sex for each enumeration area, publicly accessible online
- Proportion of countries that release a representative sample of census data within 12 months of launching the main census report
- Proportion of censuses that include questions on disability

Risks: National Statistical Offices conducting Census as business as usual.

Assumptions:

- Government ministries and departments embrace and utilize census data;
- UNFPA is able to impact in the design of the Census Project from the beginning;
- Governments implement international recommendations and standards for census.

SP Output 14: Mainstreamed demographic intelligence to improve the responsiveness, targeting and impact of development policies, programmes and advocacy.

Indicators

- Proportion of countries that generate publically available population projections at national and subnational levels, disaggregated by age, sex, location
- Proportion of countries with national development plans that explicitly integrate demographic dynamics, including changing age structure, population distribution and urbanization
- Proportion of countries that generate and use small area estimations of sexual and reproductive health and reproductive rights indicators for programme planning
- : Proportion of countries that generate and use mapping (at the district level or below) to illustrate the vulnerability of their population to disasters and humanitarian crises

Key Strategic Interventions

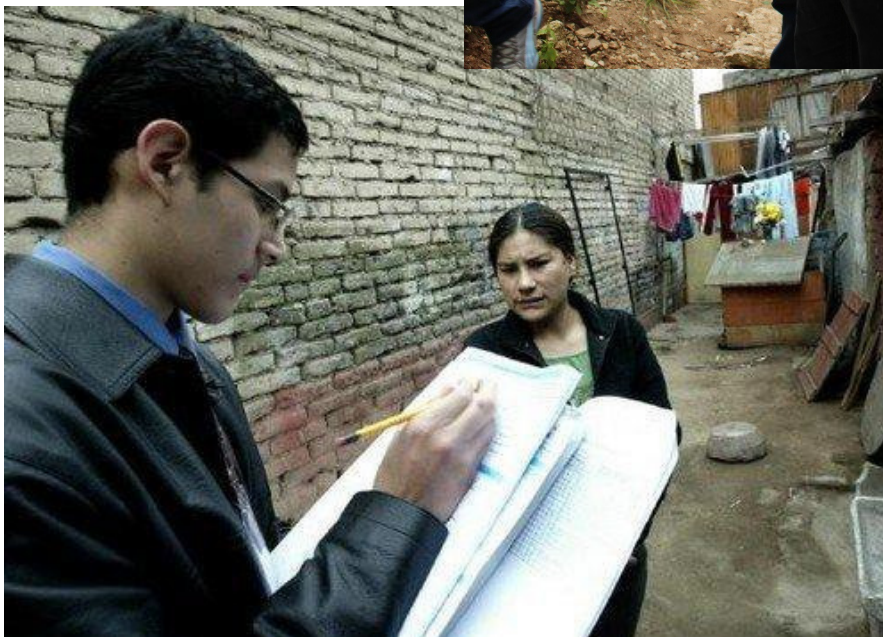
- Strengthening census governance and quality assurance mechanisms
- Mobilizing resources and advocating for political commitment and allocation of appropriate resource to technology enabled-census
- Promoting NSO collaboration with academic institutions to harness local skills and expertise
- Supporting in-depth analysis and evidence generation from censuses
- Advocating for efficient and effective technology solutions for data collection processing, analysis and dissemination based on assessment of relevance to context
- Promoting adoption of innovative techniques for analysis, visualization and dissemination of census data
- Supporting the long term development of administrative data systems for countries planning to conduct a register-based or combined census
- Supporting centers of excellence in each UNFPA region (2 per region)
- Supporting engagement of academic partners and CSO's early in the census process
- Establishing regional partnerships and brokering regional and national knowledge exchange
- Supporting collaborative partnerships of development actors for capacity strengthening of national statistics systems

REFERENCE

[1] Detailed and country-specific information on 2010 round census dates is available from the website of the 2010 World Population and Housing Census Programme <http://unstats.un.org/unsd/demographic/sources/census/censusdates.htm>

[2] Framework of Actions for the follow-up to the Programme of Action of the ICPD Beyond 2014 (United Nations publication A/69/62), as prepared in response to General assembly resolution 65/234

[3] Findings of the UNFPA 2010 census evaluation are publically available at: <http://www.unfpa.org/admin-resource/evaluation-unfpa-support-population-and-housing-census-data-inform-decision-making>





**Delivering a world where
every pregnancy is wanted
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